Education and Training Policy

Teachers Matter

ATTRACTING, DEVELOPING AND RETAINING EFFECTIVE TEACHERS

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Foreword

Many OECD countries face major difficulties in recruiting enough qualified teachers to replace the large numbers who will retire in the next 5-10 years. Most countries report concerns about teacher effectiveness, whether or not they are experiencing teacher shortages. Furthermore, teachers' roles are changing, and they need new skills to meet the needs of more diverse student populations, and to work effectively with new types of staff in schools and other organisations.

In April 2002, the OECD Education Committee launched an international review of teacher policy, to help countries share innovative and successful initiatives, and to identify policy options for attracting, developing and retaining effective teachers. This publication is the major output from the work, which also generated 25 reports produced by participating countries, 10 reports by external review teams that visited countries, and several commissioned research studies. This OECD project provides probably the most comprehensive analysis ever undertaken of teacher policy issues at international level.

OECD work enables countries to learn from each other. It can also open up issues and suggest policy options that it may be difficult to raise in national debates. Both features are evident in this report and the work behind it. The extent of the active engagement of Member and Partner countries is also clear. The 25 participating countries committed very substantial resources over a two to three year period and took risks in opening up their teacher policies to external review and debate. The collaborative approach enabled countries to learn more about themselves while adding to the broader knowledge base by accumulating international evidence on the impact of policy reforms, and the circumstances under which they work best.

The project benefited substantially from the involvement of organisations representing teachers, school leaders, parents, students, teacher educators, and employers on national advisory committees, in preparing written submissions, in meeting review teams and taking part in conferences and workshops.

The project also benefited from the involvement of the Business and Industry Advisory Committee to the OECD (BIAC) and the Trade Union Advisory Committee (TUAC) and other international organisations also interested in teacher policy: the Council of Europe; the European Commission; the European Training Foundation; Eurydice; the International Association for the Evaluation of Educational Achievement (IEA); the International Labour Organisation (ILO); the United Nations Educational, Scientific and Cultural Organization (UNESCO); UNESCO European Centre for Higher Education (CEPES); UNESCO International Institute for Educational Planning (IIEP); and the World Bank.

Appendix 1 to this report details the many people and organisations who have contributed to the project as National Co-ordinators, authors of country background reports, authors of commissioned research papers, and members of country review teams. In all, more than 150 people contributed in one of these roles, and their work has had a

major influence on the project. In addition, the establishment of national advisory committees, the consultative processes used in preparing country background reports and during country review visits, and the large number of schools and tertiary institutions visited by review teams meant that the project benefited from inputs by many hundreds more. We hope that this report adequately reflects all their inputs and adds further to the collective knowledge base.

Within the OECD the project was carried out by the Directorate for Education's Education and Training Policy Division under the leadership of the Division's Head, Abrar Hasan. Phillip McKenzie and Paulo Santiago were responsible for the study and the preparation of this report. Anne Sliwka (University of Mannheim) as a consultant took the main responsibility for the area of teacher development (Chapter 4) in the report and Hiroyuki Hase from the OECD Secretariat provided substantial input. Yael Duthilleul (IIEP), on secondment from the World Bank and as a consultant, contributed to the conceptual development of the project and took responsibility for two country review visits. Statistical assistance was provided by the late Catherine Duchêne from the Education Indicators and Analysis Division. Sabrina Leonarduzzi was responsible for all the administrative work, workshop organisation and communications with participating countries. John Coolahan (National University of Ireland, Maynooth) provided special advice at a key stage of the preparation of this report. Viviane Consoli and Melissa Peerless provided editorial assistance on this report. A wide range of other colleagues within the Directorate for Education provided advice at key stages. In particular, close collaboration was established with developmental work on indicators on teachers and teaching, and the work by the Centre for Educational Research and Innovation (CERI) on *Schooling for Tomorrow* and *Formative Assessment: Improving Learning in Secondary Classrooms*.

The OECD intends to maintain the momentum of its work on teachers and teaching and to build on the teacher policy project and this report.

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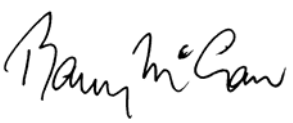

Barry McGaw
Director for Education
OECD
May 2005

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Executive Summary

The Importance of Teacher Policy

Teacher policy is high on national agendas. The far-reaching economic and social changes underway have made high-quality schooling more important than ever before. The demands on schools and teachers are becoming more complex. OECD Education Ministers have committed their countries to the goal of raising the quality of learning for all. This ambitious goal will not be achieved unless all students receive high-quality teaching.

All countries are seeking to improve their schools, and to respond better to higher social and economic expectations. As the most significant resource in schools, teachers are central to school improvement efforts. Improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high quality teaching.

This report draws on the results of a major OECD project, *Attracting, Developing and Retaining Effective Teachers*, that was conducted over the 2002-04 period. The project involved the preparation of Country Background Reports, visits to some countries by external review teams, data collections, commissioned research, and workshops. The fact that 25 countries took part indicates that teacher issues are a priority for public policy, and likely to become even more so in future years.

The demands on schools and teachers are becoming more complex. Society now expects schools to deal effectively with different languages and student backgrounds, to be sensitive to culture and gender issues, to promote tolerance and social cohesion, to respond effectively to disadvantaged students and students with learning or behavioural problems, to use new technologies, and to keep pace with rapidly developing fields of knowledge and approaches to student assessment. Teachers need to be capable of preparing students for a society and an economy in which they will be expected to be self-directed learners, able and motivated to keep learning over a lifetime.

Teacher issues are also currently high on policy agendas because of concerns expressed by teachers themselves about the future of their profession – whether it is sufficiently attractive to talented new entrants, and whether teachers are sufficiently rewarded and supported in their work. As teachers are in daily contact with the students who potentially form the next generation of teachers, the enthusiasm and morale of the current teacher workforce are important influences on future teacher supply.

The current timing of the upsurge of interest in teacher policy issues is particularly important. The fact that the large numbers of teachers who were recruited during the great expansion period of the 1960s and 1970s are now close to retirement is both a major challenge and an unprecedented opportunity in most countries. Although large amounts of experience and skills need to be replaced as teachers retire, a number of countries now

have a once-in-a-generation opportunity to shape and benefit from substantial changes in the teacher workforce.

A much larger number of new teachers will enter the profession in the next 5-10 years than in the past 20 years. The entry of substantial numbers of new teachers with up-to-date skills and fresh ideas has the potential to substantially renew the schools. There is also the possibility to free up resources for development as a younger teacher workforce implies fewer budgetary pressures. On the other hand, if teaching is not perceived as an attractive profession, and teaching does not change in fundamental ways, there is a risk that the quality of schools will decline and a downward spiral will be difficult to reverse.

Main Concerns

Although the information is often patchy, there is a lack of long-term data, and not all countries are in the same position, a broad picture has emerged.

Concerns about the attractiveness of teaching as a career

- About half the countries report serious concerns about maintaining an adequate supply of good quality teachers, especially in high-demand subject areas.
- There are widespread concerns about long-term trends in the composition of the teaching workforce, *e.g.* fewer "high achievers" and fewer males.
- There are concerns about the image and status of teaching, and teachers often feel that their work is undervalued.
- Teachers' relative salaries are declining in most countries.

Concerns about developing teachers' knowledge and skills

- Almost all countries report concerns about "qualitative" shortfalls: whether enough teachers have the knowledge and skills to meet school needs.
- There are major concerns about the limited connections between teacher education, teachers' professional development, and school needs.
- Many countries lack systemic induction programmes for beginning teachers.

Concerns about recruiting, selecting and employing teachers

- There are concerns in most countries about the inequitable distribution of teachers among schools, and whether students in disadvantaged areas have the quality teachers that they need.
- Schools often have little direct involvement in teacher appointments.
- Some countries have a large oversupply of qualified teachers, which raises other policy challenges.

Concerns about retaining effective teachers in schools

- Some countries experience high rates of teacher attrition, especially among new teachers.
- Teachers express concerns about the effects of heavy workloads, stress and poor working environments on job satisfaction and teaching effectiveness.
- There are only limited means in most countries to recognise and reward teachers' work.
- Processes for responding to ineffective teaching are often cumbersome and slow.

The ageing of the teaching workforce is compounding many of the above concerns. On average, 25% of primary teachers and 30% of secondary teachers are over 50 years old, and in some countries more than 40% of the teachers are in this age group. Large numbers of retirements are likely in the next few years.

The analysis shows that teacher quantity and teacher quality issues are clearly interlinked. School systems often respond to teacher shortages in the short term by some combination of lowering qualification requirements for entry to the profession; assigning teachers to teach in subject areas in which they are not fully qualified; increasing the number of classes that teachers are allocated; or increasing class sizes. Such responses, which ensure that classrooms are not left without a teacher and that a shortage is not readily evident, nevertheless raise concerns about the quality of teaching and learning.

At another level, countries that are not facing a shortage of qualified teachers may still face concerns about whether the quality of the teaching workforce is adequate – particularly if selection processes do not result in the best applicants securing work as teachers.

Without strategic policy action there is a risk that the teaching profession could go into long-term decline. As societies have become wealthier and educational qualifications have increased and employment opportunities have expanded, teaching's appeal as a path to upward social mobility and job security does seem to have diminished. Widespread concerns about the difficulties faced by many schools, fuelled by often very negative media reporting, have damaged teaching's appeal. Expectations and demands on schools have been increasing, while in many countries resources have not always kept pace. Resource constraints are a factor in a number of the identified concerns.

But there are positive signs that policies can make a difference, as the examples provided in the report show. There are countries where teachers' social standing is high, and there are more qualified applicants than vacant posts. Even in countries where shortages have been a concern, there are recent signs of an upturn in interest in teaching, and policy initiatives appear to be having an effect.

Policy Implications at Two Levels

The quality of teaching is determined not just by the "quality" of the teachers – although that is clearly critical – but also by the environment in which they work. Able teachers are not necessarily going to reach their potential in settings that do not provide appropriate support or sufficient challenge and reward. Policies aimed at attracting and retaining effective teachers need both to recruit competent people into the profession, and

also to provide support and incentives for professional development and ongoing performance at high levels.

Policy initiatives are necessary at two levels. The first concerns the teaching profession as a whole and seeks to improve its status and labour market competitiveness, and to improve teacher development and school work environments. The second set of strategies is more targeted, and focuses on attracting and retaining particular types of teachers, and attracting teachers to work in particular schools. Table 1 summarises the main policy directions according to whether they apply to the teaching profession as a whole, or are more targeted to particular types of teachers or schools.

Table 1. **Policy Implications**

Policy objective	Directed towards the teaching profession as whole	Targeted to particular types of teachers or schools
Making teaching an attractive career choice	Improving the image and status of teaching Improving teaching's salary competitiveness Improving employment conditions Capitalising on an oversupply of teachers	Expanding the supply pool of potential teachers Making reward mechanisms more flexible Improving entrance conditions for new teachers Rethinking the trade-off between the student-teacher ratio and average teacher salary
Developing teachers' knowledge and skills	Developing teacher profiles Viewing teacher development as a continuum Making teacher education more flexible and responsive Accrediting teacher education programmes Integrating professional development throughout the career	Improving selection into teacher education Improving practical field experiences Certifying new teachers Strengthening induction programmes
Recruiting, selecting and employing teachers	Using more flexible forms of employment Providing schools with more responsibility for teacher personnel management Meeting short-term staffing needs Improving information flows and the monitoring of the teacher labour market	Broadening the criteria for teacher selection Making a probationary period mandatory Encouraging greater teacher mobility
Retaining effective teachers in schools	Evaluating and rewarding effective teaching Providing more opportunities for career variety and diversification Improving leadership and school climate Improving working conditions	Responding to ineffective teachers Providing more support for beginning teachers Providing more flexible working hours and conditions
Developing and implementing teacher policy	Engaging teachers in policy development and implementation Developing professional learning communities Improving the knowledge base to support teacher policy	

This is a challenging agenda, but tackling one area without appropriate policy attention to inter-related aspects will lead to only partial results. Nevertheless, it is difficult to address all areas simultaneously, and resource constraints mean that trade-offs are inevitable.

Implications for Different Types of Countries

Not all of the policy implications apply equally to all the 25 participating countries. In a number of cases many of the policy directions are already in place, while for other countries they may have less relevance because of different social, economic and educational structures and traditions.

Most teachers are employed in the public sector, but the basic models of public sector employment differ from country to country. There are two basic models that shape teacher employment, and which are evident in the participating countries: "career-based"; and "position-based". While no country provides a "pure" example of either model, the distinction is helpful in clarifying teacher employment features.

In career-based systems, teachers are generally expected to stay in the public service throughout their working life. Initial entry normally occurs at a young age, it is based on academic credentials and/or a civil service entry examination, and the entry criteria are usually demanding. Once recruited, teachers are normally allocated to posts according to internal rules. Promotion is based on a system of grades attached to the individual rather than to a specific position. Starting salaries are often relatively low, but there is a clear pathway to higher earnings, and pension schemes are usually relatively generous. France, Japan, Korea and Spain provide examples of countries with many of the characteristics of career-based public services. In the main, countries with career-based teaching services do not have major problems with teacher supply. Most have many more well-qualified applicants than available vacancies. Public sector employment in such countries tends to be quite different in character from private sector employment, and on a number of criteria (average salary, job security and pension benefits) is often judged to be superior.

The concerns in career-based systems tend to be more qualitative in nature, namely that teacher education is not well connected to school needs, the entry selection criteria do not always emphasise the competencies needed for effective teaching, teachers lack strong incentives to continue developing once tenure is obtained, and the strong emphasis on regulations limits the capacity and incentives for schools to respond to diverse local needs. There are also concerns that such systems lack appeal to those who are unsure whether they want to commit early to a lifetime teaching career, or who have gained experience in other careers. In response, therefore, the major policy priorities in such countries include forging stronger connections between teachers' initial education, selection and professional development, introducing more flexible employment positions, opening up possibilities for external recruitment, providing local education authorities and school principals with more scope for personnel decisions, and instituting management by objectives.

Position-based public services tend to focus on selecting the best-suited candidate for each position, whether by external recruitment or internal promotion. Such systems generally allow more open access at a wide range of ages, and entry from other careers is relatively common, as is movement from teaching to other jobs and later returns to teaching. Although initial salaries are often attractive, they generally plateau relatively early in the career. Teacher advancement depends on successfully competing for vacancies, and the number of higher-level vacancies is usually restricted. Personnel selection and management in such systems are often decentralised to schools or local authority offices. Canada, Sweden, Switzerland and the United Kingdom are examples of countries with many of the features of position-based public service employment.

A number of such systems face teacher recruitment problems, especially for teachers in areas like mathematics, science and information and communication technology (ICT). Although the conditions of public sector employment in such countries tend to be similar to private sector employment, the public sector often lacks the capacity and flexibility to compete on private sector terms. Such systems also often find it difficult to retain a core of experienced teachers beyond the 30 to 40-year-old age bracket. Schools in such countries therefore often have high staff turnover, especially in disadvantaged areas. Because position-based systems rely less on regulation than career-based systems in assigning staff to schools, they often have greater disparities among schools in terms of teacher qualifications and experience.

In response to such concerns, the policy priorities in countries with position-based teaching services include a greater emphasis on system-wide criteria for staff selection, performance evaluation, and building career pathways. Because local authorities play such a critical role in personnel management, and tailoring school programmes to meet local needs, such countries also need to place comparatively greater emphasis on the selection and training of principals and other school leaders. Because the processes of teacher selection and management tend to be more market-like in position-based systems, schools in disadvantaged or unpopular locations need to be provided with significantly more resources to enable them to compete for quality teachers, and there needs to be much more differentiation in salaries and working conditions in order to attract the types of teachers that are in short supply. Uniform salaries and conditions are likely to result in an oversupply of some types of teachers, and shortages of others.

Common Policy Directions

Despite the major differences between the career-based and position-based public service traditions, they share some common policy directions.

Emphasising teacher quality over teacher quantity

There is now substantial research indicating that the quality of teachers and their teaching are the most important factors in student outcomes that are open to policy influence. There is also substantial evidence that teachers vary markedly in their effectiveness. Differences in student performance are often greater within schools than between schools. Teaching is a demanding job, and it is not possible for everyone to be an effective practitioner and to sustain that over the long term. However, the general approach to teacher selection and employment has tended to regard teachers as largely interchangeable and to focus on the numbers of teachers rather than on the qualities that they have or could develop.

Key ingredients in a teacher quality agenda include more attention to the criteria for selection both into initial teacher education and teaching employment, ongoing evaluation throughout the teaching career to identify areas for improvement, recognising and rewarding effective teaching, and ensuring that teachers have the resources and support they need to meet high expectations. A strong conclusion from the project is that teachers are highly motivated by the intrinsic benefits of teaching – working with children and young people, helping them to develop, and making a contribution to society – and that system structures and school workplaces need to ensure that teachers are able to focus on these tasks.

In its most radical form, a greater emphasis on teacher quality could see teachers' work being redesigned to focus more on professional and knowledge-based components, with perhaps fewer teachers being employed, but with more other people being employed to do those parts of teachers' current work that do not require teachers' professional skills, and teachers being paid substantially more to attract and retain the best possible candidates.

Developing teacher profiles to align teacher development and performance with school needs

There is widespread recognition that countries need to have clear and concise statements of what teachers are expected to know and be able to do, and these teacher profiles need to be embedded throughout the school and teacher education systems. The profile of teacher competencies needs to derive from the objectives for student learning, and provide profession-wide standards and a shared understanding of what counts as accomplished teaching.

The teacher profiles need to encompass strong subject matter knowledge, pedagogical skills, the capacity to work effectively with a wide range of students and colleagues, to contribute to the school and the profession, and the capacity to continue developing. The profile could express different levels of performance appropriate to beginning teachers, experienced teachers, and those with higher responsibilities. A clear, well structured and widely supported teacher profile can be a powerful mechanism for aligning the elements involved in developing teachers' knowledge and skills, and for providing a means of assessing whether teacher development programmes are making a difference.

Viewing teacher development as a continuum

The stages of initial teacher education, induction and professional development need to be much better interconnected to create a more coherent learning and development system for teachers. A statement of teacher competencies and performance standards at different stages of their career will provide a framework for the teacher development continuum. As part of this there needs to be a clear set of expectations about teachers' own responsibilities for their ongoing development, and a structure of support to facilitate their growth.

A lifelong learning perspective for teachers implies that in most countries much more attention will need to be focused on supporting teachers in the early stages of their career, and in providing the incentives and resources for ongoing professional development. In general, there could be better value from improving induction and teacher development throughout teachers' careers rather than increasing the length of pre-service education.

Making teacher education more flexible

In a number of countries people need to make decisions about becoming a teacher early in tertiary education. This can lock them into a specific career path despite the possibility that their interests may change, and they may eventually find themselves teaching only after completing a programme of study that has prepared them for little else. Such structures can also deny opportunities to enter teaching to other tertiary students later in their studies, or to mid-career people in other occupations who decide they would find greater satisfaction as teachers.

A more flexible system of teacher education would provide more routes into the profession, including: post-graduate study following an initial qualification in a subject matter field; opportunities for those who started in schools as paraprofessionals or teachers' aides to gain full qualifications that build on their experience in schools; and possibilities for mid-career changers to combine reduced teaching loads and concurrent participation in teacher preparation programmes. The system should involve close linkages with schools, including providing more direct support to beginning teachers early in their career. Such changes, which are already being introduced in a number of countries, help to concentrate teacher education resources on the people who will put them to best use.

Transforming teaching into a knowledge-rich profession

One of the main challenges for policy makers facing the demands of a knowledge society is how to sustain teacher quality and ensure all teachers continue to engage in effective ongoing professional learning. Research on the characteristics of effective professional development indicates that teachers need to be active agents in analysing their own practice in the light of professional standards, and their own students' progress in the light of standards for student learning. Teaching remains largely unchanged as other forms of work have been dramatically transformed. Many other professionals commence their working lives with a sense that they are entering a role that has been shaped by past research and that will be transformed during their working lives by future research. That is an excitement that teaching has not yet offered. There are signs of change in some countries, with teachers developing a research role alongside their teaching role; with teachers engaging more actively with new knowledge; and with professional development focused on the evidence base for improved practice.

Providing schools with more responsibility for teacher personnel management

Successful enterprises often say that personnel selection is the most important set of decisions that they make. In the case of teaching, the evidence suggests that all too often the selection process follows rules about qualifications and seniority that bear little relationship to the qualities needed to be an effective teacher. The sheer size of school systems in many countries means that the process of teacher selection is often highly impersonal and it is hard for teachers to build a sense of commitment to the schools where they are appointed – or for the schools to build a sense of commitment to them.

The school is emerging as the key agency within the education system for improving student learning, which implies that schools need to have more responsibility – and accountability – for teacher selection, working conditions, and development. However, to exercise these responsibilities effectively, it is clear that many schools will need more skilled leadership teams and stronger support. In particular, schools serving disadvantaged communities, which often face major difficulties in attracting and retaining skilled teachers, will need substantially more resources to make working in such schools a viable career choice. The successful decentralisation of personnel management requires that central and regional authorities play a strong role in ensuring an adequate and equitable distribution of teacher resources throughout the country. Externally determined performance standards are also necessary to ensure that greater school involvement in personnel management does not worsen inequalities among public schools.

Developing and Implementing Teacher Policy

The issues raised in the report go to the heart of teachers' work and careers, and the success of any reform requires that teachers themselves are actively involved in policy development and implementation. Unless teachers are actively involved in policy formulation, and feel a sense of "ownership" of reform, it is unlikely that substantial changes will be successfully implemented. On the other hand, stakeholder groups should not be able to exercise a veto over education reforms that are mandated through democratic political processes. To do so would be to risk losing the public support on which education so critically depends. It is difficult to find the right balance, but open and ongoing systematic dialogue and consultation are fundamental to the process.

There are also institutional arrangements that can make a difference. Several countries have developed Teaching Councils that provide teachers and other stakeholder groups with both a forum for policy development and, critically, a mechanism for profession-led standard setting and quality assurance in teacher education, teacher induction, teacher performance and career development. Such organisations seek to obtain for teaching the combination of professional autonomy and public accountability that has long characterised other professions such as medicine, engineering and law. This would involve teachers having greater say in the criteria for entry to their profession, the standards for career advancement, and the basis on which ineffective teachers should leave the profession.

The need to more actively engage the teaching profession extends beyond reasons of politics and pragmatism. One of the main challenges for policy makers facing the demands of a knowledge society is how to sustain teacher quality and ensure all teachers continue to engage in effective modes of ongoing professional learning. Policy has a key role to play in helping teachers to develop professional learning communities within and beyond schools.

In many countries there are extensive research gaps concerning teachers, their preparation, work and careers. Such research is important not only for improving the knowledge base for teacher policy, but also as a way of introducing new information and ideas to schools and ensuring that teachers engage more actively with new knowledge. There is a particular lack of research which compares teachers' working conditions and careers with those in other professions. Much of the data and research used in teacher policy formulation is largely self-referential, and comparative information on other careers would help provide a perspective on trends and findings in regard to teachers – as well as ideas for change.

Policy formulation would also benefit from more extensive monitoring and evaluation of innovation and reform. Countries are finding that they can capitalise more on the diversity within their systems by testing policy reforms on a pilot basis, with volunteer schools and regions, before widespread implementation. Identifying the factors involved in successful innovations, and creating in other schools the conditions for their dissemination, mainstreaming and sustainability, are central to an effective implementation strategy.

Chapter 1

INTRODUCTION: THE FOCUS ON TEACHERS

Summary

The OECD has made a major international study of policies for attracting, developing and retaining effective teachers in schools. Drawing on the experiences of 25 countries around the world, and extensive data and research, the OECD project has analysed the key developments affecting teachers and their work, and developed policy options for countries to consider.

Significant long-term questions are being raised about the need for school systems to become much more competitive in recruiting skilled and motivated people as teachers, and how to improve the effectiveness of teachers' work. This chapter discusses why teacher policy is high on national agendas, describes the methodology used in the project, and highlights the main policy challenges that countries now face.

The project focuses on teacher policy issues in 25 countries: Australia; Austria; Belgium (Flemish Community); Belgium (French Community); Canada (Quebec); Chile; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea; Mexico; the Netherlands; Norway; the Slovak Republic; Spain; Sweden; Switzerland; the United Kingdom and the United States.

There are some striking differences among countries in their approaches to teacher recruitment, teacher education, teacher pay and working conditions, teacher employment, evaluation and career structures. International analysis provides countries with an opportunity to learn more about themselves by examining their experiences against those of other countries, as well as building up evidence on the impact of different approaches to teacher policy. The report provides many examples of innovative and promising teacher policy developments from around the world.

A much larger number of new teachers will enter the profession in the next 5-10 years than in the past 20 years. The entry of substantial numbers of new teachers with up-to-date skills and fresh ideas has the potential to substantially renew the schools. However, if teaching is not perceived as an attractive profession, and teaching does not change in fundamental ways, there is a risk that the quality of schools will decline. There are high stakes in teacher policy.

1.1. The Growing Focus on Teacher Issues

Teacher policy is high on national agendas. The far-reaching economic and social changes underway have made high-quality schooling more important than ever before. The demands on schools and teachers are becoming more complex. OECD Education Ministers have committed their countries to the goal of raising the quality of learning for all. This ambitious goal will not be achieved unless all students receive high-quality teaching.

All countries are seeking to improve their schools, and to respond better to higher social and economic expectations. Schooling provides the foundations for learning throughout life, and for individual and national development. As the most significant resource in schools, teachers are central to school improvement efforts. Improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high-quality teaching. Meetings of OECD Education Ministers have underlined the critical importance of teachers and their work for the quality of schooling.

However, many countries have an ageing teaching force, and are finding it difficult to attract well-qualified new entrants into teaching, or to retain them for long once they start. Some other countries still benefit from a plentiful supply of people wishing to become a teacher, and have relatively low rates of teacher turnover. Nevertheless, there can be quality concerns when teacher shortages are not readily apparent. All the participating countries report concerns in ensuring that teachers are well prepared for the demands of more diverse student populations, higher social expectations of schools, expanding fields of knowledge, and new types of responsibilities. Teacher policy needs therefore to address both quantity and quality issues, not least because in many respects they are closely intertwined.

Teacher issues are also currently high on policy agendas because of concerns expressed by teachers themselves about the future of their profession – whether it is sufficiently attractive to talented new entrants, and whether teachers are sufficiently rewarded and supported in their work. As teachers are in daily contact with the students who potentially form the next generation of teachers, the enthusiasm and morale of the current teacher workforce are important influences on future teacher supply.

The current timing of the upsurge of interest in teacher policy issues is particularly important. The fact that the large numbers of teachers who were recruited during the great expansion period of the 1960s and 1970s are now close to retirement is both a major challenge and an unprecedented opportunity in most countries. Although large amounts of experience and skills need to be replaced as teachers retire, a number of countries now have a once-in-a-generation opportunity to shape and benefit from substantial changes in the teacher workforce. A much larger number of new teachers will enter the profession in the next 5-10 years than in the past 20 years. The entry of substantial numbers of new teachers with up-to-date skills and fresh ideas has the potential to substantially renew the schools. As well, there is scope to free up resources for development as a younger teacher workforce implies fewer budgetary pressures. Such changes would contribute to the realisation of the "re-schooling" scenario whereby schools make a vital contribution to community development and enjoy high levels of public trust (OECD, 2001). On the other hand, if teaching is not perceived as an attractive profession, and teaching does not change in fundamental ways, there is a risk that the quality of schools will decline and a downward spiral will be difficult to reverse. This unwelcome prospect has been termed

the "meltdown scenario" under which teacher shortages turn into a real staffing crisis (OECD, 2001). There are high stakes in teacher policy.

1.2. Overview of the Broad Policy Directions

This report is concerned with policies that contribute to attracting, developing and retaining effective teachers in schools. The report draws on a major OECD study of teacher policy conducted in collaboration with 25 countries around the world (see Appendix 1). The fact that so many countries took part indicates that teacher issues are a priority for public policy, and likely to become even more so in future years.

The report aims to provide a comprehensive international analysis of:

- Trends and developments in the teacher workforce.
- Evidence on the key factors in attracting, developing and retaining effective teachers.
- Innovative and successful teacher policies and practices.
- Teacher policy options for countries to consider.
- Priorities for future work at national and international levels.

The report identifies policy initiatives being undertaken at two levels. The first concerns the teaching profession as a whole and includes measures to ensure that society values teachers' work, that teaching is seen as exciting and worthwhile, and that teachers' training and work environments are improved. The second is more targeted, and recognises that that there is not a single, uniform labour market for teachers. Rather, there is a set of different labour markets distinguished by type of school (primary, secondary, vocational and so on) and individual characteristics (such as gender, age, previous work experience, academic ability and subject specialisation). Such initiatives are focusing on the factors that attract and retain particular types of people into teaching, and teachers to work in particular schools.

The quality of teaching is determined not just by the "quality" of the teachers – although that is clearly critical – but also by the environment in which they work. Able teachers are not necessarily going to reach their potential in settings that do not provide appropriate support or sufficient challenge and reward. Policies aimed at attracting and retaining effective teachers need both to recruit competent people into the profession, and also to provide support and incentives for professional development and ongoing performance at high levels.

Not all of the findings and policy implications apply equally to each country. Countries have different social, economic and educational structures and traditions, and are at different stages of policy development. To reflect this, the report attempts to identify the key priorities for countries facing different circumstances. Nevertheless, despite the diversity of country situations, some broad common directions can be identified, and these are elaborated in the chapters that follow. In part these policy initiatives have been compelled by the need for school systems to become much more competitive in recruiting skilled and motivated people as teachers, but they also reflect judgements that the quality of teaching and learning will improve as a result. Significant

long-term questions are being raised about how to make teaching more enjoyable and interesting, and how to improve the effectiveness of teachers' work.

1.3. Methodology and Country Participation

The project was based on volunteer countries working collaboratively with each other and with the OECD Secretariat. It involved examining country-specific issues and policy responses in attracting, developing and retaining effective teachers, and placing these experiences within a broader, international framework to generate insights and findings relevant to countries as a whole. Appendix 1 details the processes involved, the country reports and other documents that have been produced and the large number of organisations and people who contributed to the project and to the preparation of this report.

The project involved two complementary approaches: an *Analytical Review strand*; and a *Country Review strand*. The Analytical Review strand used several means – Country Background Reports, literature reviews, data analyses and commissioned papers – to analyse the factors that shape attracting, developing and retaining effective teachers, and possible policy responses. All 25 participating countries were involved in this strand. In addition, nine countries also chose to host a Country Review, which involved external review teams undertaking an intensive case study visit whose conclusions were then reflected in a Country Note.

The countries taking part in the project were:[1]

- *Analytical Review strand* (25 countries, involving 26 background reports): Australia; Austria; Belgium (Flemish Community); Belgium (French Community); Canada (Quebec); Chile; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea; Mexico; the Netherlands; Norway; the Slovak Republic; Spain; Sweden; Switzerland; the United Kingdom and the United States.
- *Country Review strand* (9 countries involving 10 review visits): Austria; Belgium (Flemish Community); Belgium (French Community); Germany; Hungary; Italy; Korea; Spain; Sweden and Switzerland.

The collaborative approach provided countries with an opportunity to learn more about themselves by examining their experiences against those of other countries. There are some striking differences among countries in regard to their teacher workforces, as illustrated by several indicators from OECD (2004):

Age: in Germany and Italy more than 50% of lower secondary teachers are aged 50 years or older, whereas less than 10% of Korean teachers are in this age group.

Gender: in the Czech Republic and Hungary females comprise more than 80% of lower secondary teachers, while only 40% of Japanese lower secondary teachers are female.

[1] However, to the extent they are covered by the OECD Education Database, OECD countries which did not take part in the project are still considered in the analysis and feature in the report's figures and tables.

Teacher education: in Italy it takes an average of 8 years of tertiary education to train as an upper secondary teacher compared to 4 years in Australia and England.

Salaries: in Korea a primary teacher with 15 years experience earns around 2.7 times GDP per capita (a broad measure of average income), while in the Slovak Republic an equivalent teacher earns only around 0.55 times GDP per capita.

By documenting such differences among countries, and trying to understand their causes and consequences, comparative analysis can help to raise questions about long-established practices, as well as help accumulate evidence on the impact of different policy approaches.

1.4. Organisation of the Report

The report has six further chapters. Chapter 2 provides the rationale for the study, and outlines the framework that was used, including the ways in which the key areas of teacher policy are interconnected. Chapters 3 to 6 are concerned with the main issues driving the project: attracting competent people into the teaching profession (Chapter 3); developing teachers' skills and knowledge (Chapter 4); recruiting, selecting and employing teachers (Chapter 5); and retaining effective teachers in schools (Chapter 6). Each of these chapters discusses the trends and developments that are giving rise to policy concerns, the main factors involved, examples of innovative policy responses, evidence on policy impact, and options for countries to consider. Chapter 7 discusses ways to build teacher, education union and other stakeholder involvement in policy development and implementation, the major gaps in the research and information base, and priorities for future work. Appendix 1 details the process by which the project was conducted, and the range of outputs in addition to this report. Appendix 2 provides an indicators framework for informing teacher policy and assesses the current availability of data at both national and international levels.

The following chapters provide many examples of country initiatives in teacher policies and programmes. A number of particularly innovative and promising initiatives are highlighted in self-contained boxes that provide more detail on the reforms. Nevertheless, due to space constraints, it has not been possible to provide all of the necessary detail, and readers are encouraged to consult the relevant Country Background Reports, Country Review reports, and research studies. All the documents produced through the project are listed in Appendix 1 and available from *www.oecd.org/edu/teacherpolicy*.

References

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Chapter 2

WHY IS TEACHER POLICY IMPORTANT?

Summary

This chapter provides the rationale for analysing teacher policy, and the framework used to study its main components and the ways they are interconnected.

Teachers are important because of their impact on student learning. The research indicates that raising teacher quality is perhaps the policy direction most likely to lead to substantial gains in school performance. However, there are many important aspects of teacher quality that are not captured by indicators such as qualifications, experience and tests of academic ability. The teacher characteristics that are harder to measure, but which can be vital to student learning need to be more prominent in teacher preparation and employment.

Teachers' importance is reflected in the size of the teacher workforce. Teaching is the largest single employer of graduate labour and, on average, 64% of current expenditure on schools is allocated to teachers' compensation. Teacher policies affect many people, and can have substantial implications for school budgets.

Teacher policy concerns have intensified in recent years due to the profound economic and social changes underway and the imperatives for schools to provide the foundations for lifelong learning. All school systems have been engaged in major curriculum reforms, and have placed stronger emphases on gender equality within schools, the incorporation of information and communication technology, and greater integration of students with special needs. Such developments require re-examination of the role of teachers, their preparation, work and careers.

A key challenge is to understand the complex range of factors – societal, school system level, and school level – that are giving rise to teacher policy concerns. It is important to identify the ways that these factors interact, and those which are potentially open to policy influence. Understanding the operations of the teacher labour market is particularly important. Key aspects include the factors shaping teacher demand and supply, the responsiveness of teachers to incentives, the trade-offs governments face in defining the number of teachers needed, and the mechanisms that assign teachers to schools.

This chapter provides the rationale for analysing teacher policy, and outlines the framework used to study its main components and the ways they are interconnected. The term "policy" is used because in most countries the large majority of teachers are either employed within the public sector, or employed by schools which receive at least part of their funding from government. (Box 2.1 defines what is meant by a "teacher" in international studies.) On average across OECD countries, over 90% of all expenditure on primary and secondary schools is from public sources (OECD, 2004a). Public expenditure on schools amounts to 3.5% of GDP on average, or just under 10% of public expenditure overall. As is detailed below, teacher salaries are the largest component of spending on schools. In addition, governments generally shape the organisation of schools and the main features of teachers' education and their working conditions.

2.1. Quality Teaching is Vital for Improving Student Learning

Student learning performance varies widely among students of a similar age. The 2000 Programme for International Student Assessment (PISA) study of reading literacy among 15-year-olds, for example, found that in OECD countries as a whole 10% of students were capable of performing highly sophisticated reading tasks, such as managing information that is difficult to find in unfamiliar texts, and accommodating concepts that may be contrary to expectations (OECD, 2001a). On the other hand, 18% of students performed at literacy level 1 or below; that is, they were capable at best of only being able to make a simple connection between information in the text and common, everyday knowledge. Their poor literacy skills mean that such students are likely to struggle in their schooling, and to face considerable difficulties in making the transition to employment or further study. In some countries the difference between 15-year-old students in the top and bottom bands of reading performance is equivalent to the effect of several years of additional schooling.

Student learning is influenced by many factors, including: students' skills, expectations, motivation and behaviour; family resources, attitudes and support; peer group skills, attitudes and behaviour; school organisation, resources and climate; curriculum structure and content; and teacher skills, knowledge, attitudes and practices. Schools and classrooms are complex, dynamic environments, and identifying the effects of these varied factors, and how they influence and relate to each other – for different types of students and different types of learning – has been, and continues to be, a major focus of educational research.

Conducting research on the factors that influence student learning is challenging on conceptual, methodological and data grounds (Vignoles *et al.*, 2000). Researchers have been compelled to use data sets and methodologies that provide only limited measures of learning and partial indicators of the range of influences on student learning. The results, interpretations and policy implications of such research are frequently contested. Caution is needed when generalising research results from one time or place to another, and especially across national boundaries. Much of the research is from the United States, and schooling there differs in many significant respects from other countries, including in governance, financing and policies on curriculum and assessment.

Box 2.1. **Definition of a "teacher"**

Unless indicated otherwise, the term "teacher" as used in this report is based on the definition adopted by the OECD's Indicators of Education Systems (INES) project in its data collections, which provide much of the data used in this report.

A teacher is defined as a person whose professional activity involves the transmission of knowledge, attitudes and skills that are stipulated to students enrolled in an educational programme. This definition does not depend on the qualification held by the teacher nor on the delivery mechanism. It is based on three concepts:

1. Activity, thus excluding teachers without active teaching duties – although teachers temporarily not at work (e.g. for reasons of illness or injury, maternity or parental leave, holiday or vacation) are included.
2. Profession, thus excluding people who work occasionally or in a voluntary capacity in educational institutions.
3. Educational programme, thus excluding people who provide services other than formal instruction to students (e.g. supervisors, activity organisers, etc.).

Teaching staff refers to professional personnel directly involved in teaching students, including classroom teachers; special education teachers; and teachers who work with students as a whole class in a classroom, in small groups in a resource room, or in one-to-one teaching inside or outside a regular classroom. Teaching staff also includes chairpersons of departments whose duties include some amount of teaching (*i.e.* at least 0.25 of full-time equivalent), but it does not include non-professional personnel who support teachers in providing instruction to students, such as teachers' aides or other paraprofessional personnel.

Also, in general, school principals, vice principals and other administrators *without* teaching responsibilities in educational institutions, as well as teachers without active teaching responsibilities for students in educational institutions, are not classified as teachers.

The data reported on teachers' salaries are for full-time classroom teachers only.

In *vocational and technical education*, teachers of the "school element" of apprenticeships in a dual system are included in the definition. Trainers in the "in-company element" of a dual system are excluded.

Full-time and part-time teachers

The classification of educational personnel as "full-time" and "part-time" is based on a concept of *working time*. The stipulation of full-time employment is usually based on "statutory hours" or "normal or statutory working hours" (as opposed to actual or total working time or actual teaching time). Part-time employment refers to individuals who have been employed to perform less than the amount of statutory working hours required for a full-time employee.

A teacher who is employed for at least 90% of the normal or statutory number of hours of work for a full-time teacher over the period of a complete school year is classified as a *full-time teacher*. A teacher who is employed for less than 90% of the normal or statutory number of hours of work for a full-time teacher over the period of a complete school year is classified as a *part-time* teacher.

More detailed information on these general definitions and conventions is provided in *Education at a Glance, OECD Indicators 2004*. (See also www.oecd.org/edu/eag2004)

Bearing these caveats in mind, three broad conclusions emerge from research on student learning. The first and most solidly based finding is that the largest source of variation in student learning is attributable to differences in what students bring to school – their abilities and attitudes, and family and community background. Such factors are difficult for policy makers to influence, at least in the short-run.

The second broad conclusion is that of those variables which are potentially open to policy influence, factors involving teachers and teaching are the most important influences on student learning. In particular, the broad consensus is that "teacher quality" is the single most important school variable influencing student achievement (see the reviews by Santiago, 2002; Schacter and Thum, 2004; and Eide *et al*., 2004). The effects of differences in teacher quality are substantial. For example, the work by Rivkin *et al.* (2001) indicates that moving from being taught by an average teacher to one at the 85th percentile of teacher quality would lead to students improving by more than 4 percentile rankings in the given year, an effect which they estimate is roughly equivalent to the effect on learning of reducing class size by 10 students. Sanders and Rivers (1996) estimate that teacher effects are not only large – students of the most effective teachers (the highest quintile) have learning gains four times greater than students of the least effective teachers (lowest quintile) – but cumulative over time. Having a succession of effective teachers can substantially narrow the average achievement gap between students from low-income and high-income families, and low-performing students benefit more from more effective teachers. Rockoff (2004), who used a particularly rich data set to follow the same group of teachers over a 10-year period, estimated that differences among teachers explain up to 23% of the variation in student test score performance that is potentially open to policy influence.

The third broad conclusion from the research, which is somewhat more contentious, concerns the indicators or correlates of teacher quality. Most of the research has examined the relationship between measures of student performance, most commonly standardised test scores, and readily measurable teacher characteristics such as qualifications, teaching experience, and indicators of academic ability or subject-matter knowledge. Such research generally indicates that there is a positive relationship between these measured teacher characteristics and student performance, but perhaps to a lesser extent than may have been expected. For example, Hanushek's reviews (2002, 2003) of studies of the United States find that overall there are no clear systematic effects of characteristics such as teacher education or teacher experience on student achievement, although there is some reasonably strong support for the effects of teachers' academic ability (as measured by teacher test scores). Other researchers have challenged some of these conclusions. In their meta-analyses, Greenwald *et al.* (1996) and Hedges and Greenwald (1996) found that variables such as teacher education, teacher experience and teacher ability show strong relations with student achievement. The review by Gustafsson (2003) also suggests that there are important relations between different indicators of teacher competence and student achievement, including teacher education, experience, measured knowledge and skills, and in-service training.

A possible explanation for the lack of consistently clear and strong effects of commonly measured characteristics of teacher quality is that research studies are often faced with little variation in some of these characteristics (*e.g.* formal qualifications) for the teachers sampled from a given school system. In addition, for most of these characteristics, a "threshold effect" is likely to apply: teachers need a certain level of qualifications or experience to be effective, but further attainments beyond those levels

may be progressively less important for student performance. (Research on the effects of teacher education and professional development is discussed further in Chapter 4.)

A point of agreement among the various studies is that there are many important aspects of teacher quality that are not captured by the commonly used indicators such as qualifications, experience and tests of academic ability. The teacher characteristics that are harder to measure, but which can be vital to student learning, include the ability to convey ideas in clear and convincing ways; to create effective learning environments for different types of students; to foster productive teacher-student relationships; to be enthusiastic and creative; and to work effectively with colleagues and parents.

Overall, the research results indicate that raising teacher quality is vital for improving student achievement, and is perhaps the policy direction most likely to lead to substantial gains in school performance (Hanushek, 2004). However, the findings also indicate that policy initiatives need to take into account the substantial variation in effectiveness that exists among teachers with similar, readily measured, characteristics. In particular, in light of the lack of strong evidence linking teacher credentials such as qualifications and experience to student results, alternative indicators of teacher quality are crucial. Nonetheless, the more measurable characteristics provide fundamental information on the quality of teaching workforces. Where there are actual or looming shortages in the numbers of teachers with given characteristics, there must at least be a risk that teacher quality is reduced.

2.2. Teachers are Significant in the Labour Force and in School Budgets

The size of the teaching workforce is considerable. On average in OECD countries teachers constitute about 2.6% of the total labour force (see Table 2.1) and teaching is the largest single employer of graduate labour. In Australia in 2002/03, for example, there were almost 300 000 people employed as school teachers, which was around 60% more than the number working as nurses and twice the number of accountants (Centre of Policy Studies, 2004).

The large number of teachers is reflected in expenditure on schools. On average, around 64% of current expenditure on schools is allocated to teachers' compensation (see Table 2.1). This is equivalent to around 5% of total public expenditure, or around 2% of GDP, on average. Teacher policies affect many people, and can have substantial implications for school budgets, as well as graduate employment in general and employment in the public sector in particular.

2.3. Teacher Policy Concerns are Intensifying

Teacher policy concerns have intensified in recent years due to the profound economic and social changes underway and the imperatives for schools to provide the foundations for lifelong learning. As Coolahan (2002) has argued, when society is undergoing profound and accelerating change, particular pressures emerge to improve the alignment between the education system and these changing societal needs. The teaching profession is a key mediating agency for society as it endeavours to cope with change and upheaval. But the teaching profession needs to have the skills, knowledge and training to cope with the many changes and challenges that lie ahead. The teaching profession must adapt a great deal so that it can act in a constructive manner within a fast-changing society if it is to retain the confidence of society.

Table 2.1. **Classroom teachers as a percentage of the total labour force and compensation of teachers as a percentage of current expenditure on schools**

	Classroom teachers in primary and secondary education as a percentage of the total labour force, based on head counts (1999)	Compensation of teachers and all school staff as a percentage of current expenditure on educational institutions from public and private sources, for primary, secondary and post-secondary non-tertiary education (2001)	
		Compensation of teachers	Compensation of all staff
Australia[1]	2.3	58	75
Austria	2.6	71	79
Belgium	m	77	87
Belgium (Flemish Community)[a]	3.6	68	82
Canada[b]	1.7	62	78
Chile[c,d]	m	m	61
Czech Republic	2.1	49	65
Denmark	2.8	53	78
Finland[2]	2.4	55	67
France	2.7	m	79
Germany	1.9	m	85
Greece[c]	m	m	91
Hungary[c]	3.6	m	75
Iceland	3.3	m	m
Ireland[c]	2.8	77	83
Israel	m	m	78
Italy[3,c]	2.9	64	81
Japan	1.5	m	88
Korea	1.4	62	70
Luxembourg	2.9	81	91
Mexico[c]	2.5	81	94
Netherlands	2.8	m	78
New Zealand	2.6	m	m
Norway	3.7	m	83
Poland[c]	m	m	76
Portugal	m	m	94
Slovak Republic	m	62	79
Spain	2.7	76	86
Sweden	2.8	49	65
Switzerland[c]	2.3	72	85
Turkey[c]	2.0	m	95
United Kingdom	2.4	53	74
United States[b,c]	2.2	56	81
Country mean	**2.6**	**64**	**80**

Country Notes: Notes indicated by numbers refer to the first column while notes indicated by lowercase letters refer to the second and third columns.

1. The number of teachers is expressed in full-time equivalents.
2. The data include teachers only in educational institutions in the regular education system and exclude sports institutes, music and folk schools, and military vocational institutes.
3. Slightly underestimated because teachers working in programmes such as regional vocational education are not included.

a. Year of reference 2000.

b. Post-secondary non-tertiary education not included.

c. Public institutions only.

d. Year of reference 2002.

Symbol : m Data not available.

Sources : Data in first column: OECD (2001b, Table D2.4); Data in second and third columns: OECD (2004a, Table B6.3).

All school systems have been engaged in major programmes of curricular, pedagogic and assessment reform in recent years, and there are no signs that the pace of reform is easing (Coolahan, 2002). The curricular reforms involve the updating of content, but also require the provision of new courses. One of the pressing challenges for schools is the incorporation of information and communication technology (ICT) into the administrative and scholastic life of the school. The promotion of greater gender equality within schools in terms of curricular content and choice, pedagogic styles, and interpersonal relationships is also an unavoidable challenge to contemporary schools. Furthermore, most developed countries have adopted a policy of greater integration of students with special needs within mainstream schooling (OECD, 2003). All of these developments require re-examination of the role of teachers, and consequently of their preparation, work and careers.

Around half of the countries participating in the OECD project reported serious concerns about maintaining an adequate supply of good quality teachers. As well as data supplied through Country Background Reports, data from the OECD's Programme of International Student Assessment (PISA) 2000 survey indicated that in half of the OECD countries the majority of 15-year-old students attend schools where principals believe that student learning is hindered by a teacher shortage or inadequacy. A 2001 survey of upper secondary education in 15 OECD countries indicated that, on average, about 15% of full-time teachers and 30% of part-time teachers are not fully qualified (OECD, 2004b). Vacancies tend to be harder to fill in areas like ICT, mathematics, foreign languages and science, where there are often attractive employment opportunities outside of teaching. There is also an equity dimension to teacher shortages: in countries experiencing general teacher shortages, students in schools in remote or disadvantaged areas tend to find themselves in classes with the least experienced and qualified teachers.

As well as concerns about whether there are enough newly qualified teachers, some countries also express concern about the quality and motivation of a proportion of teacher trainees. Enrolment in teacher education programmes is often a second or third choice, and tends to attract those who have lower academic qualifications. Completion rates are low in some programmes, and the proportion of graduates entering teaching is often below expectations.

The ageing of the teaching workforce is compounding these recruitment concerns. On average, 26% of primary teachers and 31% of secondary teachers are aged over 50 years, and in some countries more than 40% of the teachers are in this age group (OECD, 2004a). Large numbers of retirements are likely in the next few years. Furthermore, the attractiveness of teaching as a profession – as indicated by relative salaries and social status – has declined substantially in some countries in recent years. In 14 of the 19 countries with relevant data, the salary of a lower secondary teacher with 15 years of experience grew more slowly than GDP *per capita* between 1994 and 2002.

The problems that some countries face with teacher supply are sometimes attributable more to the high turnover experienced in the early years of the teaching career than to a shortage of qualified new entrants. The research indicates that teachers who leave the field often found that the factors which attracted them to teaching – working with students and colleagues, professional autonomy, and opportunities for personal and intellectual growth – were increasingly difficult to achieve in the day-to-day realities of the job. Although attrition rates are highest in the first few years of teaching, and decline with age, in most countries there are still reasonably large numbers of experienced teachers who leave before retirement, and who cite reasons such as these.

Many countries are concerned that the proportion of males in teaching is declining, especially in light of concerns about boys' achievement in schools. On average, males constitute only 20% of primary teachers in OECD countries, and data on trainee teachers collected for this study suggest that this proportion is likely to decline even further in coming years. Some countries also report concerns about an imbalance between the cultural or language diversity of the student population and that of the teaching body at a time when the proportion of minority students is increasing.

Some of the participating countries report that they do not currently face shortfalls in teacher numbers, and that there are many more qualified applicants than teaching vacancies. Nevertheless, countries with an oversupply of teachers still face significant policy challenges. There can be high individual and social costs when substantial resources are invested in teacher education but many graduates are not able to find work as teachers, and especially so where their qualifications are not widely recognised elsewhere in the job market. Several countries report that because the current teacher workforce is "saturated" it is difficult to ensure that able and motivated people find jobs as teachers and are not lost to the profession. Even if they do not currently face quantitative shortfalls, such countries also share a common concern about qualitative shortfalls in the teacher workforce. Almost all countries report concerns about whether teachers have the necessary skills and knowledge to meet the demands of modern schooling and more diverse student populations.

2.4. Analysing Teacher Policy

A key challenge is to understand the complex range of factors – societal, school system level, and school level – that are giving rise to the teacher policy concerns summarised above. It is important to identify the ways that these factors interact, and those which are potentially open to policy influence. Figure 2.1 provides a conceptual framework summarising the range of factors involved and the way they interconnect. The framework was derived from a literature review prepared as background for the study (Santiago, 2002).

Starting with the view that the overarching policy objective is to ensure the effectiveness of the teaching workforce in all schools and classrooms, Figure 2.1 groups the factors that shape teacher policy into five main clusters. The *Preparation and development of teachers* group includes factors associated with initial teacher education, the certification of teachers, and the professional development of teachers during their careers. The *Career structure and incentives* cluster groups those factors that define the willingness of individuals to work as a teacher. The *Demand for teachers* cluster comprises the elements that define the number of teachers needed, while the *Structure of the labour market* group involves those aspects that determine the way in which teacher demand and teacher supply interact, including the recruitment and selection procedures. Finally, the *School processes* group encompasses those features of the work in schools that influence the effectiveness of teachers. In addition to the clusters specific to teacher policy, the framework also recognises the influence of the organisation of the school system, the interaction with labour markets outside of teaching, and the impact of societal developments.

Figure 2.1. **Conceptual framework for the activity**

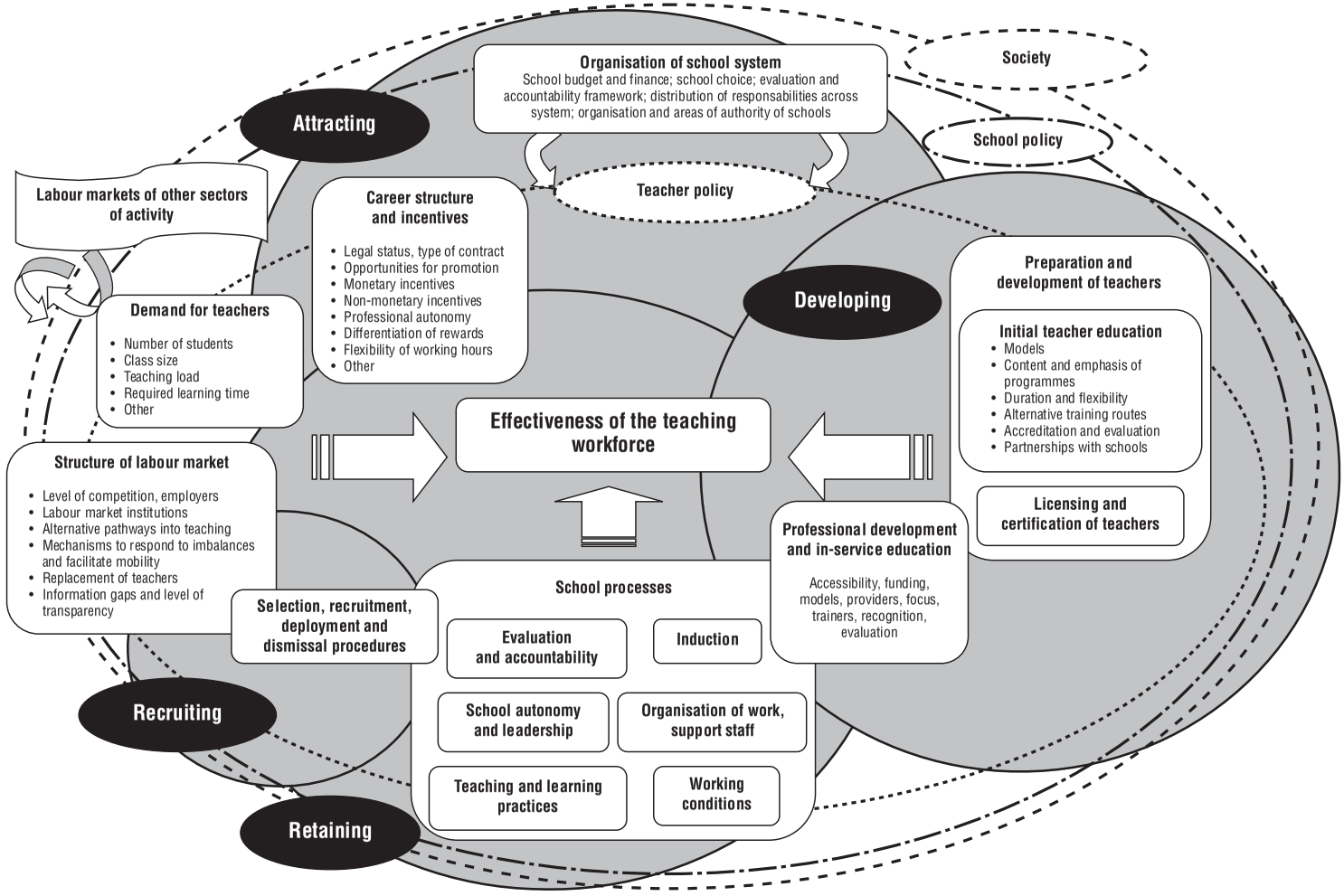
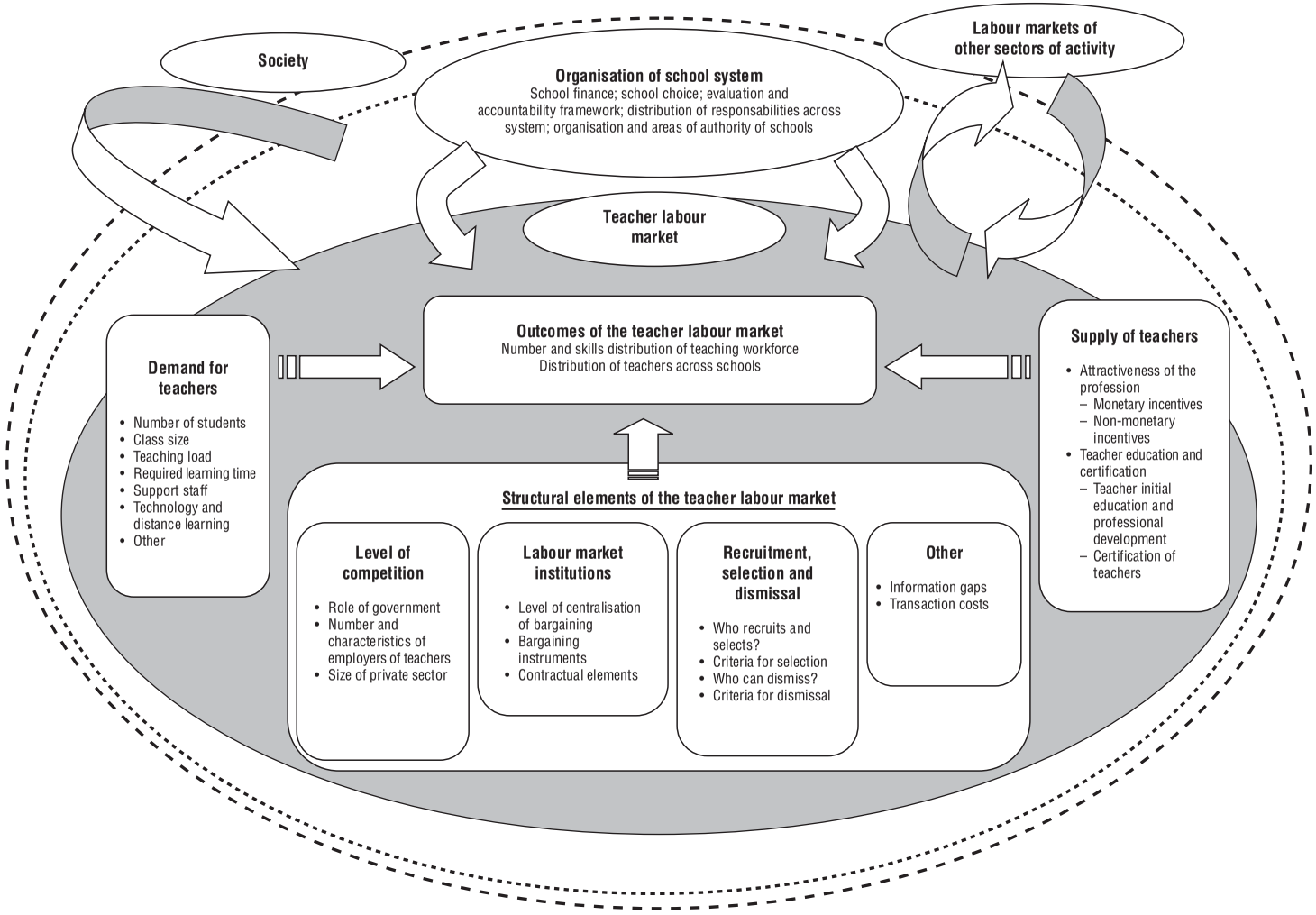


Figure 2.2. **Framework for the teacher labour market (reproduced from Santiago, 2004)**



The analysis of teacher policy in this project concentrated on four main issues: policies intended to make teaching a more attractive career choice (*Attracting* in Figure 2.1); to improve teacher education, professional development and certification (*Developing*); to improve teacher recruitment, selection and assignment to schools (*Recruiting*); and to retain effective teachers in schools (*Retaining*). The ordering of the key policy issues in this way broadly corresponds to stages in the career paths of teachers. Nevertheless, these policy issues should not be regarded as distinct from each other. For example, many of the factors that shape the attractiveness of teaching to potential new entrants (salaries, career opportunities and so on) are also likely to be significant in retaining effective teachers in schools. Listing them separately recognises, though, that some factors are likely to become progressively more important once people have been teaching in school for some time (*e.g.* school leadership, working conditions, and job satisfaction), and about which potential teachers would have little direct knowledge. Accordingly, the position of the four circles in Figure 2.1 reflects those factors that are likely to be more directly influential for each of the four key issues. Each of these is examined in different chapters in the report but with extensive cross-referencing throughout.

2.5. Analysing the Teacher Labour Market

Key features of teacher labour markets

A major part of the project was concerned with better understanding the operations of the teacher labour market in participating countries. Key aspects include the responsiveness of teachers to incentives, the trade-offs governments face in defining the number of teachers needed, and the mechanisms that assign teachers to schools. Each of these aspects is addressed in separate chapters below. In this section, an overall view of the teacher labour market is provided.

The functioning of the teacher labour market determines, for a given school system, the number and characteristics of teachers, their distribution across schools, and the prevailing employment conditions including the wage structure. Teacher labour market analysis typically studies the determinants of the number of teachers needed; the factors which influence individuals' willingness to prepare for a teaching job, enter the teaching profession and remain in or return to teaching throughout their working lives; and the role of labour market institutions such as collective bargaining, recruitment and selection processes and contractual elements in the matching between potential teachers and education authorities.

The teacher labour market has a number of important structural features that help shape the teaching workforce and the nature of teachers' work, including: (i) the dominant position in most countries of the government in the education sector as a provider and regulator; (ii) the segmented and stratified nature of the market; (iii) the characteristics of the established labour market institutions – *e.g.* collective bargaining, reward mechanisms, or public servant status of teachers; (iv) the procedures for recruitment, selection and dismissal; and (v) the incentives that participants in the teacher labour market face arising from the organisation of the school system.

The framework for the teacher labour market is shown in Figure 2.2. This framework identifies three interrelated main areas that define the outcomes of the teacher labour market. First, the demand for teachers, discussed in Chapter 3, deals with the aspects that determine the number and skills of teachers needed for education systems to respond to the education needs of the school-age population. Second, the supply of teachers deals with the factors that define the number of potential individuals willing to teach in the current school

system as well as the types and levels of their skills. The supply behaviour of individuals is analysed in the chapters concerned with making teaching a more attractive career choice (Chapter 3) and retaining effective teachers in schools (Chapter 6). Issues of skill development are addressed in Chapter 4. A third central aspect of the teacher labour market concerns the structural elements that shape the mechanisms through which teacher demand and supply interact. Their role is explored in Chapter 5 (recruiting, selecting and employing teachers).

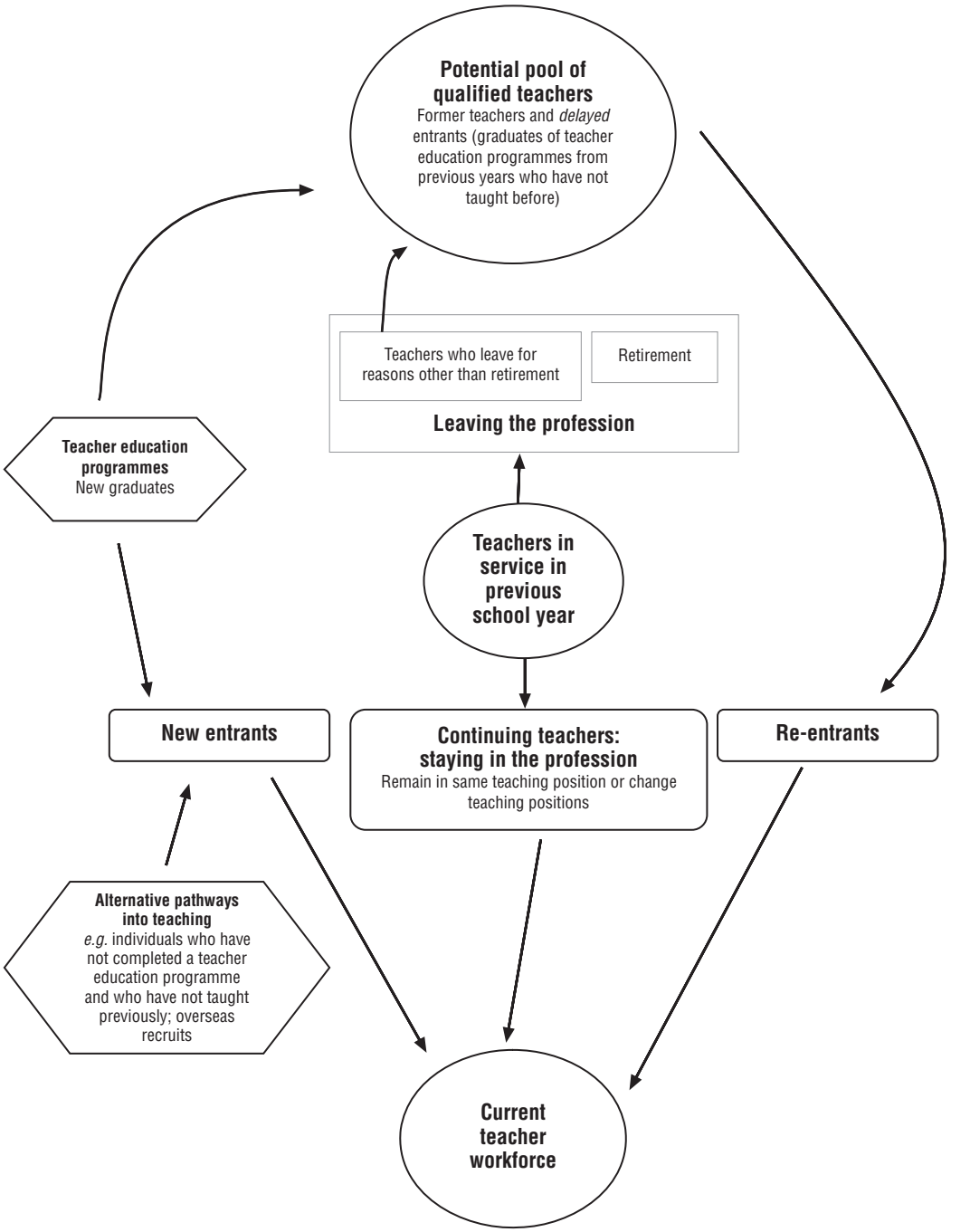
Sources of teacher supply

The supply of school teachers in a given year is defined, in the aggregate, as the number of eligible individuals available from all sources willing to supply their services under prevailing conditions. The most important element of teacher supply for a given year is the retention of teachers from the previous year. Continuing teachers typically have the option of remaining in the same position from one year to the next. Nonetheless, many teachers choose to apply for teaching positions in other schools within the same region, in other subject matter fields, or in a different region. Thus, the flows of practising teachers within the school system constitute a major source of teachers hired into, or reassigned to, vacant teaching positions.

A large number of new individuals are also hired by the school system each year. Such entering teachers are drawn from three sources. The largest one corresponds to former teachers and past graduates of teacher preparation programmes who did not enter teaching when they graduated, but could be potentially attracted to teaching with the right incentives. The second source consists of recent graduates of teacher education programmes. A third group consists of university graduates who have not completed a teacher preparation programme and who have not previously taught. They are sometimes referred to as entrants via alternative routes. Some countries also consider hiring overseas teachers. The typical flows in and out of the profession are shown in Figure 2.3. A major part of the project involved documenting trends in these flows, and the key causal factors involved.

The supply behaviour of teachers involves a series of decisions, namely: (i) whether to train to become a teacher; (ii) whether to become a teacher after training; (iii) whether to switch teaching location; (iv) how long to stay in teaching; and (v) whether to return to teaching after a career interruption. These decisions are affected by a common set of factors but to different extents. For instance, the decision of whether or not to enrol in teacher education is likely to be particularly sensitive to the existing supply of teacher education programmes or the provision of specific incentives such as scholarships. In turn, the decision of whether or not to become a teacher is likely to be particularly responsive to relative salaries of teachers and opportunities outside teaching. Similarly, factors such as relative working conditions (*e.g.* school leadership, and composition of the student body) are likely to be important in the decision on where to teach and whether to stay in the profession. These aspects are explored in Chapters 3 and 6 in particular.

Figure 2.3. **Flows in and out of the teaching profession**



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Chapter 3

MAKING TEACHING AN ATTRACTIVE CAREER CHOICE

Summary

The teaching profession needs to be competitive with other occupations in attracting talented and motivated people. This chapter reviews the trends that are raising concerns about teaching's attractiveness as a career choice, reviews the evidence on the main causal factors involved, and develops policy options for countries to consider.

There are two broad concerns about the supply of teachers. One relates to teacher numbers: many countries are either currently experiencing, or will shortly face, a quantitative shortage of teachers. There are particular concerns about teacher shortages in areas such as mathematics, science, ICT and languages. Teacher shortage problems seem to be most acute in schools serving disadvantaged or isolated communities. The other concern is more qualitative, and reflects trends in the composition of the teacher workforce in terms of academic background, gender, knowledge and skills. The ageing of the teaching workforce is compounding recruitment concerns. On average, 26% of primary teachers and 31% of secondary teachers in OECD countries are aged over 50 years, and many will retire in the next few years.

There are a number of countries where teaching is held in high regard as a career, and there are many more qualified applicants than teaching vacancies. The experience of such countries helps counter the view that teaching is a profession in long-term decline. Counter evidence is also supplied by those countries that have experienced an upturn in demand for teaching jobs in recent years.

Policy responses are needed at two levels. The first seeks to improve teaching's general status and competitive position in the job market, and broaden sources of teacher supply to include well-qualified people from other careers and former teachers. The second involves more targeted responses to particular types of teacher shortages, including stronger incentives for teachers with skills that are in short supply, and encouragement and support for teachers to work in challenging schools or difficult locations.

Those countries experiencing teacher over-supply have the opportunity to be much more selective about those who are employed. Initiatives underway include a broadening of teacher selection criteria and well-structured induction and probationary processes to ensure that the best candidates get the available jobs.

A fundamental requirement for providing quality teaching in schools is that motivated people with high-level knowledge and skills choose to become teachers. The teaching profession needs to be competitive with other occupations in attracting talented people. This chapter reviews the trends and developments that are raising concerns about teaching's attractiveness. It then examines the policy tools that are potentially available to attract able people into teaching, reviews the evidence on the main causal factors involved, and discusses those that are most open to policy influence. The chapter includes descriptions of policy initiatives in participating countries, and develops policy options for countries to consider.

In terms of the model of the teacher labour market outlined in Section 2.5, the chapter focuses on those who are currently not in the teaching profession: potential new entrants to teaching and potential re-entrants to teaching. Issues to do with the attractiveness of continuing in teaching – including job satisfaction, working conditions and career structure – are discussed in Chapter 6.

3.1. Concerns about Teaching's Attractiveness

3.1.1. Countries have quantitative and qualitative concerns – which are interrelated

The Country Background Reports express two broad concerns about the supply of teachers. One relates to teacher numbers: many countries are either currently experiencing, or will shortly face, a quantitative shortage of teachers. For example, based on current trends, the Netherlands estimates that the number of unfilled teacher vacancies in primary schools will more than double in three years: from 2 800 full-time equivalent teachers in 2003 to 6 000 teachers in 2006.[1] The other concern is more qualitative in nature, and reflects trends in the composition of the teacher workforce, and trainee teachers, in terms of academic background, gender, competencies and so on.

Quantitative and qualitative concerns about teacher supply are interrelated. In the short run, school systems facing quantitative teacher shortages typically respond by one of two means, both of which raise quality concerns:

- *Lowering qualification requirements.* If a qualified applicant is not available to fill a teaching position, a less qualified applicant may be hired ("out-of-licence" teaching) or other teachers may be required to teach outside their areas of qualification ("out-of-field" teaching). In addition, school systems facing shortages may be compelled to keep employing teachers with poor performance records; or

- *Raising teaching loads.* The number of teachers required can be reduced by increasing the workloads of teachers, for example, by increasing class sizes and/or by increasing the average number of classes assigned to each teacher.

The absence of quantitative teacher shortfalls is no guarantee that countries do not face significant challenges. For example, Korea, a country that does not face teacher shortages, nevertheless expresses concern that in secondary education "the serious oversupply of

[1] Unless otherwise indicated, references to country data and developments are taken from the background reports prepared by countries participating in the OECD teacher policy project. To save space, the background reports are not individually cited. Appendix 1 provides information on the background reports, their authors, and availability.

teacher candidates [means that] many excellent high-school graduates avoid entering teacher education institutions". There can be shortages of teacher supply in qualitative as well as quantitative terms.

Such concerns are expressed not only by policy makers and official agencies, but also by teachers themselves. As discussed below in the section on the status of teaching, surveys of teachers consistently report concern about negative public perceptions of teaching, and the impact this will have on attracting talented new people into the profession.

It is important to note, however, that there are a number of countries where teaching still seems to be held in high regard as a career, and there are many more qualified applicants than teaching vacancies. The experience of such countries helps counter the view that teaching is a profession in long-term decline. Counter evidence is also supplied by those countries that have experienced an upturn in demand for teaching jobs in recent years. Such examples are discussed in the sections below.

3.1.2. There are only limited international data on teacher shortages

At the international level there is no clear, universally accepted measure of what actually constitutes a teacher shortage. Countries differ substantially in how they define a "qualified" teacher and the extent to which the rules requiring full qualifications can be relaxed in order to staff schools.

Two indicators are commonly used to measure the extent of teacher shortages but each of these has its limitations (Wilson and Pearson, 1993):

- *Vacancy rates:* The simplest measure is the number of unfilled vacancies for teachers. Despite its appeal, this measure has limitations. Very few vacancies cannot be filled in some way (e.g. through unqualified or temporary staff). Further, some schools might not create vacancies if they are unconvinced that a post will be filled by an appropriate teacher. However, even though a low number of unfilled vacancies does not necessarily mean there are few shortages, a high number provides strong evidence of shortages. This is especially so if information is also available on the number of "difficult-to-fill" vacancies, those which have been unfilled for a significant period of time, or the proportion of positions filled by teachers who are not fully qualified.
- *Hidden shortages:* These are said to exist when teaching is carried out by someone who is not fully qualified to teach the subject ("out-of-field" teaching) and is usually measured as the proportion of teachers teaching a subject in which they are not qualified. Nevertheless, this measure also has limitations as out-of-field teaching might result not only from shortages but also from the way schools are managed. In fact, many principals find that assigning teachers to teach out of their fields is often more convenient, less expensive or less time-consuming than the alternatives (Ingersoll, 1999).

Comparable international data on these two indicators are not available. However, a number of individual countries have national data which, although not strictly comparable, can help to construct at least part of the international picture. The OECD project has collected further information from participating countries to help fill some of the gaps. In addition, two major recent OECD surveys – the 2000 Programme for International Student Assessment (PISA) and the 2001 International Survey of Upper Secondary Schools (ISUSS) – collected information from secondary school principals on various aspects of

teacher shortages in a wide range of countries. All of these data sources are used below to provide different perspectives on concerns about teacher supply.[2]

3.1.3. In some countries school principals report serious recruitment difficulties

The 2001 ISUSS survey indicates that secondary school principals report major difficulties in recruiting teachers in various subject areas (Figure 3.1A). The area in which the reported difficulties are greatest is computer sciences with 49% of upper secondary students attending schools where the principal reported that hiring fully qualified teachers is difficult. Other problematic subject areas are mathematics (33%), technology (33%), foreign languages (32%) and sciences (30%). The results indicate large differences among countries in the extent of recruitment difficulties. Among the countries surveyed, principals in Belgium (Flemish Community) and Switzerland reported high levels of recruitment difficulties in computer sciences/information technology (Figure 3.1B) and mathematics (Figure 3.1C), Hungary and Finland in computer sciences, and Denmark and Ireland in mathematics. By contrast, France, Italy, Korea, Mexico, Portugal and Spain seem to have a relatively large pool of qualified candidates for teaching positions.

The 2000 PISA results showed that in half of the OECD countries, a majority of 15-year-olds attend schools where principals believe that student learning is hindered by a teacher shortage or inadequacy. Figure 3.2A summarises the results. In Germany, Greece, the United Kingdom, Mexico, Sweden, Finland, Norway and Iceland at least two-thirds of students were enrolled in schools where principals reported this concern. In contrast, at least two-thirds of students in Spain, Austria, Switzerland, Chile, France, Poland, the Czech Republic and Hungary were enrolled in schools where principals thought there was no adverse effect of a teacher shortage/inadequacy on student learning.[3]

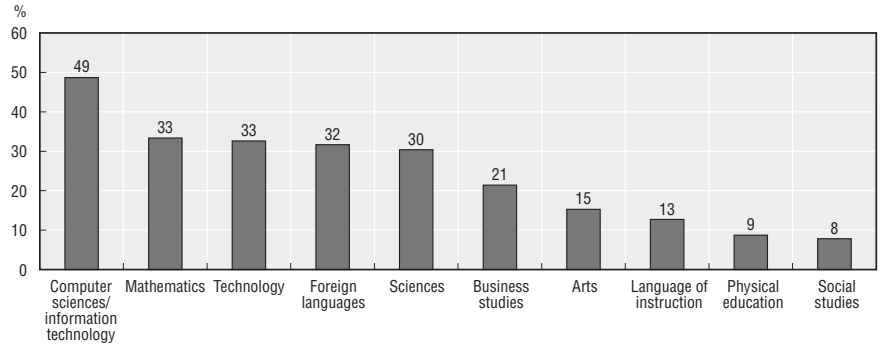
Figure 3.2B indicates that school principals generally perceived a teacher shortage/inadequacy as more problematic for student learning in mathematics and science than in the language of instruction (the three areas assessed in PISA 2000). This is particularly the case in Australia, Chile, Iceland, the Netherlands, New Zealand, Norway, the United Kingdom and the United States. These problems in regard to mathematics and science teachers are broadly consistent with those reported earlier from the ISUSS survey, as well as the information provided through the Country Background Reports. In Norway, for example, where more than 50% of the teachers in natural sciences at upper secondary level are aged over 50 years and relatively few students with a science background enrol in teacher education, there are concerns about the future of these subject areas in schools. Even countries like Finland, which do not have a general teacher shortage, express concern that enrolments in mathematics and science teacher education are well below the necessary levels.

[2] The OECD is working with countries to improve international data on teachers through the Indicators of Education Systems (INES) project. Chapter 7 discusses priorities for future data development.

[3] Such results could be influenced by differences in how principals interpret a "teacher shortage/inadequacy" and assess its effects. For example, principals in countries generally less affected by teacher shortages may consider a recent or modest level of shortages as having an important impact on student learning, whereas principals in countries with more long-term shortage problems may see things differently.

Figure 3.1A. **Average perceived difficulty of hiring qualified teachers in various study areas**

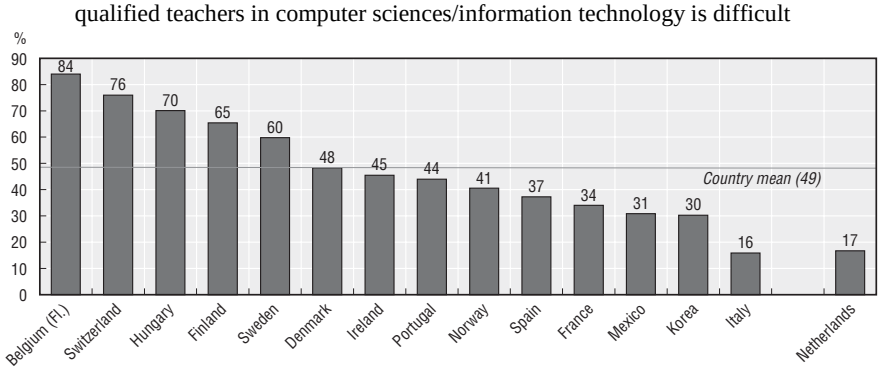
Cross-country mean percentage of upper secondary students attending schools where the principal reported that hiring fully qualified teachers is difficult, 2001



Note: Proportions by study area are calculated for cross-country means. The countries which participated in the ISUSS survey were: Belgium (Fl.), Denmark, Finland, France, Hungary, Ireland, Italy, Korea, Mexico, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland. the Netherlands is not included in the calculation of cross-country means as it did not meet international sampling requirements.
Source: OECD International Survey of Upper Secondary Schools (ISUSS) database, 2003. Published in OECD (2003) and OECD (2004b).

Figure 3.1B. **Average perceived difficulty of hiring qualified teachers in computer sciences/information technology, by country, 2001**

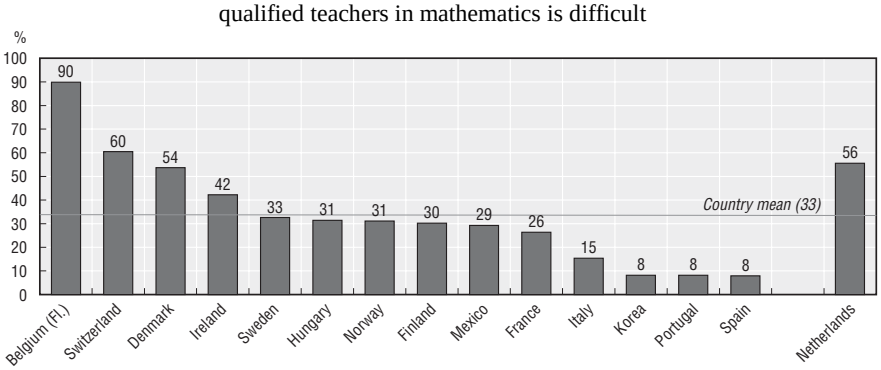
Mean percentage of upper secondary students attending schools where the principal reported that hiring fully qualified teachers in computer sciences/information technology is difficult



Note: For the Netherlands, the response rate is too low to ensure comparability. The Netherlands is not included in the calculation of the country mean.
Source: OECD ISUSS database, 2003.

Figure 3.1C. **Average perceived difficulty of hiring qualified teachers in mathematics, by country, 2001**

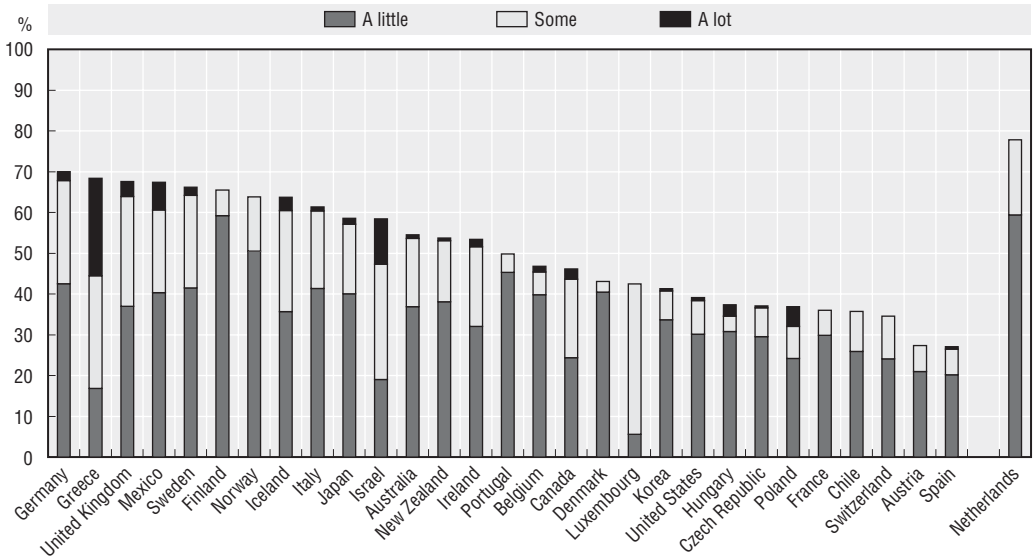
Mean percentage of upper secondary students attending schools where the principal reported that hiring fully qualified teachers in mathematics is difficult



Note: For the Netherlands, the response rate is too low to ensure comparability. The Netherlands is not included in the calculation of the country mean.
Source: OECD ISUSS database, 2003.

Figure 3.2A. **Principals' perceptions of whether a shortage/inadequacy of teachers hinders student learning, 2000**

Percentage of 15-year-old students enrolled in schools where principals report that learning is hindered by a shortage/inadequacy of teachers to the following extent:

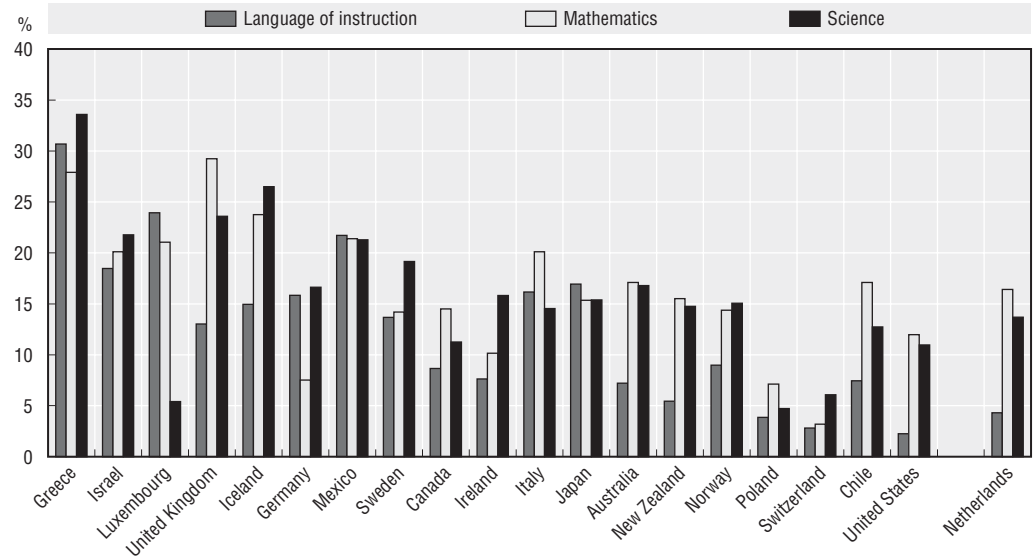


Note: In providing their perception of the extent to which the learning of 15-year-old students is hindered by a shortage/inadequacy of teachers, principals are expected to answer "Not at all", "A little", "Some" or "A lot". For the Netherlands, the response rate is too low to ensure comparability.

Source: OECD PISA Database, 2001.

Figure 3.2B. **Principals' perceptions of whether a shortage/inadequacy of teachers hinders student learning, by subject area, 2000**

Percentage of 15-year-old students enrolled in schools where principals report that learning is hindered "to some extent" or "a lot" by a shortage/inadequacy of teachers in the following subject areas:



Note: Only countries for which the perception of principals of whether shortages in general hinder student learning is above a certain threshold are considered. The threshold is defined as the sum of "Some" or "A lot" responses being at least 9% for shortages in general (indicator shown in Figure 3.2A). Countries are ordered, from left to right, according to the value of that sum. For the Netherlands, the response rate is too low to ensure comparability.

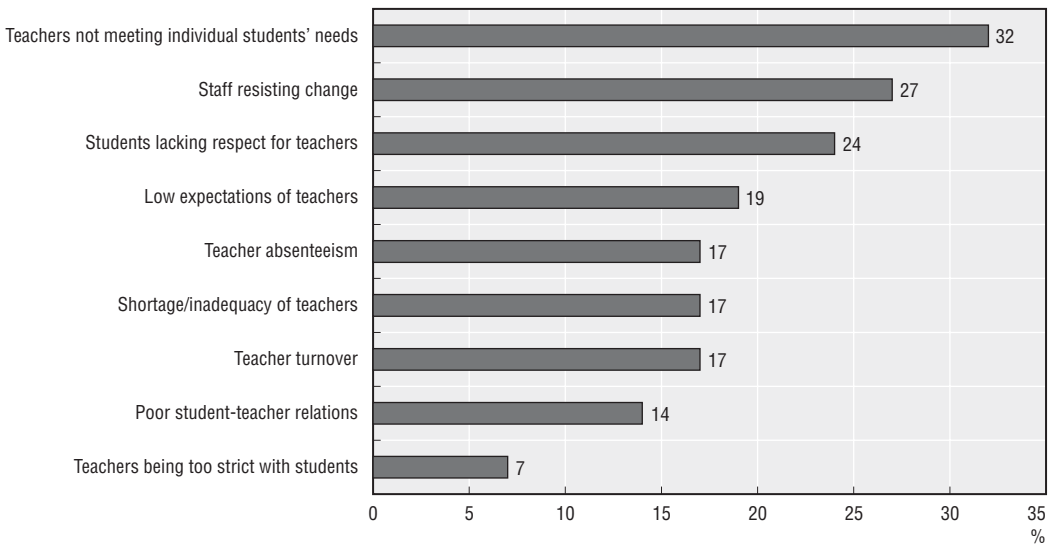
Source: OECD PISA Database, 2001.

Analysis suggests that there is a relationship, albeit modest, between a teacher shortage/inadequacy as perceived by principals and student performance on the PISA tests. In general, in schools where principals report that student performance is hindered by a shortage or inadequacy of teachers, student performance is lower (OECD and UNESCO, 2003).[4] Notably, this relationship appears to be stronger for countries where teacher shortages have been identified as more severe, including Australia, Belgium, Sweden, Switzerland, the United Kingdom, and the United States.

The 2000 PISA survey also asked principals for their perceptions of the impact of a range of other aspects relating to teachers. In most countries, school principals perceived that teacher shortage/inadequacy were not among the main teacher-related factors directly hindering student learning. Teachers not meeting individual students' needs, staff resisting change, students lacking respect for teachers and low expectations of teachers emerged as larger concerns (Figure 3.3). These results suggest that some school principals are more concerned about qualitative than quantitative shortfalls in the teacher workforce. Of course, there may be knock-on effects of teacher shortages that influence these other factors. For example, where schools have to rely on short-term replacement teachers, or unqualified teachers, this could worsen discipline problems and student respect for teachers.

Figure 3.3. **Principals' perceptions of the extent to which teacher-related factors hinder student learning, country mean, 2000**

Percentage of 15-year-old students enrolled in schools where principals report that learning is hindered "to some extent" or "a lot" by the following teacher-related factors:



Note: In providing their perception of the extent to which the learning of 15-year-old students is hindered by the teacher-related factors indicated above, principals are expected to answer "not at all", "a little", "some" or "a lot". The country mean is based on Chile, Israel and OECD countries (excluding the Netherlands as a result of its low response rate, and the Slovak Republic and Turkey which did not take part in PISA 2000).

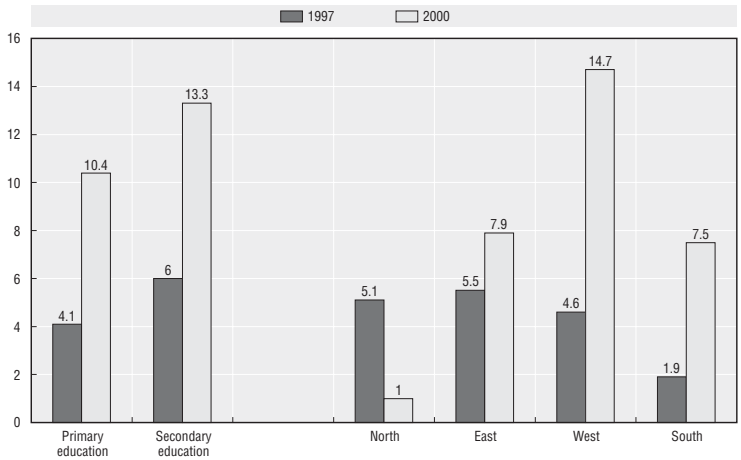
Source: OECD PISA Database, 2001.

[4] These results show only that the two factors are associated, not that one causes the other. It is possible that certain other variables (*e.g.* the socio-economic context of the school) could lead to both lower student scores and to teacher shortages. To explore potential causality, further (multivariate) analysis is needed.

3.1.4. Unfilled vacancies are evident in some countries

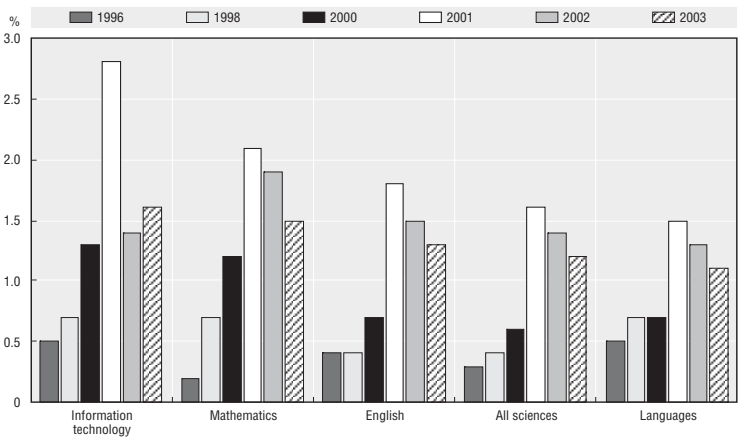
In the absence of international data on unfilled teacher vacancies, national studies provide indications of the concerns. In the Netherlands, about one in seven regular new teaching positions in secondary schools were not filled when the 2000 school year started, more than twice the rate observed in 1997 (Figure 3.4A). In England in 2003, 1.6% of all secondary teaching posts in information technology were not filled by January, some four months after the start of the school year (Figure 3.4B). There were slightly lower unfilled vacancy rates of between 1.0-1.5% in mathematics, English, sciences and languages in 2003. Encouragingly, however, the English data indicate a reduction of unfilled vacancy rates from their 2001 peak year.

Figure 3.4A. **Percentage of unfilled teaching vacancies, the Netherlands, by level of education and region, 1997 and 2000**



Note: Figures correspond to the percentage of regular vacancies unfilled at the beginning of the school year, relative to the total number of regular vacancies before the school year.
Source: Ministry of Education, Culture and Science, the Netherlands (2002).

Figure 3.4B. **Percentage of unfilled vacancies, England, by subject area, secondary schools, 1996 to 2003**



Note: Figures correspond to unfilled vacancies in January as a percentage of teachers in post for the respective subject area in publicly funded secondary schools. The 2001 vacancy figures are likely to have been overstated. Results from a telephone survey of vacancies at around the same time showed a 10-20% increase in secondary vacancies compared to 2000. The 2002 survey introduced data on temporarily filled posts across all grades. This helped schools and local authorities interpret the vacancy definition more accurately, and provides additional information on posts that are not permanently filled.
Source: Department for Education and Skills (2003, 2004).

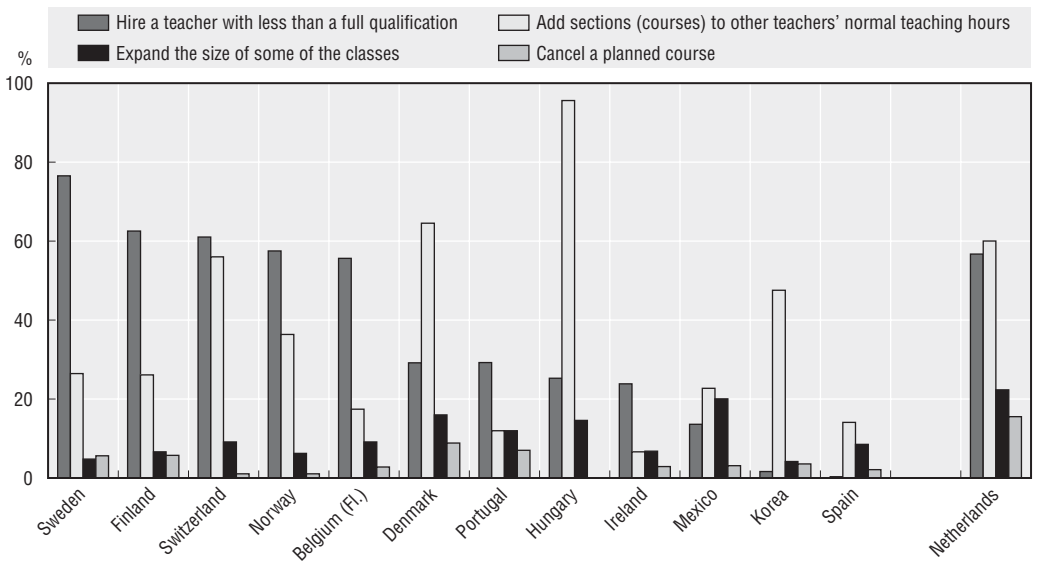
In Belgium (Flemish Community) in the 1999/2000 school year, there were only 0.75 teachers in lower secondary education available for every interim vacancy. In upper secondary education, the ratios were different, with 2.7 teachers available for every interim vacancy. However, the candidate teachers did not always have the subject qualifications required, and unfilled vacancies persisted in subjects such as mathematics, French, Dutch and technical education.

The Flemish data underline the fact that teacher shortages are usually spread unevenly throughout school systems. Figure 3.4 showed that unfilled vacancy problems were not universal in the Netherlands and England either, but were greater in secondary than primary education (the Netherlands), in the more urbanised western areas of the Netherlands, and in information technology and mathematics than in other subject areas (England).

As noted earlier, it seems rare that a significant proportion of vacant teaching positions remains unfilled. Results from the 2001 ISUSS survey show that countries generally hire teachers who are not fully qualified, or increase current teachers' workloads, when facing recruitment difficulties (Figure 3.5). Hiring policies, and internal school practices, ensure that teachers are present to staff almost all classrooms. Therefore, data on unfilled teaching vacancies are likely to understate the true extent of the problem, and not fully reflect the teaching quality problems that may ensue.

Figure 3.5. **Methods used to cover teacher vacancies, 2001**

Percentage of upper secondary students attending schools that use the following methods to respond to teacher vacancies, as reported by school principals



Note: Countries are ranked in descending order of the percentage of upper secondary students attending schools where the principal reported that they hired a teacher with less than a full qualification. The Netherlands did not meet international sampling requirements.

Source: OECD International Survey of Upper Secondary Schools (ISUSS) database, 2003. Published in OECD (2003) and OECD (2004b).

Table 3.1A. **Teachers without full qualifications**

Percentage of not fully qualified teachers, primary and secondary public schools, 2001

Below 4%		Between 4% and 10%	Above 10%
Canada (Qb.)	Japan	Belgium (Fl., primary ed.)	Belgium (Fl., secondary ed.)
France	Korea	Chile	Finland
Germany	Spain	Ireland (primary)	Israel
Greece	England		Slovak Republic
Hungary	Scotland		Sweden
Italy	Wales		United States

General note: This table was derived from data supplied by countries participating in the project. Data were requested in areas that are not already available through the OECD's Indicators of Education Systems (INES) project. Countries drew on existing data sets to meet the request, and did not engage in any new data collections. Not all countries were able to supply data in the form requested. The table should be interpreted as providing broad indications only, and not strict comparability across countries. Figures are based on head counts.

Definition: (for the purpose of supplying data in this area, countries were requested to follow this definition): A fully qualified teacher is a teacher who meets the minimum qualifications set by education authorities for employment as a public school teacher at the level of education concerned.

Specific notes: The reference year is 2002 for Finland and 2000 for Canada (Qb.) and the United States. Data for Belgium (Fl.), Finland and Hungary include both public and private institutions. Data for Belgium (Fl.), England and Wales refer to full-time equivalent teachers. For Japan only full-time teachers were considered.

Table 3.1B. **Teachers without full qualifications, by school sector**

Differences between primary and secondary public school teachers, 2001

Percentage of non-qualified teachers greater in primary schools	Similar percentage of non-qualified teachers	Percentage of non-qualified teachers greater in secondary schools
Japan	Canada (Qb.)	Belgium (Fl.)
Slovak Republic	Chile	Finland (in vocational schools)
	Korea	Israel
	United States	Italy
		Sweden

General note: See Table 3.1A.

Definition: See Table 3.1A for definition of fully qualified teacher. Percentages of non-qualified teachers are considered similar if the difference between them is either less than one fifth of the value of the lowest of the two or less than 1%.

Specific note: See Table 3.1A.

Table 3.1C. **Teachers without full qualifications, changes from 1995 to 2001**

	Decreased	Little change		Increased
Countries with 1995 percentage of non-qualified teachers below 5%		Canada (Qb.) France Greece Hungary	Japan Scotland Wales	Chile England Ireland Italy
Countries with 1995 percentage of non-qualified teachers above 5%	Israel Korea Slovak Republic	United States		Sweden

General note: See Table 3.1A.

Definition: See Table 3.1A for definition of fully qualified teacher. Little change occurs in the percentage of non-qualified teachers between 1995 and 2001 either if the change is less than one fifth of the 1995 value or if the change in absolute value is less than 0.5%.

Specific notes: See Table 3.1A. The 1995 reference year is 1994 for the United States, 1996 for England and Ireland, 1997 for Italy, and 1998 for Chile and Korea.

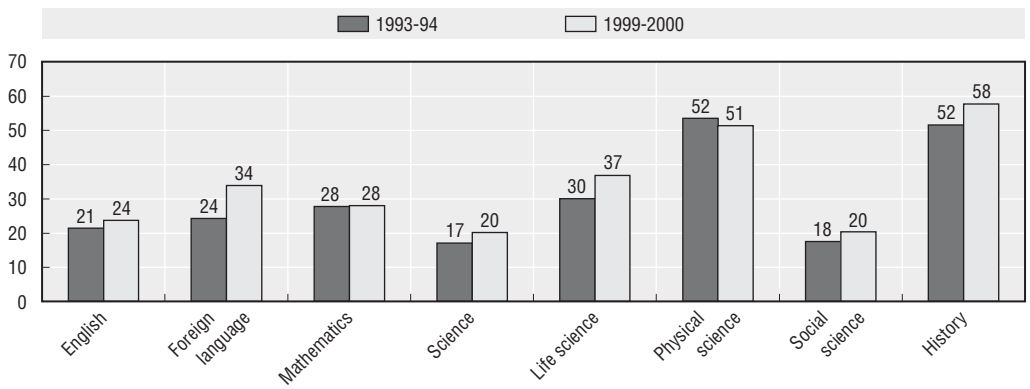
3.1.5. Some countries have a high proportion of unqualified and "out-of-field" teachers

The proportion of fully qualified teachers provides another indication of teacher shortages. As indicated in Table 3.1A, six of 21 countries reported that more than 10% of the teacher workforce in public schools did not hold the necessary minimum qualifications in 2001 (Belgium, Flemish Community, secondary schools; Finland; Israel; the Slovak Republic; Sweden; and the United States). Overall, the proportion of teachers lacking such qualifications tended to be greater in secondary schools than in primary schools (Table 3.1B). Notably, in only three of the 16 countries which supplied relevant data did the percentage of non-qualified teachers decrease between 1995 and 2001 (Israel, Korea and the Slovak Republic – see Table 3.1C). In eight countries there was little change between 1995 and 2001 in the percentage of teachers who lacked the necessary qualifications, but in five others the proportion increased.

The extent to which classes are taught by teachers who lack qualifications in the area concerned is another relevant indicator. Figure 3.6 shows, for United States high schools in 1999/2000, that at least 20% of the teachers in eight different subject fields did not have a degree (major or minor) in the subject they taught. The extent of out-of-field teaching was much higher in foreign languages (34%), life sciences (37%) and, especially, physical science (51%) and history (58%). In seven of the eight subject areas the proportion of teachers without a relevant degree had increased from 1993/94.

The Slovak Republic has put together the various measures of teacher qualifications to provide an overall indication of teacher supply concerns. In 2001 it was estimated that around 25% of primary classes, 30% of lower secondary classes, and 15% of vocational classes were taught by teachers who did not have teaching qualifications, or were teaching out-of-field, or who had already reached the official retirement age.

Figure 3.6. **Percentage of public high school (grades 9-12) teachers without a degree (*major* or *minor*) in course taught, United States (1993-94 and 1999-2000)**



Source: U.S. Department of Education (2002).

3.1.6. Shortages are associated with an inequitable distribution of teacher resources

There is evidence that in countries experiencing general teacher shortages, students in schools in remote or disadvantaged areas tend to find themselves in classes with the least experienced and qualified teachers. Teachers who work in schools with high concentrations of disadvantaged students often experience higher rates of attrition and turnover, which

raises concerns about the continuity of educational programmes in such schools. (Box 3.1 outlines recent initiatives in France to redress the problem of inexperienced teachers being heavily concentrated in disadvantaged schools.)

The connection between the distribution of teachers across schools and educational equity is particularly well documented in the United States. Lankford *et al.* (2002) show striking differences in the qualifications of teachers across schools in New York State. Low-income, low-achieving and non-white students, particularly those in urban areas, find themselves in classes with many of the least qualified teachers. In such cases salary variation rarely compensates for the difficulties of teaching in disadvantaged schools and, in some cases, contributes to the disparities.

Box 3.1. **Improving the distribution of teachers' skills and experience across schools in France**

France has moved to reduce the weight given to seniority in determining which candidates are appointed to teaching vacancies. This is intended to address the concern that beginning teachers were being mostly assigned to the more difficult and unpopular schools, with potentially adverse consequences for student learning and their own career development. Until recently, around two-thirds of recent graduates from initial teacher education started their career in a post classified as "difficult" – as a substitute teacher, or in a priority education zone (ZEP, *Zone d'éducation prioritaire*), or in a school located in a "difficult" area.

A series of initiatives has been implemented in order to improve the distribution of teachers' skills and experiences across schools:

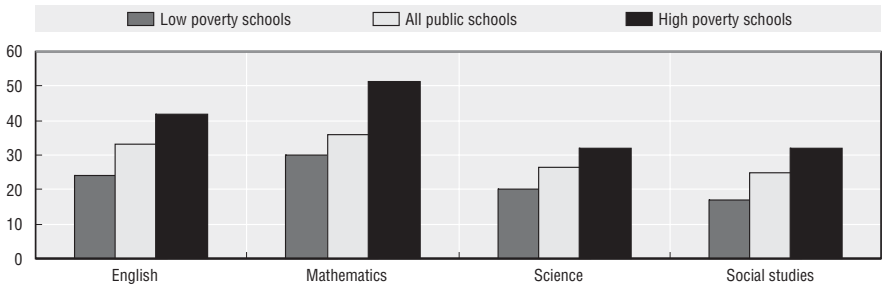
- the establishment of a salary bonus for teachers in schools which belong to a priority education zone, to encourage more experienced teachers to apply for vacancies;
- the creation of a number of "posts requiring specific qualifications" (*postes à exigences particulières*) in the suburban area around Paris with a series of benefits regarding placement, training and career progression;
- the granting to recent graduates from initial teacher education of "bonus" points which improves their chances of successfully applying for their preferred schools;
- the creation, in the priority education zones of Paris' suburbs, of special "group" teaching posts to which teacher trainees with well-developed strategies for improving school outcomes can jointly apply. In general, the teacher trainees are appointed to the post during their final year of initial teacher education, for a period of five years. The intention is to ensure that new teachers are better prepared for working in disadvantaged schools, that they develop skills in teamwork and project implementation, and that the schools have greater continuity of staffing.

These measures seem to be having a positive impact although they are still fairly limited in scope. Across France, the eight least popular *académies* (school regions), to which around 67% of all newcomers were once appointed in 1999, accounted for 58% of new teachers in 2000. The six most popular *académies* received 15% of new teachers in 2000 as opposed to 10% in 1999. The "posts requiring specific qualifications" introduced in 2001 attracted over 2,000 candidates for 700 vacancies, which made it possible to assign fully qualified teachers (rather than trainees) to 90% of them, but only two out of five appointees were experienced teachers.

These results are confirmed by Murphy *et al.* (2003) who used data from the 1999/2000 School and Staffing Survey conducted by the US Department of Education to find that urban schools and those with relatively high populations of minority and low-income students were more severely affected by teacher shortfalls. Ingersoll (2003) corroborates

these findings by showing that the proportion of secondary teachers without a degree (major or a minor) in the subject taught is highest in high poverty schools (Figure 3.7).

Figure 3.7. **Percentage of secondary teachers (grades 7-12) without a degree (*major* or *minor*) in subject taught, United States, 1999-2000**



Note: Low poverty refers to schools where less than 15% of the students receive publicly funded free or reduced price while *high poverty* refers to schools where over 80% do so.

Source: Ingersoll (2003).

Box 3.2. **Attracting teachers to remote and rural areas in Australia**

In Australia, schools in remote and rural areas have been experiencing difficulties in attracting and retaining teachers. To encourage teachers to teach and remain in those areas beyond the minimum required service period, special incentives and teacher education programmes are offered in most States, as illustrated by Queensland and New South Wales.

The Queensland Remote Area Incentive Scheme provides teachers who teach in remote and rural schools with financial benefits and support, including:

- Compensation benefits ranging from AUD$ 1 000 to 5 000 per year, plus an additional payment for dependants to offset the travel costs to certain districts.
- Incentive benefits ranging from $2 000 to $5 000 per year to encourage teachers to remain in rural and remote schools after the designated service period.
- Induction programmes for newly appointed teachers to assist preparing for service in rural and remote areas.
- Additional leave ranging from 5 to 8 days to cover leave to travel to major centres to conduct urgent personal business, including medical and dental appointments.

The New South Wales Department of Education has developed a pre-service teacher education programme, *"Beyond the (Great Dividing) Line"*, to provide students with first-hand experience of living and teaching in rural areas. Students in the second, third and fourth years of their initial teacher education visit rural areas and become guests of the schools for three days. In 2002 about 400 students from eight universities participated in the programme. Nineteen participants in the 2001 programme who completed their education in 2001 accepted permanent appointments in 2002 to "Beyond the Line" schools.

Boyd *et al.* (2003) argue that several features of US teacher labour markets increase the likelihood of an inequitable distribution of qualified teachers. First, the existence of a single salary schedule in most school districts makes it very difficult to raise salaries to attract more qualified teachers to hard-to-staff schools without also raising salaries in other schools. Second, the seniority-based recruiting method used in many districts encourages teachers in hard-to-staff schools to transfer to other schools after gaining some experience, thereby taking their on-the-job training with them. Third, the reliance on local property

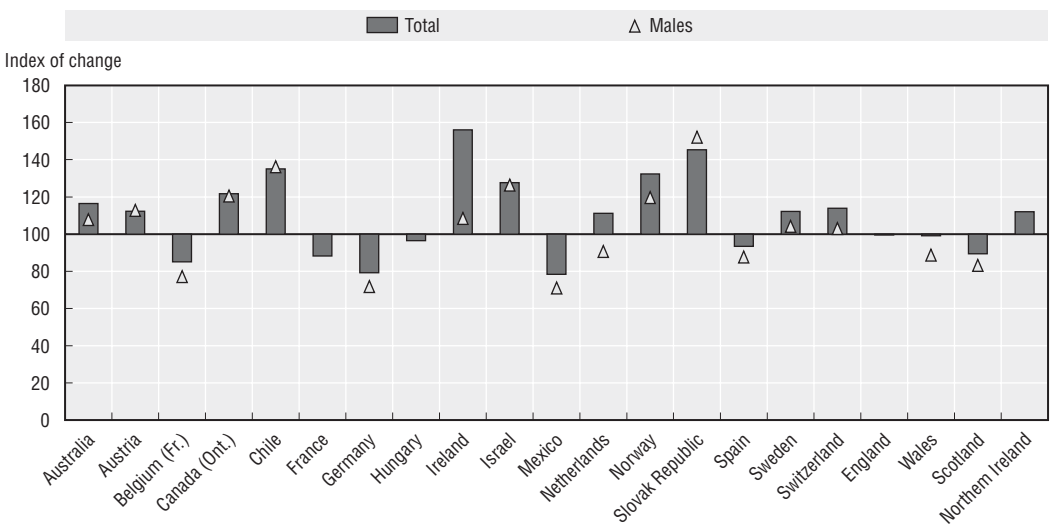
taxes for much school funding results in substantial differences between school districts in the capacity to pay for schools and teacher salaries.

The issues are not confined to the United States. For example, in Australia there are difficulties in attracting teachers to rural and remote areas and retaining them there beyond the minimum period required by employment contracts (see Box 3.2 for some recent policy responses). On the other hand, in the Netherlands the challenges of teaching in urban schools mean that the four largest cities have considerable problems filling teacher vacancies; in 2001 a quarter of the vacancies in those cities were not filled at the start of the school year, and around half the teachers are unqualified or underqualified. In the Slovak Republic, the poorest regions have the lowest proportions of qualified teachers. Hungary reports that, despite a general oversupply of teachers, primary schools, especially those with a high proportion of Roma students, often lack teachers with majors in some subject areas.

3.1.7. Some countries have concerns about attracting quality students to enter teacher education

Trends regarding student numbers in initial teacher education vary considerably across countries. Data supplied by countries participating in the project reveal that in just over half the cases there has been an increase in the number of students entering initial teacher education programmes (Figure 3.8). Trends are particularly positive in Chile, Ireland, Israel, Norway, and the Slovak Republic where the number of students entering initial teacher education programmes increased by more than 20% between the periods 1995-1997 and 1999-2001. By contrast, for the same periods, the numbers entering teacher education dropped in eight countries, with falls of more than 10% in Belgium (French Community), France, Germany, Mexico and Scotland.

Figure 3.8. **Index of change between 1995-97 and 1999-2001 in number of students entering initial teacher education programmes, all types of programmes (period 1995-97 = 100)**



Note: The index is calculated as the ratio between the average number of students entering initial teacher education programmes over the period 1995-97 and the average number of students entering similar programmes over the period 1999-2001 (multiplied by 100). The reference period for Chile is 1996-98.

Source: Data supplied by countries participating in the project. Data were requested in areas that are not already available through the OECD's Indicators of National Education Systems (INES) project. Countries drew on existing data sets to meet the request, and did not engage in any new data collections. Not all countries were able to supply data in the form requested. The chart should be interpreted as providing broad indications only, and not strict comparability across countries.

Box 3.3. **Incentives to attract individuals into teaching in England and Wales**

The *Training Bursary* scheme is aimed at students in postgraduate initial teacher education in England and Wales. Trainee teachers who are on an eligible course receive a £6 000 training bursary, and do not have to pay tuition fees. Those on flexible postgraduate routes are able to claim £3 000 after the first module and the remaining £3 000 when they are recommended for teacher certification.

Another incentive is payable to some trainee teachers in England through the *Secondary Shortage Subject Scheme*. This is an additional fund for eligible trainees in specified secondary subjects where there is a national shortage of teachers. Payments are based on a needs' assessment carried out by the training provider. For trainees under 25 years old, the maximum payment is £5 000 per year.

The *Golden Hello* scheme in England makes an additional £4 000 available for eligible postgraduates teaching specified subjects. This can be claimed by those who successfully complete teacher induction within a specified period and are working in a relevant teaching post in the maintained sector. Similarly, in Wales, those in specified secondary subjects receive a £4 000 teaching grant on successful completion of the first year of teaching, provided that the same subject continues to be taught.

Newly qualified teachers who are taking classes in a designated shortage subject area in England and Wales benefit from the repayment of their student loans. The scheme applies to teachers who spend at least half of their teaching time in a normal week teaching the specified subjects, including in primary schools which provide subject specialists across classes. This is an attractive incentive, allowing undergraduate students to borrow up to £4 000 per year from the Student Loans Company.

Teacher trainees on the *Fast Track* programme in England, which offers accelerated career progression for highly talented graduates, receive a *Fast Track* bursary of £5 000. They receive £3 000 at the start of the postgraduate initial teacher education programme and £2 000 when they take up their first *Fast Track* teaching post.

Teach First was introduced in 2003 and designed specifically to address teacher shortages in London. It is a two-year programme of employment-based teacher training for high-achieving graduates who expect to enter business careers. The programme offers intensive teacher training during the summer after graduation, and support and training during the first year of teaching, resulting in the attainment of teaching qualifications. During the second year the teacher is offered business-led mentoring and opportunities to do management training.

According to the background report from the United Kingdom, the numbers of applications and successful entrants to initial teacher education have risen in the last few years, and while improved financial incentives have played a role, it is difficult to attribute the increased recruitment to any single initiative. There is also some anecdotal evidence of increased academic quality among teacher education entrants. A concern about the introduction of the new financial incentives was the apparently negative effect on morale of those teacher trainees and teachers who missed out on a financial incentive that was introduced after they had completed their training.

Some countries express concern about the quality and motivation of a proportion of teacher trainees. For example, in Greece in 2000, only 15% of entrants into primary teacher education indicated that teacher education was among their top three preferences for university study. In the United States, college students with low examination scores are more inclined to major in education and become primary or secondary teachers than those with the highest scores (Henke *et al*., 1996). Research from Israel indicates that of those teacher education students who complete their courses, those who decide to become teachers have lower university entrance scores than those who decide not to join the profession (Wexler and Maagan, 2002). There is evidence that enrolment in initial teacher education programmes is often a second or third choice or a fall-back option in case the

graduate labour market deteriorates. Issues concerning entrance to teacher education are discussed in more detail in Chapter 4.

Box 3.3 describes a range of financial incentives and programme initiatives introduced recently in England and Wales to make teacher education more flexible and attractive to a wider range of people, and to address teacher shortages in specific subject areas.

3.1.8. The teaching workforce is ageing

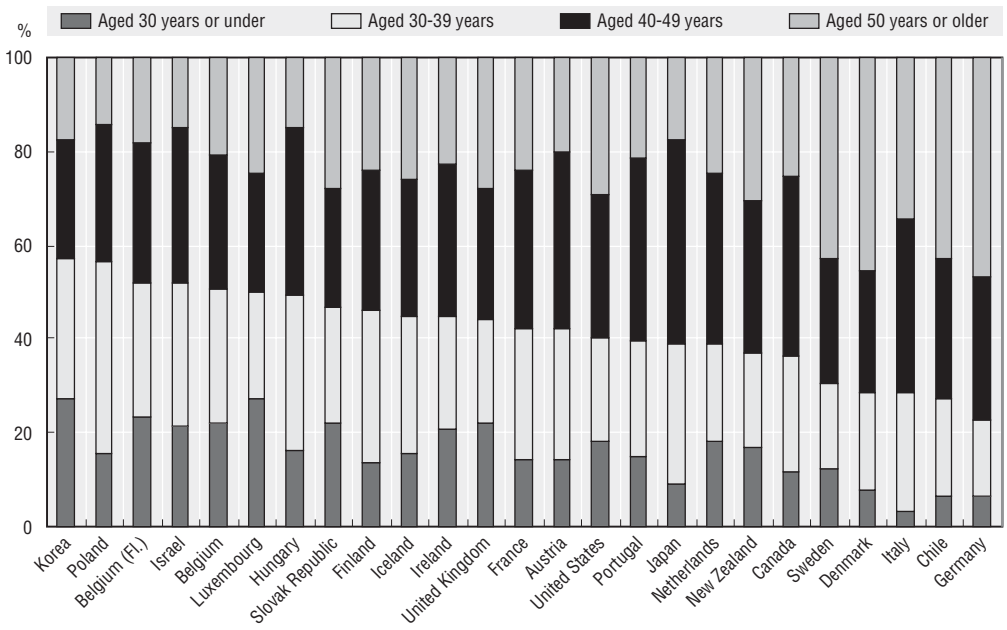
The ageing of the teaching workforce is compounding recruitment concerns. On average, 26% of primary teachers and 31% of secondary teachers in OECD countries are aged over 50 years. In some countries the proportion of teachers aged over 50 is markedly higher (Figures 3.9A, 3.9B). In primary schools this is the case in Chile (43%), Denmark (45%), Germany (47%) and Sweden (43%). In secondary schools this is the case in Germany (49%), Iceland (40%), Italy (48%) and Sweden (44%). Strikingly, in Italian lower secondary schools, only 5% of the teachers are aged less than 40 years. Although not all countries have an ageing teaching workforce, the majority of OECD countries experienced this phenomenon during the 1990s. As illustrated in Figure 3.9C, 10 of the 13 countries for which data are available for primary education experienced an ageing trend between 1992 and 2002. In the case of lower secondary education, 10 of the 14 countries saw an increase in the proportion of teachers aged over 50 (Figure 3.9D). In addition to the countries mentioned earlier, marked ageing trends are evident in France, the Netherlands, New Zealand and the United Kingdom.

The ageing of the teaching workforce raises several concerns. First, it has budgetary implications since in most school systems there is a link between pay and years of teaching experience. An increase in school costs due to teacher ageing can limit the capacity of school systems to take other initiatives. Second, although a more experienced teaching workforce can bring benefits to schools, it can also be the case that additional resources are needed to update skills, knowledge and motivation among those who have been teaching for a long time. Third, unless appropriate action to train and recruit more teachers is taken, shortages are likely as an increasing proportion of teachers retire.

3.1.9. The teaching workforce is highly feminised – and becoming more so

Many countries are concerned that the proportion of males in teaching is declining. Trend data clearly show that teaching has become more feminised in recent years. Figure 3.10A reveals that the proportion of female teachers increased between 1996 and 2002 in about three-quarters of the 28 countries for primary education, and in all the countries for lower secondary education (Figure 3.10B). In more than half the countries, over 80% of primary teachers are female. Moreover, the trend towards more female teachers is likely to continue as male teachers are concentrated in the older age groups, which are the groups most likely to retire in the next few years (Figure 3.10C). Furthermore, data collected from participating countries on entrants into initial teacher education also reveal that the proportion of females is likely to increase even more as, strikingly, in all but two countries for which data are available the proportion of males among students entering teacher education declined between 1995 and 2001 (Figure 3.10D). Despite their numerical dominance, however, women generally hold proportionately fewer leadership positions in schools than do men.

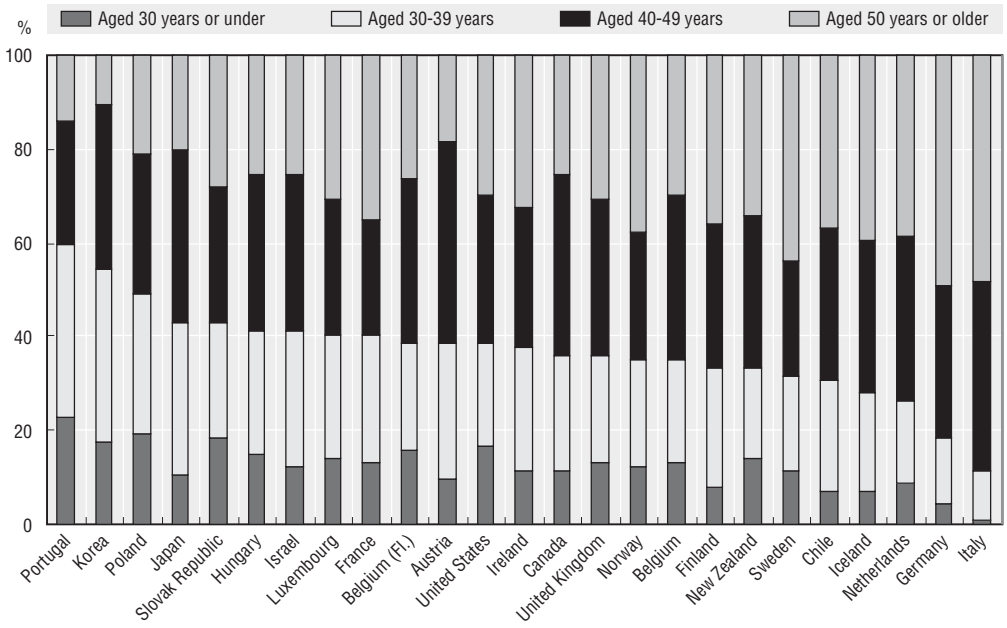
Figure 3.9A. **Distribution of teachers in public and private institutions by age group, primary education, 2002**



Note: Countries are ranked in ascending order of the percentage of teachers aged 40 years or older. Data for Luxembourg include public institutions only. The reference year is 2001 for Canada and Poland.

Source: OECD Education Database, 2004.

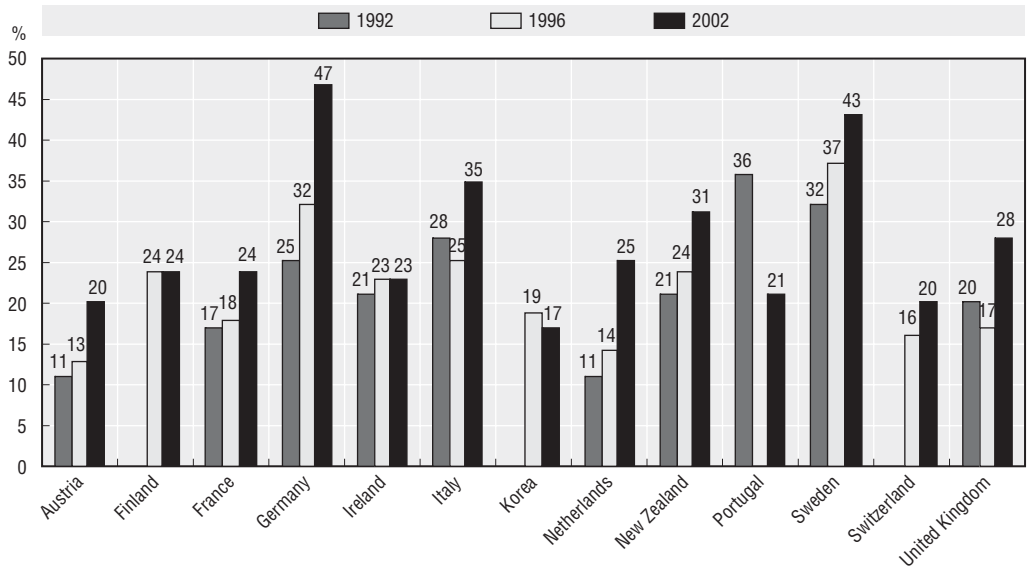
Figure 3.9B. **Distribution of teachers in public and private institutions by age group, secondary education, 2002**



Note: Countries are ranked in ascending order of the percentage of teachers aged 40 years or older. Data for Luxembourg include public institutions only, data for Iceland exclude lower secondary education, data for Norway include primary education and data for both Belgium and Belgium (Fl.) include post secondary non-tertiary education. The year of reference is 2001 for Canada and Poland.

Source: OECD Education Database, 2004.

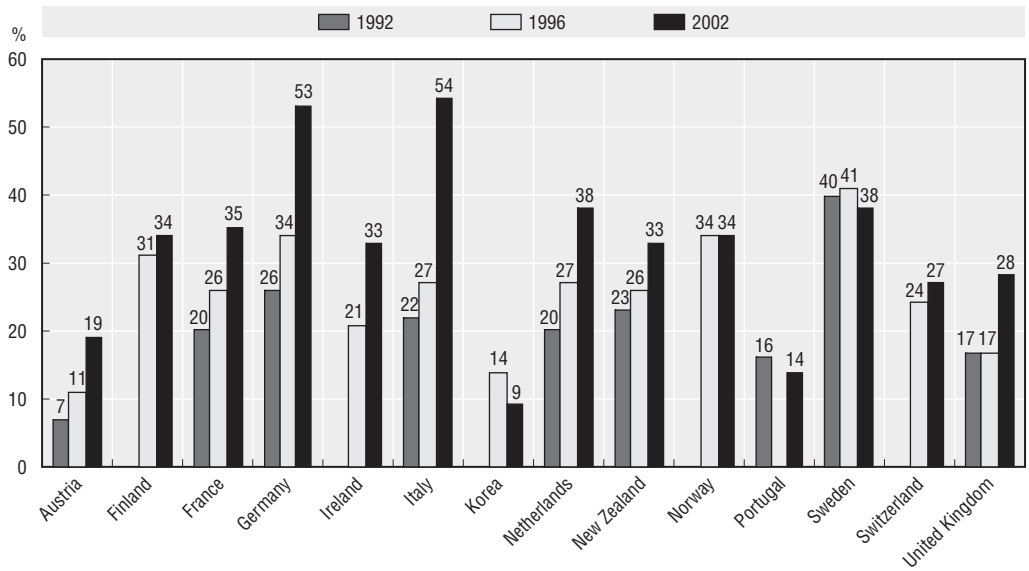
Figure 3.9C. **Percentage of teachers aged 50 years and over, primary education, 1992-2002**



Note: While data for 2002 include private and public sectors, data for 1992 and 1996 are limited to the public sector. 1992 data for France, Ireland and the United Kingdom include pre-primary sector. Data for 1992 for Germany refer to the former Federal Republic of Germany and include government-dependent private institutions. 2002 data for Switzerland include only public institutions. The 1992 figure for the United Kingdom is limited to England and Wales while the 1996 figure is limited to England and Scotland. The 2002 figure for Switzerland refers to 1999.

Source: OECD Education Database, 2004.

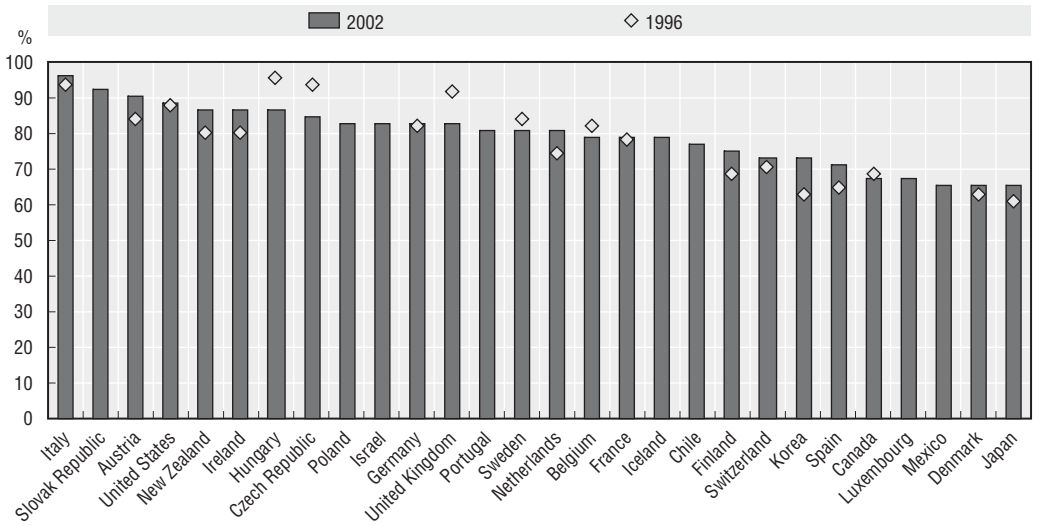
Figure 3.9D. **Percentage of teachers aged 50 years and over, lower secondary education, 1992-2002**



Note: While data for 2002 include private and public sectors, data for 1992 and 1996 are limited to the public sector. 1992 data for France, the Netherlands, Portugal and the United Kingdom, 1996 data for Ireland and New Zealand, and 2002 data for Ireland and the Netherlands include upper secondary sector. Data for 1992 for Germany refer to the former Federal Republic of Germany and include government-dependent private institutions. 2002 data for Switzerland include only public institutions and 2002 data for Norway include primary level. The 1992 figure for the United Kingdom is limited to England and Wales while the 1996 figure is limited to England and Scotland. The 2002 figures for Switzerland refer to 1999.

Source: OECD Education Database, 2004.

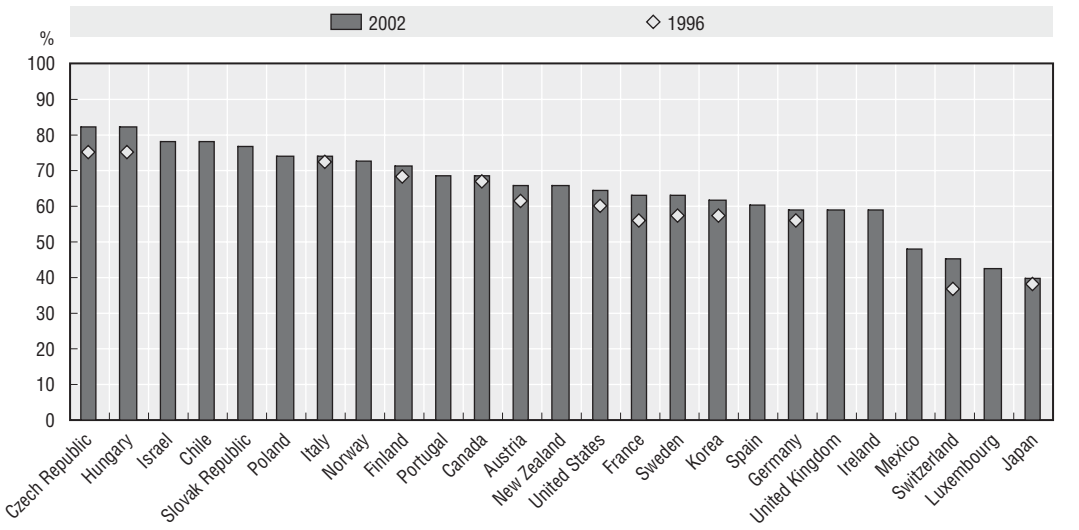
Figure 3.10A. **Percentage of females among teaching staff in public and private institutions, primary education**



Note: While data for 2002 include private and public sectors, data for 1996 are limited to the public sector. Data for Luxembourg and Switzerland include public institutions only. 2002 data refer to 1999 for Switzerland, 2001 for Canada and Poland. Data for Denmark and Iceland include lower secondary education.

Source: OECD Education Database, 2004.

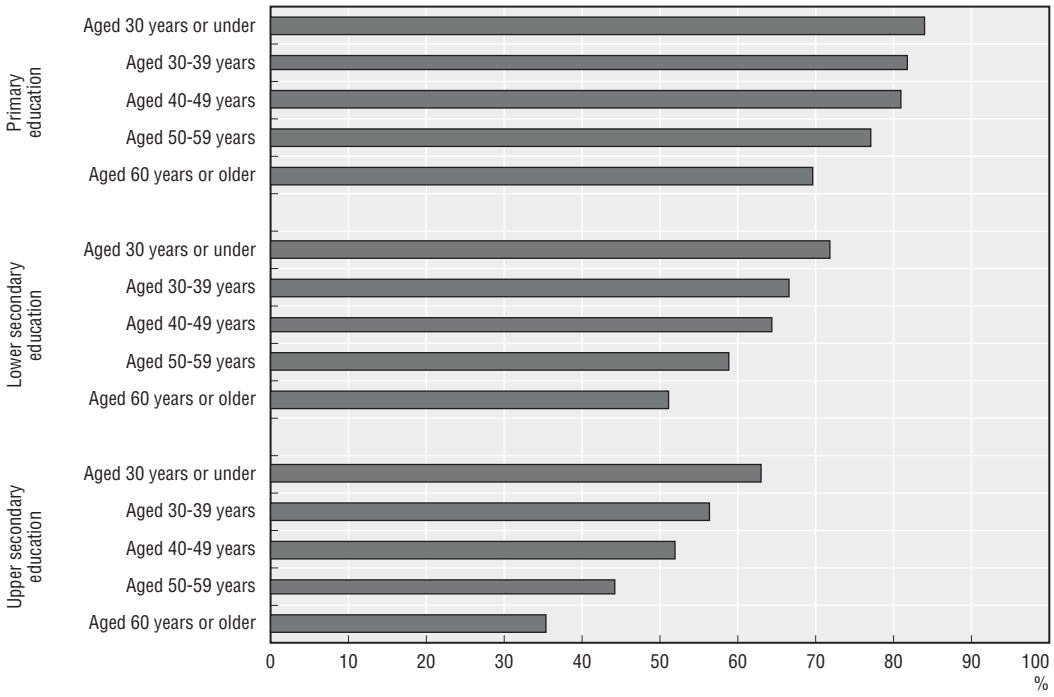
Figure 3.10B. **Percentage of females among teaching staff in public and private institutions, lower secondary education**



Note: While data for 2002 include private and public sectors, data for 1996 are limited to the public sector. Data for Luxembourg and Switzerland include public institutions only. 2002 data refer to 1999 for Switzerland, 2001 for Canada and Poland. Data for Norway includes primary education.

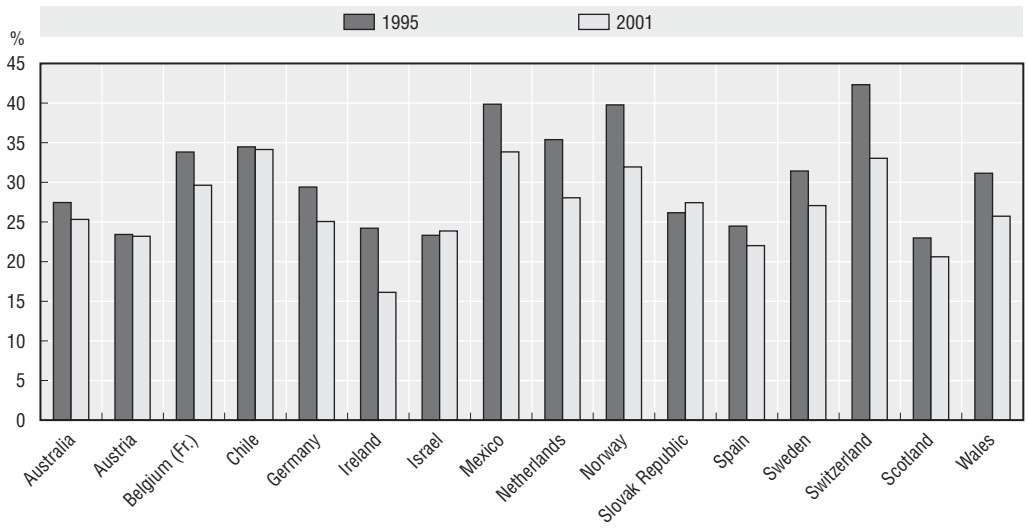
Source: OECD Education Database, 2004.

Figure 3.10C. **Percentage of females among teaching staff in each age group, OECD country mean, by level of education, 2002**



Source: OECD Education Database.

Figure 3.10D. **Percentage of males among students entering initial teacher education programmes**



Source: Data supplied by countries participating in the project. Data were requested in areas that are not already available through the OECD's Indicators of National Education Systems (INES) project. Countries drew on existing data sets to meet the request, and did not engage in any new data collections. Not all countries were able to supply data in the form requested. The chart should be interpreted as providing broad indications only, and not strict comparability across countries.

The concerns about the growing feminisation of teaching relate to the perceived benefits for students and teachers of having more males working in schools, especially in terms of providing positive male role models for disengaged boys, and the possibility that a decline in male teacher numbers signals teaching's more general loss of appeal as a career.

Australian research suggests three explanations for the changing gender profile of teaching:

- Teaching salaries overall are lower relative to other professions, especially for men.
- Cultural factors which tend to stereotype teaching as "women's work", especially in the primary area.
- A fear that they may be wrongly accused of child abuse is a possible deterrent to males entering teaching, particularly at the primary level (MCEETYA, 2003).

Research from Finland and Ireland, two countries where the status of teaching is high, adds an additional possible reason: boys tend to have lower school examination results than girls, and therefore comprise a smaller proportion of well-qualified applicants for teacher education positions (see Drudy *et al*., 2002, and Luukkainen, 2000, respectively).

3.1.10. In some countries the cultural background of teachers does not reflect the student population

Some countries express concern that the cultural and language background of the teaching workforce does not reflect that of students, at a time when the student population in most countries is becoming more diverse. This issue is explored by Mitchell *et al.* (1999) for the case of the United States. They survey the ethnic composition and changing demography of the general population, the students attending public schools, and the teaching staff in public schools. They conclude that there is a striking imbalance between the cultural diversity of public school students and the predominant number of white teachers who teach them.

In the Netherlands it is estimated that the proportion of primary students from ethnic minorities is 12%, while only 4% of teachers have a similar background. This has raised concerns in terms of relatively limited opportunities for ethnic groups to enter professional occupations like teaching, and the important contribution of teachers from ethnic minority backgrounds as role models for students from those backgrounds. Norway, which is another country starting to experience increased immigration, also notes the importance of having more teachers with first languages other than Norwegian, and the belief that teachers from minority backgrounds help improve understanding of cultural differences by teachers and students in general. A key issue in that country, though, is under-representation of immigrant youth in higher education, and a tendency for minority students enrolled in higher education to choose technical/natural science subjects rather than teacher education programmes (Støren, 2001).

3.1.11. Teaching continues to be an attractive career in many countries

A significant number of the participating countries do not currently face shortfalls in teacher numbers, and in some there are many more qualified applicants than teaching vacancies. As seen earlier, the ISUSS survey indicates that school principals in countries such as Italy, Korea, Portugal and Spain report relatively few difficulties in hiring qualified secondary teachers (Figures 3.1B and 3.1C).

Outcomes from teacher recruitment processes in other countries confirm that recruitment problems are not general across the participating countries. For instance, in Japan in the 2001 only 6% of qualified examinees were appointed as teachers in lower secondary education; the corresponding figures for primary and upper secondary education were 11% and 7%, respectively. In Korea, only about 20% of qualified applicants are appointed as teachers. Likewise, in France, in the 2000 teacher recruitment national competition, only 21% of candidates were admitted into the profession (Ministère de l'Éducation nationale, France, 2002). In a number of other countries, including Austria, Chile, the Czech Republic, Hungary, Poland and Switzerland, a teacher shortage/inadequacy is not perceived by school principals as hindering the learning of the students at secondary school level (see Figure 3.2A).

Entrance to teacher education provides another indication of teaching's appeal. For example, in Ireland, applicants for entry to primary teaching tend to come from the top quartile of students in the final school examination, and over 90% of entrants to the postgraduate course in secondary teacher education have advanced undergraduate degrees; high performance on the final school examination is required for those entering the undergraduate concurrent course in secondary teacher education.

3.1.12. Some countries face an oversupply of teachers, which raises different issues

Although it is generally better to have an oversupply of teachers than a shortage of qualified applicants, there can be high individual and social costs when substantial resources are invested in teacher education but many graduates are not able to find work as teachers. This is especially so where their qualifications are not widely recognised elsewhere in the job market.

Several countries report that because the current teacher workforce is "saturated" it is difficult to ensure that able and motivated people find jobs as teachers and are not lost to the profession. For instance, in Greece, newly qualified teachers often used to remain on the candidate list for 10 years or more before they obtained a teaching position; this led to a change in the system of recruitment from one based on candidate lists to one based primarily on competitive examinations. As noted earlier, Korea has expressed a concern that because only one in five secondary teacher education graduates finds work as a teacher, talented students are reluctant to enter teacher education. Countries in these circumstances need to ensure that the quality of teacher preparation is not undermined by the large number of candidates.

There can be quality concerns when no teacher shortages are apparent. The background reports of all participating countries raise concerns about ensuring that the existing teacher workforce has the skills and knowledge to meet the demands of modern schooling and more diverse student populations. Furthermore, analysis of the 2000 PISA survey indicates that school principals in a significant number of countries express concern about teacher morale and enthusiasm, and that such concerns seem to be more evident in countries which have a surplus of teachers.

3.2. Estimating the Future Demand for Teachers

Policies to make teaching a more attractive career choice must be framed in terms of the total number of teachers to be employed; and the extent to which those individuals have the

appropriate backgrounds, qualifications and competencies to meet student and school needs.

The total demand for teachers depends on a range of factors, only some of which are open to direct policy influence. The operation of the various factors is detailed in Santiago (2002). The main factors are the age structure of the school-age population, average class size, the teaching load of teachers, required instruction time for students, use of teaching assistants and other "non-classroom" staff in schools, use of technology and distance learning, age participation rates, in-grade retention rates, starting and ending age of compulsory education, policies pertaining to curriculum, students' preferences over elective courses and over educational programmes and, in the specific case of teachers in public schools, parents' preferences between private and public schools. Figure 3.11 shows the different elements at play. Some of these factors are much more open to direct policy influence (*e.g.* average class size and curriculum structure) than others (*e.g.* population size and distribution).

3.2.1. Population change is a key influence

The size of the school-age population is a dominant factor in the demand for teachers. Figure 3.12 provides information on the expected changes in the size of the population from 2002 to 2012 for the age groups 5-14 and 15-19. The age group 5-14, which covers primary and lower secondary education in most countries, is projected to decline in 27 of the 32 countries with relevant data. Only in Israel and Luxembourg is substantial growth expected (by 14% and 8%, respectively). Overall, therefore, there is likely to be some easing of the pressures on the total demand for teachers in the compulsory school years. Indeed, in 12 countries the number of 5-14 year-olds is projected to fall by at least 10% by 2012, with falls of over 20% likely in six European countries (Austria, Czech Republic, Hungary, Poland, Slovak Republic and Switzerland).

For the age group 15-19, which broadly corresponds with upper secondary education, the population projections reveal more mixed results. Of the 32 countries shown, 13 countries are projected to see an increase by 2012, four will have virtually no change, while 15 countries are projected to see a decline. The number of 15- to 19-year-olds is projected to increase by at least 15% in Denmark, Luxembourg, Norway and Sweden, but to decline by at least 15% in seven other countries (Czech Republic, Greece, Ireland, Japan, Poland, Slovak Republic and Spain).

As well as the total number of young people in the population, another critical factor in the demand for teachers is the rate of school participation by each age group. This depends on the compulsory age for beginning school and the minimum school leaving age, as well as the extent to which young people enrol in the non-compulsory years. The general trend has been for the length of compulsory schooling to increase, and for school participation rates to rise among young children (*e.g.* through the integration of pre-primary education into school systems), and also among adolescents (as school curricula have broadened and the benefits of completing secondary education have increased). The general effect of increased participation rates is that school enrolments rise more rapidly (or do not fall as quickly) as school-age population projections would suggest.

Figure 3.11. **The determinants of the demand for teachers**

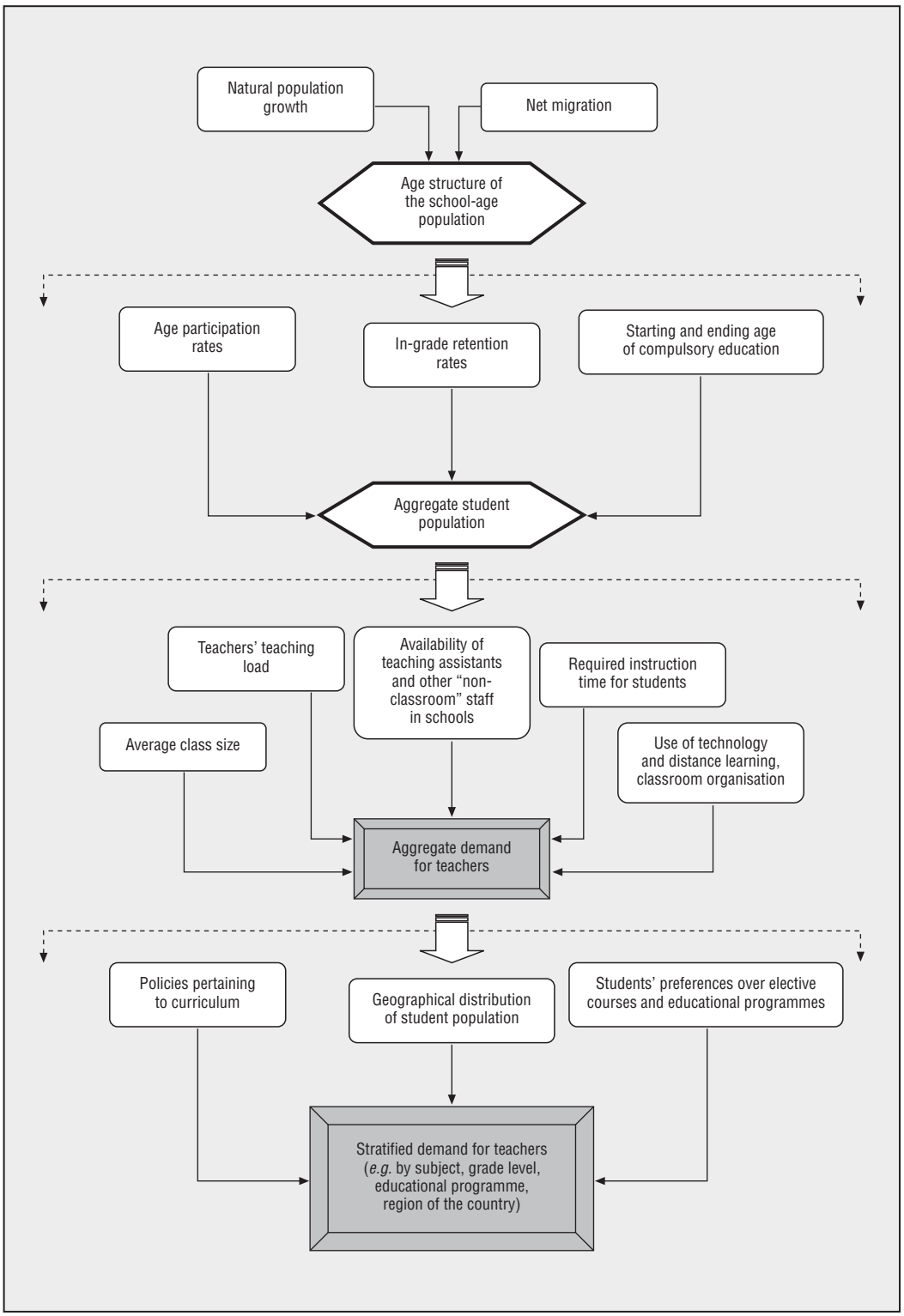
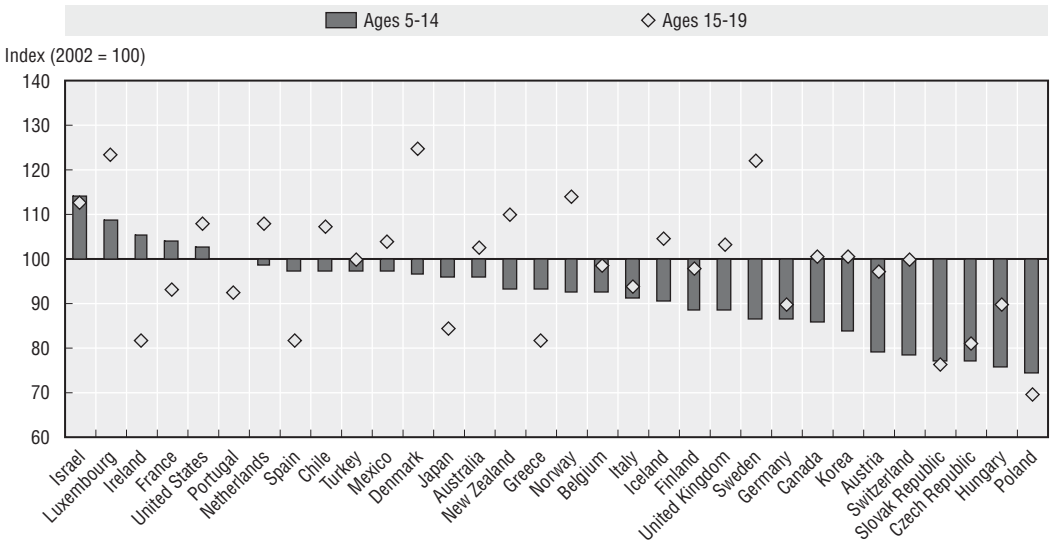


Figure 3.12. **Expected demographic changes in the school-age population from 2002 to 2012 (2002 = 100)**



Source: OECD (2004a).

3.2.2. Policies on student-teacher ratios are another key influence

The student-teacher ratio is the most important determinant of teacher numbers that is open to policy influence. The student-teacher ratio determines the number of teachers employed for a given population of students. It therefore provides boundaries for the average size of classes and the average class teaching load of teachers.[5] Over the long term countries have reduced student-teacher ratios in schools although, in terms of international comparisons, changes in data definitions and coverage suggest caution in estimating the size of the reductions.[6] The more widespread integration of students with special needs into mainstream schooling has been an important factor in the reduction of student-teacher ratios.

Typically, adjustments to the student-teacher ratio reflect budget and industrial relations factors, judgements about improving conditions in schools, or responses to rapid enrolment changes (*e.g.* where teacher numbers are maintained despite falling enrolments). Reductions in the student-teacher ratio enable either a lower average class size, or a reduction in teachers' class teaching time, or some combination of the two (which is probably the most common outcome over the longer term).

[5] There is a trade-off between the average size of classes and teachers' class contact time. For a given student-teacher ratio, the average class size can only be reduced by teachers spending more time in face-to-face teaching. Correspondingly, teachers having less classroom contact time leads to an increased average class size. Different uses of the same level of teacher resources may have different effects on student learning. For example, a school in which teachers spend more time in face-to-face teaching (and thereby reduce average class size) is not necessarily going to achieve better student learning than one in which class sizes are larger but teachers have more preparation time, or access to more specialist teacher support.

[6] A rough approximation is provided by comparing estimated student-teacher ratios in primary schools for the 15 OECD countries that supplied data on this measure in both 1992 and 2002 (OECD 1995, 2004a). Over that period, the average student-teacher ratio in primary schools for those 15 countries declined from around 18.4 to 16.8. This was equivalent to an increase of around 10% in the number of teachers employed for a given number of students.

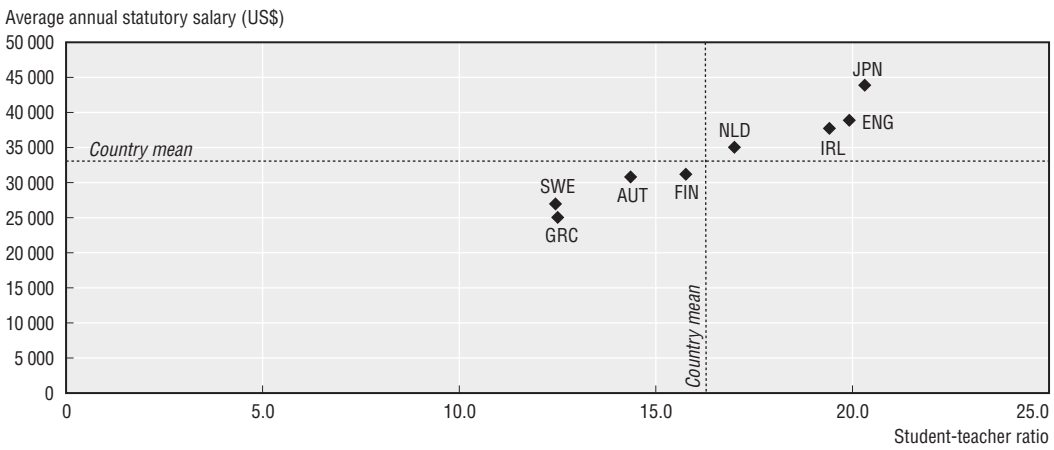
There are trade-offs between teacher numbers and average teacher salaries

Some difficult trade-offs need to be made in teacher employment policy. On the one hand, lowering the student-teacher ratio and employing more teachers is likely to improve learning conditions for students and working conditions for teachers. At any budget level, however, a larger number of teachers means that the average teacher salary is lower than would otherwise be the case. On the other hand, a higher student-teacher ratio, by requiring fewer teachers, would enable each teacher to be paid more, but would mean larger classes and/or less teacher time for non-classroom teaching responsibilities.

Figure 3.13 shows, for primary education, the wide range of different combinations of student-teacher ratio and average teacher salary currently evident among a subset of countries. Given that the trade-off between the student-teacher ratio and the average salary of teachers is meaningful only for a given expenditure on teachers per student, the analysis considers a set of eight countries with a similar level of expenditure on teachers per student. Figure 3.13 illustrates that there are markedly different patterns of resource use possible with similar levels of expenditure. On the one hand, Japan, England and Ireland have relatively high average statutory teacher salaries, but relatively high student-teacher ratios. On the other hand, Greece and Sweden use resources quite differently: they have relatively low average teacher salaries combined with low student-teacher ratios, which means that they employ comparatively more teachers than the other countries. Among this group of eight countries, Austria, Finland and the Netherlands have average teacher salaries and student-teacher ratios that are close to average for the group.

Figure 3.13. **Student-teacher ratio versus average salary of teachers (with 15 years of experience)**

Primary schools, 2002, selected group of countries with similar expenditure on teachers per student

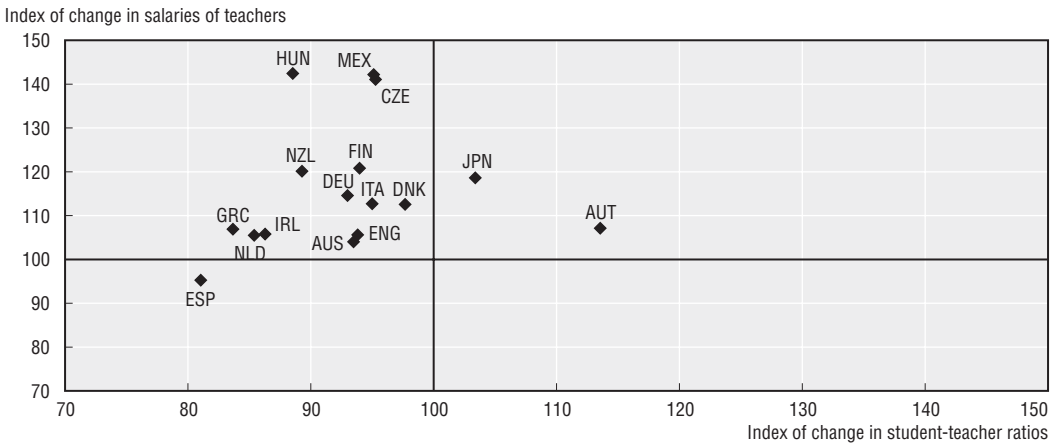


Note: Salary of teachers refers to annual statutory salary in public institutions after 15 years of experience. The ratio of students to teaching staff is for public and private institutions and is based on full-time equivalents. Given that the trade-off between the student-teacher ratio and the average salary of teachers is meaningful only for a given expenditure on teachers per student, this analysis considers a set of eight countries with a similar level of expenditure on teachers per student. The eight countries form the largest set of countries with expenditure levels within a range of US$ 250 per year (in this case between US$ 1 950 and US$ 2 200). The estimated annual expenditure on teachers per student is the product of the statutory salary of teachers with 15 years of experience and the inverse of the student-teacher ratio. The student-teacher ratio used for England is that of the United Kingdom.

Source: Derived from data in OECD (2004a).

To provide a longer-term perspective on the trade-offs involved, Figure 3.14 shows indices of change in teachers' salaries and student-teacher ratios for primary schools over the period 1996 to 2002. In 15 of the 16 countries with relevant data, the average statutory salary of a teacher with 15 years of experience increased (after adjusting for inflation). In the Czech Republic, Hungary and Mexico the average salary rise was more than 40%. In 14 of the 16 countries the student-teacher ratio fell over the same period, with especially large falls in Greece, Ireland, the Netherlands and Spain. In eight of the 13 countries that both raised teacher salaries and reduced student-teacher ratios during the 1996-2002 period, average statutory salaries rose faster than student-teacher ratios fell. This suggests that in recent years countries have tended to give greater weight to increasing average teacher salaries than to reducing student-teacher ratios – although these have generally continued to fall, albeit perhaps at a slower rate than in earlier times.

Figure 3.14. **Index of change between 1996 and 2002 in salaries of teachers with 15 years of experience and student-teacher ratios, primary schools (1996 = 100)**



Note: The estimation of the student-teacher ratio considers only teachers with teaching duties. The index of change in salaries of teachers is calculated as teacher salary in 2002 in national currency (multiplied by 100) divided by teacher salary in 1996 in national currency (multiplied by GDP deflator 2002). The index of change in student-teacher ratios is calculated as student-teacher ratio in 2002 (multiplied by 100) divided by student-teacher ratio in 1996. Indices for the Czech Republic and Germany reflect changes between 1996 and 2001. Values of student-teacher ratios for England refer to the United Kingdom.

Source: Derived from data in OECD (2003) and OECD (2004a).

Although it is difficult to generalise given the very wide range of country positions evident in Figures 3.13 and 3.14, the research suggests that student learning is likely to benefit more from policies that focus on improving teacher quality by increasing average teacher salaries, rather than by using extra spending to reduce student-teacher ratios, at least within the range of student-teacher ratios typical of most OECD countries. This is especially true in countries facing teacher shortages, since increased demand for teachers from reducing the student-teacher ratio is likely to exacerbate supply problems.

Class size reduction facilitated by lower student-teacher ratios has probably been the most widely supported and most extensively funded policy aimed at improving schools. However, the research on the relationship between class size and student achievement is not clear-cut, although there are several promising points of convergence (see Hanushek, 2000; Hoxby, 2000; Meuret, 2001).

There is general consensus that class size reductions are more beneficial for some students than for others. For example, there is evidence that class size reductions may be

particularly beneficial for students in the early years of schooling, and for students from disadvantaged backgrounds (see Santiago, 2002, for a detailed discussion). This research suggests that relatively large class size reductions targeted at particular students, grades or subject areas may be more cost-effective than smaller across-the-board reductions in class size for all students, at least within the range of class sizes currently operating in most countries.

Teacher skills and behaviour are key ingredients in whether class size reductions are likely to be beneficial. Since substantial reductions in class size imply hiring additional teachers, the success or failure of a class size reduction programme will depend not only on the impact of class size reduction *per se* but also on how the quality of the teachers is affected. If a policy of reduced class sizes exacerbates the problems of teacher shortage and necessitates recruiting teachers with lower qualifications – as appears to have been the case in California, for example[7] – the hoped-for gains in student performance may not eventuate. A critical factor will be whether schools and teachers change their approaches to capitalise on the potential offered by smaller classes.

There could even be a case for using an increase in average class size to fund higher teacher salaries and thereby make teaching more attractive to higher-quality candidates. However, the size of classes also affects teachers' working conditions, and teachers faced with larger classes may become more dissatisfied and inclined to leave the profession, thereby worsening supply. One of the few studies to look at this aspect (Mont and Rees, 1996) found that United States high schools with above-average class sizes were associated with a higher resignation rate of teachers. On the other hand, Stinebrickner (1999) concluded that, while the student-teacher ratio (which is highly correlated with class size) plays a significant role in whether teachers consider a school to be desirable, it is less important than salary.

3.2.3. Demand estimates are often more useful at the disaggregated level

Educational planners and schools also need to specify the demand for teachers at more detailed levels, such as by subject matter, school type, educational programme or region of the country. Although countries may not have a general shortage of teachers, for example, there can still be shortages of particular types of teachers, or shortages in particular schools. The background reports for Australia and the United States note that this is the situation they currently face. Both have moved in recent years from generalised teacher shortages to positions where total teacher supply approximates total teacher demand, but there are still shortages of qualified teachers in areas like ICT, sciences and languages; additionally, some schools have difficulties attracting and retaining teachers. The more highly specialised teachers are, and the lower the possibilities for teachers to move readily between teaching different grade levels or subject areas, the more important it is to identify teacher demand and supply at a highly disaggregated level.

Curriculum policies and priorities are the dominant influence in defining the different types of teachers needed. For example, changing the balance of the secondary school

[7] Jepsen and Rivkin (2002) investigated the trade-off between smaller classes and teacher quality by looking at the effects of the recent California class size reduction programme. The results show that smaller classes generally raised third-grade mathematics and reading achievement, particularly for lower-income students. However, the expansion of the teaching force required to staff the additional classrooms appears to have led to a decline in average teacher quality in schools serving disadvantaged students (*e.g.* a smaller proportion of qualified teachers). This decline partially or, in some cases, fully offset the benefits of smaller classes.

curriculum towards technology and computing leads to an increased need for teachers with these skills. Similarly, the introduction of foreign languages in primary schools leads the system to seek primary teachers with good foreign language skills. At the secondary school level, the curriculum requirements for student graduation can be important influences on the subjects that need to be covered and therefore the types of teachers required. Another influence on the type of teachers needed arises from the scope that students have to choose different parts of their curriculum. Students' preferences for various elective courses, or between different educational pathways (*e.g.* general and vocational programmes), play a key role in this regard. Of course, the influence can also work in the other direction: the choices that students are offered can be limited by the likely supply of teachers with the necessary competencies.

Since the teacher workforce is so large, relatively small changes in either teacher supply or demand can have major implications for whether schools are able to maintain their programmes. There is a constant need to monitor trends in teacher supply and demand, and to examine the potential implications of changes in the school, higher education and labour market environments. This is particularly challenging in highly decentralised school systems, where responsibility for teacher recruitment and employment is exercised at local level. This is the case in the Netherlands, for example, and has led to the development of a forecasting model for teacher demand and supply at a highly disaggregated level (see Box 3.4).

Box 3.4. **Planning future teacher needs in the Netherlands**

In 2002 the Netherlands Ministry of Education, Culture and Science commenced development of MIRROR,* a forecasting model which enables the identification of teacher needs at the regional and sub-regional levels. The model uses both central and local data on the age distribution of teachers, the number of recent graduates from initial teacher education, the employment status of teachers, teacher qualifications, rates of teacher transfers between schools, the projected supply behaviour of individuals and so on to monitor teacher demand and supply, and to assess the effects of different scenarios on teacher recruitment.

MIRROR was developed with the objectives of monitoring the teacher labour market, anticipating teacher needs, facilitating the alignment between the demand for and the supply of teachers, and therefore assisting the development of recruitment strategies. It offers regions and individual school boards the possibility to gain insight into developments in the teacher labour market affecting their immediate area, and to assess the likely impact of different policy initiatives. For instance, it enables central and local authorities to identify in considerable detail the geographic and subject matter areas at "high risk" of suffering from teacher shortfalls in the next few years. By 2005 the model will be available for direct use by all school boards in primary, secondary and vocational education. An internet platform is being designed to provide users with easy access.

**Microsimulatie Rekenmodel Regionale Onderwijs Ramingen* (Micro simulation estimation model of regional education labour markets).

3.3. Factors in the Attractiveness of Teaching as a Career

3.3.1. Motivation to become a teacher

Studies of the reasons that teachers give for joining the profession reveal a strong emphasis on intrinsic factors. Figure 3.15A illustrates this for beginning and experienced

primary teachers in France. Among both beginning and experienced teachers, the three most important reasons given were "wish to teach" (around 70% for both groups named this among the three main reasons), "wish to deal with children" (around 60%), and "play an educational role" (around 40%). More extrinsic reasons were ranked much lower, such as "job security" (about 20% for both groups), "free time, holidays" (10%) and "salary" (1 to 2%).

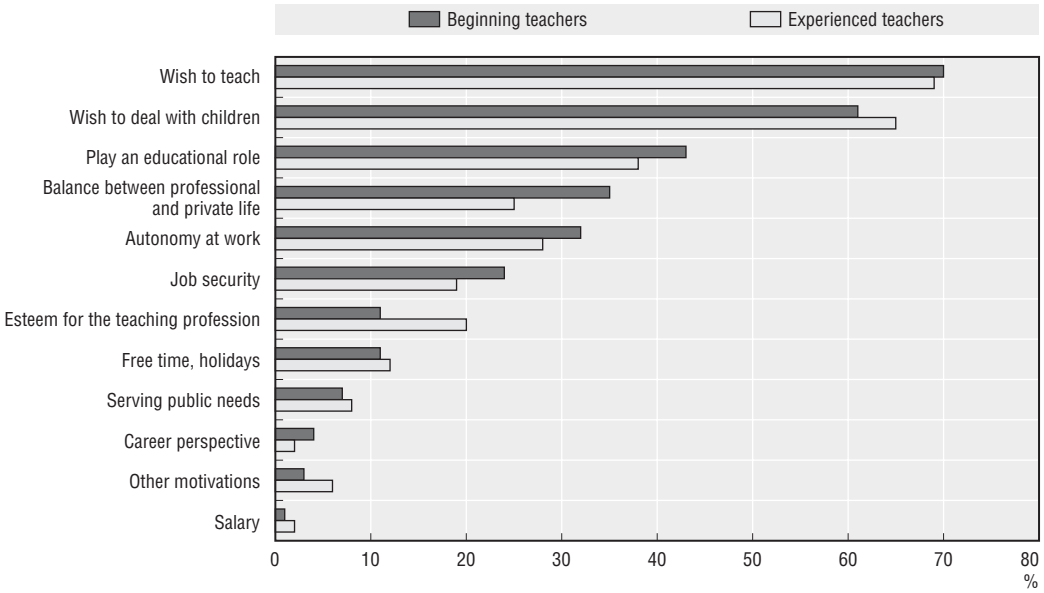
Broadly similar patterns are shown in Figure 3.15B, which documents the most important motivations for becoming a teacher expressed by Australian teachers. Among primary teachers the two most important reasons were "enjoy working with children" (37% named this as the most important), and "desire to teach" (23%). These two motivations were also the most important for secondary teachers, but to a lesser extent (23% and 21%, respectively). For between 11 and 12% of both types of teachers "recruitment campaign or impact of role model" was the most important motivation. The desire to "make a difference" was the most important motivation for 10% of primary teachers, but was less significant (6%) for secondary teachers. As was the case with French teachers, few Australian teachers cited extrinsic factors (employment conditions, scholarship, remuneration) as the most important reason for becoming a teacher, although secondary teachers were more likely to do so than primary teachers. Secondary teachers were also more likely (12%) to rate "enjoy subject" as their main motivation than were primary teachers (2%).

Similar results to the French and Australian studies on teacher motivation are reported in the background reports for Belgium (French Community), Canada (Quebec), the Netherlands, the Slovak Republic and the United Kingdom. The importance of intrinsic reasons is consistently emphasised by the research; working with children, intellectual fulfilment and making a contribution to society are major factors in why people choose to become teachers. There is a positive association between a desire to teach and previous experience working with children in sporting and other community activities. Research from the United Kingdom suggests that those entering teaching after another career strongly emphasise making a difference, and the job satisfaction of seeing students achieve (Hunt, 2002).

The reasons that people give for deciding to become a teacher are important considerations in designing recruitment strategies, and in identifying the sources of job satisfaction that influence whether people are likely to stay in the career. It is also important to analyse the reasons people give for not becoming teachers, and the reasons why existing teachers leave. In addition, behavioural evidence suggests that extrinsic factors (pay, working conditions and career prospects) are important influences on whether people choose to become teachers or not. Other professions offer strong competition to teaching for people who are academically talented and oriented towards helping others.

Former teachers are a potentially important source of recruits. In the United Kingdom the number of returning teachers has increased in recent years, and in 2000/01 they comprised about 25% of the flow of full-time teachers into the maintained schools sector, and more than 50% of the inflow of part-time teachers. Those data also indicate that the number of women returning to teaching is much greater than the number of men, and also that the returning teachers are spread across the age range: in 2000/01 about 12% of returning teachers were younger than 30 years, while 40% were aged over 45. Of those in returners' training courses, 29% said they were returning to teaching because they enjoy it, 25% because it suits family needs, and only 7% said it was because teaching was their only option (Penlington, 2002). Box 3.5 describes programmes in England and Wales to keep in contact with former teachers and to assist them in returning to the profession.

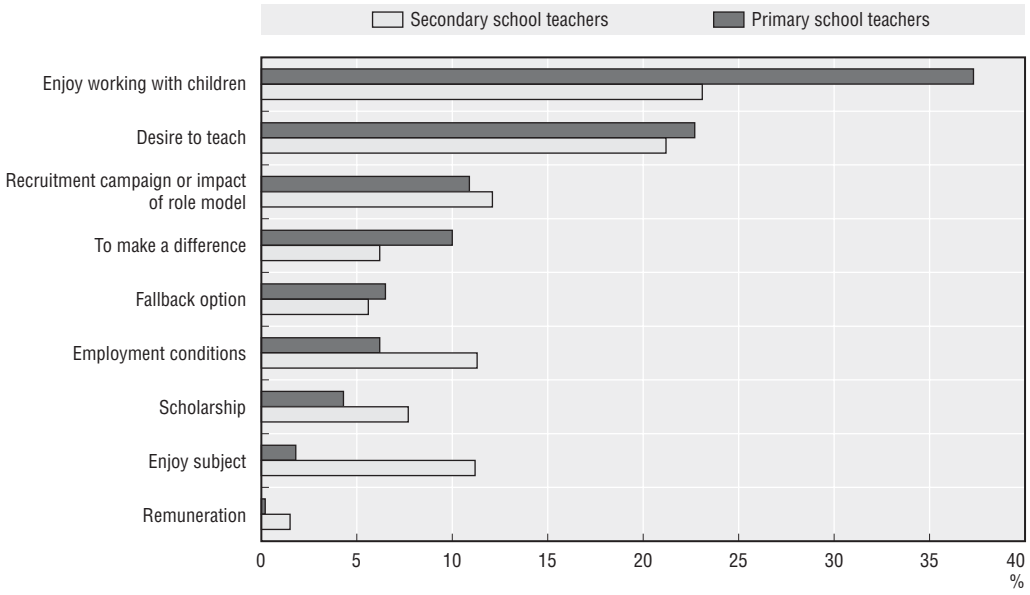
Figure 3.15A. **Main reasons for becoming a teacher, primary teachers, France, 2000**



Note: Figures are based on a survey of 858 primary school teachers in France. Figures reflect the percentage of surveyed teachers who mention each possibility among the three main reasons for becoming a teacher. As a result figures add up to more than 100% for each category of teachers.

Source: Ministère de l'Éducation nationale, France (2001).

Figure 3.15B. **Most important motivations for becoming a teacher, by level of education, Australia, 2002**



Note: Figures are based on a survey of 2 500 teachers from government and non-government schools, in metropolitan and non-metropolitan Australia, and from primary and secondary schools.

Source: Ministerial Council on Education, Employment, Training and Youth Affairs (2003).

Box 3.5. **Support for former teachers in England and Wales**

In England and Wales, the *Returning to Teach Programme* provides guidance services for qualified teachers taking a career break from teaching. It offers a dedicated help line, a termly magazine updating them on current issues in education, support in identifying courses for returners and links to recruitment activities of teacher employers. Opportunities to spend observation days in schools and refresher courses for returners are widely available. Courses last 6-12 weeks and are offered to those qualified teachers who feel that they need up-dating. Participants receive training bursaries of £150 a week (to a maximum of £1 500), and are also eligible for child-care support of up to £150 a week. The Teacher Training Agency (TTA) sponsors approximately 100 returner courses around the country each year. Approximately 20% of those returning to teaching attend such courses.

3.3.2. Salaries

The research evidence indicates that salaries and alternative employment opportunities are important influences on the attractiveness of teaching (Santiago, 2004). Teachers' salaries relative to those in other occupations influence: (i) *the decision to become a teacher* after graduation, as graduates' career choices are associated with relative earnings in teaching and non-teaching occupations, and their likely growth over time; (ii) *the decision to return to teaching after a career interruption* as returning rates are generally higher among those teaching subjects that provide the fewest opportunities for employment elsewhere; and (iii) *the decision to remain a teacher* as, in general, the higher teachers' salaries, the fewer people who leave the profession (evidence on teacher retention is discussed in Chapter 6). Relative earnings seem to be less important when the decision is *whether to enrol in teacher education* or another college course (Hanushek and Pace, 1995).

Focusing on the decision to become a teacher, Dolton (1990) used data on a large sample of United Kingdom university graduates. The results suggest that relative earnings in teaching and non-teaching occupations, and the likely growth in earnings, have a marked effect on graduates' career choices. He found that fewer graduates choose to become teachers when teachers' earnings are low relative to other graduate earnings, and when the growth in teachers' earnings is relatively slow. A similar analysis was conducted by Wolter and Denzler (2003) in Switzerland using data on university graduates for the period 1981-1999. They also found that teacher supply is responsive to relative salary levels: the more teachers earn relative to other graduate occupations, the greater the supply of people who wish to become teachers.

In an important difference from the United Kingdom results, Wolter and Denzler (2003) found that in Switzerland a large increase in teachers' relative salary was needed to prompt an increased supply of new teachers. This was attributed to the fact that teacher salaries in Switzerland are generally quite high compared to other occupations. By contrast, in the United Kingdom teacher supply seemed to be more "wage elastic": because teachers' wages were comparatively low, a given increase in the wage stimulated a larger increase in teacher supply.

Research has also shown that teacher supply is influenced by general economic conditions. Dolton *et al.* (2003) analysed United Kingdom data from 1960 to 2000 and concluded that when the general economy is strong, graduate unemployment is low and graduate earnings are high, fewer graduates choose to become teachers. This effect seemed to be particularly evident for males and those with higher qualifications. Correspondingly,

when general economic conditions worsen, teaching seems to become a more attractive job choice for graduates. For example, the background reports for both Sweden and the United States indicate that difficult graduate job conditions in the labour market as a whole in those countries may have contributed to some reductions in teacher shortage problems.

There is also evidence on the decision to return to teaching after a career interruption. According to Murnane (1996), in the United States, approximately one in four teachers who leave the classroom returns within five years. Beaudin (1993) found that the teachers most likely to return are those with subject area specialities that provide limited opportunities for better paying employment elsewhere, those who have more than two years of experience coupled with a Master's degree, and those who interrupted their careers at an older rather than a younger age.

Teachers' relative wages are likely to affect not only the number of people who are willing to teach, but also their characteristics. The growing feminisation of teaching has been attributed, in part, to the relative decline of teacher salaries over the long term. However, there is also evidence that, due to the rapid expansion of alternative employment opportunities for women, the composition of the female teaching workforce has also changed. Analysing the case of the United States for the period 1957-1992, Corcoran *et al.* (2002) examined how the propensity for academically talented women to enter teaching has changed. They found that while the academic quality of the average new female teacher has fallen only slightly over this period, the likelihood that a female from the top of her high school class will eventually enter teaching fell dramatically between 1964 (20% probability) and 1992 (4%). The explanation lies in the fact that job opportunities for academically talented women outside of teaching have increased substantially. Similar conclusions are reported by Stoddard (2003), among others.

Job opportunities have also broadened for well-educated males. In the case of the United Kingdom, Nickell and Quintini (2002) concluded that the decline in teachers' relative salaries has been associated with a decline in the average academic quality of the males entering teaching between the late 1970s and early 1990s.

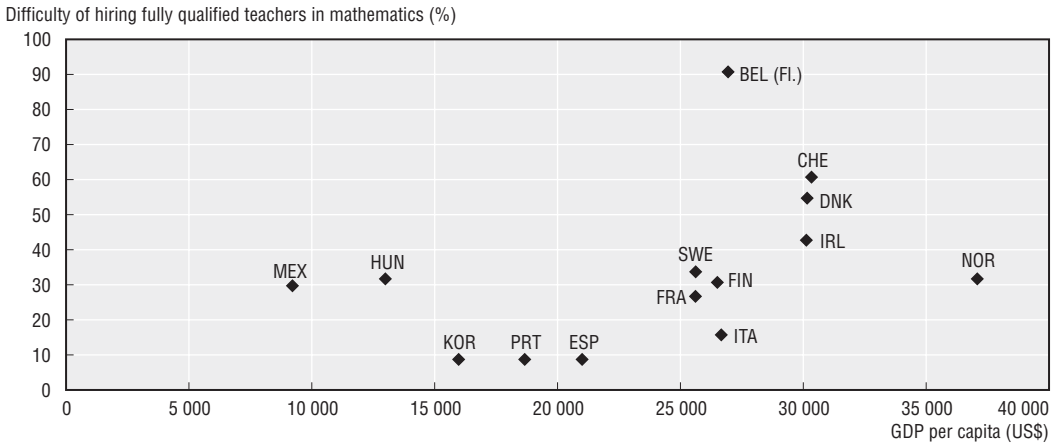
Such findings raise the issue of whether, as countries develop and provide more alternative job opportunities for graduate labour, teaching will struggle to be attractive to well-qualified people. Figure 3.16 provides some support for this view. It uses data on 14 countries to plot a measure for the difficulty of hiring fully qualified mathematics teachers in upper secondary education against GDP per capita. The data indicate that the current problems of teacher shortages seem to be more acute in relatively wealthy countries, presumably because such countries provide more alternative employment opportunities for well-educated workers.

Although an increase in teachers' relative salary can be reasonably expected to reduce shortages, whether or not the quality of the teaching workforce also improves depends on which teachers join and which ones stay. In the case of the United States, Ballou and Podgursky (1997) conclude that there is little evidence that higher salaries have raised the quality of newly hired teachers, at least by the indicators of teacher quality that were used. On the other hand, Figlio (1997) found that, within local labour markets, there exists a significant positive relationship between teacher salaries and teacher quality, measured by undergraduate university selectivity and subject matter expertise.

Although it is reasonable to expect that an increase in the teacher supply pool in response to higher salaries would also increase the number of high-quality candidates, effort is necessary to ensure that the most able new teachers are actually recruited and selected. The teacher labour market can quickly swing from shortages to oversupply, in part

because a general salary rise is likely to reduce the resignation rate among existing teachers. The best new candidates may not be willing to wait in a queue for teaching vacancies if they have good job prospects elsewhere. Issues to do with teacher recruitment and selection are taken up in Chapter 5.

Figure 3.16. **Difficulty of hiring fully qualified teachers in mathematics and GDP per capita, upper secondary education, 2001**



Note: Difficulty of hiring qualified teachers in mathematics corresponds to the mean percentage of upper secondary students attending schools where the principal reported that hiring fully qualified teachers in mathematics is difficult.

Source: Derived from data in OECD ISUSS database, 2003.

Teachers' salaries differ considerably across countries

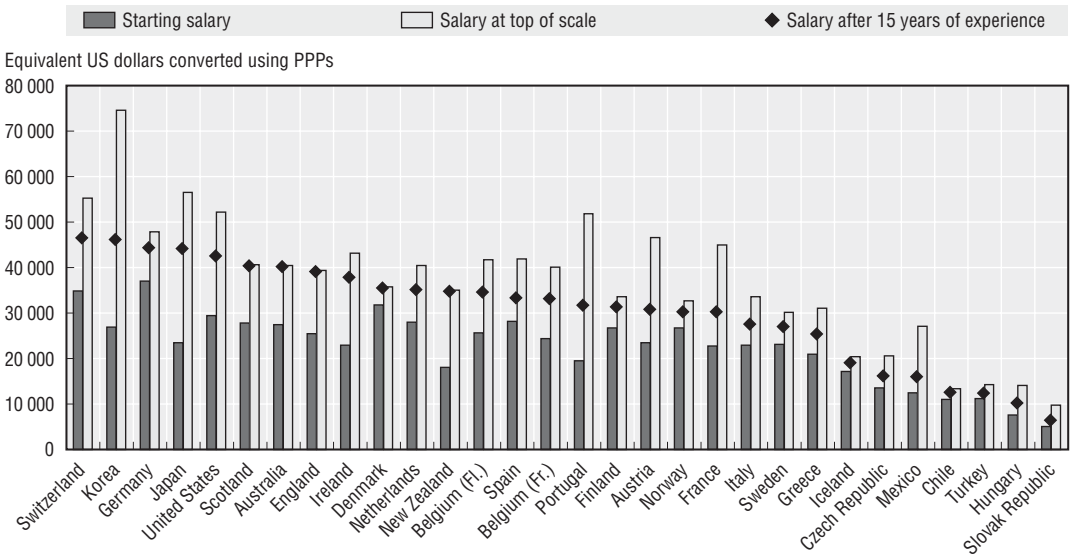
Figure 3.17A compares the starting, mid-career and maximum statutory salaries of primary teachers in public education in 2002. Salaries are expressed in equivalent US dollars converted using purchasing power parities. The annual statutory salaries of teachers with 15 years of experience range from below US$ 15 000 in Chile, Hungary, the Slovak Republic and Turkey, to over US$ 45 000 in Korea and Switzerland.

Countries exhibit marked variation in relation to salary differentials across the teaching career. In some countries the statutory salary of a teacher at the top of the scale is more than twice the salary of a beginning teacher (France, Japan, Korea, Mexico and Portugal). Other countries have a quite different salary structure in which the top salary step is less than 25% higher than the beginning salary (Denmark, Iceland and Norway). As discussed further in Chapter 6, countries also differ in the number of years required to move from the beginning to the top of the salary scale, and these different salary structures are likely to affect the patterns of teacher recruitment and retention.

Figure 3.17B examines within-country teacher salaries for teachers in primary, lower secondary and upper secondary education. Two broad patterns are evident. In 12 of the countries teachers have the same statutory salary irrespective of the level of school in which they work. In 16 of the countries upper secondary teachers earn more than lower secondary teachers, and generally much more than primary teachers. In the Netherlands and Iceland an experienced upper secondary teacher earns more than 40% more than a primary teacher with similar teaching experience, whereas in Sweden and Chile the differential is less than 10%. Turkey is the only country in which the statutory salary of an experienced primary teacher is greater than that of an upper secondary teacher with similar experience.

Figure 3.17A. **Teachers' salaries in primary education, 2002**

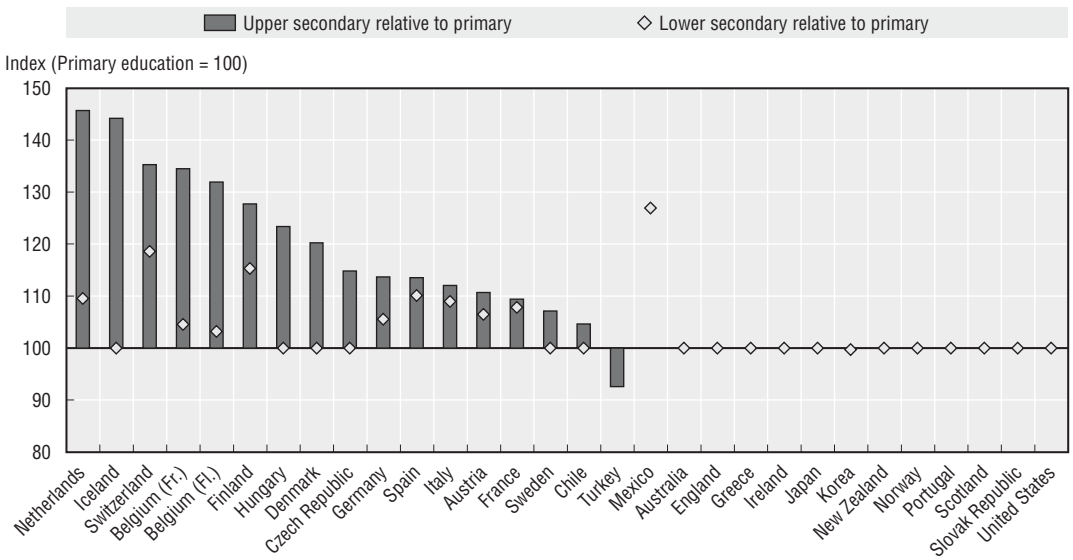
Annual statutory teachers' salaries in public institutions in primary education, in equivalent US dollars converted using PPPs



Source: OECD (2004a).

Figure 3.17B. **Teachers' salaries compared across levels of education, 2002**

Ratio of salaries of teachers in upper secondary education (general programmes) and lower secondary education to salaries of teachers in primary education, salaries after 15 years of experience, public institutions

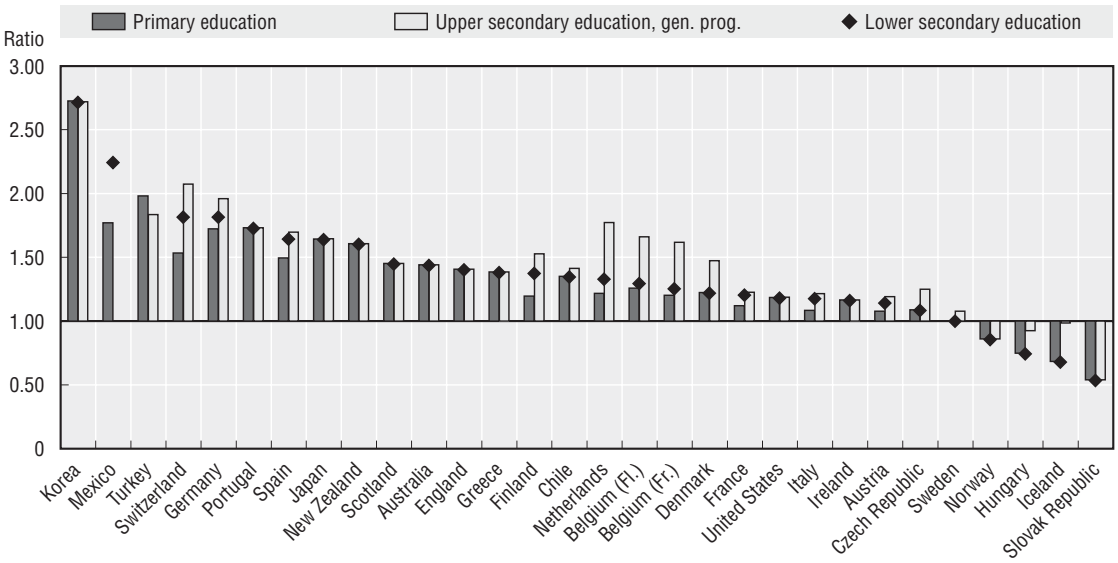


Note: Data are not available for upper secondary education in Mexico and lower secondary education in Turkey.

Source: OECD (2004a).

In terms of the attractiveness of the teaching career, it is important to analyse teacher salaries relative to other occupations. However, there are only limited internationally comparable data available. The main indicator that is currently used, teachers' statutory salary expressed as a ratio of GDP *per capita* (Figure 3.18), has a number of limitations.[8]

Figure 3.18. **Ratio of teachers' salary after 15 years of experience to GDP per capita, public institutions, 2002**



Source: OECD (2004a).

Mid-career statutory salaries for primary teachers average 1.33 times GDP per capita in OECD countries. The averages for mid-career lower secondary and upper secondary teachers are a little higher, 1.37 and 1.45 times GDP per capita, respectively. As Figure 3.18 shows, however, there is a very large range among countries on this indicator. In Korea teachers with 15 years experience earn 2.73 times GDP per capita, and in Mexico experienced lower secondary teachers earn 2.25 times GDP per capita. By contrast, experienced teachers in the Slovak Republic earn just 0.54 times GDP per capita, and in Iceland and Hungary the equivalent teacher salaries are 0.68 and 0.75 times GDP per capita, respectively. Reports indicate that teachers in the Slovak Republic and Hungary often need to take second jobs to augment their earnings.

Countries in which teacher salaries are relatively high in GDP per capita terms generally have fewer teacher supply problems. However, this is not uniformly the case. For example, until recently Switzerland has faced teacher shortages despite having relatively high teacher salaries. On the other hand, Hungary has a general oversupply of teachers, despite relatively low teacher salaries, notwithstanding some specific shortages in areas like ICT and languages. A more rounded and long-term perspective on the teacher labour market is needed to address the relationship between salaries and supply.

[8] This indicator is based on statutory rather than actual salaries, other benefits such as vacations and pensions are not included, and the reference point, GDP per capita, does not reflect compensation levels in comparable occupations.

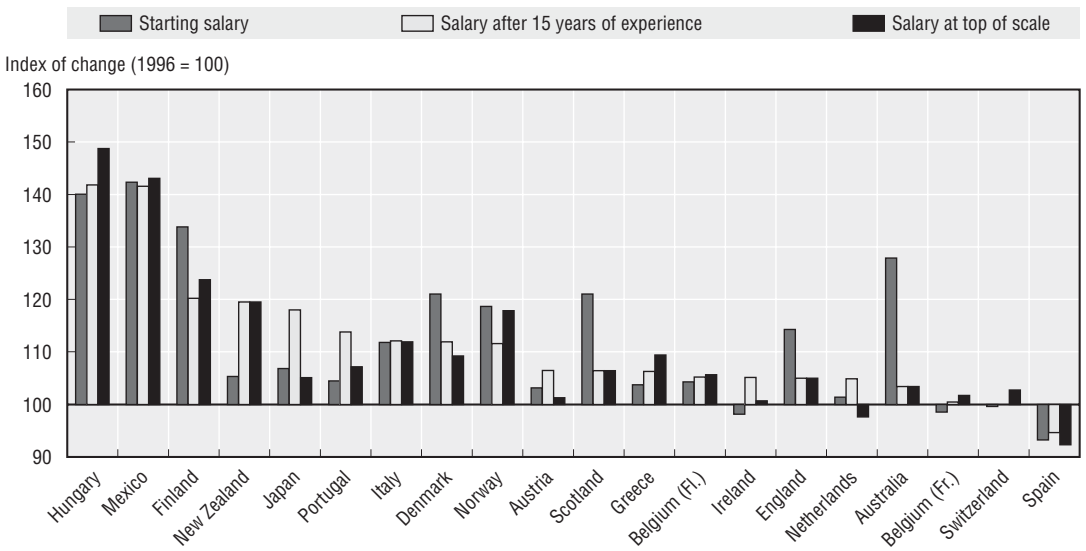
Table 3.2 provides another indicator of teachers' relative salary position in 26 OECD countries by comparing the average salary of secondary teachers with those of five selected occupations in the public sector (computer operator, librarian, social worker, university lecturer and civil engineer). In virtually every country university lecturers earn at least 10% more than secondary teachers. Relative to most of the other public sector occupations the salaries of secondary teachers are higher in Austria, Finland, Hungary, Mexico, New Zealand and Turkey, but seem to be less competitive in Iceland, Norway, Portugal and Sweden. In general, the former group of countries has fewer teacher shortages than the latter.

But relative salaries seemed to have declined over time despite real increases in absolute terms

Figure 3.19 shows the index of change between 1996 and 2002 in primary teachers' statutory salaries after adjusting for inflation (similar patterns are evident for secondary teachers). It shows that, in real terms, the statutory salaries of teachers rose in almost all 20 countries concerned. During this period, the increase in teachers' salaries was particularly marked in Hungary, Mexico, Finland and New Zealand. By contrast, statutory salaries of teachers declined in real terms by between 5 and 8% between 1996 and 2002 in Spain, and by small amounts for different career steps in Ireland, the Netherlands, the French Community of Belgium and Switzerland.

Figure 3.19. **Change in teachers' salaries between 1996 and 2002, primary education**

Index of change between 1996 and 2002 in teachers' salaries converted to 2002 price levels using GDP deflators (1996 = 100)



Note: The index is calculated as: Teacher salary in 2002 in national currency × 100/Teacher salary in 1996 in national currency × GDP deflator 2002. The data for Belgium in 1996 are based on Belgium as a whole.

Source: OECD (2004a).

Table 3.2. **Comparison of average secondary teachers' salaries with those of other public sector employees, 1999**

Average compensation of employees for selected occupations in the public sector relative to the average compensation of secondary teachers

Comparison with a secondary teacher's salary:

⬆ Average compensation in selected occupation is at least 10% higher than that of secondary teachers

⇔ Average compensation in selected occupation is between -10 and +10% than that of secondary teachers

⇩ Average compensation in selected occupation is at least 10% lower than that of secondary teachers

	Computer operator	Librarian	Social worker	University lecturer	Civil engineer
Australia	⇔	⇩	⇩	⇔	⇔
Austria	⇩	⇩	⇩	⬆	⬆
Canada	⇩	⇔	⇔	⬆	⬆
Czech Republic	⇩	⇩	⇔	⬆	⬆
Denmark	⇔	⇔	⇩	⬆	⬆
Finland	⇩	⇩	⇩	⬆	⬆
France	⇔	⬆	⇩	⬆	⬆
Germany	⇩	⇔	⇩	⇔	⇔
Greece	⇔	⇩	⇩	⬆	⇔
Hungary	⇩	⇩	⇩	⬆	⬆
Iceland	⇔	⇔	⬆	⬆	⬆
Ireland	⇩	⇔	⬆	⬆	⬆
Italy	⇔	m	m	m	m
Japan	⇩	m	m	⬆	⬆
Korea	⬆	⬆	⇩	⬆	⬆
Luxembourg	⇩	m	⇩	m	⇔
Mexico	⇩	⇩	⇩	⬆	⬆
Netherlands	⇔	m	m	⬆	⬆
New Zealand	⇩	⇔	⇩	⬆	⇩
Norway	m	⇔	⇔	⬆	⬆
Poland	⇔	⇩	⇔	⬆	⬆
Portugal	⇔	⬆	⬆	⬆	⬆
Spain	⇩	⬆	⇩	⬆	⬆
Sweden	⇔	⇔	⇔	⬆	⬆
Turkey	⇩	⇩	⇩	⬆	⇩
United States	⇩	⇔	⇔	⬆	⬆

m: Data not available.

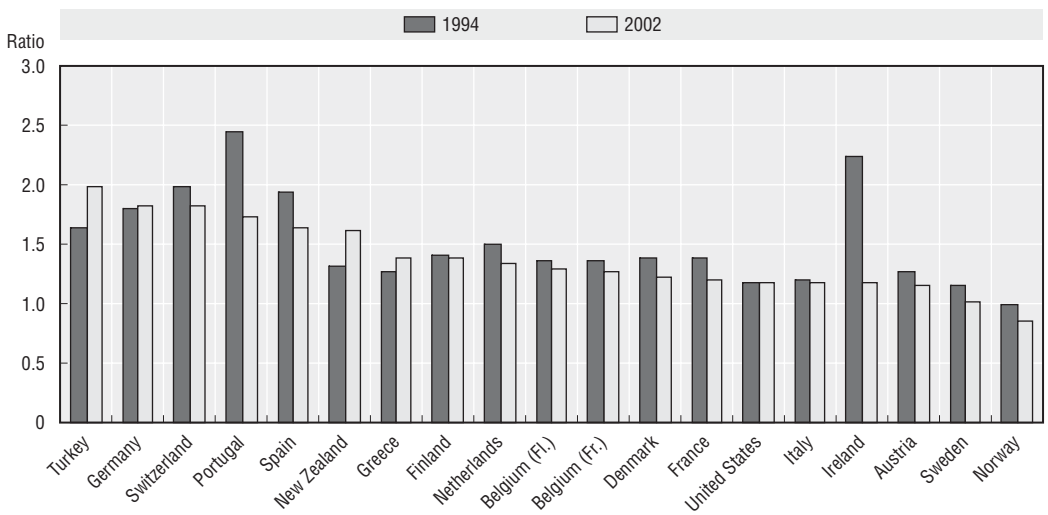
Source: Derived from OECD (2003), Table D5.3.

Notably, Figure 3.19 indicates that in a number of countries the salaries of some teachers increased more rapidly than others: (i) the salaries of beginning teachers increased more rapidly than other teachers in Australia, Finland, Denmark, Norway, England and Scotland; (ii) mid-career teachers earned comparatively large pay rises in Japan, Portugal and Austria; and (iii) experienced teachers were granted relatively large salary rises in Hungary, New Zealand and Greece, with proportionately smaller increases evident for experienced teachers in Belgium (French and Flemish Communities) and Mexico. The varying levels of increases for different types of teachers indicate a targeted and market-sensitive approach. A number of countries that have been experiencing shortages have concentrated salary rises for teachers in the early stages of their careers. This has been done in Australia, Denmark, England and Norway, for example. Each of these countries has reported an increase in teacher education numbers and, in Australia and England at least, there is some evidence of an increase in the academic quality of those studying teacher education.

Despite the fact that teachers' statutory salaries have increased in most countries since the mid-1990s, the evidence is that average community incomes (as indicated by GDP per capita) have increased at a faster pace. As Figure 3.20 shows, in 14 of the 19 systems with relevant data, the statutory salary of a lower secondary teacher in public schools with 15 years experience fell relative to GDP per capita between 1994 and 2002. The fact that teaching is largely a public sector activity would explain part of this relative decline since in many countries in recent years public sector salaries have grown more slowly than those in the private sector.

Figure 3.20. **Teachers' relative salaries over time**

Ratio of salary after 15 years of experience to GDP per capita; Public institutions, lower secondary education



Note: All countries for which data are available for both years considered are shown. Data for Turkey refer to primary education and common data were used for both Belgian Communities for 1994. The indicator is limited because it is based on statutory rather than actual salaries, financial benefits other than salaries are not included, and the reference point, GDP per capita, does not reflect salary levels in comparable occupations. A more appropriate indicator would compare teachers' actual salaries and other benefits with workers in professions requiring similar qualifications and at similar age levels. Such data are not yet available at international level.

Source: OECD (2001, 2004a).

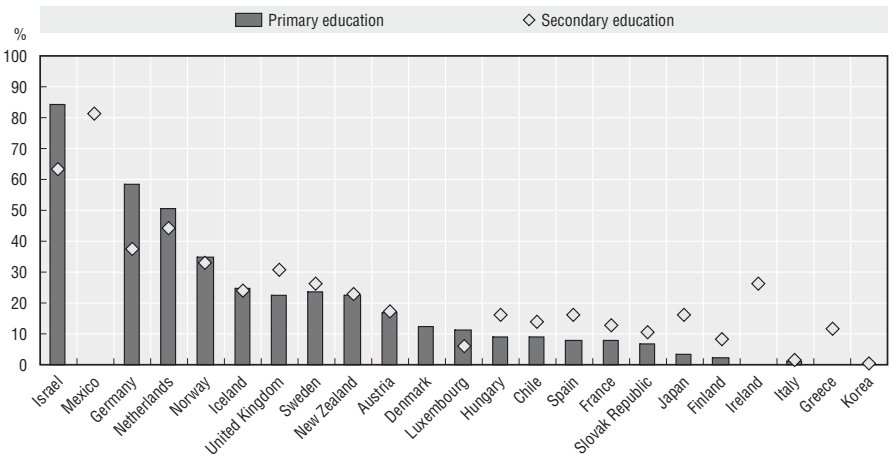
3.3.3. Job flexibility

Teaching needs to offer potential recruits a satisfactory work-life balance if it is to be competitive in the job market. As was shown in Figure 3.15A for France, 35% of beginning primary teachers named achieving a balance between professional and private life as one of the three main reasons for becoming a teacher. In the United Kingdom, the Equal Opportunities Commission (2002) argues that, while in the past teaching attracted entrants who saw it as "family friendly" because of the shorter contact hours and long holidays, this is no longer the case. Other employers and professions are now recognising the benefits for recruitment of providing a good work-life balance and greater opportunities for flexible working.

Table 3.3 documents the flexibility of a range of teaching employment conditions in public schools. Overall, teaching seems to offer considerable flexibility. Part-time teaching is possible in almost all countries; only in Greece, Japan and Korea are "regular" teachers unable to work part-time. Most countries also enable teachers to hold more than one part-time teaching job.[9]

Figure 3.21 shows the actual proportions of teachers in the different countries who are classified as working part-time (*i.e.* less than 90% of a normal full-time teaching load). The country average of part-time teaching is 19% in primary education and 24% in secondary education. The incidence of part-time teaching is more common in secondary education in 16 of the 21 countries for which data for both levels of education are available. Countries vary widely in the extent to which part-time teaching is used. In Israeli primary schools and Mexican secondary schools about 80% of the teachers are classified as part-time, as are approximately 50% of the primary teachers in Germany and the Netherlands. On the other hand, less than 5% of primary teachers in Finland, Greece, Ireland and Japan work part-time, and there are very few part-time primary or secondary teachers in Italy and Korea.

Figure 3.21. **Percentage of teachers who work part-time in public and private institutions, 2002**



Note: Teachers employed for less than 90% of the normal or statutory number of hours of work for a full-time teacher over a complete school year are classified as part-time teachers. Secondary education includes both general and vocational programmes. Data for primary education for Denmark, Iceland and Norway include lower secondary education. Data for secondary education for Iceland refer to upper secondary education only.

Source: OECD Education Database, 2004.

[9] This may not always reflect teachers' preferences but rather the difficulty of securing a full-time position.

Table 3.3. **Flexibility of teaching employment, public schools, 2004**

	Is part-time teaching possible?	Can teachers hold more than one part-time teaching job at the same time?	Can teachers take leave without pay for a career break and return to teaching with the same employment conditions? (maximum duration of such leave in parentheses)	Is sabbatical leave available for teachers? (in parentheses: the maximum duration of the sabbatical leave and the frequency with which teachers can take it)	Do teachers have to stay at the school during the regular school day while not engaged in classroom teaching?
Australia	For all teachers	Yes, for most states	Yes, generally to same salary step and often same teaching post if within agreed timeframe (usually 12 months)	Generally yes, e.g. under deferred salary schemes (usually for 12 months)	Yes
Austria	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post (10 years)	Yes	No
Belgium (Fl.)	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post (unlimited)	No	No
Belgium (Fr.)	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post (6 years)	No	No
Canada (Qb.)	For all teachers	Yes	Yes, teachers with permanent post return to the same salary step and to their previous teaching post (2 years)	No	Depends on local agreements
Chile	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post (6 months)	No	Yes, for full-time teachers
Denmark	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post	No	No
Finland	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post	No	No
France	For all teachers	No[1]	Yes, teachers return to the same salary step but not necessarily their previous teaching post	No[2]	No
Germany	For all teachers	No	Yes, teachers return to the same salary step but not necessarily their previous teaching post	Yes (typical duration of 1 year)	No
Greece	Only for temporary teachers and teachers on an hourly basis[3]	Yes	Yes, teachers return to the same salary step and to their previous teaching post (3 years)	Yes (up to 5 years in total throughout career but no more than 4 consecutive years)	Yes[4]
Hungary	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post (in most cases, at the discretion of the principal)	Yes, at the discretion of the school principal (duration and frequency are not regulated)	No
Ireland	For all teachers	No, in primary education; Yes, in secondary education	Yes, teachers with permanent post return to the same salary step and to their previous teaching post (5 years)	Yes (up to 5 years in total throughout career, frequency decided on a case-by-case basis)[5]	Yes, in primary education; No, in secondary education
Israel	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post, upon receiving the approval of regional authorities (3 years)	Yes (1 year, every 6 to 8 years)[6]	Yes, (2 hours a day beyond classroom teaching time)
Italy	Only for teachers with a permanent post	No	Yes, teachers return to the same salary step and to their previous teaching post (1 year)	No	No
Japan	Only for temporary teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post (3 years)	No	Yes
Korea	Only for teachers employed on an hourly basis	Yes	Yes, teachers return to the same salary step and to their previous teaching post (3 years)	No	Yes
Netherlands	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post	Yes (1 year, every 12 years)	No
Slovak Republic	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post	No	No
Sweden	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post	No	Yes
Switzerland	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post (generally, 1 year)	Yes (generally 6 months, generally once during career)	No
United Kingdom (Eng.)	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post	No, but schools might exercise discretion over it	At the principal's discretion
United Kingdom (N.Irl.)	For all teachers	Yes	Yes, teachers return to the same salary step and to their previous teaching post	At the discretion of the employer	At the discretion of the employer
United Kingdom (Scot.)	For all teachers	Yes	At the discretion of the employer	At the discretion of the employer	No
United Kingdom (Wal.)	For all teachers	Yes	Yes, teachers return to the same salary step but not necessarily their previous teaching post	No, but schools might exercise discretion over it	At the principal's discretion
United States[7]	Generally, for all teachers	Generally, yes	Generally, yes	Generally yes (typically one year but sabbaticals are not widely practised at the school level)	Varies by school district

Definition: *Sabbatical leave* is defined as leave with part or full pay for study or other career-related purposes.

Notes:

1. However, teaching might be undertaken at different schools.
2. However, teachers benefit from a special leave for professional training of a maximum duration of 3 years, which includes full pay for one year.
3. Part-time teaching is possible for *regular* teachers under special circumstances (e.g. difficult pregnancy, secondment to other educational services).
4. Stipulated by law but not often observed in practice.
5. Teacher is required to employ a replacement at his/her own expense for the duration of the sabbatical. The maximum duration of 5 years for a career break considers leaves other than the sabbatical.
6. Teachers can take a sabbatical leave for two years on a half-time basis.
7. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies across the country. Data on each district's policies regarding leave without pay are not available.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Increasing the opportunities for part-time teaching could increase its appeal to a wider range of people. In particular, the United Kingdom background report notes that 70% of women returning to work in teaching after maternity leave choose part-time work if it is available. Rates of return to teaching by women are likely to increase if more part-time teaching is available. However, having a high proportion of part-time teachers can pose management and programme co-ordination difficulties for schools. Making part-time teaching more readily available could therefore necessitate more support resources in order to be successfully implemented.

Table 3.3 shows that in 15 of the 26 of the systems concerned, teachers are able to go on leave without pay for long periods and return to their previous salary step and teaching post. In another 10 countries teachers keep their salary step but not necessarily their previous post.

Flyer and Rosen (1997) found that, in the United States at least, teaching enables more flexible movements between paid employment and other activities. Their particular focus was female university graduates, and the extent to which leaving employment for child-rearing purposes imposed a financial penalty. While any break from paid work has a cost, female teachers suffered less than other graduate workers: in general, when female teachers resumed employment it was at the same salary step as when they left, whereas other female graduates experienced an average salary reduction of around 9% for each year spent away from paid employment. Their work also showed that such flexibility in teaching is valued highly by women.

Table 3.3 reveals a more mixed situation regarding the availability of paid leave for sabbatical purposes, with only ten countries making some form of provision. However, of these it seems that only a few countries have well-established sabbatical systems (Germany, Israel and the Netherlands). In Germany, almost all Länder offer a sabbatical year to teachers where the work due in that particular year is "worked in advance" in the preceding years – the teacher works longer hours for the same pay or the same hours for lower pay during a given period, which is then used to fund the sabbatical year. Teachers are also entitled to take a leave of absence for roles outside education or to work in school administration, teacher education institutions or school counselling.

Another aspect of job flexibility, although one that may have mixed effects, is whether or not teachers have to stay at the school during the regular school day while not engaged in classroom teaching. In 14 of the 22 systems which supplied such information, teachers do not. This is more likely to apply to secondary than primary teachers since the latter tend to be responsible for a class for most of the day.[10]

3.3.4. Job security

In most countries teachers are employed as part of the public service, and this involves a high level of job security once a tenured position is obtained. Estimates for Belgium (Flemish Community) indicate that although teachers on average have a lower salary than

[10] The country review visits generated varying perspectives on the phenomenon of teachers not being at school for the full school day. Some teachers expressed appreciation for this flexibility, as it enabled them to prepare for their teaching in ways that suited them best, and to combine this with family or other responsibilities. Other teachers pointed out that it was a necessity to prepare work away from the school because school facilities were so poor. On the other hand, a number of teachers and principals expressed concern about the practice as it hindered whole-school planning, and reduced opportunities for discussions with colleagues, parents and students.

other workers with equivalent qualifications, the relatively high levels of job security enjoyed by permanent teachers and the longer holidays available to them mean that their overall compensation package is broadly competitive with private industry (Hay Group, 2001). Teachers also benefit from a generous pension scheme. The regulated retirement age is 60 but it is possible to retire with a pension at age 58.

Although research on motivation for becoming a teacher indicates that job security is not among the most highly ranked reasons, it nevertheless forms part of the overall package. For example, as Figure 3.15A showed, around 25% of beginning primary teachers in France indicated that job security was one of the three main reasons for becoming a teacher. Research from Northern Ireland shows that among primary teacher trainees job security was ranked fifth out of 12 factors by males and seventh by females (Johnston *et al*., 1999).

The challenge at the present time is that the hurdles throughout the teaching career are typically quite uneven. The obstacles are generally quite high in the beginning of the career while the teacher has temporary status. During this period, the teacher may be appointed for short periods of time, may be replaced by teachers with permanent status, may need to move from one school to another, may teach in several schools in the same school year, and may be dismissed in a relatively straightforward manner. Once permanent status is acquired, the picture generally changes quite markedly, and the teacher acquires a significant level of job security together with virtually automatic salary rises over time.

As was noted in Section 3.1.12, in a number of countries beginning teachers currently find it quite difficult to obtain a permanent position, and the process can take several years. Work by Vandenberghe (2000) indicates that for beginning teachers in the French-speaking Community of Belgium, salary is a less important factor in deciding whether to stay in the profession than access to a full-time permanent teaching post. The estimates by the Hay Group (2001) for teachers' comparative compensation in the Flemish Community of Belgium indicate that the overall package for beginning teachers is not competitive with equivalent positions in private industry since beginning teachers lack job security.

The appropriate policy response is not to necessarily make it easier for beginning teachers to gain permanent job status and security. Rather, it is to provide more structured induction and support for teachers early in their careers, along with a more systematic process of performance review for established teachers. These issues are taken up further in Chapters 4 and 5, respectively.

3.3.5. Public perceptions of teachers and teaching

There is a frequently voiced concern that teaching has fallen in social standing over the years, and that this has made it harder to recruit talented individuals into the field. There is no comparative international evidence on this question, and only a few countries have any long-term national data. The individual country results are difficult to analyse because of differing methodologies, samples and questions asked. The scattered findings do not provide a solid basis for generalisations, and can be taken as indicative only. Based on the material included in the Country Background Reports, however, the social standing of teachers seems quite high, and seems to have changed little over the years.

Nevertheless, despite the relatively high status of teachers, and general public confidence in their work, many people also see teaching as difficult and demanding work. As most Country Background Reports note, media coverage of schools often focuses on the negatives such as student violence and misbehaviour, and this undoubtedly makes teaching seem a less attractive career.

Indicators of public perceptions drawn from the Country Background Reports are as follows.

- Australia (2003 data): teaching was the 4th highest ranked of 15 professions by the public for ethics and honesty (behind nurses, pharmacists and doctors), and was the only profession to significantly improve its ranking over the previous 20 years.

- Canada (Quebec, 2003): almost 90% of citizens expressed confidence in teachers, and they had higher confidence ratings than judges, police officers, notaries, bankers, priests or senior civil servants.

- Japan: in 1995 elementary school teachers were ranked 17th out of 56 professions in social status, which was little changed from their 1975 ranking (18th out of 82 professions).

- Switzerland (2002 data): 73% of adults believe that teachers enjoy "considerable" or "great" respect, and this proportion had not changed since 1993.

- England (2000 data): 94% of adults agree that teaching is a highly skilled job, 84% of parents believe that teachers do a good job at their child's school, and 81% of non-parents think that teachers do a good job. A 2003 public opinion survey indicated that being a teacher ranked second (12% of respondents) behind doctor (29%) on a list of 11 occupations as the job they would be most proud for a member of their family to do (Taylor Nelson Sofres, 2003). Teaching had shown the largest gain since the first survey in 2001 when it then ranked third (9%) behind being a lawyer.

Some negative public perceptions of teaching are also evident.

- Switzerland (1999 data): 65% of individuals believed that teachers are not adequately motivated for their work, and 54% felt that teachers were too focused on passing on knowledge and were not sufficiently concerned with the all-around education of students. On the other hand, the same survey indicated that 74% of people felt that teachers would give their best in the interests of students.

- England (2003 data): when asked the reasons for not choosing teaching as a job they would be most proud for a member of their family to do, 18% indicated there are too many discipline/behaviour problems in schools, 17% indicated other careers were better, 13% said the job is too stressful and 12% said that the pay is too low.

- Other research from the United Kingdom indicates that the main aspects of teaching that deter young people from considering it as a career are low pay, paperwork and dealing with disruptive pupils (Haydn *et al*., 2001).

Teachers seem to perceive that their job has lower status than wider public surveys would indicate. For example, a 1998 survey in Korea indicated that 75% of parents ranked teachers' social status as average or higher, whereas 60% of teachers ranked their social status as low or very low. In Austria, a 2000 survey indicated that about two-thirds of teachers are not happy with the image of the teaching profession, and that this is their major source of job dissatisfaction; and yet other information indicates that the social standing of teachers in Austria is relatively high. In the United Kingdom, a very large 2003 survey indicated that only 30% of teachers felt that the public respected the teaching profession,

which contrasts with the much more positive findings from public opinion surveys cited earlier.

Such results imply that teachers' self-image needs to be improved. In Italy, 75% of high-school teachers surveyed in 1999 felt that teaching's prestige had declined during the 1990s; in 1990 an equivalent survey found that 65% of high-school teachers felt that teaching's prestige had declined during the 1980s. Almost half of the 1999 survey group expected that teaching's prestige would decline further during the forthcoming decade.

Australian research indicates that the image of teaching is much more positive among those who have close contact with schools: parents with school-age children generally are more positive than non-parents; and those who are engaged in school activities are more positive than those who are not. This suggests that building stronger links between the schools and the community will help to enhance the status of teaching. Box 3.6 outlines recent initiatives by education authorities and teacher unions to improve teaching's public image in Austria, Brandenburg (Germany), Finland, he Slovak Republic and Sweden.

Box 3.6. **Improving the image and status of teachers in Austria, Brandenburg (Germany), Finland, the Slovak Republic and Sweden**

In *Austria* there are extensive communications (including websites) from schools and provincial education authorities about school operations and educational "success stories"; campaigns by teachers' unions to better inform people about why teaching is important and what it really involves; and public recognition from the federal authorities for outstanding schools and teachers, through the "education Oscars" programme.

The Land of *Brandenburg* in Germany has been proactive in taking measures to improve public appreciation of schools and the image of teachers. These include: public ceremonies when new teachers are appointed and experienced teachers retire; the award of a prestigious public prize to projects in schools and in the field of social education; sponsored trips for teachers to educational fairs held in other Länder; and the public presentation of 50 projects from schools, chosen by competition, during the annual festivities of Brandenburg Day. These projects are selected to showcase student initiative and creative and socially engaged teachers, and the winning schools are awarded substantial prizes.

In *Finland* in 2002, the Trade Union of Education launched the "Finland Needs Teachers" project to raise awareness of teachers' work and its significant contribution to society. The project is aimed at conveying a more realistic and positive image of teaching to the general public.

In the *Slovak Republic*, the establishment of an annual "Teacher Day" as a teacher holiday in honour of the anniversary of Comenius' birth has provided a high-profile way to showcase teaching and to express public appreciation for teachers' work.

In *Sweden* the *Attractiv Skola* (Attractive Schools) project, a joint venture of education authorities, teacher unions and the principals' professional association, is encouraging local authorities to form stronger links between schools, universities and the business community. Local authorities apply to join the project whose aims include improving community awareness of school programmes, job exchanges between schools and businesses, developing networking skills among schools and teachers, and improving the appeal of schools as places of work.

3.3.6. The structure of initial teacher education

The structure of teacher education and the requirements to obtain a teaching qualification have an important impact on the decision about whether to become a teacher.

Traditionally, teacher education programmes have been oriented towards attracting school leavers, or recent graduates, and have required people to make a relatively early decision about becoming a teacher. Before people could start teaching in schools they generally had to complete a full programme of initial teacher education. Such requirements can limit the pool of prospective applicants. For example, Hanushek and Pace (1995) concluded that university students in the United States are less likely to complete education majors in states that require candidates for teaching licences to complete a relatively larger number of education-related courses. This requirement raises the cost of obtaining an education degree, especially for university students who either plan to teach for a few years before moving to another occupation or want to obtain a teaching licence as "insurance" in case opportunities in other fields prove unattractive. Similarly, the authors conclude that requiring applicants for teaching licences to score above a pre-specified cut-off on a standardised test (National Teacher's Examination) reduces the number of university students who train to become teachers and the number of university graduates who obtain teaching licences.

Countries face difficult challenges in balancing the requirements to increase the supply of prospective teachers while at the same time maintaining or hopefully improving teacher quality. However, most countries are now seeking more flexible approaches to both teacher education and entry into the field. These new approaches are intended to help address teacher shortages, as well as to bring new types of skills and experience into schools.

Table 3.4 summarises the current provision of alternative pathways into teaching. Seventeen of the 25 systems offer pathways into teaching for so-called "side entrants", that is people from other careers who do not hold full teaching qualifications. The most common approach is to organise special training programmes in "traditional" teacher education institutions (12 of 17 countries). A few other approaches exist such as training programmes within adult education (Belgium, Flemish and French Communities), distance learning (Chile, Denmark, the Netherlands, the Slovak Republic and Sweden) and school-based programmes (England and Wales and the Netherlands). The duration of such alternative programmes is typically between one and two years, but great variability exists. In some countries, pedagogical preparation can be acquired within one year: Belgium (Flemish Community); Denmark; England and Wales; Finland; France, Germany; Israel and the United States.

In almost all countries for which information is available (15 of 16 cases), it is possible to start working as a teacher before completing the preparation in pedagogy (the exception is Quebec). Where people have to acquire their pedagogical preparation before starting work as a teacher, they typically do not receive any remuneration. In most countries side-entrants are able to start teaching without full teaching qualifications (16 of 20 countries, the exceptions being Australia, Austria, Denmark and Ireland).

Table 3.4. **Alternative pathways into teaching, public schools, 2004**

	Preparation in pedagogy					
	Alternative programmes available	Duration	Before starting work as a teacher or while on the job?	Do *side-entrants* receive remuneration while acquiring their teaching qualifications (where this occurs before starting work as a teacher)?	Are *side-entrants* able to start teaching without full teaching qualifications?	Do *side-entrants* have their work experience acquired outside education recognised for the definition of their starting salary?
Australia	Special training programmes in *traditional* teacher education institutions in most states	Varies from 1 to 4+ years	Both but usually before starting work as a teacher	Generally no but internship programmes available in two States	Usually no	Generally no but sometimes yes e.g. public service work experience
Austria	Special training programmes in *traditional* teacher education institutions	2-3 years	Both	Yes for teachers of vocational education; No for all other teachers	Yes for teachers of vocational education; No for all other teachers	Yes up to a maximum of 5 years of experience if related to subject being taught
Belgium (Fl.)	Special training programmes in adult education institutions	Flexible, but a minimum of two periods of 6 months	Both	No	Yes	For all teachers: work experience from the public service recognised For vocational teachers only: up to a maximum of 10 years of experience recognised
Belgium (Fr.)	Special training programmes in adult education institutions	*m*	Both	No	Yes	For vocational teachers only: up to a maximum of 6 years of experience recognised
Canada (Qb.)	Special training programmes in *traditional* teacher education institutions	2.5 years	Before starting work as a teacher	No	Yes	Yes if experience is deemed relevant: first ten years of experience outside education are recognised as 1 year experience in teaching; half of all other years beyond initial ten are also recognised
Chile	Special training programmes in *traditional* teacher education institutions and institutions using distance learning	No more than 2 years	While on the job	*m*	Yes	No
Denmark	Special training programmes in *traditional* teacher education institutions and institutions using distance learning	1-2 years	*m*	No	No	On a case-by-case basis
Finland	Non-regular special training programmes	1 year	While on the job, generally	*m*	Yes	Yes
France	Direct access to the final year of initial teacher education following success in examination ("troisième concours")	1 year	While on the job	Yes	Yes	For vocational teachers only: a third of the years of experience recognised
Germany	Special training programmes in *traditional* teacher education institutions, especially in vocational education	1-3 years	While on the job	Yes	Yes	Yes if related to the subject being taught
Greece	None	*a*	*a*	*a*	*m*	*m*
Hungary	None	*a*	*a*	*a*	Yes in the last year of coursework	Yes all years of other work experience
Ireland	None	*a*	*a*	*a*	No	*a*
Israel	Special training programmes in *traditional* teacher education institutions and other types of institutions	1 year	Both	Yes	Yes	Yes if related to the subject being taught
Italy	None	*a*	*a*	*a*	*m*	*m*
Japan	None	*a*	*a*	*a*	Yes	No
Korea	None	*a*	*a*	*a*	Yes	No
Netherlands	(1) special programmes in traditional teacher education institutions; (2) special programmes using distance learning; (3) training programmes mostly school-based but under responsibility of teacher education institution	(1) 4 years; (2) and (3) maximum of 2 years	(1) Before starting work as a teacher; (2) and (3) while on the job	(1) No; (2) and (3) Yes	Yes	Yes all years of other work experience
Slovak Republic	(1) special programmes in traditional teacher education institutions; (2) special programmes using distance learning.	1-2 years	Both	Yes	Yes	Yes, partially
Sweden	Special training programmes in *traditional* teacher education institutions, often using distance learning	1.5 years	Both	Yes	At the discretion of the school principal	*m*
Switzerland	Special training programmes in *traditional* teacher education institutions	6 months for preparation courses plus between 3.5 and 4.5 years	Both	Yes	Yes	*m*
United Kingdom (Eng. and Wal.)	Undergraduate, postgraduate and employment-based	1-4 years	Both	Trainees on postgraduate certificate (PGCE) receive a bursary; Trainees on employment-based routes are paid as unqualified teachers	England: Yes (for up to 4 years); Wales: As long as no qualified teacher is available (up to 2 years for overseas teachers).	At the discretion of the school or local education authority
United Kingdom (N.Irl.)	None	*a*	*a*	*a*	*m*	*m*
United Kingdom (Scot.)	None	*a*	*a*	*a*	*m*	*m*
United States[1]	Yes	1-3 years	Both	Generally not	Yes	Generally not

Definitions: *Alternative pathways into teaching* refer to mechanisms which grant entry into the teaching profession to individuals with work experience outside education and who do not hold full teaching qualifications. For this purpose, the individuals entering teaching via alternative pathways are referred to as *side-entrants*. Programmes for recent graduates to acquire teaching qualifications (*e.g.* a teaching qualification after graduation in a subject field) are not included. Similarly, retraining or refresher courses for individuals returning to teaching are excluded. *Preparation in pedagogy* refers to programmes principally designed to provide preparation in pedagogy to *side-entrants* which are necessary to acquire a formal teaching qualification. Even if individuals with work experience outside education and no teaching qualifications can opt for the traditional concurrent or consecutive models of initial teacher education, these are not included. Duration of preparation in pedagogy is for an individual enrolled on a full-time basis.

Notes: *a* Information not applicable because the category does not apply; *m* Information not available.

1. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies across the country.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Only 3 of 18 countries fully recognise the work experience of side-entrants in determining their starting salary in teaching (Finland, the Netherlands and Hungary). Other countries recognise such work experience under certain circumstances: if "deemed relevant" or related to the subject taught (Austria, Quebec, Denmark, Germany, Israel, England and Wales), or if it was acquired in the public service (Australia and Belgium, Flemish Community). Both the Flemish and French Communities in Belgium and France recognise relevant work experience of vocational teachers. Four countries generally do not recognise the work experience of side-entrants for salary setting purposes (Chile, Japan, Korea and the United States).

As is discussed further in Chapter 4, although the data are limited, there seems to be growth in the number of people entering teaching via alternative pathways. A broad conclusion from the research, mainly from the United States, is that alternatively certified teachers generally perform as well as those prepared through traditional teacher education programmes. However, it also seems to be the case that participants in alternative pathways need strong supervision and ongoing support to maximise their chances of success.

3.4. Priorities for Future Policy Development

This chapter has documented a range of country concerns about teaching's attractiveness as a career. Around one-half of the participating countries face teacher shortages either at the present time or in the near future as large numbers of teachers reach retirement age, even after allowing for projected declines in student enrolments. Even where general teacher supply and demand are approximately in balance, countries report concerns about shortages of specialist teachers in areas such as mathematics, science, ICT and languages. There is evidence that teacher shortage problems are most acute in schools serving disadvantaged or isolated communities. The other set of concerns about teacher supply are more qualitative in nature and reflect trends in the composition of the teacher workforce in terms of academic background, gender, competencies, cultural background and so on. Such concerns are raised even by countries which currently have a large oversupply of teachers.

Country experience suggests that policy responses are needed at two levels. The first is concerned with the nature of the teaching profession itself, and seeks to improve its general status and competitive position in the job market. The second involves more targeted responses to particular types of teacher shortages. It recognises that that there is not a single labour market for teachers, but a set of them, distinguished by school type and personal characteristics like gender and subject specialisation.

An important consideration for teacher policy is the consistent finding that the responsiveness to incentives depends on the characteristics of individuals. For example, individuals in certain academic disciplines, such as science, and teachers with higher academic credentials are less likely to be attracted to teaching in the first place, and less likely to return to teaching once they leave. Women are likely to particularly value the potential flexibility that teaching can offer, so improved leave provisions, opportunities for part-time employment and career breaks, and child care are likely to be particularly important to their career choices. Such findings support the case for targeted policies, and yet there are often pressures for "one size fits all" policy responses.

The policy suggestions in this section are drawn from the Country Background Reports, the country review visits, and other research. The suggested policy priorities do not necessarily apply to all of the participating countries since in some cases such policies are

already implemented, while in others they may not apply because of different country circumstances in regard to teacher demand and supply.

Improving the image and status of teaching

A key part of any general strategy must involve reminding teachers that they are highly skilled professionals doing important work. Surveys from a number of countries report that teachers' self-image is relatively low, and indeed lower than wider public opinion of the value of their work. Teacher role models are likely to be an important influence on students' interest in the career.

Research shows that people who have close contact with schools – such as parents who assist in classrooms, or employers who have students in workplace learning programmes – have much more positive attitudes towards teachers than people with little direct contact. This suggests that building stronger links between the schools and the community will help to enhance the status of teaching. Programmes that provide opportunities for tertiary students to visit schools and observe teachers' work are another way of increasing awareness of the importance and rewards of a teaching career. Such initiatives can be reinforced with general campaigns in the media to enhance the image of the profession by highlighting its importance for the nation as well as its sophistication and complexity, and the intellectual excitement it can generate. Surveys of what teachers themselves value about their work provide insights about what needs to be emphasised: teaching's social relevance; working with young people; creativity; autonomy; and working with colleagues.

Countries also report success with promotional programmes targeted at groups who are "non-traditional" entrants to teaching, such as people in their thirties and fourties from other professions who are looking for a career change, and young graduates for whom teaching could provide an opportunity to build a wide range of skills before moving on to other employment. Such initiatives reinforce the message that teaching need not necessarily be seen as a lifetime career, and that there is flexibility to cope with a more dynamic job market.

There is also a need to promote the benefits of a teaching career to groups who are often under-represented among teacher ranks, such as males and those from minority cultural backgrounds. Such strategies would include promoting positive teacher role models from similar backgrounds, investigating the reasons behind apparently negative views about teaching and correcting misconceptions about the job, and disseminating information about teaching through forums and media that are relevant to such groups.

Improving teaching's salary competitiveness

Although the data are somewhat limited, and there are a number of country exceptions, the general picture is that teachers' salaries relative to those in broadly comparable occupations have declined since the early 1990s. Although other aspects of teachers' employment conditions, such as vacations, relative job security and pensions, are often more generous than in other occupations, teachers' total compensation package is probably less competitive than it once was.

A broad conclusion from the research is that in countries where teacher salaries are low relative to professions requiring similar qualifications, teacher supply appears to be quite "elastic": that is, for a given percentage increase in teachers' relative salaries, the supply of potential teachers increases by a larger proportion. In countries where teacher salaries are already relatively high, teacher supply seems to be less elastic: for such countries to achieve a given increase in teacher supply requires a proportionately larger salary rise.

Nevertheless, the large size of the teaching workforce means that to raise salaries across-the-board by even a few percentage points is very costly. It may be more cost-effective, therefore, to target larger salary rises to the key groups in short supply. For example, as discussed in the previous chapter, countries that have in recent years provided much larger pay rises for beginning teachers have tended to see an increase in teacher education enrolments, some indication of increased academic quality among new student teachers, and increased numbers of young people joining the profession. Similar results have been reported for targeted salary rises in the nursing profession (Simoens and Hurst, 2004). Improving teaching's general salary competitiveness is also likely to improve its appeal to males and members of minority groups who are currently under-represented in the profession.

Targeted policy initiatives are also evident in regard to attracting particular types of teachers. A number of countries have introduced special programmes and incentives designed to attract more teachers for subjects such as mathematics, science, technology, and vocational subjects. Fee waivers, scholarships and forgivable loans are some of the financial incentives being provided to attract such people into teacher education, and salary bonuses and recognition of work experience are being provided for those who already have qualifications that are in short supply. Some countries have also considered financial incentive schemes to attract males and members of minority groups into teacher education, although the scope of these can be limited by equal opportunities legislation.

Improving employment conditions

Teaching will improve its competitiveness as a career choice if it is able to provide flexible conditions of employment. Employers are increasingly recognising the need to provide workers with a good work-life balance and opportunities to combine work with family responsibilities and other activities. Increasing the opportunities for part-time teaching could increase its appeal, as could opportunities throughout the career to gain experience outside schools through sabbatical leave, extended leave without pay, and job exchanges with industry. Although all such initiatives involve costs, they need to be set against the benefits of lower staff turnover, improved morale, and bringing new knowledge and skills into schools.

Expanding the supply pool of potential teachers

Countries are seeking to attract new sorts of people into teaching – not just to overcome shortages, but also to broaden the range of backgrounds and experiences in schools. Some countries have had a long tradition of requiring industrial experience for teaching in vocational programmes, but this is now being broadened to other types of teachers. The potential sources of teachers can be expanded by opening the teaching profession to individuals with relevant experience outside education. A useful model is provided by countries that recognise the skills and experience gained outside education in terms of starting salary, and which enable appropriately qualified entrants to start working and earning a salary before completing teacher training qualifications. These are generally complemented by more flexible approaches to teacher education that offer opportunities for part-time study and distance learning, and which give credits for relevant qualifications and experience. Some countries have indicated that alternative pathways into teaching seem to be particularly appealing to under-represented groups such as males and those from minority cultural backgrounds.

Another way of expanding the potential supply pool is through an increased mobility of teachers across educational levels, something that can be achieved by ensuring that different teacher education programmes have more elements in common, and by providing more opportunities for retraining and upgrading teachers' skills. Former teachers also provide a major potential source of recruits in many countries. Strategies to tap this source include maintaining contact with former teachers to keep them informed of educational developments and job opportunities, and targeted retraining schemes to prepare them for teaching new school programmes.

Making reward mechanisms more flexible

In most countries teachers with similar qualifications and experience who are working at a given level of schooling (primary, upper secondary and so on) are paid according to a single salary scale. The use of single salary schedules makes it very difficult to raise salaries to attract more qualified teachers to hard-to-staff schools or in subject areas experiencing shortages without also raising salaries across-the-board. The teacher labour market is diverse, and teacher recruitment difficulties vary by type of school, subject specialisation, and region. Also, in many countries the problems of teacher shortages and high turnover of staff are felt most acutely in schools that are already disadvantaged.

The research evidence suggests that in a number of countries the current incentives are insufficient to attract teachers to work in challenging schools or difficult locations. Some countries use administrative rules that require teachers to spend designated periods of time in particular types of schools before they are eligible for promotion or more favoured locations, and one or two countries require teachers to change schools periodically. For countries where such rules would not be feasible, or there would be concerns about the quality implications of teachers being required to work in certain locations rather than choosing to do so, the incentive structure needs to be used in a more flexible manner. For instance, substantial salary allowances for teaching in difficult areas, transportation assistance for teachers in remote areas, or bonuses for teachers with skills in short supply will help ensure that all schools are staffed with teachers of similar quality. Research from the health sector suggests that incentives to encourage doctors to work in rural areas (including support for spouse employment and accommodation) are more cost-effective than schemes that require doctors to serve a designated amount of time in rural areas (Simoens and Hurst, 2004).

Also worthy of attention are non-salary strategies, such as lower class contact times or smaller classes, for schools in socially difficult areas or which have particular educational needs. The incentives need to be sufficiently large to make an ongoing difference in the quality of teaching in disadvantaged schools.

Improving entrance conditions for new teachers

Policies to encourage more people to enter teaching are unlikely to pay off if high-quality candidates find it hard to gain teaching posts. The best candidates, who are likely to have good job prospects outside teaching, may not be willing to wait in a lengthy queue or to endure a succession of short-term teaching assignments in difficult schools. Well-structured and resourced programmes of induction for new teachers and selection processes that ensure the best candidates get the available jobs are critical in these cases. Reducing the weight given to seniority in ranking applicants for teaching vacancies will also help reduce the risk of new teachers being disproportionately assigned to difficult schools. Issues of induction, and teacher selection and assignment, are taken up further in Chapters 4 and 5, respectively.

Rethinking the trade-off between the student-teacher ratio and average teacher salary

Much of the preceding discussion has focused on ways to improve teacher supply. However, when demand exceeds supply, another strategy is to look at ways of reducing demand, or at least not increasing it further. Broadly speaking, further spending on schools can be used to either reduce student-teacher ratios (and thereby employ more teachers and reduce average class size), or increase teachers' average salaries, or some combination of the two. While targeted class size reductions can be beneficial for some students (such as those in the early years of school or those from disadvantaged backgrounds), across-the-board reductions in class size are expensive and unlikely to lead to substantial learning gains, at least in the range of class sizes currently existing in most countries. The literature identifies several cases in which the expansion of the teaching force required to staff a policy of smaller classes appears to have led to a decline in the average quality of new teaching recruits – and thereby put at risk the hoped-for benefits of smaller classes.

An alternative strategy would be to focus additional spending on increasing teachers' average salaries and employing more support staff in schools. This strategy would aim to both make teaching more attractive and, through the greater use of support staff, enable teachers to focus more on their specialist expertise. Indeed, there is some evidence from recent years that more countries are placing greater weight on increasing teacher salaries than on reducing student-teacher ratios. There could even be arguments for reconfiguring staffing in some schools so that fewer teachers are employed but they are paid substantially more and provided with much more extensive support.

At the other end of the spectrum, there are some countries with an oversupply of teachers and which have both high student-teacher ratios and average teacher salaries. In such cases there would be an argument for focusing additional school spending on employing more teachers, rather than increasing teachers' average salaries, and thereby improve teaching and learning conditions in schools.

Capitalising on an oversupply of teachers

Not all countries currently face teacher shortages, and some have many more qualified applicants than available teaching positions. In countries with high student-teacher ratios, this can provide an opportunity to increase teacher employment and improve conditions in schools. Countries experiencing teacher oversupply also have the opportunity to be much more selective about those who are employed. There is evidence among some participating countries of a broadening of teacher selection criteria and processes away from a reliance on examination results. Candidates are now being required to undertake interviews, undergo aptitude tests, prepare lesson plans, and demonstrate their teaching skills.

School systems with too many qualified teachers are looking for ways to adapt teacher education and professional development to deal with oversupply in a constructive manner. Countries in these circumstances need to ensure that the quality of teachers' preparation is not undermined by the large number of candidates – *e.g.* through quantitative pressures in institutions of teacher education, difficulty in providing traineeships in schools, or fewer opportunities for professional development activities. An oversupply of teachers has resulted in some countries from a policy that largely guarantees graduates of initial teacher education employment in public schools. Changing this policy so that employment as a teacher depends on demonstrated need and individual competence is clearly important, along with making initial teacher education programmes broader so that individuals obtain

skills and qualifications that provide other employment opportunities when teaching jobs are not available.

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Chapter 4

DEVELOPING TEACHERS' KNOWLEDGE AND SKILLS

Summary

The pace of social change and the heightened expectations of schools have broadened and deepened teachers' roles. This chapter discusses the different approaches that countries are taking to develop teachers' knowledge and skills, and reviews promising initiatives in initial teacher education, induction, and professional development.

Countries benefit from clear and concise statements or profiles of what teachers are expected to know and be able to do. Such profiles are necessary to provide the framework to guide initial teacher education, teacher certification, teachers' on-going professional development and career advancement, and to assess the extent to which these different elements are being effective. The teacher profiles need to reflect the student learning objectives that schools are trying to achieve, and profession-wide understanding of what counts as accomplished teaching.

More flexible structures of initial teacher education are proving effective in opening up new routes into the teaching career. The stages of initial teacher education, induction and professional development need to be much better interconnected to create a lifelong learning framework for teachers. Initial teacher education must not only provide sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also needs to develop the skills for reflective practice and research on-the-job.

Countries are rethinking the role of field experiences in schools. These now tend to happen earlier in teacher education, and are framed to provide a broad experience of what it means to be a professional teacher. Well-structured and resourced induction programmes for new teachers are vitally important in ensuring a good start to the career.

Effective professional development is on-going, includes training, practice and feedback, and provides adequate time and follow-up support. Successful programmes involve teachers in learning activities that are similar to ones they will use with their students, and encourage the development of teachers' learning communities. There is growing interest in developing schools as learning organisations, and in ways for teachers to share their expertise and experience more systematically.

Teacher education is high on the policy agenda in many countries. Countries are seeking to ensure that teacher education is attractive to high-quality entrants, and that it adequately prepares teachers for the demands of modern schooling.

The ageing of the teacher workforce has sharpened such concerns. The need to recruit and prepare large numbers of new teachers to replace those who will retire in the next 5 to 10 years has placed initial teacher education under considerable pressure. Reforms underway in a range of countries include providing more flexible pathways into teacher education, strengthening its research and knowledge base, lifting the status of teaching qualifications and giving trainee teachers closer contact with schools. However, while improving initial teacher education is important, it is insufficient on its own.

The teaching career is increasingly seen in lifelong learning terms, with initial teacher education providing the foundations. Therefore, countries are also seeking ways to provide better support for beginning teachers, and opportunities and incentives for ongoing professional development throughout the career. As noted in the German background report: "it is a particular feature of the work of teachers that the full development of professional competency, the necessary specialisation, the continuing expansion of knowledge, the necessary gain in experience and assurance … and having to deal with frequently and variously changing problem areas … can only occur in the job itself".

Most professions emphasise the need for pre-service education to provide a solid platform for ongoing learning and career development. Although this view has been present to some extent in teacher education, it has not often been made explicit through structures and programmes. As the Country Background Reports generally acknowledge, the stages of initial teacher education, induction and professional development need to be much better interconnected in order to create a more coherent learning and development experience for teachers.[1] In broad policy terms, this means that not only does the quality of initial teacher education need to be enhanced, but that induction and professional development need to be strengthened and their overall weighting in teacher development increased.

There is also increasing recognition of the need to encourage more informal ways of learning by teachers through more systematic reflection, innovation, joint problem-solving, networking and sharing of expertise and experience. Such ideas, which are sometimes brought together through concepts such as "knowledge management" or "schools as learning organisations", are starting to be developed in a number of countries. For schools to become learning organisations requires that teachers have the skills and motivation to be active in creating professional knowledge, in sharing it with their colleagues, and in integrating research and development into their work.

This chapter discusses the different approaches that countries are taking to develop teachers' knowledge and skills, and reviews policy issues and promising initiatives in initial teacher education, induction, and professional development in different forms. It commences by outlining trends and developments that are causing a rethink of existing approaches.

[1] Unless otherwise indicated, references to country data and developments are taken from the background reports prepared by countries participating in the OECD teacher policy project. To save space, the background reports are not individually cited. Appendix 1 provides information on the background reports, their authors, and availability.

4.1. Teachers' Roles are Changing

The demands on schools and teachers are becoming more complex. Society now expects schools to deal effectively with different languages and student backgrounds, to be sensitive to culture and gender issues, to promote tolerance and social cohesion, to respond effectively to disadvantaged students and students with learning or behavioural problems, to use new technologies, and to keep pace with rapidly developing fields of knowledge and approaches to student assessment. Teachers need to be capable of preparing students for a society and an economy in which they will be expected to be self-directed learners, able and motivated to keep learning over a lifetime: "in their preparation, their professional development and their working lives, today's teachers must get a grasp of and a grip on the knowledge society in which their pupils live and will work" (Hargreaves, 2003, p. xvii).

An analysis of recent policy reforms in OECD countries (OECD, 2003) indicates the scope of the changes underway in schools and their implications for teachers. First, almost all countries have initiated policies to lift the quality of student learning. This emphasis has included more clearly specifying the key skills and knowledge that students need to achieve (*e.g.* Germany and Japan), introducing external evaluations of student learning and school performance (*e.g.* the Netherlands and Norway), and strengthening teacher expertise (*e.g.* in teaching reading in the United States). Second, the adoption of frameworks that specify learning objectives and accountability requirements have generally been part of a broader reform package that also provides schools with more operational autonomy (*e.g.* in Finland and Italy). Third, issues of social disadvantage and student alienation continue to be major concerns, with countries implementing programmes aimed at reducing the number of young people without qualifications (*e.g.* France), improving student motivation (*e.g.* the United Kingdom), or reducing differences in education opportunities across regions (*e.g.* Korea).

In reflection of this school reform agenda, most of the Country Background Reports indicate that teachers are now expected to have much broader roles, taking into account the individual development of children and young people, the management of learning processes in the classroom, the development of the entire school as a "learning community" and connections with the local community and the wider world.

Some examples of areas of broadened teacher responsibility mentioned in Country Background Reports are as follows.

At the individual student level

Initiating and managing learning processes. There is a lot of debate over how teachers should impart the curriculum. As well as providing instruction, teachers are increasingly expected to encourage students to take a more active role in their own learning. In a number of countries providing stimulating settings of learning and helping students to develop problem-solving skills and to monitor and direct their own learning are seen to have become core responsibilities of teachers.

Responding effectively to the learning needs of individual learners. Teachers are expected to observe and diagnose learning strengths and weaknesses and to provide guidance to individual learners and their parents.

Integrating formative and summative assessment. Teachers need to be "assessment literate" with regard to both summative and formative methods. They need to be familiar with standardised assessment tests, to be able to use test results in a diagnostic manner, and to adapt curricula and teaching in response to student achievement.

At the classroom level

Teaching in multicultural classrooms. Classrooms are becoming increasingly diverse with students of different cultural and religious backgrounds. Teachers are expected to work for social cohesion and integration by using appropriate classroom management techniques and applying cultural knowledge about different groups of students.

New cross-curricular emphases. Some school systems, such as the United Kingdom, have introduced areas such as citizenship education, covering community involvement, social and moral responsibility, and political learning, which can be taught separately, or integrated across the whole school curriculum.

Integrating students with special needs. School systems are increasingly offering integrated education for students with disabilities and learning difficulties, and teachers are expected to develop knowledge on special education, on appropriate teaching and management processes, and in working with support personnel.

At the school level

Working and planning in teams. Teachers are now expected to collaborate and to work in teams with other teachers as well as other types of staff. They need social and management skills to co-operate, to set common goals and to plan and monitor the attainment of goals set collaboratively.

Evaluation and systematic improvement planning. In many systems, schools are now required to use data gathered from self-evaluation or through testing and external evaluation to inform school development processes. This calls for new skills in data gathering and analysis, and in communicating the results to parents. In addition, school development requires project management and monitoring skills.

ICT use in teaching and administration. Teachers are now expected to integrate the use of ICT into their professional practice and to keep up to date with ICT developments and applications.

Projects between schools, and international co-operation. It is becoming more common for schools to collaborate on joint projects, and for schools to develop links with schools in other countries. Such programmes require teachers with leadership and organisational skills, and the capacity to work and communicate effectively in a range of different settings.

Management and shared leadership. In most countries decision-making on schooling has become more decentralised in recent years, especially in regard to the organisation of instruction. An increase in the number and range of decisions taken at school level has led to new managerial tasks in schools, and teachers in some countries are expected to participate in and contribute to school leadership.

At the level of parents and the wider community

Providing professional advice to parents. School systems increasingly emphasise the crucial importance of close co-operation between schools and parents. Consequently, teachers need to be trained to inform and to consult with parents.

Building community partnerships for learning. To gain additional support and to provide for broader learning experiences, schools in some countries are expected to build partnerships with agencies in the community, such as libraries, museums, and

employers. Teachers need to have the skills to make those connections and to sustain them over time.

Although teaching in many countries has long involved most of the tasks outlined above, the pace of social change and the heightened expectations of schools, have broadened and deepened teachers' roles. As Coolahan (2002) has argued, the fact that since the mid-1990s many countries have adopted a lifelong learning perspective in education policy "adds a fresh impetus to many progressive trends which have been affecting the career of teaching" (p.14). Teaching is increasingly seen as a professional activity requiring a careful analysis of each situation, choice of objectives, development and monitoring of suitable learning opportunities, evaluation of their impact on students' achievement, responsiveness to students' learning needs and a personal or collective reflection on the whole process. As professionals, teachers are expected to act as researchers and problem-solvers, reflecting on their own practice and assuming greater responsibility for their own professional development.

The concern expressed by a range of Country Background Reports is that existing approaches to developing teachers' knowledge and skills do not adequately reflect the tasks that teachers are now expected to fulfil. As is discussed below, in some countries government entities and teacher organisations have responded by developing professional standards and definitions of core responsibilities reflecting the new "enriched" but also more demanding profession of teaching. These new profiles and standards of teaching are being used to shape initial teacher education and professional development. Such profiles can also contribute to improve public understanding of what modern teaching actually involves.

4.2. Implications of Research on Effective Teachers

The importance of teacher quality for student achievement was summarised in Chapter 2. This section discusses in more detail the attributes of effective teachers that teacher education and professional development need to be oriented towards.

Teaching is a complex task that involves interactions with a great variety of learners in a wide range of different circumstances. It is clear there is not a single set of teacher attributes and behaviours that is universally effective for all types of students and learning environments, especially when schooling varies in many important regards across different countries. Effective teachers are people who are competent across a range of domains.

A consistent finding is that effective teachers are intellectually capable people who are articulate and knowledgeable, and able to think, communicate and plan systematically. Students achieve more with teachers who perform well on tests of literacy and verbal ability (Gustafsson, 2003; Rice, 2003).

Positive relationships have also been found between teachers' academic qualifications and student achievement. Using data from the Third International Mathematics and Science Study on 13-year-olds' achievement in 39 countries, Wößmann (2003) found that teachers' level of education is positively related to student performance, with the effects stronger in science than in mathematics. On the other hand, a United States study by Goldhaber and Brewer (2000) found a positive relationship between teachers' degrees in mathematics and student achievement, but not in science.

The review by Wilson *et al.* (2001) found a positive connection between teachers' preparation in their subject matter and student performance, but also noted that more subject matter study is not always better. They concluded that there is a threshold level of

subject matter knowledge necessary for effective teaching, but beyond that point higher levels of subject matter knowledge – at least as measured by academic qualifications – are not necessarily associated with student gains. This conclusion supports that of Monk (1994) who found that teachers' content preparation, as measured by coursework in the subject field, is positively related to student achievement in science, but that the relationship is curvilinear, with diminishing returns to student achievement of teachers' subject matter courses above a threshold level. A review prepared for the Education Commission of the States concluded that research provides moderate support for the importance of solid subject matter knowledge but that it is generally "not fine-grained enough, however, to make it clear how much subject-matter knowledge is important for teaching specific courses and grade levels" (Education Commission of the States, 2003).

Studies looking at both subject matter expertise and teaching methodology have shown that knowing how to teach also has positive effects on student achievement (Wenglinsky, 2000, 2002; Gustafsson, 2003; Wayne and Youngs, 2003). However, evaluating the impact of pedagogical preparation is made difficult by the fact that there is such a potentially wide range of different courses under this label, including courses in subject-specific teaching, and more generic courses in learning theory, educational psychology, sociology, assessment, measurement and testing, classroom management and so on. These courses are offered in different sequences and with differing content and intensity. Rice (2003) concludes that pedagogical coursework contributes to teacher effectiveness when combined with content knowledge. The United States research has been characterised as providing some support for the conclusion that pedagogical preparation contributes to effective teaching, especially subject-specific courses and those designed to develop core skills such as classroom management, student assessment and curriculum development (Education Commission of the States, 2003).

The evidence, though, is less clear about the benefits of advanced qualifications in education. In the United States, for example, several States require that teachers earn a Master's degree within a specific period of time after initial hiring. Most such degrees are in education rather than in subject-matter content, and Rivkin *et al.* (2001) find no evidence that having a Master's degree improves teacher skills. An additional consequence of such a policy is the fact that it raises the cost of choosing teaching as a career and may dissuade potentially effective teachers from entering the profession (Murnane, 1996). However, as a counter-example, all general education teachers in Finland are required to complete a five to six -year course (a Master's degree) before starting in the job, and this is seen as contributing to the profession's relatively high social status and attracting competent people to become teachers.

As was noted in Chapter 2, there is broad agreement that many important aspects of teacher quality are not captured by indicators such as qualifications, experience and tests of academic ability. The most readily measured attributes of teachers account for only a small part of why some teachers seem to be more effective than others (Goldhaber *et al.*, 1999).

In an influential study, Shulman (1992) identified five broad areas for the development of professional knowledge and expertise in teaching:

- Behaviour – effectiveness is evidenced by teacher behaviour and student learning outcomes.
- Cognition – teachers as intelligent, thoughtful, sentient beings, characterised by intentions, strategies, decisions and reflections.

- Content – the nature and adequacy of teacher knowledge of the substance of the curriculum being taught.
- Character – the teachers serve as moral agents, deploying a moral-pedagogical craft.
- Teacher knowledge of, and sensitivity to, cultural, social and political contexts and the environments of their students.

Studies by Lingard *et al.* (2002) and Ayres *et al.* (2000) identified a range of personal competencies that make a difference to the quality and effectiveness of teaching: sound subject knowledge; communication skills; ability to relate to individual students; self-management skills; organisational skills; classroom management skills; problem-solving skills; a repertoire of teaching methods; teamwork skills; and research skills.

Hattie (2003) drew on an extensive review of research to identify five major dimensions that distinguish highly competent teachers. Expert teachers are those who can: identify essential representations of their subject, based on how they organise and use their content knowledge; guide learning through classroom interactions by creating optimal classroom environments; monitor student learning and provide feedback; promote effective outcomes through the manner in which they treat students, and their passion for teaching and learning; and influence student outcomes by engaging students, providing challenging tasks and goals, and enhancing "deep" learning or understanding. Hattie argues that the attributes of expert teachers should be viewed as forming a profile, rather than a checklist: "There is no one necessary facet, nor the equal presence of all, but the overlapping of many facets into the whole" (p. 10).

Given that there is a range of attributes that contribute to teacher effectiveness, and a variety of ways in which they can be developed, it is important to continually monitor and evaluate the effects of teacher preparation and development to ensure that their emphases are not too narrowly based and that potentially important aspects of teaching are not being neglected. The criteria that teacher employers use to select and promote teachers have a critical role to play in this regard. Although there are a lot uncertainties and contradictions in the research on teacher effectiveness, it does at least raise doubts about relying on a limited range of academic qualifications in determining who is likely to be a competent teacher, and who should advance once in the job.

Many, if not most, of the key attributes of successful teachers will only become evident once they are in the job. Many skills will be best developed once people are working as teachers rather than through pre-service education. Formal, measurable attributes of teachers are necessary but not sufficient; they must be complemented by processes that enable important but less tangible qualities of teachers to be identified. Such processes are necessary when determining who enters teacher education, the criteria for qualification as a teacher, and the basis on which teachers are selected for employment and career advancement.

As a result of the emerging research on teacher effectiveness, an increasing number of countries are developing common teaching profiles and standards against which teacher education and development, and conditions in schools, may be assessed (see Section 4.4 below). Although the concept of standards in teacher effectiveness is multi-dimensional and not easy to grasp, the insights from research and the approaches being tried within countries show promising steps forward.

4.3. Initial Teacher Education

4.3.1. Entrance into teacher education

Most countries have multiple entry points into the field of teaching. In some countries, the large majority of teacher trainees enrol directly from secondary school, while other countries attract a greater percentage of individuals who have already completed a tertiary qualification or who come into teaching from other professional backgrounds. Entry varies by type of preparing institution and by the school level which candidates plan to teach. Teachers are prepared at widely varying institutions: teacher colleges and universities, public state-run and private institutions. In some countries (*e.g.* the United States, which has examples of both, and Canada) the students contribute to the costs of teacher education in the form of tuition payments. In other countries (*e.g.* France and Germany), there is no tuition fee for teacher education.

In many European countries entry to teacher education is largely open to all those who have completed secondary education, while in others more restrictive forms of entry apply. In general terms, entry to concurrent teacher education courses is based mainly on final secondary school results, while entry to consecutive courses (which are more common for secondary teachers) depends to a larger extent on performance in university studies. In countries where teaching has high social status – such as Finland, Ireland and Korea – there is strong competition for entry into teacher education. For example, in Finland, in primary education where there are many more applicants than available places in teacher education, selection involves two phases. The first phase is nationwide and is based on final secondary school results, previous study record and relevant work experience. The second phase is university-specific and may include essays, individual and group interviews, and observed teaching and other group situations.

Some of the Country Background Reports express a concern that enrolment in initial teacher education programmes is often a fall-back option in case the graduate labour market deteriorates. For example in Belgium (Flemish Community) in 2000/01, more than half of the first-year students enrolled in upper secondary teacher education courses indicated that it was their second or third choice. In Hungary, about 20% of all full-time higher education students are enrolled in teacher education courses, and only a minority of these are ever likely to work as teachers.

Setting tighter entrance criteria for teacher education is difficult in countries with a tradition of largely unrestricted entrance to higher education. As well, the numbers who want to enter teacher education cannot be considered in isolation from the availability of other higher education courses: in the case of Hungary teacher education enrolments are high, despite government funding ceilings, partly because there is a lack of accredited degree programmes in other fields. The issue of entrance criteria must be addressed, though, because of the risk that with largely unrestricted entry the system of teacher education is stretched too thin. If teacher education programmes in such countries admitted fewer students, and if those admitted were more suited for teaching and more interested in a teaching career, the available resources could be used more effectively.

Entrance criteria are perhaps even more important for countries seeking to expand teacher education to help address teacher shortages. For example, as part of its teacher education reforms, the canton of Zürich in Switzerland has opened the universities of applied sciences in education to people with professional work experience but without the final secondary school (*Matura*) certificate. In order to evaluate and validate the competencies of these candidates, an assessment was developed to evaluate their skills in

communication, co-operation, knowledge transfer and self-management. As another example, Box 4.1 outlines an Israeli approach to lifting the quality of entrants by linking changes to entry requirements to course length and structure.

Box 4.1. **Attracting high quality students into teacher education in Israel**

In addition to increasing the quality of applicants by upgrading entrance requirements, a new initiative on behalf of the Israeli Ministry of Education began in 1999 aims to attract excellent students with exceptionally high entrance scores to teachers colleges by offering them an individually tailored and challenging programme. The goal is to reach about 5% of the total number of student teachers, with the intention that these individuals will eventually become educational leaders.

The programme itself is a three-year programme (instead of a four-year programme but with the same amount of hours), which is tailored to each student. It includes regular courses as well as individual programmes, self-study and tutorials. The fourth year is an induction year that is spent mostly in schools. The selected students are provided with full scholarships and priority in job appointments. At present, the programme is being run in 19 colleges with 800 students (it commenced with four colleges and 70 students). Full evaluation results are not yet available, but initial results show high satisfaction among the participants and extensive integration into the teaching profession.

Source: Libman *et al.* (2002).

4.3.2. The structure of initial teacher education

The structure of initial teacher education differs markedly across countries. Table 4.1 summarises some key features.

Concurrent versus consecutive models

Broadly speaking, Table 4.1 shows that there are two different models of teacher education.[2] A concurrent model is a programme in which academic subjects are studied alongside educational and professional studies throughout the duration of the course. In some instances, study in the academic and professional subjects may be awarded separate qualifications, but in most cases a single qualification, such as Bachelor of Education, is applied. Concurrent models are common in preparing primary teachers. As Table 4.1 shows, in all countries except France and Germany primary teacher education is structured along concurrent lines (with some countries offering both concurrent and consecutive models at this level). The large majority of countries also provide concurrent teacher education programmes for lower and upper secondary education teachers. Indeed, in 10 countries upper secondary general teacher education is provided mainly through the concurrent model: Belgium (Flemish Community); Canada (Quebec); Greece; Hungary; Ireland; Italy; Japan; Korea; Turkey and the United States.

Concurrent models offer the potential benefits of allowing for a more integrated learning experience as pedagogical training and subject-matter training are taking place simultaneously. Concurrent models are, however, in some ways less flexible than consecutive models because students are required to decide about their entry into teacher education very early in their university studies. Concurrent models can also make it potentially difficult and costly to enter teacher education after having completed a degree in

[2] The data in Table 4.1 refer to 2001 and in some countries teacher education structures have changed since that time.

a discipline other than education, although a number of countries do provide some credit recognition for studies in other fields. The concurrent approach may also be less appealing where the job prospects of teachers are uncertain: having a qualification tagged as "education" or "teaching" could be less attractive to other potential employers even though in other respects the content may be equivalent to other degrees.

A consecutive model means a programme of professional training in pedagogy and teaching that is taken after having completed a first degree in a discipline related to the subjects taught in schools. As Table 4.1 shows, consecutive models tend to be more common in preparing secondary teachers than primary teachers. This type of programme characterises Denmark, France, Norway and Spain, for example. A number of other countries – Austria, Australia, the Czech Republic, England, Finland, Ireland, Israel, the Netherlands, Northern Ireland, Scotland, the Slovak Republic, Sweden and Wales -- offer both consecutive and concurrent models in secondary teacher education.

Consecutive programmes allow for flexible entry into teacher education. Graduates can still enter teacher education after having completed a first degree in another discipline and, by deferring the decision point, consecutive programmes more readily accommodate changes in students' interests and in labour market conditions. There is also an argument that consecutive models offer potentially stronger subject matter education since mathematics, history and so on are more likely to be taught by specialists in those fields, and the potential teachers are mixing with a wider group of students. On the other hand, consecutive models may provide for a less integrated learning experience for prospective teachers since there will normally be fewer opportunities to link subject matter knowledge and its pedagogy.

Some teacher education programmes are spread throughout a large institution (such as a university), and trainee teachers are expected to take courses both in subject-related faculties and faculties of education; other programmes are concentrated in one faculty of teacher education. Again, there are advantages and disadvantages to both approaches. Whereas taking courses in subject-specific faculties might ensure high-level subject training based on the latest research results, having to study in two different faculties might lead to a fragmented rather than an integrated learning experience. It may also make it harder for student teachers to develop a professional identity as a teacher (Calander, 2003 raises this concern about Swedish teacher education).

Concurrent and consecutive models of teacher education are likely to be more or less appealing to different types of potential teachers, and to have different influences on teachers' preparation for the profession. Views on the relative merits of the two main models have varied over the years, but the broad consensus now seems to be that both models offer distinctive benefits and that countries gain by offering both, rather than relying on a single model of teacher education. Concurrent systems are attractive to students who are strongly committed to their career choice as a teacher. Consecutive models enable people to delay a decision about entering teacher education until they are in an immediate position to benefit from it and have had more opportunity to make an informed decision about whether teaching is the right career choice. Both models should be options within a flexible teacher education system.

Structural issues in teacher education currently have a particular urgency in European countries. The 1999 agreement to make higher education qualifications across European countries more comparable (the "Bologna process") has triggered a process of restructuring higher education degree structures. Teacher education is particularly affected as the structure, length and location (university or non-university) of teacher qualifications vary so

much within Europe. The broad implications are that all teacher education will eventually be provided in university-level institutions (*e.g.* in Austria the teacher training colleges are being replaced by new pedagogical universities), and that more countries will introduce consecutive models of teacher education (with a Bachelor's and Master's degree structure). The large-scale structural changes now underway in Europe, if properly monitored and evaluated, will provide an unprecedented opportunity to assess how the structure of teacher education affects the entrants and what they learn.

Short versus long programmes of teacher education

The length of initial teacher education programmes varies substantially among countries (Table 4.1 and Figure 4.1). On average, primary teacher education programmes are 3.9 years in length, lower secondary education 4.4 years, and upper secondary 4.9 years. The overall range is from three years (*e.g.* for some primary teachers in Ireland and Spain) up to 6.5 years for some secondary teachers in Germany, seven years in some programmes in the Slovak Republic, and eight years for some secondary teachers in Italy. There are also some quite large differences in duration within a single country, with courses for some upper secondary teachers lasting about twice as long as courses for primary teachers in Italy and Spain. On the other hand, teacher education courses for all levels of schooling are uniformly four years in length in countries such as Australia, Canada (Quebec), England, Korea and the United States.

The differences in course duration mean that the age at which people typically commence a teaching career can vary from the early twenties (for example in the English-speaking countries) to the late twenties or early thirties (*e.g.* in Germany or Italy). There can also be substantial variations in the typical starting age within countries, with primary teachers often starting their career at a younger age than secondary teachers. The picture is made somewhat more complex by the growing phenomenon in some countries of mature-age entrants becoming teachers after other careers (see Section 4.3.4 below). It is likely that relatively short courses of teacher education facilitate entry into teaching by people from other careers since they involve lower costs, especially in terms of income forgone.

The length of courses is also relevant to the extent of teacher mobility within countries. Where courses for different types of teachers vary substantially in length (*e.g.* four years for primary teachers in Italy and seven years for some upper secondary teachers) it is highly likely that these lead to markedly different salary and career structures, and limit the scope for teacher mobility among different types of schools and responsibilities.

The general trend has been for the length of initial teacher education to increase. In many countries primary teacher education has been increased to four years as it has become a university-level programme, and secondary teacher preparation has increased by a year or so as it has become a post-graduate qualification. The broadened responsibilities of teachers that were outlined earlier may lead to pressure to increase the length of initial teacher education even further. Pressure may also come from the view that teaching qualifications must have a similar status to those from other professions, and that increases in the length of other courses should be matched by longer pre-service education for teachers. Although both these arguments have merit, they need to be set against the fact that longer courses lead to increased costs, which may diminish the prospective supply of teachers, and the research cited in Section 4.2 that raises questions about the effectiveness of some aspects of teacher education programmes. Given these considerations, there could be better value from providing more resources to improve teacher development throughout the careers rather than increasing the length of pre-service education.

Table 4.1. **Pre-service teacher education requirements, 2001**

	Duration of initial teacher education programme in years			Consecutive programme (--) or Concurrent programme (||)			Mandatory teaching experience as licensing requirement in years			Post-degree examination for teacher employment		
	Primary education	Lower sec. education	Upper sec. education	Primary education	Lower sec. education	Upper sec. education	Primary education	Lower sec. education	Upper sec. education	Primary education	Lower sec. education	Upper sec. education
Australia	4	4	4	||	||	||	a	a	a	No	No	No
	4	4	4	--	--	--	a	a	a	No	No	No
Austria	3	3	5.5	||	||	--	a	a	a	No	No	No
		5.5			--			a			No	
Belgium (Fl.)	3	3	4.6-5.8	||	||	||	a	a	a	No	No	No
		2-4	2-4		||	||		a	a		No	No
Belgium (Fr.)	3	3	4.24	||	||	-- or ||	a	a	a	No	No	No
			5.24			-- or ||			a			No
Canada (Quebec)	4	4	4	||	||	||	a	a	a	No	No	No
Chile	m	m	m	m	m	m	a	a	a	No	No	No
Czech Republic	4	5	5	||	||	||	a	a	a	No	No	No
		7	7		--	--		a	a		No	No
Denmark	4	4	4	||	||	--	a	a	a	No	No	No
Finland	5	5	5	||	||	||	a	a	a	No	No	No
		6	6		--	--		a	a		No	No
France	5	5	5	--	--	--	a	a	a	Yes	Yes	Yes
		6	6		--	--		a	a		Yes	Yes
Germany	5.5	5.5 - 6.5	6.5	--	--	--	a	a	a	Yes	Yes	Yes
	5.5-6.5			--			a			Yes		
Greece	4	4	4	||	||	||	a	a	a	Yes	Yes	Yes
		5	5		||	||		a	a		Yes	Yes
Hungary	4	4	5	||	||	||	a	a	a	No	No	No
Iceland	3	3	4	||	||	--	m	m	m	No	No	No
	4	4		--	--		m	m		No	No	
Ireland	3	4	4	||	||	||	1	1	1	No	No	No
	4.5			--			a			No		
Israel	4	4		||	||		1	1		No	No	
		4-5	4-5		--	--		a	a		No	No
Italy	4	6-8	6-8	||	||	||	1	1	1	Yes	Yes	Yes
Japan	2	2	4	||	||	||	a	a	a	Yes	Yes	Yes
	4	4	6	||	||	||	a	a	a	Yes	Yes	Yes
	6	6		||	||		a	a		Yes	Yes	
Korea	4	4	4	||	||	||	a	a	a	Yes	Yes	Yes
		2-2.5	2-2.5		||	||		a	a		Yes	Yes
Mexico	4	4	m	||	||	m	a	a	m	Yes/No	Yes/No	m
		6			||			a			Yes/No	
Netherlands	4	4	5.5	||	||	--	a	a	a	No	No	No
			5			--			a			No
New Zealand	3	4	4	||	--	--	2	2	2	No	No	No
	4	5	5	--	||	||	2	2	2	No	No	No
		4	4		||	||		2	2		No	No
Norway	4	4	4	||	||	--	a	a	a	No	No	No
		4	6		--	--		a	a		No	No
Portugal	3	5	5	||	||	||	a	a	a	No	No	No
	4	6	6	||	--	--	1	a	a	No	No	No
	6			--			1			No		
Slovak Republic	4	5	5	||	||	||	a	a	a	No	No	No
	7	7	7	--	--	--	a	a	a	No	No	No
Spain	3	6	6	||	--	--	1	1	1	Yes	Yes	Yes
		4			--			1			Yes	
Sweden	3.5	4.5	4.5	||	||	||	a	a	a	No	No	No
		4.5	4.5		--	--		a	a		No	No
Switzerland	3-4	4-5	6	||	||	--	a	a	a	No	No	No
Turkey	4	4	4	||	||	||	1	1	1	No	No	No
			5			||			1			No
			5.5			||			1			No
United Kingdom (Eng.)	3-4	3-4	3-4	||	||	||	1	1	1	No	No	No
	4	4	4	--	--	--	1	1	1	No	No	No
United Kingdom (N.Irl.)	4	4	4	||	||	||	1	1	1	No	No	No
	4	4	4	--	--	--	1	1	1	No	No	No
United Kingdom (Scot.)	3.75-4.75	3.75-4.75	3.75-4.75	--	--	--	≥ 1	≥ 1	≥ 1	No	No	No
	4	4	4	||	||	||	≥ 1	≥ 1	≥ 1	No	No	No
		3.5-4.5	3.5-4.5		||	||		≥ 1	≥ 1		No	No
United Kingdom (Wal.)	3-4	3-4	3-4	||	||	||	1	1	1	No	No	No
	4	4	4	--	--	--	1	1	1	No	No	No
United States	4	4	4	||	||	||	≤ 3	≤ 3	≤ 3	No	No	No

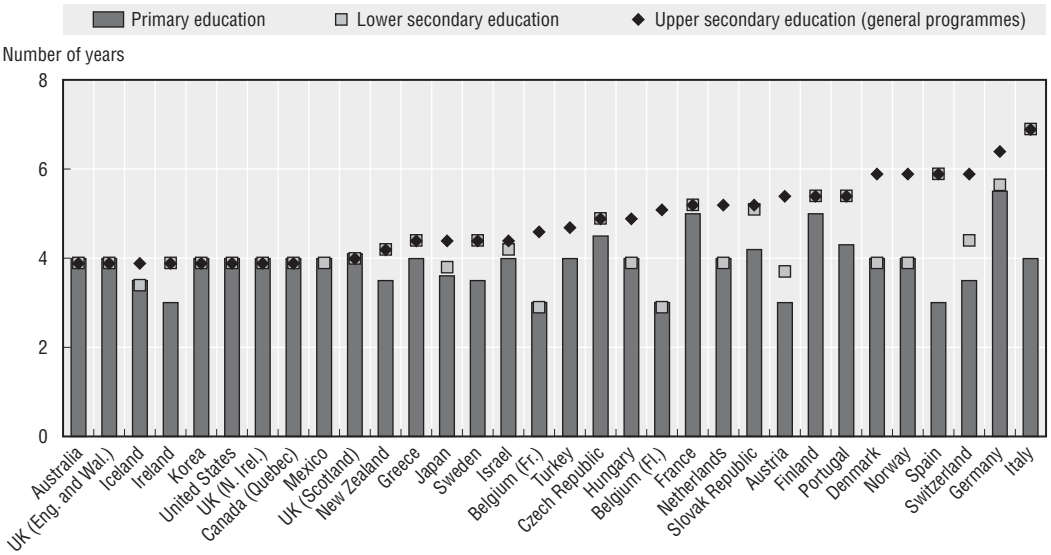
Notes : Information on upper secondary education is for general programmes only. Information for Canada (Quebec), Chile, Israel, United Kingdom (N.Irl.) and United Kingdom (Wal.) refers to 2002 while information for Switzerland refers to 2003. A concurrent programme combines general education in one or more subjects with theoretical and practical teacher training while a consecutive model provides most of the latter training only after a general education is acquired.

Symbols for missing data

a: Data not applicable because the category does not apply; m: Data not available.

Source : Based on Tables D4.1b, D4.1.c and D4.1.d published in OECD (2003b) except for Canada (Quebec), Chile, Israel, Switzerland, United Kingdom (N.Irl.) and United Kingdom (Wal.). The information for the latter countries is based on the Background Reports prepared by countries participating in the project.

Figure 4.1. **Number of years of post-secondary education required to become a teacher, 2001**



Note: Countries are ranked in ascending order of the number of years of post-secondary education required to become a teacher in upper secondary education. Information for Canada (Quebec), Israel, United Kingdom (N.Irl.) and United Kingdom (Wal.) refers to 2002 while information for Switzerland refers to 2003.

Source: OECD (2003b) except for Canada (Quebec), Israel, Switzerland, United Kingdom (N.Irl.) and United Kingdom (Wal.). The information for the latter countries is based on the Background Reports prepared by countries participating in the project.

4.3.3. Content and emphasis in teacher education

Teacher education systems also vary with regard to their specificity. In some countries, initial teacher education takes a fairly general form and allows teachers to move across different levels of education, different subjects or different types of schools. For example, under the reforms introduced in Sweden in 2001 there are now substantial common elements for all teachers from pre-school to upper secondary school. Systems that offer more specialised teacher education pathways qualify teacher trainees for particular types of schools. In some countries, such as Germany, quite different teacher education programmes exist for primary education, for academic upper secondary education, for vocational education and for teaching students with special needs. The French Community of Belgium offers an interesting hybrid model in primary and lower secondary teacher education: although there are different routes into teaching in different types of schools, they share a common framework through a curriculum organised around a teacher profile with 13 broad competencies common to all courses.

Though there exist some variations in the curriculum, most teacher education programmes offer some combination of coursework in subject matter, teaching methods and materials, child/adolescent development and other education courses such as psychology, history and philosophy of education, along with practice teaching. Variations can also be found with regard to the emphasis teacher education programmes place on different aspects, such as subject-matter knowledge, pedagogic knowledge, educational sciences, educational psychology and practical school experience. In order to enable teachers to use research to improve their professional practice, some countries have made a special effort to build teachers' research skills during their pre-service education (*e.g.* Australia, Denmark, Finland, Ireland, Israel, Norway and Sweden).

A number of Country Background Reports expressed concerns about the approaches used in teacher education programmes. For example, the Norwegian report stated that "teacher educators have difficulty in giving their teaching a practical focus and relating pedagogical competence to the individual subject. Subject teachers say that students often do not understand that they are receiving instruction in didactics, while students have difficulty in seeing how what they learn in different subjects is linked to what they need to know in a practical, teaching situation." Norwegian teachers express similar concerns; research indicates that initial teacher education is not highly valued and that teachers commonly perceive a gap between theory and practice in teacher education (Klette, 2002).

Practical field experiences during initial teacher education

Most systems of initial teacher education contain practical modules or internships to familiarise teacher trainees with schools and classrooms. In all countries taking part in the project, there seems to be a tendency to increase opportunities for actual classroom experiences during initial teacher education and to provide such opportunities from the beginning of the course. A significant practice component is now seen as an essential element to teacher preparation in order to help future teachers understand the dynamics of classroom teaching and the principles underlying it, helping to spare beginning teachers a "reality shock".

Several research studies confirm that beginning as well as more experienced teachers (in retrospect) perceive practical experiences in schools during their initial teacher education as a powerful component of their professional education (Wilson *et al.*, 2001). There is also evidence that student teachers who receive increased amounts of field experience remain in the profession at significantly higher rates than those prepared through largely campus-based programmes (Fleener, 1998).

The duration of the field experience varies widely. Some programmes provide for brief periods of classroom experience, others are year-long internships with regular teaching obligations. Most often, practice teaching occurs following coursework near the end of the teacher education programme. However, this training is increasingly being incorporated throughout the entire teacher education programme, especially in concurrent programmes, and its scope is being broadened. Teacher trainees are asked to participate in school activities, observe classrooms, tutor young people and serve as teacher aides prior to actual practice teaching. The trend towards establishing specific school and college or university partnerships that create linkages between teacher education coursework and school practice is gaining ground (McIntyre *et al.*, 1996).

Actual school and classroom experience has the potential to provide teacher trainees with insight into the complex dynamics of schools and teaching, and opportunities to learn about effective strategies and their capacities for implementing them. Coursework, on the other hand, provides them with more theoretical and empirical foundations. Most teacher trainees perceive both parts to be important but, given the lack of coherence and alignment between the two experiences, sometimes fail to make connections. Research confirms that much of the potential value of practical experiences in schools is not realised because of limited co-ordination with the university-based components of teacher education, and problems in resourcing and follow-through (Wilson *et al.*, 2001).

Across the Country Background Reports there is considerable agreement on the potential problems and pitfalls of providing effective practical field experiences for trainee teachers during their initial education:

- Practical experience is often short and disconnected from coursework in teacher education. As a consequence, teacher trainees often find it difficult to apply in the classroom what they have learned in a higher education setting.

- Student teachers' time spent in the school is still often limited to a rather narrow classroom experience rather than one encompassing the full range of a teacher's professional tasks.

- Frequently, schools have too few resources to support extended periods of field experience or to cope with large numbers of trainees; in particular, there is often little training provided to mentor teachers or time provided for them to work closely with student teachers.

- Differences in background and orientation mean that teacher educators at universities and practising teachers in schools often do not effectively communicate about their respective expectations of the goals of field experience, or indeed teacher education more generally, and the instructional approaches which student teachers should adopt. As a result, co-operating teachers and university supervisors often misunderstand each other and fail to work together effectively to assist the student teacher.

- Trainee teachers may be given practice teaching assignments that have little relevance to their future responsibilities, which diminishes the value of the experience.

In response to such concerns some countries are redesigning field experience to give a broader experience of teaching and working in schools, and a closer connection between teacher education institutions and schools (see Box 4.2).

The contribution of field experiences to teacher preparation is enhanced when they are well prepared and based on a close co-operation between the teacher education institution and the schools; when student teachers are well prepared in subject matter and pedagogy before practice teaching; when teacher trainees are given opportunities to conduct research in the classroom, and to integrate the course-based and fieldwork components; and when both teacher educators and supervising teachers receive appropriate and often shared training.

4.3.4. Alternative programmes for attracting new groups into teaching

As a response to teacher shortages, and the need to introduce new skills into schools, countries are facilitating entry into teaching for individuals with professional experience gained outside education. This has led to the development of new schemes allowing individuals to pursue teacher education courses while working in other professions.

As Table 3.4 showed, about two-thirds of the participating countries offer alternative teacher education programmes for "side entrants". Most of these programmes are provided in "traditional" teacher education institutions, although often with a considerable change in approach. For example, in the University of Applied Sciences in Education in the canton of Zürich, which offers teacher education for primary and lower secondary levels to those who have worked outside education, admission depends on a broadly-based assessment of academic background, relevant work experience and personal competencies. (As noted in Section 4.3.1, these entrance criteria are now being used for all teacher education candidates.) There is a reduced study programme for such students and the possibility of a paid part-time teaching post.

Box 4.2. **Field experience in initial teacher education in Ireland, Israel, Mexico, the Netherlands and Sweden**

Ireland

All Irish teacher education programmes now place increased importance on the school as a site for helping students understand the dynamics of classroom teaching and the principles underlying it. This school-based experience takes the form of continuous participation for days of block placements throughout the school year. Trainees are located in schools on a full-time basis. At secondary level, in particular, there is also a move away from just focusing on teaching practice towards broader features of school experience, including planning, supervision and extra-curricular activities.

Israel

Practical field experiences are a dominant element in the programmes that teacher colleges offer in Israel. They comprise 15% of the total programme time. Also in the fourth year, the induction period is mainly devoted to work in school as regular teachers, combined with reflection on this experience with the mentor teacher at the school and the tutor in the college.

Mexico

School-based experience for students in Mexico consists of a placement in a school as part of the final year of training, and includes the provision of financial support. Student teachers are guided by a group of teachers at the host school and followed by a tutor at the teacher education institution. The experience has three main features. It is: (i) systematic, following a distinct plan agreed by the host teachers and the teacher education institution; (ii) reflexive, as student teachers are expected to reflect on and adapt their practice to the situations faced in the host school; and (iii) analytical, as the student teachers and mentor teachers analyse and report on the difficulties and achievements of the field experience.

The Netherlands

Students in the final year of their training are employed by schools on a part-time basis and on a training and employment contract for a limited period not exceeding one school year. By relating these experiences back to the teacher training institutes, the trainees help institutes follow current developments in schools more closely. In return, the school benefits because the workload of regular staff can be reduced and new ideas on teaching methods can be introduced smoothly.

Sweden

Teacher education in Sweden now includes education on the job to provide teacher trainees with opportunities to develop their professional skills. They work with a teacher team to familiarise themselves with the various roles of teachers as individuals and as team members. They also take part in educational activities such as planning, teaching and evaluation and have opportunities to attend seminars, projects and presentations organised for them at the partner school. The programme, conducted in close co-operation between the school and the university or college, lasts for 20 to 30 weeks, and includes a research-based component linked to participants' academic studies. The student teachers keep in touch with "their" school throughout their teacher education.

Other countries provide quite different sorts of institutional arrangements for side entrants. For example, in both the Flemish and French Communities in Belgium it is possible to train as a teacher in adult education institutions that offer very flexible forms of enrolment and a wide geographical coverage. There are no fixed entry qualifications to these courses and many of those taking such routes are mature-age students, often in the process of changing careers, who fit the training around other jobs or around employment as an unqualified teacher. In other innovations, distance learning techniques are used to facilitate access to teacher education for those for whom full-time, on-campus study is not feasible (*e.g.* in Chile, Denmark, the Netherlands and Sweden), and the Netherlands,

England and Wales make use of school-based programmes that enable side entrants to start earning an income while studying. England has initiated a particular programme, the Higher Level Teaching Assistant, for support staff working in schools, with one aim being to provide smoother progression for those who wish to become fully qualified teachers.

The creation of more flexible education pathways into teaching is paralleled by similar reforms in nursing, an occupation that is also facing shortages in many countries. A number of countries, including Australia, Belgium, Germany, Ireland, the Netherlands, Norway, Switzerland and the United Kingdom, have reviewed or reformed the education paths into nursing to improve the attractiveness of entry into the profession (Simoens and Hurst, 2004). Ireland has introduced a sponsorship scheme for experienced health care assistants wishing to train as nurses. Successful candidates are allowed to retain their salary during the four years of the degree programme, in return for a commitment to work as nurses for their public health service employer following graduation. The United Kingdom now enables trainee nurses to spread their education over more than three years, by incorporating take-a-break periods. In addition, new pathways into nursing via credits for national vocational qualifications have been introduced.

Although there are only limited long-term data on side entrants to teaching, the impression is that their numbers are growing. In the United States "alternative certification" programmes allow academically well-qualified individuals to start working in schools and to reduce the coursework requirements of both formal teacher preparation programme and state licensure (see Box 4.3). The average age of new teachers has increased, which suggests that people are pursuing other careers before they enter teaching: in 1993/94, 65% of newly hired United States teachers were over the age of 25, compared with 52% in 1987/88. In the Netherlands, about 3 000 of the currently employed teachers started their career as "second career teachers" or "side entrants". In almost all the countries for which the information is available it is possible to start working as a teacher before completing the preparation in pedagogy (see Table 3.4).

The relative performance of teachers who enter the profession through alternative routes has been most extensively debated and researched in the United States. Such programmes offer great flexibility in attracting new sorts of recruits to teaching, including potentially very able people who otherwise may not enter teaching, and generally entail lower costs. However, critics argue that such programmes risk providing the schools with inadequately prepared teachers (*e.g.* Darling-Hammond, 1999). A broad conclusion from the research on alternatively certified teachers is that they generally perform as well as those prepared through traditional teacher education programmes (see Box 4.3). However, generalisations are difficult in this area because of the great diversity of different kinds of backgrounds and forms of preparation for those classified as alternatively certified (great diversity is also evident among those prepared through traditional teacher education programmes).

A major United States review suggested that a number of features are important to successful alternative route programmes: strong partnership between the preparation programme and school districts; good participant screening and selection; strong supervision and mentoring for participants during their teaching; a solid curriculum including courses in classroom basics and teaching methods; and as much training as possible before starting full-time teaching (Education Commission of the States, 2003). Similar features are also likely to be very important in traditional teacher education programmes.

Box 4.3. **Teacher education for mid-career changers in the United States**

In the United States, the past decade has seen a large increase in the number of programmes designed to attract established professionals from other fields, as well as recent university graduates who did not take the courses necessary for certification while an undergraduate, to teaching. In the past five years, alternative routes have produced about 25 000 new teachers each year (Feistritzer and Chester, 2003). Almost all states now have some type of alternative route to certification, but states vary greatly in the size and scope of their programmes. The three largest by far are established in California, New Jersey and Texas. Alternatively certified teachers accounted for between 18% and 24% of newly hired teachers in these three states (Feistritzer and Chester, 2003).

Depending on the state, alternative certification programmes are run by the state itself, local school districts, teacher education institutions in partnership with school districts, or private organisations contracted to a school district. Such programmes tend to provide several weeks of pre-service training during the summer before candidates enter the classroom full time. While working as full-time classroom teachers, candidates must take coursework leading to full certification at night and on weekends. In order to address a perceived unevenness in the quality of alternative certification programmes, the U.S. Department of Education requires that these programmes offer sustained, intensive mentoring and professional development to new alternate-route teachers.

Research has shown that alternatively certified teachers perform as well as teachers who were licensed through traditional routes, as measured by the performance of their students (Ballou and Podgursky, 1999; Raymond *et al.*, 2001). However, alternatively certified teachers may face more difficulties at the start of their careers because of their more limited preparation (Education Commission of the States, 2003). They are more likely to come from cultural minorities. For instance, 48% of the California teachers in alternative routes were members of cultural groups that are under-represented in the state's teaching workforce. Alternatively certified teachers are also more likely to hold bachelor's degrees in shortage areas such as mathematics and science (Shen, 1997). On the other hand, there is research that suggests that alternative routes have a mixed record in attracting talented candidates (Feistritzer and Chester, 2000).

The National Center for Education Information, a private, non-government group, reports that alternatively certified teachers show higher retention rates in the profession than their traditionally certified peers. This may be because alternatively certified teachers tend to be older and come from other careers, and therefore the decision to teach requires a larger investment and thus a more carefully considered choice. However, the Education Commission of the States (2003) cautions that there is a lack of data on long-term retention because most alternative programmes are relatively recent.

4.3.5. Accrediting teacher education programmes

Policy makers can encourage the improvement of teacher education by raising accreditation requirements for teacher education programmes. This is a major issue in highly decentralised countries where there are very large numbers of different teacher education providers. Accreditation is a means to ensure that diverse teacher education programmes meet the standards set by the teaching field at large and include the preparation for key skills such as classroom management, teaching methodologies, summative and formative assessment, evaluation and teacher-conducted research.

Accreditation criteria should focus more on the outcomes of teacher education programmes than on inputs, curriculum and processes. A focus on the latter elements runs the risk of consolidating conventional wisdom about how best to prepare teachers, thereby leading to greater uniformity of programmes and reducing the scope for innovation. In any

event, it is what trainee teachers learn and can do that should be the policy focus. How they get to that point is better left to the teacher education institutions and other programmes for teacher preparation. Box 4.4 illustrates the use of this approach in the recent reforms to teacher education in Switzerland.

Box 4.4. **Reforms to teacher education in Switzerland**

Switzerland has moved to reform and to better align its system of teacher education through a process in which "the objectives are standardised, but the means to reach them (study programmes, teaching methods, traditions of pedagogy and didactics) can differ" (EDK/CDIP, 2002). All initial teacher education has been upgraded to university level and is provided through both newly created Universities of Applied Sciences in Education (Pädagogische Hochschule /Haute Ecole Pédagogique) as well as established multi-faculty universities. Agreements on standards for teacher education graduates and the recognition of qualifications throughout the country have increased graduates' choice of jobs and facilitated mobility.

The 15 new Universities of Applied Sciences in Education in Switzerland provide initial teacher education, research and development for schools, and continuous professional development for teachers and schools. Research is practice-oriented and student teachers conduct research projects linked to their professional interests and development.

The reforms have established consensus on key principles, including better integration of discipline-based studies and pedagogical training, common competencies for teachers at all levels, formalised partnerships with schools and better alignment with school standards and the professional profile of teachers. The new institutions have implemented *modularisation* of studies to increase flexibility and to make courses available to a wide range of students, including those seeking to upgrade their qualifications and "side entrants" from other careers who wish to become teachers.

A number of countries are finding that teacher profiles are very useful mechanisms for clarifying expectations of what systems of teacher education and professional development should aim to achieve. As was noted in Section 4.1, teachers' roles are broadening in response to social and economic change, and higher expectations of schools. A clear and succinct statement of what teachers are expected to be able to do at key stages of their career can both reflect the new "enriched" profession of teaching and communicate the roles and responsibilities of the different players involved in preparing and supporting teachers. The role of teacher profiles is discussed in Section 4.4 below.

Fundamental to the preparation of a teacher profile is a clear statement of objectives for student learning in the school system involved. Teachers' work and the knowledge and skills that they need to be effective must be based on what the schools are aiming to achieve. Broad consultation with, and involvement by, the teaching profession and teacher educators in developing statements of student learning objectives and consequent teacher profiles are vital in ensuring successful implementation. Standard-setting must be seen as an iterative, and not top-down, process if it is to usefully inform the development of teacher policy. New approaches to educating, developing and rewarding effective teachers will be weakened in the absence of profession-wide standards and a shared understanding of what counts as accomplished teaching. Ingvarson (2002) provides a framework for identifying the areas on which teachers' professional standards should focus, the processes by which standards can be developed and the uses of a standards framework, including accreditation of teacher education programmes.

Accreditation is part of a wider issue concerned with ensuring that teacher education institutions are evaluated on an ongoing basis, and that the teacher education sector as a whole is subject to periodic review and debate. For example, in the last few years there

have been major external reviews of teacher education in Australia, Belgium (Flemish and French Communities) and Sweden that have led to major changes in structures and programme emphases. While such periodic, high-profile reviews are important, they need to be complemented by ongoing feedback and evaluations by teacher education institutions, students, schools and funding agencies of the effectiveness of teacher education programmes.

4.4. Certification of New Teachers

Systems differ according to the entity responsible for the certification of new teachers. These entities can be institutions of higher education such as teacher colleges or universities, professional bodies such as teacher associations, teacher unions or state authorities. Similarly, the specific requirements to obtain a teaching certificate or licence vary between different systems.

In about half of the countries, the completion of pre-service teacher education is not sufficient to gain a licence to teach (Table 4.1). In those countries prospective teachers are also required to pass a competitive examination and/or successfully complete a period of mandatory teaching experience (especially before obtaining a tenured position). Competitive examinations are used in France, Germany, Greece, Italy, Japan, Korea, Mexico (in some states) and Spain. In some cases the examinations are used to obtain a teaching licence, and in others to determine the successful candidates for positions in public schools. Examinations may include tests of subject matter knowledge, observation of the candidate's teaching, in-depth interviews or consideration of portfolios with records of achievement and work experience. Both Italy and Spain also require mandatory teaching work experience of one year. Mandatory work experience is also a requirement in England, Ireland, Israel (for primary and lower secondary education), New Zealand, Northern Ireland, Scotland, Turkey, the United States and Wales, and can last between one and three years.

In England all prospective teachers must pass skills tests in numeracy, literacy and ICT before receiving full certification (see Box 4.5 for more details). In the United States federal legislation under the 2001 *No Child Left Behind Act* requires that by 2006 all teachers be "highly qualified," which includes demonstrating mastery of the academic content in the areas in which they teach.

Certification requirements provide a policy lever for setting entrance criteria for the teaching profession. Teacher certification allows for the establishment of professional standards independent of teachers' training institutions. This in turn is a way to influence teacher education programmes and align them more closely to the needs of schools. However, teacher certification might deter certain suitable candidates from entering teaching, as it provides an additional hurdle that must be crossed. As was noted in Section 4.3.4 alternative forms of certification are being used in some countries to enable those who are otherwise well qualified to commence teaching but who have not completed a full programme of teacher education.

Not all countries use a system of certification of new teachers. In general, certification requirements are more likely to exist where the provision of teacher education is diverse and perceived to be of variable quality. In Finland, for example, where there is high demand for teacher education opportunities and close connections between training institutions and the wider education profession, there are no additional certification qualification requirements for teachers after they graduate.

Even where there are reasonably high levels of confidence in the quality of initial teacher education, the nature of teaching means that many otherwise well-qualified candidates may struggle to adjust to the demands of the job. There are likely to be considerable benefits from a probationary period before full certification or permanency is awarded, especially where this is conceived as a key stage on the teaching career ladder. At the present time, only one in three countries requires mandatory teaching experience before obtaining a teaching licence (Table 4.1). In a number of other countries, though, a period of probation is needed before obtaining a permanent teaching post in the public school system.

As noted earlier, some countries have developed professional teaching standards to provide a vision of good teaching and to serve as a tool to guide and assess teacher education and professional development. To illustrate this, Box 4.5 outlines the teacher profiles and performance standards developed in England, Quebec (Canada) and Victoria (Australia). Although the country statements differ in matters of detail, they share a similarly broad conception of teachers' roles and a focus on what teachers know and do. The general trend, illustrated by these three examples, is towards changing requirements for teacher certification from input measures (such as a number of courses taken or credit points) to output criteria, namely knowledge, skills and competencies measured in multiple ways, including portfolios.

There is a related set of issues for the recertification of experienced teachers. Teacher recertification describes a process by which teachers who are already working in the school system renew their teaching licences at regular intervals. Recertification of teachers is a comparatively rare practice among the countries taking part in the project, although it is starting to receive more attention. Chapter 6 discusses recertification in the context of country approaches to teacher evaluation and career development.

Box 4.5. **Performance standards for teachers in England, Quebec (Canada) and Victoria (Australia)**

England

The outcome standards set out what a person must know, understand and be able to do in order to be awarded Qualified Teacher Status (QTS). They are organised in three interrelated sections:

- Professional values and practice (outlining the attitudes and commitment to be expected of anyone qualifying to be a teacher; these are derived from the Professional Code of the General Teaching Council).
- Knowledge and understanding (standards that require newly qualified teachers to be confident and authoritative in the subjects they teach and to have a clear understanding of how all pupils should progress and what teachers should expect them to achieve).
- Teaching (standards relating to skills of planning, monitoring and assessment, and teaching and classroom management).

These standards apply to all teachers, whatever training route they take, and set out the minimum requirements. All prospective teachers must also pass skills tests in numeracy, literacy and ICT. The tests are computerised. Trainees have unlimited opportunities to pass the tests before being awarded QTS. Those who have successfully completed teacher education but have not passed the skills tests may be employed as unqualified teachers for up to five years.

Quebec (Canada)

In the early 1990s a major reform made teacher professionalisation the focus of teacher education. The duration of training was increased from three to four years, and required students to complete a minimum of 700 hours practicum. In light of changes in schools' and teachers' work, teacher education was reorganised around 12 professional competencies that are grouped into four categories, as outlined below. The reforms also encompassed the regulation of teachers' licences to teach.

Foundations

1. To act as a professional inheritor, critic and interpreter of knowledge or culture when teaching students
2. To communicate clearly in the language of instruction

Teaching act

3. To develop teaching/learning situations
4. To guide teaching/learning situations
5. To evaluate teaching/learning situations
6. To properly manage classes

Social and educational context

7. To adapt teaching techniques to specific student needs
8. To integrate information and communications technologies into teaching/learning activities
9. To co-operate with partners
10. To work as a teaching team

Professional identity

11. To engage in professional development
12. To demonstrate ethical behaviour

Victoria (Australia)

The new Victorian Institute of Teaching (VIT) represents more than 75 000 teachers and principals in the State of Victoria. The Institute, an independent statutory body, provides teachers with a level of professional autonomy and self-regulation and the right to have a say in the further development of their profession. The VIT has developed professional standards for teachers based on research and an extensive consultation process across the state. The standards apply to eight areas grouped into three categories:

Professional knowledge

1. Teachers know how students learn and how to teach them effectively
2. Teachers know the content they teach
3. Teachers know their students

Professional practice

4. Teachers plan and assess for effective learning
5. Teachers create and maintain safe and challenging learning environments
6. Teachers use a range of teaching practices and resources to engage students in effective learning

Professional engagement

7. Teachers reflect on, evaluate and improve their professional knowledge and practice
8. Teachers are active members of their profession.

New teachers are required to provide evidence of their performance in each area to receive full registration. The standards are also being used for the accreditation of teacher education programmes and the development of induction and professional development schemes. It is intended that they will also be used as the basis for promotion decisions and in identifying ineffective teachers. The Institute is largely funded by an annual registration fee paid by teachers, which helps provide it with operational independence.

4.5. Induction Programmes for New Teachers

In some countries large numbers of beginning teachers leave the profession within the first few years (see Chapter 6 for details). Attrition and turnover rates are often particularly high in schools serving disadvantaged communities. High teacher attrition has costs for both the individuals and school systems involved. Given the current teacher shortage in some systems, and concerns about retaining valuable skills in schools, reducing teacher attrition has become an important policy issue. Even where beginning teachers do not leave the profession, a difficult start to their career may so reduce new teachers' confidence that their long-term effectiveness suffers, and students and schools do not benefit from the new ideas and enthusiasm they could bring.

Even in countries that do not face recruitment problems, a lack of attention to supporting new teachers has long-term costs. For example, as is noted in the Country Background Report for Ireland: "Only a small percentage of post-primary teacher graduates find permanent employment on graduation. It is commonly the case that they will spend their early years of teaching in a series of temporary positions, in a variety of schools … They do not have the benefit of a time period to establish themselves in a stable school context, to get to know the school climate and dynamics, and to establish supportive professional relationships with fellow staff members. To apprehensions and difficulties of finding one's 'professional feet' is added the insecurity of employment patterns and the lack of continuity of professional context."

The research literature consistently documents the extent to which new teachers struggle in the early years in the profession. Veenman's international review (1984) found that the main challenges perceived by beginning teachers were remarkably similar across different education systems: motivating students to learn, classroom management, dealing with individual differences between students, assessing student work and handling communication with parents were seen as challenging by almost all of the beginning teachers surveyed in the study. In a more recent international study, Britton *et al.* (1999) confirmed that the same problems are still viewed as the most challenging difficulties, often overwhelming individuals new to the profession.

The quality of the professional experience in the early years of teaching is now seen as a crucial influence on the likelihood of leaving the teaching profession. Induction and support programmes for beginning teachers can improve teacher retention rates by enhancing the effectiveness and job satisfaction of new teachers. The United States school districts of Cincinnati, Toledo and Rochester, for example, managed to reduce beginning teacher attrition by more than two-thirds by having expert mentors with release time coach beginning teachers in their first year (National Commission on Teaching and America's Future, 1996). In addition, well-designed programmes help new teachers apply the more theoretical knowledge acquired in their teacher preparation programmes to the complexity of teaching in the classroom. Well-developed induction programmes can provide school systems with an important competitive edge in hiring new teachers.

Country approaches to induction

Currently, school systems have very different provisions for the transfer from initial teacher education into teaching as a full profession, and the quality and content of induction programmes vary widely. Table 4.2 summarises some features of teacher induction schemes in the countries participating in this project.

Table 4.2. **Formal induction programmes for beginning teachers, public schools, 2004**

	Is formal induction mandatory, at the discretion of individual schools or not offered?	What is the typical length of induction programmes?	Do beginning teachers have a reduced teaching load? (relative teaching load in parentheses)	Who are the main persons responsible for supporting beginning teachers during induction programmes?	Is formal training required for the persons providing support?	Do persons providing support receive a salary allowance or other compensation?	Is induction organised in collaboration between the school and the teacher education institution?	Is completion of induction programme required for full teacher certification?
Australia	Varies, often mandatory and sometimes at the discretion of the school	Varies considerably from a few days to one year	Sometimes (varies, in one instance 95%, in another jurisdiction 90%)	Mentor and school management generally, sometimes online help and district office staff involved	Generally no, but in one jurisdiction training is required for mentors	No	No	No
Austria	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Belgium (Fl.)	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Belgium (Fr.)	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Canada (Qb.)	At the discretion of individual schools	Minimum of 1 year Maximum of 2 years	No	Mentor teachers; School management	No	Time allowance	Sometimes	No
Chile	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Denmark	At the discretion of individual schools	1 year	No, except as part of some induction programmes	Mentor teachers	No	Time allowance	No	No
Finland	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
France	Mandatory	1 year as part of final year of initial teacher education	Yes (about 30%)	Mentor teachers; Staff from teacher education institution	Primary level: Yes Sec. level: No	Primary level: Salary and time allowance; Sec. level: Salary allowance.	Yes	Yes
Germany[3]	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Greece	Mandatory	8 months	No	Mentor teachers; School management; Staff from teacher education institution	No	Salary allowance	No	Yes
Hungary	Not offered	*a*	No	*a*	*a*	*a*	*a*	*a*
Ireland[1]	Not offered	*a*	*a*	*a*	*a*	*a*	*a*	*a*
Israel[2]	Mandatory	1 year	Yes (at least 30 to 50% is recommended)	Mentor teachers; School management; Staff from teacher education institution	Yes	Salary allowance	Yes	Yes
Italy	Mandatory for permanent teachers	1 year	No	Mentor teachers	No	No	No	Yes
Japan	Mandatory	1 year	No	Mentor teachers; School management; Local education authority	No	Time allowance (for mentor teachers only)	Yes	No, but it is a requirement for a permanent post
Korea	Mandatory	7 months	No	School management; Local education authority	No	No	Sometimes	No
Netherlands	At the discretion of individual schools	*m*	No	*m*	*m*	*m*	*m*	*m*
Sweden	At the discretion of individual schools	1 year	No	Mentor teachers; School management	No	Salary and/or time allowance, dependent on individual schools	No	No
Switzerland	Mandatory	3 to 4 weeks over a period of 2 years	No	Mentor teachers; School management; Staff from teacher education institution	Yes	Salary allowance	Yes	Varies by canton
United Kingdom (Eng. and Wal.)	Mandatory	1 year	Yes (90%)	Mentor teachers; School management; Local education authority	No	Dependent on individual schools	No	Yes
United Kingdom (N.Irl.)	Mandatory	1 year	Yes	School management; Local education authority	Not formally, but it is expected	No	Yes	Yes
United Kingdom (Scot.)	At the discretion of individual teachers, but in practice most enter formal induction	1 year	Yes (70%)	Mentor teachers; School management	No	Time allowance	No	No
United States[4]	Varies by school district (most districts offer at least a mentor)	1 to 2 years	No	Mentor teachers	Sometimes (varies by district)	Salary allowance (this may not be universally applied)	No[5]	Often

Definitions: *Induction programmes* refer to organised arrangements for supporting and monitoring teachers at the start of their careers. They typically include support specially devised to provide guidance, assistance and advice to new teachers and may also include compulsory training which could serve to confirm their appointment. Only formal programmes are considered in this table. *Time allowance* refers to time freed up from other duties (*e.g.* teaching duties) to engage in the mentoring of beginning teachers.

Notes: *a* Information not applicable because the category does not apply; *m* Information not available.

1. A National Pilot Project for teacher induction is in operation.

2. The induction programme is part of the final year of initial teacher education.

3. The second phase of initial teacher education (preparatory phase), which typically lasts 18 months and is undertaken after the initial academic preparation of students, is considered to achieve the objectives of induction programmes. However, some Länder have recently introduced pilot induction programmes.

4. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies.

5. There is a growing trend in introducing such collaboration but it is still not generally common practice.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Mandatory induction programmes are not yet standard across the school systems involved in the study. Ten countries have mandatory induction programmes for beginning teachers: Australia (some States); England and Wales; France; Greece; Israel; Italy; Japan; Korea; Switzerland; and Northern Ireland. In Scotland, participation in induction programmes is at the discretion of individual teachers, most of whom choose to do so. In six other countries induction is offered at the discretion of the school, whereas in eight others (one-third of the total) formal programmes are not offered at all.

In most of the countries where induction is mandatory, the successful completion of an induction programme is a prerequisite for full certification as a teacher. Only Australia (in some States), Japan and Korea have made induction mandatory without linking it to teacher certification.

In most countries, the school of the new teacher is in charge of providing teacher induction. Only in Israel, Japan, Switzerland and Northern Ireland is teacher induction organised in collaboration between teacher education institutions and schools. Some programmes are organised in partnership with teacher associations. Box 4.6 describes recent initiatives of different types in Greece, Korea and Norway. These initiatives are often complemented with instruments to provide guidance and information to new entrants such as the *Young Teachers' Handbook* prepared by educational authorities in the French Community of Belgium (see Box 4.7).

Box 4.6. **Teacher induction in Greece, Korea and Norway**

Greece

Since 1999 teachers appointed to their first post in the public sector have to go through a series of theoretical and practical training sessions. The induction is managed by the Regional In-Service Training Centres (PEK). It consists of three stages lasting a total of 100 hours, comprising didactical methodologies, educational administration and organisation, teaching practices, evaluation methods (60 hours), practical teaching (30 hours), and evaluation and planning (10 hours).

Korea

Korea has developed a tripartite structure for teacher induction. It consists of a two-week period of pre-employment training focusing on field-related cases and practical tasks. The main emphases at this stage are: student guidance, classroom management skills and developing basic teacher capacities. Training takes place in the metropolitan and provincial institutes of educational training. After recruitment, new teachers take part in a six-month-long field training led by the principal, vice principal and advisory teachers in the school. The training encompasses instructional guidance and evaluation, classroom supervision, student assessment, and assistance with administrative tasks. A third phase involves reflection and discussion, including with other beginning teachers and teacher educators.

Norway

The Ministry of Education provides resources to different projects mandated to test different methods of mentoring and guidance of new teachers. School principals are asked to assign an experienced staff member who is well fit to guide new teachers. The teacher education institution then provides these mentor teachers with training in how to guide new teachers and also takes part in in-school guidance. The new teachers take part in local support sessions and in gatherings with new teachers from the other schools involved in the programme. The out-of-school programme and gatherings are seen as useful in dealing with potentially difficult issues for new teachers, such as student behaviour and collegial relations.

The duration of induction programmes ranges from seven months (Korea) to up to two years in Quebec, Switzerland and parts of the United States. In most countries beginning teachers do not receive a reduced teaching load. The exceptions are in some Australian states (90-95% of a regular teaching load), England and Wales (90%), France (30%), Israel (up to 50%, as part of the final year of teacher education), Northern Ireland, and Scotland (70%).

In most countries mentor teachers, often in co-operation with the school principal and other senior teachers, are in charge of providing teacher induction. Only a few countries require formal training for the mentor teacher: Australia (in one state); France (in primary education), Israel; Switzerland; and some school districts in the United States. Schools offering induction programmes in countries where induction programmes are at the discretion of individual schools typically provide some sort of compensation for those teachers providing mentoring and induction. This is usually a time allowance (Quebec, Denmark, Scotland). In Sweden mentor teachers can be offered a choice between a time allowance and a salary allowance, but mentor role can also be recognised in the yearly individual salary review rather than through immediate compensation. In several countries where induction programmes are mandatory, mentor teachers receive a salary allowance (Greece, Israel, Switzerland).

Box 4.7. **A Young Teachers' Handbook in the French Community of Belgium**

Le petit guide du jeune enseignant is a 60-page handbook published by the Ministry of the French Community of Belgium, as one of a series of measures to support newly qualified teachers. There are three parts. Part 1 answers two questions: Where, when and how can I apply for a teaching post in a school? and When can I obtain a permanent appointment? Part 2 addresses interviews with principals, contact with colleagues and workload management inside and outside the classroom. The interview with the school principal is intended to provide a young teacher with useful information on the broad educational setting, study programmes and subjects, activities inside and outside the classroom, and administrative procedures. The section on contact with colleagues encourages young teachers to assume their role in the school, in the education team and in the profession as a whole. There is also guidance on how to manage the workload inside and outside the classroom, with advice on: managing student groups, managing learning and managing relations. Part 3, entitled "Broadening your horizons", is on in-service education and European exchanges. The handbook also contains practical information, including a glossary of common educational terms and some addresses of professional associations and other resources for young teachers.

Designing and implementing induction

Stansbury and Zimmerman (2000) distinguish between low- and high-intensity support programmes for beginning teachers. Low-intensity programmes provide a formal orientation in one-shot or low-frequency events. Although such programmes cost less, they have much poorer results than high-intensity support programmes involving mentoring over an extended period, combined with training and release time for both the mentors and beginning teachers.

The role of an appropriate mentor teacher is generally considered crucial in effective induction schemes. In some of the more formal schemes, incentives exist to encourage the most committed and qualified senior teachers to become mentors and coaches for beginning teachers. These mentors provide on-the-job support, and diagnose deficits in subject matter knowledge, classroom management strategies and other pedagogical processes. Familiar with available professional development structures, they can also direct beginning teachers

to suitable training activities. Mentors must have a level of professional expertise that goes beyond being a source of emotional support and practical information. They should be able to provide not only a good role model, but also offer the help necessary to establish the beginners as competent professionals. They must have expertise both in teaching young students and in teaching adults.

The research literature describes the benefits novice teachers gain from mentoring (*e.g.* Odell and Huling, 2000). There is now sufficient evidence showing that mentors also derive substantial benefits from the mentoring experience (Resta *et al.* 1997; David, 2000; Holloway, 2001). The quality of teaching by mentors generally improves (Yosha, 1991). Mentors benefit by applying cognitive coaching skills with their students such as listening, asking questions, providing non-judgmental feedback, and by reassessing their classroom management (Clinard and Ariav, 1998). Mentor teachers frequently characterise working closely with beginning teachers as a source of new ideas about curriculum and teaching, motivating them to reflect upon their experiences and beliefs with regard to teaching and learning (Ganser, 1997).

Mentoring can thus serve as a means to engage, challenge and retain effective teachers. As practicing teachers, mentors appreciate and value the opportunities to interact, share their expertise and develop as they support new teachers (Tillman, 2000). Creating a structure that allows experienced teachers to work with novice teachers and that acknowledges their expertise will ultimately strengthen the overall organisation, including retaining good practitioners in the classroom.

A key challenge is ensuring that teacher education institutions have an ongoing involvement in the early stages of a teacher's career. A mechanism used successfully in England, Scotland and Wales is a *Career Entry Profile* which is provided for each newly qualified teacher by their initial training institution. This personal profile, which is developed jointly by the institution and the graduating teacher, identifies their strengths and developmental needs, and sets targets and goals, both to encourage beginning teachers to develop a reflective attitude to their own professional development and to act as a vehicle of communication from the initial stage to induction and to the early professional development stage.

Most induction programmes are geared towards teachers who have just completed a teacher education programme or who have been teaching for less than two years. Some sort of induction and guidance, however, might also provide support for teachers who are returning to the profession after a leave of absence or teachers who are new to a particular school or school district, especially if the teacher is faced with a different community and school environment than the one he or she is used to. For example, in the Netherlands it has been found that while many beginning teachers leave the profession soon after starting work, their departure is not always permanent. A lot of former teachers return to teaching, often after having a family. The Dutch data indicate that most of the graduates who started working as teachers immediately after obtaining their qualifications were still working as a teacher many years later, although often with significant breaks in between. Given this phenomenon, different forms of induction programmes could be of considerable assistance to returning teachers, and not just to beginning teachers.

4.6. Professional Development

Professional development activities seek to update, develop and broaden the knowledge teachers acquired during initial teacher education and/or provide them with new skills and

professional understanding. Professional development may also accompany the implementation of educational reforms.

There are strong demands for teachers to continuously update their knowledge and skills due to the introduction of new curricula, changes in the characteristics and learning needs of students, new research on teaching and learning, and increased pressure for accountability of teacher and school performance. Professional development provides a means for improving the quality of teachers and for retaining them in teaching. However, the Country Background Reports reveal that professional development is often fragmented, unrelated to teaching practice, and lacking in intensity and follow-up. For instance, the Korean Country Background Report notes that "there is no compatibility between the preliminary education and in-service education both in theory and practice." The Background Report prepared for Greece expressed concerns about "the quality and co-ordination of teacher induction programmes and in-service education. In particular, it is felt that the great number of different in-service education programmes … have not been satisfactorily co-ordinated."

4.6.1. Types and providers of professional development

The discussion of professional development often lacks clarity because a potentially large number of quite different activities are grouped together. For example, professional development can serve several different purposes:

- Activities intended to facilitate the implementation of policy or educational reforms, which are often taken by large groups of teachers together, *e.g.* through conferences designed to provide new information.

- Task-oriented professional development aimed towards preparation of staff for new functions, which are often taken by individual or small groups of teachers, and which may include courses, self-study and so on.

- School-based professional development aimed at responding to school needs and serving the aim of school development, and which often involve groups of teachers from the same school working jointly on a problem or developing a programme.

- Personal professional development chosen by the individual participant for professional enrichment and further education. Such activities are often taken outside the teacher's school, either on an individual basis or with teachers from other schools. In some countries, personal professional development activities are closely linked to the outcomes of teacher evaluation.

These four types of professional development activities exist simultaneously but their relative weight has changed over the years. The Country Background Reports note that school-based professional development activities involving the entire staff or significant groups of teachers are becoming more common, and teacher-initiated personal development probably less so, at least in terms of programmes supported through public funds.

Professional development is provided in different institutional settings. Often, universities and teacher training institutes offer professional development courses or modules for practising teachers in both subject-matter content and pedagogical skills. In some systems, professional development is largely provided by state agencies (*e.g.* France, Germany, Korea, and Spain). Other systems (*e.g.* the Flemish Community in Belgium, Denmark, Finland, Hungary, Italy, the Netherlands, Norway, Sweden and Switzerland) are

moving from a supply-oriented model of in-service training to one based on demand and have deregulated the market for professional development accordingly. Schools are allocated funds to organise in-service training responding to their specific needs and can pay for trainers, researchers or advisers. In such countries, universities and other teacher education providers sometimes compete with non-government agencies, private consultants and training firms offering professional development activities for teachers.

4.6.2. Country approaches to professional development

Table 4.3 summarises some key organisational features of professional development in the participating countries. In over half of the countries there is no minimum requirement for teachers to engage in professional development. In those countries that have set a minimum requirement (some states in Australia, Austria, the French Community of Belgium, Finland, Hungary, the Netherlands, Scotland, Sweden, Switzerland and some school districts in the United States) the requirement is most commonly five days per year, with a range from 15 hours per year (Austria) up to 104 hours in Sweden and 169 hours (10% of the total teacher workload) in the Netherlands. In Hungary it is mandatory for teachers to have a minimum of 120 hours of professional development over a seven-year period.

Teachers in most countries make some sort of financial contribution to the costs of transport, course fees or course materials in recognised professional development programmes. The major exceptions are Chile, Sweden and Northern Ireland where teachers generally do not contribute to such costs.

In about one-quarter of the countries completion of professional development activities is required for teacher promotion or recertification: for promotion in England and Wales (to principal), Korea, Northern Ireland, Switzerland and the United States, and for recertification in Israel and the United States. Most countries note, however, that participation in professional development is generally considered beneficial in career progression.

Most countries now link professional development to the developmental priorities of the school and co-ordinate in-service education in the school accordingly. In three-quarters of the countries professional development activities are planned in the context of school development, although not exclusively so. School management, and in some cases local school authorities, play an important role in planning professional development activities.

Figure 4.2 shows markedly different positions among countries in regard to the financing of professional development at the upper secondary level. In Belgium (Flemish Community), Denmark and Sweden, over 95% of upper secondary students are enrolled in schools that have a separate budget for professional development. By contrast, the corresponding proportion was less than 20% in France, Portugal and Spain. In the latter countries professional development is generally organised and funded by education authorities rather than schools. In almost all countries, though, substantial numbers of schools organise staff development activities, whether or not they have a specific budget for that purpose (Figure 4.2).

There is, however, not a single country that offers in-school training aligned with school development aims exclusively (Table 4.3). In almost all countries the individual teacher decides which professional development activities she or he wants to pursue. Most countries offer teachers a range of different professional development activities inside and outside the school. In many countries teachers can get a leave of absence, a sabbatical or a research grant to pursue study and research activities.

Table 4.3. **Professional development for teachers, public schools, 2004**

	What is the minimum professional development requirement for teachers in a school year?	Who decides the professional development activities an individual teacher undertakes?	Are professional development activities planned in a context of individual school development priorities?	Are schools allocated a budget to determine their involvement in professional development?	Is the completion of professional development activities required for the promotion or recertification of teachers?	Can teachers get a leave of absence and/or a research grant to undertake study/research activities?	Do teachers generally make a financial contribution to cover the costs of professional development activities (*e.g.* transport, course fees, course materials)?
Australia	Generally none, 5 days in two states, 37.5 hours per year in another state	Generally teacher and school management, often in line with system priorities	Yes, but not exclusively	Generally yes	It varies e.g. in one jurisdiction teachers must undertake professional development for promotion to Senior Teacher classification	It varies but usually a leave of absence, sometimes research grants or scholarships are available	It varies, if training is personally initiated the teacher will pay (*e.g.* a national or international conference)
Austria	15 hours	Primarily teacher; School management and inspectorate if performance is poor	Yes, but not exclusively	Yes	No	Leave of absence	Sometimes
Belgium (Fl.)	None	Teacher; School management	Yes, but not exclusively	Yes	No	None	Often
Belgium (Fr.)	6 half-days	Teacher	Yes, but not exclusively	No	No	None	Sometimes
Canada (Qb.)	None	Teacher; School management	Yes, but not exclusively	Yes	No	Leave of absence	Sometimes
Chile	None	Local educational authority	No	No	No	Both leave of absence and research grant	Never
Denmark	None	Teacher; School management; Local educational authority	Yes, but not exclusively	Yes	No	Both leave of absence and research grant	Sometimes
Finland	Between 1 and 5 days, depending on type of programme	Teacher; School management; Local educational authority	Yes, but not exclusively	No	No	Leave of absence	Sometimes
France	None	Teacher; Inspectorate	No	No	No	Leave of absence	Generally no, except if training is personally initiated
Germany	None	Teacher; Local educational authority	Yes, but not exclusively	Sometimes	No	Leave of absence	Sometimes
Greece	None	Teacher; Central/regional/local educational authority	No	No	No, but used as a selection criterion to become principal or school advisor	Both leave of absence and research grant	Sometimes
Hungary	120 hours over a period of 7 years	School management taking teachers' preferences into consideration; Teachers alone if activity is not funded by school	Yes, but not exclusively	Yes	No, but can result in exceptional career advancement	Both leave of absence and research grant if the board of teachers in school agrees and funding is found in school. Possible also if school authorises it as a professional development mandatory activity	Often, if the teacher undertakes programmes other than the ones *officially* provided; For programmes *officially* provided, teachers cover about 20% of the costs
Ireland	None[1]	Teacher, except for activities organised to implement reforms	Yes, but not exclusively	No[2]	No	Leave of absence with pay is available for certain relevant courses	Sometimes, if teacher personally initiates a programme
Israel	None	Teacher; School management	Yes, but not exclusively	Only for schools under self-management	Yes, for recertification; Yes, unofficially for promotion	None, but teacher can get a sabbatical year	Often, when not undertaken during sabbatical year
Italy	None	Teacher	Yes, but not exclusively	Yes	No	Leave of absence	Often
Japan	None	Local educational authority	No	No	No	Both leave of absence and research grant	Always
Korea	None	Teacher	No	Yes	Yes, for promotion	Both leave of absence and research grant	Often
Netherlands	169 hours (10% of total workload)	Teacher; School management	Yes, but not exclusively	Yes	No	None, but teacher can get a sabbatical year	Sometimes
Sweden	104 hours	Teacher; School management	Yes, but not exclusively	Yes	No	Both leave of absence and research grant	Never
Switzerland	Generally 5 to 10 days[3]	Primarily teachers; Regional education authority for activities related to implementation of reforms	Yes, but not exclusively	Yes	Yes, non-fulfillment of professional development requirement might imply promotion deferral	None (generally)	Often
United Kingdom (Eng.)	None	Teacher; School management	Yes, but not exclusively	Yes, but it is not earmarked	Yes, for promotion to principal	Yes, but at the discretion of the school	Sometimes
United Kingdom (N.Irl.)	None	Teacher; School management; Local educational authority	Yes, but not exclusively	Yes	Yes, for promotion	Yes, but at the discretion of the employer	Never
United Kingdom (Scot.)	1 week	Teacher; School management	Yes, but not exclusively	Yes	No	None	Varies according nature of training
United Kingdom (Wal.)	None	Teacher; School management	Yes, but not exclusively	Funding available from within the school's overall budget and through optional additional funding	Yes, for promotion to principal	Yes, but at the discretion of the school	Sometimes
United States[4]	Varies by school district; often about 30 credit hours in first two to five years of teaching	Teacher; School management; Local educational authority	Yes	No, with few exceptions[5]	Yes	Yes, but infrequently	No, except for university courses

Definition: *Professional development* refers to in-service training which seeks to update, develop and broaden the knowledge teachers acquired during initial education and/or provide them with new skills and professional understanding. Professional development may also be provided to accompany the implementation of educational reforms. It is distinct from further "qualifying training" which normally enables teachers to teach another subject or at another educational level (additional qualifications).

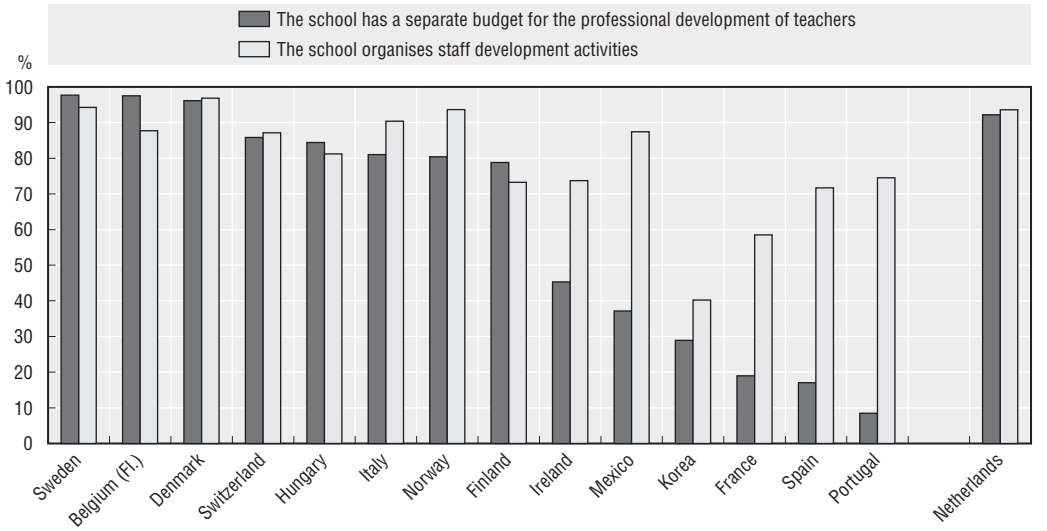
Notes:

1. Except for primary school teachers to attend a professional development programme designed to support the implementation of *The Primary School Curriculum* (1999), currently averaging 6 days per annum.
2. An exception for primary and lower secondary education is the *School Development Planning Initiative*, which allocates a small budget to schools.
3. Regulated in some cantons but not in others. No national regulation exists.
4. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies.
5. Local educational authorities are typically allocated a budget for professional development activities.

Source **:** Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Figure 4.2. **School supporting professional development activities, 2001**

Percentage of upper secondary students whose school principal reported that the school supports professional development of teachers in the following way:



Note: Countries are ranked in descending order of the percentage of upper secondary students attending schools where the principal reported that the school had a separate budget for the professional development of teachers. Every school in Belgium (Fl.) receives a budget for the professional development of teachers from the Education Department. The Netherlands did not meet international sampling requirements. See OECD (2004) for notes on methodology.

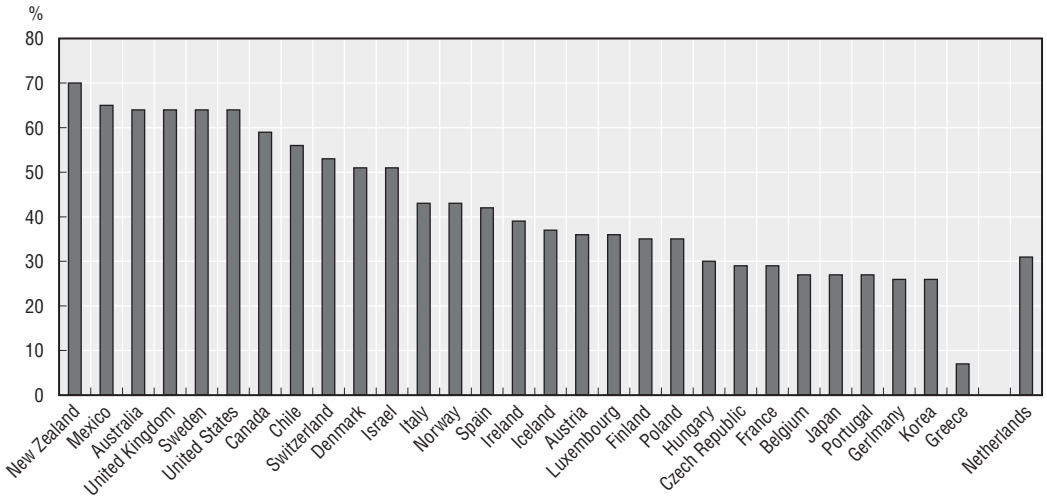
Source: OECD International Survey of Upper Secondary Schools (ISUSS) database, 2003.

4.6.3. Teacher participation in professional development

Teachers' participation in professional development varies widely across countries as well as within countries. The 2000 PISA survey indicated that an average of about 40% of teachers had attended a programme of professional development in the previous three months (Figure 4.3). However, the range of participation across countries ranged very widely, from less than 10% of teachers of 15-year-olds in Greece to 70% in New Zealand.

More detailed information on teachers' participation in professional development is available from the OECD survey of upper secondary schools in 15 countries (OECD, 2004). As reported by principals, about one-third of upper secondary teachers participated in ICT-related professional development activities in 2000/01, and about one half participated in professional development related to other topics (Figure 4.4). The reported participation rates were highest in Sweden, Finland, Denmark, Norway and Switzerland (with at least 50% of teachers involved in ICT-related professional development), and lowest in Italy, Korea, France and Hungary. However, these rates may underestimate the extent of teacher participation since teachers may engage in professional development without necessarily informing the principal. In France and Spain, for example, professional development activities are generally organised by education authorities in direct contact with teachers. Overall, however, Figures 4.3 and 4.4 suggest that there is more extensive teacher participation in professional development than the minimum requirements would imply.

Figure 4.3. **Percentage of teachers who attented a professional development programme in the previous three months according to principals of PISA schools, 2000**



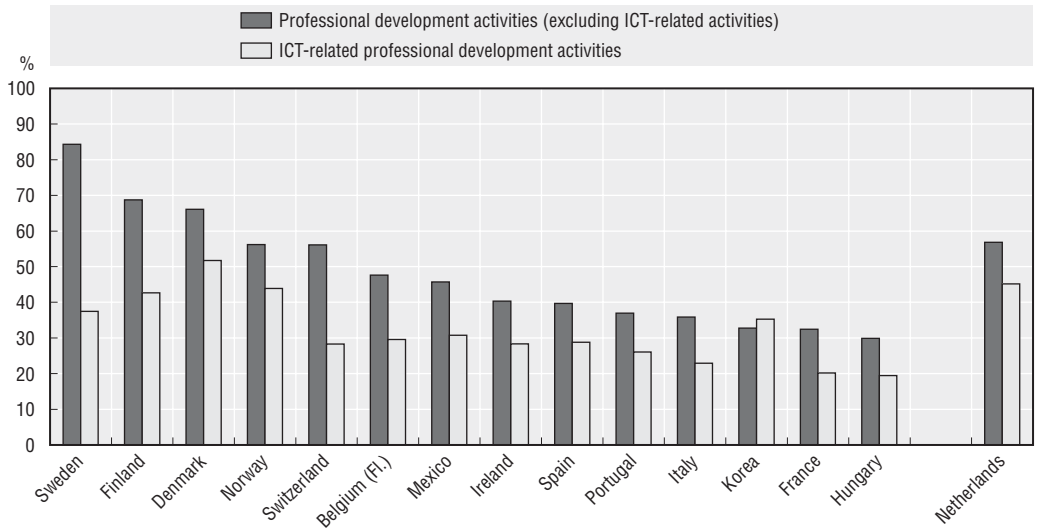
Definition: Principals were asked what percentage of teachers in their school have attended a programme of professional development in the last three months. The average country figure is computed weighting each school figure by the number of students enrolled in that school. Professional development is defined as follows: "Professional development is a formal programme designed to enhance teaching skills or pedagogical practices. It may or may not lead to a recognised qualification. The total length of the programme must last for at least one day and have a focus on teaching and education."

Note: For the Netherlands, the response rate is too low to ensure comparability.

Source: OECD PISA Database, 2001.

Figure 4.4. **Teacher participation in professional development activities in upper secondary education, 2001**

Percentage of teachers who, according to school principals' reports, participated in:



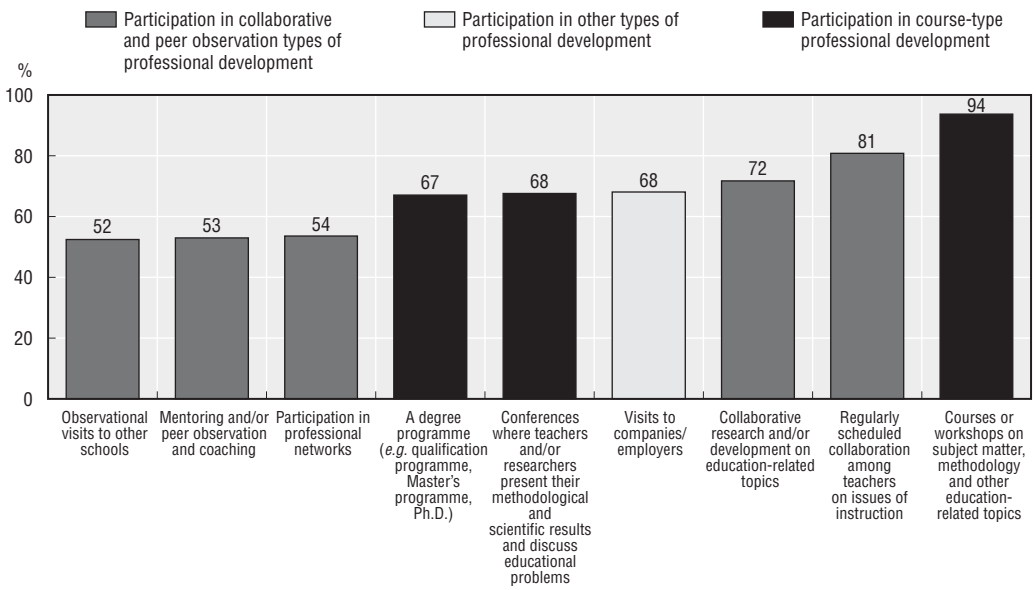
Note: Countries are ranked in descending order of the percentage of teachers who, according to school principals' reports, participated in professional development activities (excluding ICT-related activities). The Netherlands did not meet international sampling requirements. See OECD (2004) for notes on methodology.

Source: OECD International Survey of Upper Secondary Schools (ISUSS) database, 2003.

One of the difficulties in analysing professional development is the potentially large variety of activities that it encompasses. Figure 4.5 analyses participation by upper secondary teachers in nine common types of professional development. The most common form was in-service courses or workshops: 94% of upper secondary students were enrolled in schools where the principal reported that at least one teacher had this form of participation. Less formal types of professional development were also commonly reported: regularly scheduled collaboration among teachers on instruction (81%), and collaborative research and/or development (72%). The least commonly reported forms were observational visits to other schools (52%), mentoring and/or peer observation and coaching (53%), and participation in professional networks (54%). Since these indicators are based on whether at least one teacher in the school participated, they probably overstate the extent to which all teachers were involved.

Figure 4.5. **Average frequency of various types of professional development activities across countries, 2001**

Cross-country mean percentage of upper secondary students attending schools where the principal reported that at least one teacher had participated in professional development activities during the school year 2000/01



Note: Proportions by type of professional development activities are calculated for cross-country means. The countries which participated in the ISUSS survey were: Belgium (Fl.), Denmark, Finland, France, Hungary, Ireland, Italy, Korea, Mexico, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland. See OECD (2004) for notes on methodology.

Source: OECD International Survey of Upper Secondary Schools (ISUSS) database, 2003. Published in OECD (2004).

4.6.4. Research on the effects of professional development

Presently, there is little evidence about the effects of teachers' professional development on student outcomes. In general, there is still very little knowledge about the nature and extent of professional development as an activity. Activities labelled as "professional development" are very diverse and the outcomes are highly dependent on the particular circumstances in which those activities are undertaken. For an international review of recent literature about teacher professional development see Villegas-Reimers (2003).

Some studies have found that higher levels of student achievement are associated with mathematics teachers' opportunities to participate in sustained professional development focused on content-specific pedagogy linked to the new curriculum they are learning to teach (*e.g.* Cohen and Hill, 1997). They report that when California teachers had extensive opportunities to learn in what they called "student curriculum workshops" in elementary mathematics, their practices more closely resembled those envisioned by the new curriculum framework, and their students' achievement on mathematics assessments was significantly higher. Similar results were found by Wiley and Yoon (1995) and Brown *et al.* (1995).

More recently, Wenglinsky (2000) linked student results from the 1996 eight-grade National Assessment of Educational Progress tests in the United States to teacher education levels, years of experience, classroom practices and professional development. This study finds that some kinds of professional development for teachers made a big difference indeed. In mathematics, students whose teachers received professional development in working with special populations (such as culturally diverse students, those with a limited proficiency in English and students with special needs) outperformed their peers, as did students whose teachers received in-service education in higher-order thinking skills. In science, students whose teachers received on-the-job education in laboratory skills also outperformed their peers.

Obviously, the correlation between student achievement and professional development does not necessarily point to a causal link, especially if the professional development activity in question was voluntary. Motivated teachers are more likely to seek out professional development activities than their less motivated peers, and motivated teachers also tend to have better student outcomes.

Perhaps the most detailed and methodologically sophisticated study on the effects of a specific professional development programme is by Angrist and Lavy (2001). This programme was used in Jerusalem primary schools to improve the teaching of language skills and mathematics. The results suggest that the training received by teachers in non-religious schools led to an improvement in their pupils' test scores. The estimates for religious schools are not clear cut but, according to the authors, this may be because the training programme in religious schools started later and was implemented on a smaller scale. In an attempt to assess the value of the training programme, the authors compared its effects and costs with research on other strategies involving reductions in class size and lengthening the school day. Their analysis suggests that focused teacher development provides a more cost-effective strategy for increasing student performance than reducing class size or increasing school hours.

Although reliable data are not available, there are indications that the resources allocated to professional development amount to only a very small proportion of total expenditure on schools. For example, as is discussed in Section 4.6.2 above, five days is the common requirement among those countries that specify a minimum amount of teacher participation in professional development activities per year. This would be roughly equivalent to less than 2% of total expenditure on schools.

Jacob and Lefgren (2002) found that a Chicago programme which focused on the lowest-performing 20% of primary schools, and which involved moderate increases in in-service training on teaching in mathematics and reading, had no effect on student achievement. This led them to conclude that modest investments in staff development may not be sufficient in such schools especially where, as seems to have been the case, the training was relatively unstructured and not closely aligned with the school curriculum.

They suggest that even if more substantial resources had been invested in the teacher development programme, unsatisfactory results would have resulted. The benefits of professional development depend not only on the resources involved, but also on the quality and context of the programme.

The most effective forms of professional development seem to be those that focus on clearly articulated priorities, provide ongoing school-based support to classroom teachers, deal with subject matter content as well as suitable instructional strategies and classroom management techniques, and create opportunities for teachers to observe, experience and try new teaching methods.

The importance of professional development organised around groups of teachers is supported by the research of Desimone *et al.* (2002). They drew on longitudinal data from a sample of 200 mathematics and science teachers to conclude that professional development is more effective in changing teachers' practice when it is organised around the collective participation of teachers (from the same school, department or grade levels), focused on active learning activities (teachers apply what they are learning), and aligned with teachers' professional knowledge as well as external standards and assessments.

Decentralisation of schools and site-based management have created new demands and opportunities for the professional growth of teachers (see Box 4.8 for the cases of Baden-Württemberg in Germany, and Sweden). In order for teachers to "own" and to lead school improvement efforts, they need to be offered expanded and enriched professional development experiences.

Box 4.8. **Professional development and school improvement in Baden-Württemberg (Germany) and Sweden**

School-centred in-service training in Baden-Württemberg (Germany)

One of the priorities of the Ministry of Education of Baden-Württemberg is to promote in-service training addressed to schools or regional teams in order to encourage co-operation between teachers and the development of whole schools. The Ministry supports the organisation of about 100 "whole school" seminars every year by its State Academies for In-service Teacher Training. The Academy of Esslingen, for instance, organises tailor-made two-day seminars for the whole staff of schools (generally on weekends). The content of these seminars is determined co-operatively by the school and the academy. It is focused on staff and organisational development and usually contains elements such as organising active learning, developing self-regulated learning competencies, stress and conflict management and helping students to work in teams. The courses conclude with an action plan for school development. In order to assure sustainability, a steering team, consisting of teachers from the school, is established with a responsibility to implement the action plan.

Time provision for professional development in Sweden

In Sweden, under a 2000 agreement, 104 hours of professional development per year (as an indicative value) per teacher are set aside for skills development. As the total statutory working time is 1 800 hours, this is about 15 days per year or about 6% of a full-time load, a relatively high level compared to most countries. How this time is divided up and used is determined on the basis of the school's and the individual teacher's needs. Principals have a major responsibility to ensure the 104 hours are used well, as part of their overall responsibility for ensuring quality and developing their schools, but local education authorities play a major role in determining which professional development programmes receive financial support. It can include time out of normal school hours, *e.g.* evening seminars.

4.6.5. Schools as learning organisations

Studies of high-performance organisations indicate that most learning occurs informally (*e.g.* Education Development Center, 1998). High-performance organisations value informal learning and the contribution that it makes to achieving organisational goals. Such organisations seek to maximise opportunities for staff to interact and learn from one another, as well as with external sources of research and information, and try to develop ways for learning to be cumulative and more readily accessible to all members of the organisation. The term "knowledge management" is sometimes used to describe this strategy.

There are some examples of how professional development activities are being used to encourage ongoing informal learning in schools. A key strategy is to encourage teachers to become more inquiring, reflective practitioners, and to do so in collaboration with colleagues. As defined by Schon (1996), reflective practice involves thoughtfully considering one's own experiences in applying knowledge to practice while being coached by professionals in the discipline. Reflective practice encourages teachers to use personal histories, dialogue journals and small- and large-group discussions to reflect upon and improve their practice. The use of peer reflective groups and coaching (Guiney, 2001) encourages teachers to challenge existing theories and their own preconceived views of teaching while encouraging a collaborative style of professional development. Licklider (1997) found that self-learning from experience in natural settings is an effective component of adult learning. The research underlines a growing tendency to provide for activities such as study teams and peer coaching in which teachers continuously examine their assumptions and practices.

Some countries have used a broader conception of professional development to create opportunities for teachers to engage in school-focused research and development (*e.g.* England, Hungary and Ontario in Canada). Such programmes support teachers in studying and evaluating their own teaching strategies and school programmes, and in sharing their findings with their colleagues, and through conferences and publications.

Some countries are creating more coherent frameworks to document and certify effective professional development activities. Teacher portfolios, for example, allow teachers to keep track of professional development activities in a systematic manner, and to share the results with others. Portfolios also allow for the documentation of developmental projects and research conducted by teachers. By documenting an individual teacher's professional development in a more comprehensive manner, teachers become more aware of their personal strengths and developmental needs. Portfolios also enable potential employers to gain a much more precise understanding of a teacher's individual experience, interests, motivation, knowledge and skills.

For professional development activities to work in these ways it is important that they forge a close connection between teachers' own development, their teaching responsibilities and school goals. A frequent critique of many professional development programmes is that they treat teachers' professional development as an activity distinct from teachers' daily work, which both limits its effectiveness and reduces the chances for schools to benefit from informal learning (Education Commission of the States, 2004).

To encourage schools to become learning organisations requires ensuring among teachers: the *motivation* to create new professional knowledge; the *opportunity* to engage actively in innovation; the *skills* of testing the validity of innovations; and the *mechanisms* for transferring the validated innovations rapidly within their school and into other schools (D. Hargreaves, 2003). Targeted professional development activities can be an important

source of ideas and techniques for building these features in schools. Perhaps even more important are skilled school leaders who are able to build a climate of collegiality and quality improvement within schools, and systems of teacher evaluation and career development that recognise and reward teachers who innovate, share their learning, and help achieve school goals. These latter aspects are taken up in Chapter 6.

The concept of schools as learning organisations also requires that schools become more skilled at looking outwards, at building stronger linkages with the research and development communities, and at becoming integrated into networks of teachers and schools. System-wide improvement requires individual schools to become better at sharing their successes and failures with other schools, and to learn from the experiences of others facing similar challenges. The OECD's Centre for Educational Research and Innovation case studies on the ways that various countries are building teachers' competencies in student formative assessment underline the value of collaborative networks of teachers and schools, but also draw attention to the time and other resources needed for networking to be effective (OECD, 2005).

4.7. Priorities for Future Policy Development

This chapter has reviewed the approaches that countries are taking to developing teachers' knowledge and skills, and identified a range of promising initiatives in initial teacher education, certification of new teachers, induction into the teaching career, and ongoing professional development. Most Country Background Reports have identified these as key areas for improvement.

Teaching is becoming a more challenging task, and the responsibilities of teachers have broadened in response to societal changes and higher expectations of schooling. At the same time, research is increasingly emphasising the critical role of quality teaching in student learning, as well as improving understanding of the factors that contribute to teacher effectiveness. Research is also challenging the value of some traditional approaches to developing teachers' knowledge and skills.

The policy suggestions that follow are drawn from the experiences reported in the Country Background Reports, the analyses of external review teams, and the wider research literature. Not all of the policy implications apply equally to all 25 participating countries. In a number of cases many or most of the policy suggestions are already in place, while for other countries they may have less relevance because of different social, economic and educational structures and traditions. The implications also need to be treated cautiously because in some instances there is not a strong enough research base across a sufficient number of countries to be confident about successful implementation. Rather, the discussion attempts to distil potentially useful ideas and lessons from the experiences of countries that have been searching for better ways to develop teachers' knowledge and skills.

Developing teacher profiles to align teacher development, performance standards and school needs

The overarching priority is for countries to have in place a clear and concise statement or profile of what teachers are expected to know and be able to do. This is necessary to provide the framework to guide initial teacher education, teacher certification, teachers' ongoing professional development and career advancement, and to assess the extent to which these different elements are being effective.

A fundamental precondition for the preparation of a profile of teacher competencies is a clear statement of objectives for student learning. Teachers' work and the knowledge and skills that they need to be effective must reflect the student learning objectives that schools are aiming to achieve. There needs to be profession-wide standards and a shared understanding of what counts as accomplished teaching. The profile should be evidence-based and built on active involvement by the teaching profession in identifying teacher competencies and standards of performance. A clear, well-structured and widely supported teacher profile can be a powerful mechanism for aligning the various elements involved in developing teachers' knowledge and skills.

The teacher profile must reflect the broad range of competencies that teachers require to be effective practitioners in modern schools. It should encompass strong subject matter knowledge, pedagogical skills, the capacity to work effectively with a wide range of students and colleagues, contribution to the school and the wider profession, and the teacher's capacity to continue developing. The profile could express different levels of performance appropriate to beginning teachers, experienced teachers, and those with higher responsibilities. The profile would emphasise demonstrated attainment of key knowledge, skills and competencies for effective professional practice.

Viewing teacher development as a continuum

Much of the focus of teacher development has been on initial teacher education, the knowledge and skills that teachers acquire before starting work as a teacher. Most of the resources for teacher development have been allocated to pre-service education, and this is the phase that is most intensely debated within countries. In a number of countries, the initial qualification that teachers gain is a key determinant of their career path. However, given the rapid changes in schools, the potentially long careers that many teachers have, and the need for updating and professional development, teachers' development must be viewed in lifelong learning terms, with initial teacher education conceived as providing the foundations for ongoing learning, rather than producing ready-made professionals.

Although high-quality initial teacher education is necessary and important, it is not sufficient on its own to meet teacher and school needs. The stages of initial teacher education, induction and professional development need to be much better interconnected to create a more coherent learning and development system for teachers. As noted above, a statement of teacher competencies and performance standards at different stages of their career will provide a framework for the teacher development continuum. A clear set of expectations about teachers' own responsibilities for their ongoing development, and a structure of support to facilitate their growth must be part of this framework.

A lifelong learning perspective for teachers implies that in most countries much more attention will need to be focused on supporting teachers in the early stage of their career, and in providing the incentives and resources for ongoing professional development. Pre-service teacher education will continue to be important, but viewed as providing the foundations for teacher development rather than being responsible for most of the structure. In general, there could be better value from using additional resources to improve induction and teacher development throughout their career rather than increase the length of pre-service education.

Making initial teacher education more flexible and responsive

Teacher education has an important role to play in ensuring that a teaching career is open to a wide range of well-qualified people, and that emerging needs in the school system

are responded to effectively. Key features of a flexible and responsive teacher education system include:

- Opportunities to train as a teacher after having completed studies in another field. This involves providing consecutive or post-graduate programmes of teacher education in addition to concurrent programmes for those who decide relatively early that they wish to be teachers.

- Modular curriculum structures that enable people to enrol part-time or via distance education, and to combine teacher education with work or family responsibilities.

- An increase in the common components of teacher preparation for different types of school and levels of education so as to increase opportunities for working in different schools as teacher demand and career interests change.

- Alternative routes into teaching for mid-career changers that combine formal study and on-the-job support with reduced teaching loads.

- Study credits for qualifications and experience gained outside education, so as to reduce course length and costs.

- Retraining and upgrading programmes that enable existing teachers to gain new qualifications to teach in other types of schools or to take on high-demand subject areas.

- Close relationships with schools, teacher employers and the teaching profession.

- Research and development activities focused on the issues facing schools and teachers.

- Feedback and evaluation mechanisms that enable the outcomes of teacher education to be monitored and quality improved.

Improving selection into teacher education

A number of countries have largely unrestricted entry to initial teacher education for students who have completed secondary education. Although this can be difficult to change in light of policies towards admission to higher education as a whole, the result can be very large enrolments with many students not focused on a teaching career, and teacher education resources being spread too thin. Potentially useful responses include: providing more information and counselling to prospective teacher trainees so that better informed enrolment decisions are made; procedures that try to assess whether the individuals wanting to become teachers have the necessary motivation, skills, knowledge and personal qualities; incentive schemes to recruit candidates with high-level competencies; and flexible programme structures that provide students with school experience early in the course, and opportunities to move into other courses if their motivation towards teaching changes.

Selection is particularly critical for countries facing teacher shortages, as the pressing needs to staff the schools may risk a lowering of entrance standards. People who are not well equipped to be teachers or who lack motivation will not perform well in schools and are likely to leave the job, thereby doing little to solve the shortage problem. A more appropriate policy response is to improve teaching's attraction as a career choice for

competent and motivated people, and to use selection criteria that ensure the best possible candidates enter teacher education.

Changing the emphases in initial teacher education

Initial teacher education must not only provide sound basic training in subject-matter knowledge, pedagogy related to subjects, and general pedagogical knowledge; it also needs to develop the skills for reflective practice and research on the job. Teaching is a complex task, and there is not a single set of teacher attributes and behaviours that is universally effective for all types of students and learning environments. Effective teachers are people who are competent across a range of domains. A consistent finding is that effective teachers are intellectually capable people who are articulate and knowledgeable, and able to think, communicate and plan systematically. They need strong content knowledge combined with the skills to organise and use that knowledge to stimulate, guide and evaluate learning in diverse and dynamic environments. Effective teachers also need the personal qualities to inspire trust and confidence among students, parents and their colleagues.

It is unrealistic to expect that any initial teacher education programme, no matter how high quality, will be able to fully develop student teachers in all of these regards. As noted above, rather than being the main or indeed the only qualification for teachers, initial teacher education is now starting to be viewed as the entry point for the profession and the platform for teachers' ongoing development. Nevertheless, initial teacher education has the responsibility to ensure that new teachers are well equipped for the job they need to do.

The general impression from the participating countries is that, despite the reforms in teacher education in recent years, there is still some way to go. While some countries express broad satisfaction with the subject knowledge preparation and research skills of secondary teachers, they also express concern about new teachers' pedagogical skills and their capacity to work in socially diverse schools. At the primary school level, while the pedagogical preparation of new teachers is generally well regarded, there are concerns about many teachers' limited grounding in subject matter content, and their skills for ongoing development. Surveys of teachers themselves reveal concerns about a gap between theory and practice in teacher education.

Part of the difficulty seems to have been a lack of clarity about the competencies that beginning teachers need to start in their careers. Having in place a clear and widely supported profile of teacher competencies and performance standards will help considerably in this regard. Another source of difficulty lies in the limited contact in some countries between teacher education institutions and their main clients – teacher employers, the schools, and teachers.

Many of the participating countries express concern about the limited co-operation between teacher education institutions and schools. Teacher trainees are faced with different, sometimes incompatible demands in their teacher education and school experiences, and there is too little sharing of expertise between teacher educators and practising teachers. There is a need for more overt and deliberate forms of partnerships between schools and teacher education institutions, in order to provide trainee teachers with a more integrated experience.

Improving practical field experiences

Countries are rethinking the role of field experiences in schools. These now tend to happen earlier in teacher education, and are framed to provide a broad experience of what it means to be a professional teacher, including actual class teaching, counselling and

guidance, curriculum and school development planning, research and evaluation and collaboration with parents and external partners. The more effective programmes ensure that the students' field experiences and academic studies reinforce and complement each other, for example through students doing research on issues identified within the schools. Effective programmes also ensure that mentor teachers receive appropriate training and support, including time allowances.

Accrediting teacher education programmes

Accreditation by an independent, authoritative agency is a means to assure quality in teacher education, and to help ensure that funds are well used and graduate teachers are well prepared. In order to encourage innovation and a diversity of approaches in teacher education, accreditation criteria should focus on the outcomes of programmes rather than on their inputs, curriculum and processes. Teacher education institutions should be free to determine the best way to reach agreed ends. Programme accreditation must be one part of an ongoing process of feedback and evaluation of the effectiveness of teacher education.

Certifying new teachers

Teacher certification allows for the establishment of professional standards independent of prospective teachers' educational backgrounds. It can also provide a means for individuals from a variety of backgrounds to become teachers. Since a range of different dimensions are important for effective teaching, certification must entail a variety of different criteria – subject matter knowledge, pedagogical skills, communication skills, experience, personal qualities and so on.

However, the nature of teaching means that even the best qualified applicants may still struggle to cope with the realities of the job. For this reason the satisfactory completion of a probationary period of one to two years teaching should be considered mandatory before full teaching certification is awarded or a permanent teaching post is awarded. To be fair, prospective teachers should be given every opportunity to work in a stable and well-supported school environment in this initial period, and the decision about certification should be taken by a panel of internal and external personnel who are well trained and resourced for the task. The successful completion of the probation period should be publicly acknowledged and lead to a substantial rise in status and salary.

Strengthening induction programmes

The crucial importance of induction programmes for new teachers in the early years of their teaching careers is now widely acknowledged. In successful programmes, mentor teachers in schools provide guidance and supervision to beginning teachers in close collaboration with the initial teacher education institution. Under this approach the early years of the teaching career are seen as an extension of the training period, or a form of internship, and would require continuing close interaction with the teacher education institution and well-trained and resourced mentor teachers in schools. These mentors provide on-the-job support, diagnose deficits in subject matter knowledge, classroom management strategies and other pedagogical processes. Central to the success of induction and mentoring programmes are the resources dedicated to the programmes and the quality of mentor training. Often schools that would need to provide the most support to beginning teachers are the least capable of delivering high-quality induction programmes. Effective partnerships between teacher education institutions and schools are particularly important in this respect.

Integrating professional development throughout the career

There are substantial challenges in ensuring that all teachers – and not only the most motivated ones – are lifelong learners, and in linking individual teacher development to school needs.

Three broad strategies are evident among participating countries. The first is entitlement-based, and generally results from collective bargaining agreements that stipulate that teachers are entitled to certain amounts of released time and/or financial support to undertake recognised professional development activities. The second is more incentive-based, linking professional development to needs identified through a teacher appraisal process, and/or recognising participation in professional development as a requirement for salary increases or taking on new roles. The third broad strategy is more school-based, and links individual teacher development with school improvement needs. The three strategies are not necessarily mutually exclusive, although the starting points of the entitlement and incentive-based approaches tend to be the individual teacher rather than the whole school.

A comprehensive approach to professional development would encompass all three strategies. Providing teachers with agreed levels of time release or financial support for professional development is an explicit recognition of its importance in teachers' work, and a means of enabling participation. However, it is also important for teachers to see the value of taking part in professional development, to understand that it is an important part of their professional role, and to see the "entitlement" provision as the minimum extent of their participation rather than the maximum. This is most likely to occur when teachers can see a clear link between professional development activities, improvements in their own practice, student progress, and overall school improvement.

Although professional development is now receiving more policy attention, it often seems to be fragmented and limited in scope. The three broad strategies just described attempt to stimulate the demand for professional development activities, but they are not always matched by reforms on the supply side. In a number of countries the use of public funding for professional development activities is restricted to programmes provided by a few organisations (teacher education institutions or agencies specialising in professional development). Especially in those countries where participation in professional development is mandated, this can reduce the incentives for innovation and quality improvement. It is important to encourage a range of professional development providers, ensure that quality standards are being met, and disseminate good practice.

Professional development can also appear fragmented from the individual teacher's perspective. The development of clear teacher profiles and standards of performance at different stages of the teaching career will help to provide a purpose and a framework for professional development, as well as criteria for assessing the results. Teacher portfolios can also allow teachers to keep track of professional development activities in a more systematic manner.

Effective professional development is ongoing, includes training, practice and feedback, and provides adequate time and follow-up support. Successful programmes involve teachers in learning activities that are similar to ones they will use with their students, and encourage the development of teachers' learning communities. A key strategy involves finding ways for teachers to share their expertise and experience more systematically. There is growing interest in ways to build cumulative knowledge across the profession, for example by strengthening connections between research and practice and encouraging schools to develop as learning organisations.

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Chapter 5

RECRUITING, SELECTING AND EMPLOYING TEACHERS

Summary

Teacher policy needs to ensure that the best available teachers are selected for employment, and that individual schools have the teachers they need. This chapter outlines concerns about recruiting, selecting and employing teachers and develops policy options for countries to consider.

Teachers are generally employed as public servants, and in a number of countries this is associated with tenured employment once permanency is obtained. There may not be sufficient incentives for all teachers to continuously review their skills and improve their practice, especially where there are only limited mechanisms for teacher evaluation and accountability. Policy options include the requirement that teachers renew their teacher certificates every five to seven years, built on an open, fair and transparent system of teacher evaluation.

The selection criteria for new teachers need to be broadened to ensure that the applicants with the greatest potential are identified. Some countries are reducing the weight accorded to seniority in determining which candidates are appointed to teaching vacancies, so as to avoid beginning teachers being assigned to the more difficult and unpopular schools. The evidence suggests that greater school involvement in teacher selection and personnel management helps to improve educational quality.

There is considerable evidence that some beginning teachers, no matter how well prepared and supported, struggle to perform well or find that the job does not meet their expectations. A formal probationary process can provide an opportunity for both new teachers and their employers to assess whether teaching is the right career for them.

In some countries the limited mobility of teachers between schools, and between teaching and other occupations, restricts the spread of new ideas and approaches, and results in teachers having few opportunities for diverse career experiences. The lack of mobility may mean that teacher shortages in some regions are paralleled by oversupply in others. Providing incentives for greater mobility and removing barriers are important policy responses.

As well as ensuring that teaching is an attractive career option, and that prospective teachers have appropriate skills and knowledge, teacher policy needs to ensure that the best available teachers are selected for employment, and that individual schools have the teachers they need.

These are major tasks with a workforce as large as teaching. For example, in France in 2002 there were about 150 000 candidates for about 27 000 new teaching positions.[1] Due to increasing numbers of teacher retirements, France expects to need to fill about 37 000 new teaching positions annually over the next decade.

Aside from the administrative and logistical challenges of managing such large numbers, the mechanisms that countries use to select and recruit teachers, and the policies governing their terms of employment, have potentially strong implications for educational quality. For instance, if hiring practices do not ensure the selection of the best available candidates, then increases in teacher salaries will not necessarily lead to improvements in the quality of the teacher workforce (Ballou and Podgursky, 1998).

In most school systems there are further processes concerned with the assignment of teachers to individual schools, and the movement of teachers between schools. In the United States, for example, between the 1999/2000 and 2000/01 school years about 8% of public school teachers changed schools and 7% left the teaching profession altogether (Luekens *et al*., 2004). In that year, therefore, there was an average teacher turnover of about 15%, and in a number of schools the figure would have been much higher.

The processes by which teachers are assigned to and employed in different schools can affect the equity of the distribution of teaching resources and the extent to which schools are meeting student needs. Countries differ markedly in their approach to such personnel decisions, particularly in regard to the role played by individual schools. There is emerging evidence from international studies of student performance that countries in which schools have relatively high levels of responsibility for personnel selection and management tend to be associated with better student outcomes (OECD, 2001; Wößmann, 2003).

This chapter reviews the policy concerns about recruiting, selecting and employing teachers. It includes descriptions of initiatives in participating countries, and develops policy options for countries to consider. In terms of the analytical framework developed in Section 2.4, this chapter is primarily concerned with the structures and processes through which teacher demand and supply interact to determine which teachers are selected for employment, and the schools in which they teach.

5.1. Teaching and Public Service Employment

Teachers' employment is fundamentally shaped by government policies and practices. Schooling is principally a public sector activity in most countries. Governments either directly provide schools themselves, or provide much of the funding that other organisations use for their schools. On average in OECD countries, about 97% of primary and secondary students are enrolled either in public schools (about 87% of all students) or in government-dependent private schools (about 10% of students). Only about 3% of

[1] Unless otherwise indicated, references to country data and developments are taken from the background reports prepared by countries participating in the OECD teacher policy project. To save space, the background reports are not individually cited. Appendix 1 provides information on the background reports, their authors, and availability.

students are in independent private schools (OECD, 2004a). On average, about 92% of all expenditure on primary and secondary schools is from public sources.

Most teachers are either civil servants or are employed under conditions similar to those in the civil service, and teachers usually constitute a large share of public sector employment.[2] Thus, teachers' employment conditions must be considered in light of public sector employment as a whole, which may be either a driving force for change in teacher employment, or a constraint on the extent to which change is possible. Nevertheless, the nature of public service employment differs markedly from country to country, and within the public sector teachers' employment often differs from that of other public servants.

There are two basic models of public sector employment in OECD countries: "career-based" or "position-based"[3], and these are both evident in teachers' employment in different countries.

In career-based systems, public servants are generally expected to stay in the public service throughout their working life. Initial entry normally occurs at a young age, it is based on academic credentials and/or a civil service entry examination, the entry criteria are usually demanding, and there are generally many more applicants than vacancies. Once recruited, people are normally allocated to posts according to internal rules, and are moved among departments throughout their career. Promotion is based on a system of grades attached to the individual rather than to a specific position. Starting salaries are often relatively low, but there is a clear pathway to higher earnings, and pension schemes are usually relatively generous. This sort of system is characterised by limited possibilities for entering the civil service mid-career, and a strong emphasis on career development. France, Japan, Korea and Spain are countries with many of the characteristics of career-based public services.

Position-based public services tend to focus on selecting the best-suited candidate for each position, whether by external recruitment or internal promotion. The criteria for appointment emphasise specialised qualifications or skills rather than more general measures of all-around competence. Position-based systems generally allow more open access at a wide range of ages, and entry from other careers is relatively common, as is movement from the public service to other jobs. Starting salaries are often relatively high, in part because they are not necessarily viewed as "starting", but rather because they reflect market rates for the skills needed in the position. Career advancement tends to depend on competing for vacant positions with higher levels of skills or responsibilities, rather than upon grades attached to the individual. For many people, therefore, salaries tend to plateau relatively early in their career since the number of higher level vacancies is usually restricted. In such systems, the main impetus for professional and career development tends to come from the individual, whereas in career-based systems career development is usually nurtured in more structured ways. Canada, Sweden, Switzerland and the United Kingdom illustrate many of the features of position-based public service employment.

No country provides a "pure" example of either the career-based or position-based type of public service, and within countries teaching tends to differ somewhat from the mainstream public service model in any case. For example, in career-based systems teachers are often recruited on the basis of specialised subject matter or grade-level skills in

[2] As one indicator of this, public expenditure on primary, secondary and post-secondary non-tertiary education averages around 9% of total public expenditure in OECD countries (OECD, 2004a).

[3] The discussion of different models of public sector employment is based on OECD (2004b).

addition to general academic criteria, teachers are generally not moved to work in other government departments or *vice versa*, and the role of local government authorities and/or schools in candidate selection means there is less reliance on regulations governing staff mobility. In position-based public service systems teachers often have a salary schedule that provides largely automatic incremental steps over a long period, irrespective of whether new positions are taken on, and there can be some institutionalisation of professional development through teachers having entitlements to time release, for example. There are also some countries which have mixed characteristics of both models. Nevertheless, the two broad models provide a useful means of characterising teacher employment in different countries.

5.2. Features of Teachers' Employment Conditions

Employment status

Table 5.1 summarises key employment conditions of public school teachers among the participating countries. In two-thirds of the countries public sector teachers are employed by a local or municipal education authority, while a central or regional government authority is the employer in seven countries (Australia, Austria, France, Greece, Israel, Italy and Korea). The division of responsibility for teacher employment generally reflects the structure of government in the country concerned. The role of the individual school governing authority in teacher employment is significant in seven countries (Belgium, Hungary, Ireland, Netherlands, England, Northern Ireland and Wales).

In three-quarters of the countries public school teachers are employed as civil servants, that is, under conditions applicable to public sector employment in general. Such conditions normally include legislation or regulations specifying criteria for employment selection, salary and other benefits, and career advancement. Civil servants generally have lifelong tenure, and their employment can usually only be terminated under exceptional circumstances. In all but three countries (Australia, Chile and Finland), teachers with civil servant status cannot be hired on fixed-term contracts. Teachers in public schools generally do not have civil servant status in Quebec, the Netherlands, the Slovak Republic, Sweden, Switzerland, the United Kingdom, or Ireland (where they have a similar public service status). Box 5.1 outlines the recent changes to teachers' employment status in Switzerland.

Box 5.1. **A new employment status for teachers in Switzerland**

A marked feature of the teaching labour market in Switzerland is that, throughout the country, teachers are no longer civil servants. In the last few years, in most cantons and at confederation level, the employment status of public workers has moved from that of civil servant to that of salaried employee. However, it is important to note that, as a general rule, the previous civil servant status was not associated with an appointment for life but instead with contracts of a given duration. In most cantons the new salaried employee status goes along with indefinite, terminable contractual arrangements regulated by public law, which are similar to those offered in the private sector. These contracts can generally be terminated within a few months if: (i) the employee fails to follow the regulations; (ii) the employee performs unsatisfactorily; or (iii) the post becomes redundant. In the cantons where this reform has not been undertaken, teachers are employed with a renewable contract of a typical duration of four to six years, regardless of whether they benefit from a civil servant status or not. In these cases dismissals are only possible in extraordinary circumstances. Lifetime contracts are not offered to teachers in any Swiss canton.

In most countries, teachers can also be employed on a contractual basis under the conditions of general employment legislation. This applies in 20 of the 25 countries that supplied data for Table 5.1, and indicates a moving away from a single, lifetime model of public sector employment. Contract employment of public school teachers does not seem to be used in Chile, Finland, Italy, Korea or the United States.

Processes for determining employment conditions

In three-quarters of the countries teachers' employment conditions are defined by collective agreements reached between the government employing authority and teacher unions. France, Germany, Japan and Korea, which are examples of "career-based" public services do not use collective bargaining to define employment conditions, while in England and Wales, where public service employment reflects the "position-based model", such employment conditions are based on recommendations of an independent review body (see Box 5.2). Where collective agreements exist, they tend to be reached at the central/regional level (11 of 17 countries for which information is available) or within a framework that is agreed at central level and with specifics determined at the local or municipal government level (6 countries).

Box 5.2. **The School Teachers Review Body in England and Wales**

The School Teachers Review Body (STRB) was established under the *School Teachers' Pay and Conditions Act* in 1991, following the abolishment of the former system of national collective bargaining over pay. It is an independent advisory body that examines the pay, duties and other conditions of employment of school teachers in England and Wales, and makes reports to the government. Since its creation, the salary scales for teachers are nationally determined by the Secretary of State for Education and Skills, usually following the advice of the STRB. Unless there are compelling reasons to the contrary, the government has undertaken to implement the recommendations of the STRB.

The STRB consists of 5 to 9 members. The chairperson is appointed by the Prime Minister and the other members are appointed by the Secretary of State. The members, in general, cover areas of expertise such as labour market economics, human resources and industrial relations, financial management and education.

The Secretary of State may give the STRB some elements to consider, such as budgetary restrictions or the government's policy on public sector pay. But it cannot impose limits on what the STRB may recommend, or the cost of its recommendations. The recommendations from the review body are based on inputs from major stakeholders including the government, unions and employers. Before reporting, the STRB is required to take evidence from interested parties, including bodies representing teachers, the employers' organisation of local educational authorities, school administrators, the Secretary of State and others the STRB deems appropriate.

The STRB may also advise on other specific issues such as teacher workload. In October 2000, for example, the STRB presented a special report on the standards for promotion in the context of the "Performance Threshold" system.

Collective bargaining between teacher employers and teacher unions is likely to lead to different outcomes than negotiations by individual teachers or government regulations stipulating resource levels and teachers' working conditions. The impact of teacher unions on school resources and student outcomes has been extensively analysed in the United States, where there is a tradition of collective bargaining and the extent of unionisation

varies between school districts and has changed over time. (Santiago, 2004, includes a review of this literature.)

The research has produced mixed results. For example, Hoxby (1996) concluded that strong teacher unions lead to higher per-student spending, and increase the share of spending devoted to inputs that have potential benefits for teachers but lower student achievement by decreasing the productivity of these inputs, in part because of greater standardisation in teaching approaches in unionised workplaces. Standardisation is likely to assist the middle band of students but not those who are high or low performers. She also concluded that the potential effects of unions on public schools are likely to be greater in areas where there is little competition either from private schools or from alternatives within the public sector. On the other hand, Steelman *et al.* (2000) found a statistically significant and positive relationship between state teacher unionisation rates and student test scores, which they attribute in part to the beneficial effects of higher resource levels in unionised districts and a stronger focus on school-wide improvement strategies. There are considerable conceptual and methodological difficulties with this type of research. Nevertheless, the contrasting findings reinforce the basic point that collective bargaining agreements, like any other mechanism for determining school resource levels and their uses, ultimately need to be assessed in terms of their impact on student outcomes.

Box 5.3. **Individual teacher pay system in Sweden**

In Sweden, the centrally bargained fixed-pay scheme for teachers was abolished in 1995 as part of a package designed to enhance local autonomy and flexibility in the school system. The government committed itself to substantially lift teacher salaries over a five-year period, but on the condition that not all teachers received the same rise. This means that there is no fixed upper limit and only a minimum basic salary is centrally negotiated, along with the aggregate rise in the teacher salary bill. Salaries are negotiated when a teacher is hired, and teacher and employer agree on the salary to be paid on commencement of the term of employment. The individual negotiation involves the following dimensions:

1. Teachers' qualification areas: teachers in upper secondary schools have higher salaries than teachers in compulsory schools or teachers in pre-schools.
2. The labour market situation: in regions where teacher shortages are more acute, teachers get higher salaries; the same occurs for certain subjects like mathematics or science.
3. The performance of the teacher: the collective central agreement requires that pay raises be linked to improved performance, allowing schools to differentiate the pay of teachers with similar tasks.
4. Range of responsibilities of teachers: principals can reward teachers if they work harder and take up more tasks than what is generally expected.

There is now much greater variety in teachers' pay, with those in areas of shortage and with higher demonstrated performance able to negotiate more. The scheme is underpinned by a system of central government grants to ensure that low-income municipalities are able to compete effectively for teachers and other staff in the service sectors of the municipality.

Sweden, with its individual teacher pay system introduced in 1995, provides an interesting example of a country that has attempted to combine a strong tradition of teacher unionism and consultative processes with opportunities for flexible responses and non-standardised working conditions at the school level (see Box 5.3). Although the evidence is not clear cut, given the range of other changes in Swedish schools and the labour market since the mid-1990s, the impression is that the individualised approach to teacher pay has

helped schools overcome some teacher shortages and improved the match between teachers and school needs. There is evidence that the competition for teachers has increased both between public and private schools, and between municipalities (Björklund *et al*., 2004). The probability of teachers changing municipalities has doubled since the mid-1990s, and schools appear to be tailoring their compensation packages (salaries, class sizes, working conditions) to attract the teachers they need. Nevertheless, the scope for overcoming teacher shortages through individual pay and tailored compensation packages is dependent on the economic situation in the municipalities.

Teacher dismissal

As Table 5.1 shows, in all countries, public school teachers can be dismissed for disciplinary reasons, and in over half the systems (15 out of 26) for reasons of redundancy, such as when enrolments decline or subjects are no longer offered. About two-thirds of the countries also report that teachers can be dismissed because of chronic underperformance. However, based on information from the Country Background Reports and the country review visits, it appears that public school teachers are rarely dismissed on performance grounds.

Some of the Country Background Reports have identified this as a particular problem. For example, Korea, where teacher employment reflects a career-based model, notes that "both the teacher evaluation and the institutional mechanism for ousting the ineffective teachers remain very weak. The strong status protection of the teaching profession prevents such disciplinary mechanism from being truly operational." The Slovak Republic, where teacher employment can be characterised more as a position-based system and therefore potentially more flexible, nevertheless notes that "owing to the fact that there are no criteria of teachers' efficiency set … it is not possible to officially identify an inefficient teacher. In addition, the Labour Code exceedingly protects the employees tenured and consequently, the only legal procedure – action in court – [is lengthy and complex]." This has led to one perhaps unanticipated outcome, which works against teachers' interests and innovation: "The principals thus use various internal organisation changes that allow them to dismiss redundant teachers. This instrument may be also used (and is used) against able teachers [who] become 'uncomfortable' for the school management [and] the social certainty of innovative teachers substantially diminishes."

The Country Background Reports do not indicate that there are large numbers of ineffective teachers in schools. The issue seems to be more that the lack of simple, transparent and accepted procedures for dealing with ineffective teachers means that the problem is often not tackled, and that this has adverse consequences for the reputation of schools and the teaching profession. Approaches to identifying and responding to poorly performing teachers are discussed further in Chapter 6.

Table 5.1. **Employment and dismissal of teachers, public schools, 2004**

	Employer of teachers	Employment status of teachers		Can teachers be employed on fixed-term contracts (please indicate in parentheses the maximum period of time a teacher can be employed on fixed-term contracts)?		Are employment conditions of teachers defined by collective agreements?	Under what circumstances can teachers be dismissed from their teaching post?
		Civil servant status	Employed on a contractual basis under general employment legislation (salaried employee status)	Teachers with civil servant status	Teachers with salaried employee status		
Australia	Central/regional educational authority	Yes, often	Yes, often	Generally yes, it varies from 12 months to 7 years	Generally yes, generally 1 year	Yes at the central/regional government level	Disciplinary Underperformance Sometimes redundancy
Austria	Central/regional educational authority	Yes	Yes	No	Yes	Yes, at the central/regional level	Disciplinary
Belgium (Fl.)	Central/regional educational authority Municipal/local educational authority School governing authority	Yes	Yes	No	Yes (1 year but renewable)	Yes, with a central framework agreed at central level and details negotiated at more localised levels	Disciplinary Underperformance
Belgium (Fr.)	Central/regional educational authority Municipal/local educational authority School governing authority	Yes	Yes (for temporary teachers)	No	Yes (1 year but renewable)	Yes, at the central/regional level	Disciplinary Underperformance
Canada (Qb.)	Local educational authority	No	Yes	*a*	Yes (1 year)	Yes, at the central/regional and local levels	Disciplinary Redundancy Underperformance
Chile	Municipal educational authority	Yes	No	Yes (no limit)	*a*	Yes, at the central level	Disciplinary Redundancy[1]
Denmark	Municipal/local educational authority	Yes	Yes	No	Yes	Yes, with a central framework agreed at central level and details negotiated at more localised levels	Disciplinary Redundancy Underperformance
Finland	Municipal educational authority	Yes	No	Yes (legislation establishes that *it should not be used repeatedly*)	*a*	Yes, at the central level	Disciplinary Redundancy Underperformance
France	Central educational authority	Yes	Yes	No	Yes	No	Disciplinary Criminal
Germany	Regional educational authority Local educational authority	Yes	Yes	No	Yes (5 years)	No	Disciplinary Redundancy Criminal
Greece	Central educational authority	Yes	Yes	No	Yes (10 months)	Yes, at the central level	Disciplinary
Hungary	School governing authority (principal)	Yes	Yes	Yes (typically 1 year but it can be 5 years if it is a substitution)	Yes (typically 1 year but it can be 5 years if it is a substitution)	Yes, with a central framework agreed at central level and details negotiated at more localised levels	Disciplinary Redundancy Underperformance
Ireland	School governing authority Local education authority	No[2]	Yes	*a*	Yes (In general until the end of the school year)[3]	Yes[4]	Disciplinary Underperformance
Israel	Central educational authority (primary and lower sec. teachers); Local educational authority or educational networks (upper sec. teachers)	Yes[5]	Yes	No	No	Yes, at the central level	Disciplinary Redundancy Underperformance
Italy	Central/regional educational authority	Yes	No	No[6]	*a*	Yes, with a central framework agreed at central level and details negotiated at more localised levels	Disciplinary
Japan	Municipal/local educational authority	Yes	Yes	No	Yes (1 year)	No	Disciplinary
Korea	Regional educational authority	Yes	No	No	*a*	No	Disciplinary Criminal

Table 5.1. (continued) **Employment and dismissal of teachers, public schools, 2004**

	Employer of teachers	Employment status of teachers		Can teachers be employed on fixed-term contracts (please indicate in parentheses the maximum period of time a teacher can be employed on fixed-term contracts)?		Are employment conditions of teachers defined by collective agreements?	Under what circumstances can teachers be dismissed from their teaching post?
		Civil servant status	Employed on a contractual basis under general employment legislation (salaried employee status)	Teachers with civil servant status	Teachers with salaried employee status		
Netherlands	School governing authority Local education authority	No	Yes	*a*	Only for replacements	Yes, at the central level for primary education; For secondary education, fringe benefits are negotiated at local level	Disciplinary Redundancy
Slovak Republic	*m*	No	Yes	a	Yes (3 years)	Yes	Disciplinary Redundancy Organisational changes Underperformance
Sweden	Municipal/local educational authority	No	Yes	*a*	Yes (1 year)	Yes, at the municipal authority level	Disciplinary Redundancy
Switzerland	Municipal/local educational authority (all levels of education) Regional educational authority (upper sec. education)	No	Yes	*a*	Yes (depends on the Canton)	Yes, at the regional level	Disciplinary Redundancy Underperformance
United Kingdom (Eng.)	School governing body or local education authority	No	Yes	*a*	At the discretion of the school	Statutory pay and conditions of service based on recommendations of independent pay review body. Non-statutory conditions of service by collective agreement.	Disciplinary Redundancy Underperformance
United Kingdom (N.Irl.)	School governing body	No	Yes	*a*	Yes (1 year)	Yes	Disciplinary Underperformance
United Kingdom (Scot.)	Local educational authority	No	Yes	*a*	Yes (2 years)	Yes, with a central framework agreed at central level and details negotiated at more localised levels	Disciplinary Redundancy Underperformance
United Kingdom (Wal.)	School governing body or local education authority	No	Yes	*a*	At the discretion of the school	Statutory pay and conditions of service based on recommendations of independent pay review body. Non-statutory conditions of service by collective agreement.	Disciplinary Redundancy Underperformance
United States	Local educational authority (school district)	Yes	No	*m*	*m*	In most states	Disciplinary Underperformance (rarely used)

Definition: The term "employer of teachers" refers to the authority with direct responsibility for appointing teachers, specifying their working conditions and ensuring that these conditions are met. This includes ensuring the payment of teachers' salaries, although funds for this purpose may not necessarily derive directly from the budget of the "employer of teachers".

Notes: *a* Information not applicable because the category does not apply; *m* Information not available

1. From 2006 on underperformance will be used as a basis for dismissal.

2. Teachers have public service rather than civil service status.

3. However, contracts may be renewed for the following year if a vacancy remains. The system is now effectively moving towards 'fixed-purpose' contracts whereby teachers are contracted for a purpose (e.g to replace a teacher on maternity leave or on career break). These contracts may extend beyond the end of the school year.

4. Collective agreements are under the auspices of the Teachers' Conciliation Council. Party to the agreements are central government (Department of Education and Science, Department of Finance), teacher unions, managerial bodies and the local educational authority in certain circumstances. Pay agreements are negotiated at national level.

5. Within compulsory education but do not receive all rights of civil servants.

6. Temporary teachers can be employed on a fixed-term contract for up to one school year.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

5.3. Teacher Recruitment and Selection

Recruitment and selection practices are essential mechanisms, which potentially tie incentives to the quality of the teaching workforce. If hiring practices are inefficient in linking teacher compensation to teacher quality – by not leading to the selection of the best candidates from a given pool of applicants – increases in salaries will not lead to improvements in the quality of the teaching workforce.

Table 5.2 summarises the processes and criteria used to recruit and select individuals for their first appointment into the public school teacher workforce. Virtually all countries use eligibility criteria involving certification/qualification, citizenship, proficiency in the language of instruction, medical and security checks. In addition, Germany (for civil servants) and Korea have maximum age restrictions; England requires candidates to pass skills tests in literacy, numeracy and ICT; a number of school districts in the United States set literacy and numeracy tests; and registration with a Teaching Council is required in most Australian states, England, Scotland and Wales.

Recruitment practices include interviews with candidates in 18 out of 23 countries – the exceptions are countries with centralised recruitment approaches such as Austria, France (where an oral competitive examination is conducted), Germany, Greece and Italy. In most countries (17 out of 23), the academic background or performance of the candidate is taken into account, but only 12 out of 23 countries report that teaching skills are a criterion used in the selection of teachers for public school employment.

Central versus school involvement in teacher recruitment and selection

The question of school involvement in teacher selection is growing in importance. As noted in the background report prepared by Hamburg (Germany): "The assignment of personnel from a central office less and less meets the needs of the schools as well as the applicants for teaching posts and it falls short of the goal of matching the schools' requirements and candidates' qualifications with a view to the special profile of schools." The process of teacher selection is often highly impersonal, and it is hard for teachers to build a sense of commitment to the schools where they are appointed. This is particularly the case in those countries where the authority responsible for recruitment is highly centralised. This raises concerns about whether schools have the teachers that fit their particular needs.

As Table 5.2 indicates, in most countries teacher recruitment is the responsibility of the level of government (central, regional or local) which is responsible for employing teachers. In eight countries there is a very high level of individual school involvement in teacher recruitment into public schools: Belgium (Flemish Community); Denmark; England and Wales; Hungary; Ireland; the Netherlands; the Slovak Republic; and Sweden. Box 5.4 outlines the processes of school involvement in teacher recruitment and selection in Denmark and Ireland.

In more than half of the systems (14 out of 24), "open recruitment" is the main procedure used to recruit teachers to their first appointment, meaning that responsibility for advertising vacancies is decentralised to local authority or school level, and involves matching applicants with specific vacancies. A direct interaction with the applicants takes place, typically through interviews, and allows the use of a more complete set of criteria that match with the school's educational approach. This process of open recruitment also offers advantages to applicants since they can more directly choose the school and have close contact with the school before the decision is taken.

Table 5.2. **Teacher recruitment procedures and selection criteria, public schools, 2004**

	Eligibility criteria	Recruitment procedures		What criteria are used in the selection of teachers?
		Level responsible for recruitment	Procedure (competitive examination, candidate list, open recruitment)	
Australia	Registration with relevant State Teaching Council	It varies, usually either central authority or school or a combination of both	Depending on the position, a combination of candidate list and open recruitment	Varies according to jurisdiction including a combination of interpersonal and other skills assessed in interview, teaching skills, subject specialty, academic performance, qualitative analysis of past experience (usually including written applications addressing various selection criteria), location prepared to work in, date of application
Austria	None	Central/regional school authority	Candidate list	Subject specialty and teaching skills
Belgium (Fl.)	None	School governing authority	Open recruitment	At the discretion of school
Belgium (Fr.)	None	Central/regional education authority Municipal/local education authority School governing authority	Candidate list	Subject specialty; date of application; interpersonal and other skills assessed in interview
Canada (Qb.)	Sometimes, ICT skills	Local education authority	Open recruitment by local education authority	Academic performance; prior experience as an intern; subject specialty; teaching skills; interpersonal skills
Chile	None	Municipal education authority	Open recruitment	At the discretion of the employer
Denmark	None	Municipal/local education authority School governing authority	Open recruitment	Qualitative analysis of past experience; interpersonal skills; subject specialty; postgraduate qualifications
Finland	None	Municipal education authority	Open recruitment	Criteria decided by the municipal educational authority and school principals, but likely to include: academic performance, teaching skills, teaching experience, and interpersonal skills
France	None	Primary level: Regional education authority Sec. level: Central education authority	Competitive examination	Results on (written and oral) competitive examination
Germany[1]	Age restriction (for civil servants, maximum age of 50)	Regional education authority Local education authority	Candidate list	Academic performance; subject specialty
Greece	None	Central education authority	Competitive examination and candidate list[2]	Academic performance (grade of university degree and qualification examinations); postgraduate qualifications; teaching experience; and date of application for candidate list process
Hungary	None	School principal	Open recruitment	Academic performance; qualitative analysis of past experience; subject specialty; and interpersonal and other skills assessed in interview
Ireland	Registration with Registration Council (for voluntary secondary sector)	Local education authority School governing authority	Open recruitment	Selection on the basis of an interview, which considers the following: academic achievement, past experience, subject specialty, teaching skills (e.g. as assessed during initial teacher education or probationary process), postgraduate qualifications, interpersonal and other skills
Israel	None	Central education authority Local education authority School governing authority	Candidate list; Open recruitment (upper sec. education only)	Academic performance; qualitative analysis of past experience; subject specialty; teaching skills; interpersonal and other skills assessed in interview
Italy	None	Central/regional school authority	Competitive examination and candidate list	Qualification examinations; teaching experience
Japan	None	Municipal/local education authority	Competitive examination Candidate list Open recruitment	Academic performance; teaching skills; interpersonal and other skills assessed in interview
Korea	Age restriction	Regional school authority	Competitive examination	Academic performance (including qualification examinations); teaching skills; subject specialty; interpersonal and other skills assessed in interview; professional certificates (e.g. English, ICT)
Netherlands	None	School authority (principal)	Open recruitment	Interpersonal and other skills assessed in interview
Slovak Republic	None	School principal	Open recruitment	Teaching and pedagogical skills; interpersonal and other skills
Sweden	None	School principal	Open recruitment	Academic performance; qualitative analysis of past experience; subject specialty; postgraduate qualifications; interpersonal and other skills assessed in interview
Switzerland	None	Municipal/local education authority	Candidate list	Grade obtained at teacher education institution; qualification examinations; qualitative analysis of past experience; subject specialty; teaching skills; interpersonal and other skills assessed in interview; postgraduate qualifications (less often)
United Kingdom (Eng.)	Skills tests in literacy, numeracy and ICT; Registration with General Teaching Council	School governing authority for voluntary aided and foundation schools; local education authority for all other schools	Open recruitment	Matter for employer but likely to include past experience, interpersonal skills, qualifications and subject specialism. Could include teaching skills in demonstration class
United Kingdom (N.Irl.)	*m*	*m*	At the discretion of the employer	*m*
United Kingdom (Scot.)	Registration with Teaching Council	Municipal/local education authority	Open recruitment	Academic performance; qualitative analysis of past experience; subject specialty; teaching skills (e.g. as assessed in demonstration class or from initial teacher education); postgraduate qualifications; interpersonal and other skills assessed in interview
United Kingdom (Wal.)	Registration with Teaching Council	School governing bodies or local education authorities depending on type of school	Open recruitment	Matter for employer but likely to include past experience, interpersonal skills, qualifications and subject specialism. Could include teaching skills in demonstration class.
United States[3]	Skills tests in literacy and numeracy	Local education authority (school district), occasionally the school	Open recruitment; some states require a licensing exam	Review of university coursework; possession of a degree in subject matter to be taught; performance during an interview; academic credentials (grade of university degree and qualification exams) are given less consideration

Definitions: This table deals with the formal procedures used to recruit and select individuals into the teaching profession, for a first appointment. It includes the application process, the recruitment method and the criteria used to select new teachers from a pool of applicants. *Eligibility criteria* refer to the criteria that individuals need to meet to become eligible for a teaching post. The difference vis-à-vis the selection criteria of the last column is that eligibility criteria are specific to the candidate (*i.e.* criteria that need to be met regardless of the characteristics of other candidates) while selection criteria are used to compare characteristics of the different candidates. Only eligibility criteria other than the following were entered: qualifications to be a teacher; citizenship criteria; proficiency in the language(s) of instruction; personal integrity (e.g. no criminal record); and good medical condition.

The term "competitive examination" is used to designate public, centrally organised examinations and other assessments that are held to select candidates for the teaching profession. A candidate list is a system whereby applications for employment as a teacher are made through submitting candidates' names and qualifications to a central or local educational authority, candidates being ranked on the basis of a number of criteria. The term "open recruitment" refers to the method of recruitment where responsibility for publicising posts open for recruitment, requesting applications and selecting candidates is decentralised. In this case, recruitment is usually the responsibility of the school, sometimes in conjunction with the local authority; the process of matching those teachers seeking employment with available teaching posts taking place on a school-by-school basis.

Notes: *m* Information not available.

1. Information refers to the majority of posts, for which recruitment procedures are centralised. A growing number of posts are being filled through the direct involvement from the school.

2. 75% of *permanent* teachers are selected by competitive examination and 25% by candidate list. Temporary and hourly-based teachers are selected from candidate lists.

3. Policies vary by school district (municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Box 5.4. **Recruitment and selection of teachers in Denmark and Ireland**

Denmark

The recruitment of teachers is the responsibility of municipal authorities. As a result of greater decentralisation of decision-making, many municipalities have, however, delegated the power to appoint teachers to the schools, either for all teachers or for teachers on fixed-term contracts. At the school level, a Selection Committee is appointed to examine the applications for teaching posts. The committee includes the principal, and the union and parents representatives to the school Board of Governors. It selects a number of applicants, conducts job interviews and assesses the qualifications of the applicants, after which the Board of Governors or the principal makes a decision and sends the recommendation to the head of the municipal administration (if the power to appoint is not delegated to the school). Applicants are expected to have familiarised themselves with the school's values and profile. Many principals also expect the applicants to make an exploratory visit to the school before the application is sent.

Ireland

With the exception of schools operating under Vocational Education Committees at secondary level, teachers in Ireland are not assigned to schools by a central agency. Teachers apply directly to schools for positions, at their own discretion. The school management board, as the appointing body, makes the arrangements for appointment. The Department of Education and Science sets out the general regulations regarding the quota of teachers which schools can employ and guidelines on appointment procedures. It does not exercise a direct role in the deployment of teachers among schools. Applications and *curriculum vitae* are submitted after advertisement. A selection committee is appointed by the school Board of Management. Short-listing of candidates occurs, according to agreed criteria. The interview process is conducted according to due process guidelines. It typically includes an assessment of academic achievement, qualitative analysis of past experience, teaching skills (*e.g.* as assessed during demonstration class at initial teacher education level or as reported during the probationary process), interpersonal and other skills. The Board of Management makes the appointment in accordance with the order of merit recommended by the committee. Whenever an appointment is made, unsuccessful candidates have a variety of mechanisms through which they can appeal the decision of the Board of Management. Appeals can be made to the Equality Authority, the Employment Appeals Tribunal, or directly to the Minister for Education and Science.

Figure 5.1 provides principals' perceptions of school responsibility for hiring and dismissing teachers in schools attended by 15-year-old students. It clearly shows a divide among countries. While schools have full or substantial influence in teacher selection in about half of the countries (*e.g.* Belgium, the Czech Republic, Denmark, Hungary, Iceland, Israel, the Netherlands, New Zealand, Sweden, the United Kingdom, and the United States), in the remaining countries there is a very limited school role (*e.g.* Austria, Chile, Finland, France, Germany, Italy, Japan, Korea, Luxembourg, Portugal, and Spain).

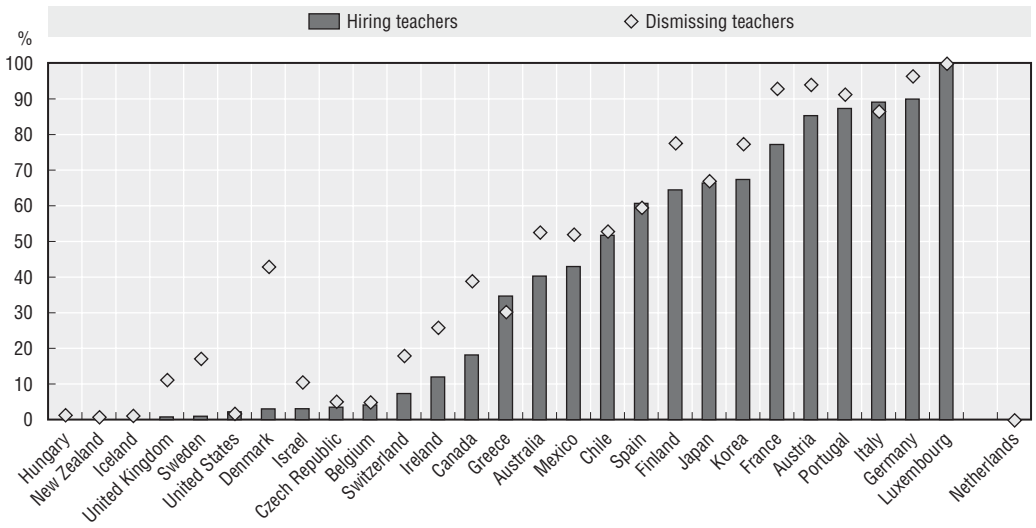
In practice the extent of school autonomy in teacher recruitment might be restricted by a complex set of rules. For instance, in the Flemish Community of Belgium, the school principal plays a major role in the recruitment of teaching and administrative staff, often directly contacting a potential candidate for a position in the school. However, in practice schools must follow a number of rules in making appointments. Priority has to be given to the candidate with the highest level of seniority, and teachers with permanent status have priority over temporary teachers. Other rules require that priority be given to those who have worked for a certain number of years and, where two candidates are equal in this

regard, priority is given to those who have worked in the same network of schools, or been employed by the same organising authority.

As Figure 5.1 shows, in the majority of countries, principals tend to report a more prominent role for the school in appointing teachers than in dismissing them, the largest differences being found in Canada and Denmark (21 and 40 percentage points, respectively). In Belgium, the Czech Republic, Hungary, Iceland, the Netherlands, New Zealand, and the United States, more than 95% of the students are enrolled in schools whose principals report having some say in the dismissal of teachers (the country average is 54%).

Figure 5.1. **Principals' perceptions of school responsibility for hiring and dismissing teachers, 2000**

Percentage of 15-year-old students enrolled in schools where the principal states that hiring/firing teachers is not a school responsibility



Note: For the Netherlands, the response rate is too low to ensure comparability.

Source: OECD PISA Database, 2001.

Table 5.2 indicates that candidate lists are predominantly used by seven countries (Austria, Belgium [French Community], Germany, Israel, Italy, Japan, Switzerland), and involve a government authority ranking candidates according to specific criteria. Under this approach recruitment is generally first into a pool of eligible teachers and then allocation is made to schools. Six countries, which illustrate career-based teacher employment systems (France, Greece, Italy, Japan, Korea and Spain), use a variant of the candidate list in that centrally or regionally organised competitive examinations are used as a key means of determining which applicants are eligible to be recruited as teachers. The cut-off score for the examination is usually set in relation to the number of vacancies that need to be filled in the area concerned.

Although competitive entrance examinations are seen as important quality controls in countries with career-based public services, they are also open to criticism that they are not framed in terms of what teachers should know or be able to do as competent professionals. For example, in the case of Korea the Country Background Report notes: “The paper and pencil test of the employment examination is irrelevant to evaluating candidate’s ability and

aptitude for teaching … Due to the absence of a standardised domain of the test questions and curricular differences among teacher education institutions, examinees have difficulty in systematically preparing for the examination. … The interview is also criticised for its formalistic nature … [and] cannot evaluate the capacity and character required for teaching. … most students attending secondary teacher education institutions concentrate on studying [for] the employment examination. This is at the expense of sacrificing 'normal' learning through university courses, which were originally devised to nurture the capacity for the teaching profession." The heavy weight placed on the selection stage, and its highly formal nature, can also be barriers to those who want to enter teaching mid-career.

Research on school involvement in teacher selection

In general, the PISA results show that there is a positive correlation between the degree of school involvement in teacher appointments and student performance on reading literacy, although this correlation is not as strong as for other aspects of school autonomy such as deciding on which courses are offered and deciding on budget allocations within the school (OECD, 2001). In those countries where schools differ significantly in the extent of school decision-making autonomy (mainly between different school systems such as in Australia, Austria, Canada, Spain and Switzerland) there is also a strong and significant within-country relationship between school autonomy and student performance. Such findings cannot, of course, be interpreted in a causal sense as, for example, school autonomy and performance could well be mutually reinforcing or influenced by other factors.

While countries with greater levels of school autonomy in particular areas tend to perform better, a concern is that greater independence of schools might lead to greater inequalities in performance. However, the PISA results suggest that greater school autonomy is not necessarily associated with greater disparities in school performance. For example, Finland and Sweden, among the countries with the highest degree of school autonomy on many of the measures used in PISA 2000, display (together with Iceland) the smallest performance differences among schools.

Wößmann (2003) used data from the Third International Mathematics and Science Study (TIMSS) to examine the relationship between different aspects of centralised and school-level decision-making and student performance. He concluded that students in schools with autonomy in deciding on the hiring of teachers performed statistically significantly better in mathematics and science, as did students in schools that could determine teacher salaries themselves. On the other hand, students in schools that had primary responsibility for formulating the size of the school budget had lower scores in mathematics and science, as did those in schools with responsibility for determining their own curricula and setting examination standards. He concluded that, since school autonomy in setting standards and the size of the school budget seem to be negatively related to student performance, while school autonomy in personnel management and process decisions seem to be positively related to performance, school systems should ensure external control of resource levels and performance standards, but provide schools with freedom in the process areas, such as personnel management, where school-level knowledge is important.

The incentives that schools face are vital in this regard. Ballou (1996) and Ballou and Podgursky (1998) provide a comprehensive comparison of public and private school teachers in the United States. They found that private schools are more likely than public schools to select candidates whose academic background signals strong cognitive ability and command of subject matter. They also found that teacher pay, although on average

lower in private schools, is less compressed and more closely related to aptitude and scarce skills (such as mathematics and science teaching) in private schools than in public schools. Their overall conclusion was that public schools, which face little competition for students, do not invest sufficient effort in finding the best applicants for teaching jobs.

Hanushek and Rivkin (2003) use variation in the most common form of public school choice in the United States – parents choosing among schools by selecting their area of residence – to examine the effect of public school competition on teacher quality. The evidence suggests that more competition tends to increase teacher quality, particularly for schools serving predominantly lower-income students. Hoxby (1994) found that where public schools face competition for students from private schools, public school teacher salaries are higher and student outcomes better.

Boyd *et al.* (2003) show striking differences in the qualifications of teachers across public school districts in the United States. If school systems are to adopt a more decentralised approach to school choice and teacher employment, it is clear that schools in disadvantaged locations will need substantially more resources to enable them to compete on an equitable basis.

5.4. Probationary Periods for Beginning Teachers

Table 5.3 summarises the position regarding probationary periods for beginning teachers in public schools among the participating countries. In all, 20 of the 25 systems with relevant information use probationary periods for beginning teachers with either civil servant or salaried employee status. In 16 of these countries the probationary period begins when the teacher starts teaching employment, whereas in four others it forms part of initial teacher education for at least some teachers: Austria, Belgium (Flemish Community), Canada (Quebec) and France. Probationary periods do not exist in five countries: Belgium (French Community), Chile, Korea, the Netherlands and Northern Ireland.

Typically, where countries offer different employment status to teachers, they do not make a distinction regarding the probationary period requirement, with the exception of Japan (where only civil servants go through a probationary period). The duration of the probationary period varies between three months (Denmark, Hungary) and three years (in some cases in Germany, Israel, and some parts of the United States), but it is generally within the period of six months to one year in most countries.

Eleven systems supplied information on the proportion of teachers who do not pass the probationary stage. They indicated that the proportion was typically 1% or less. Scotland noted that about 2% of beginning teachers do not pass the induction period, although some candidates leave before receiving an adverse evaluation, and France indicated that it can reach 3%.

Generally, successfully passing the probationary criteria does not guarantee access to a permanent position; a vacancy needs to be available. Since the majority of the existing teaching force in most countries already has permanent status, the burden of adjustment to enrolment decline falls largely on beginning teachers who are not able to secure permanent employment, while those with permanent positions are reluctant to leave them. In some countries a teacher with permanency continues to be employed at the same school even if their job is lost due to falling student numbers. Thus, although the formal period of probation may be about 12 months, it can take much longer to obtain permanency; in these circumstances many newly qualified teachers are reluctant to start looking for teaching jobs, and there are high attrition rates among temporary teachers.

Table 5.3. **Probationary period for beginning teachers, public schools, 2004**

	Teachers with civil servant status			Teachers with salaried employee status		
	Existence of probationary period	Duration of probationary period	About what percentage of teachers do not pass the probationary stage?	Existence of probationary period	Duration of probationary period	About what percentage of teachers do not pass the probationary stage?
Australia	Yes, upon entering teaching	Usually between 6 and 12 months	Varies, usually less than 1%	Often yes	Sometimes 6 months-2 years, depending on jursisdiction	1% in some jurisdictions
Austria[1]	*a*	*a*	*a*	Yes, as part of initial teacher education, in upper secondary education only	1 year	Negligible
Belgium (Fl.)	Yes, as part of initial teacher education	*m*	*m*	Yes, as part of initial teacher education	*m*	*m*
Belgium (Fr.)	No	*a*	*a*	No	*a*	*a*
Canada (Qb.)	*a*	*a*	*a*	Yes, as part of initial teacher education	1 year	Negligible
Chile	No	*a*	*a*	*a*	*a*	*a*
Denmark	*m*	*m*	*m*	Yes, upon entering teaching	3 months	0-1%
Finland	At the discretion of employer	Maximum of 6 months	*m*	*a*	*a*	*a*
France	Yes, as part of initial teacher education	1 year	1-3%	Yes	Varies according to contract duration	*m*
Germany	Yes, upon entering teaching	Maximum of 3 years	*m*	Yes	6 months	*m*
Greece	Yes, upon entering teaching	2 years	0%	*a*	*a*	*a*
Hungary[2]	Yes, upon entering teaching but it is not mandatory	Maximum of 90 days	*m*[3]	Yes, upon entering teaching but it is not mandatory	Maximum of 90 days	*m*
Ireland[4]	*a*	*a*	*a*	Yes	1 year	Less than 1%
Israel	Yes, upon entering teaching	2-3 years	m	Yes, upon entering teaching	2-3 years	m
Italy	Yes, upon entering teaching	1 year	1%	*a*	*a*	*a*
Japan	Yes, upon entering teaching	Between 6 months and 1 year	0.60%	No	*a*	*a*
Korea	No	*a*	*a*	*a*	*a*	*a*
Netherlands	*a*	*a*	*a*	No	*a*	*a*
Slovak Republic	*a*	*a*	*a*	Yes, but it is not mandatory	3 months	*m*
Sweden	*a*	*a*	*a*	Yes, upon entering teaching	1 year	*m*
Switzerland	*a*	*a*	*a*	Yes, upon entering teaching and for each job change	Between 3 and 6 months	*m*
United Kingdom (Eng.)	*a*	*a*	*a*	Yes	1 academic year	0.15%
United Kingdom (N.Irl.)	*a*	*a*	*a*	No	*a*	*a*
United Kingdom (Scot.)	*a*	*a*	*a*	Yes	1 year if within induction scheme context; otherwise, 1 year and one term	Around 2% in context of induction scheme, though some candidates quit before obtaining adverse evaluation
United Kingdom (Wal.)	*a*	*a*	*a*	Yes	one academic year	*m*
United States[5]	Yes	1-3 years	*m*[3]	*a*	*a*	*a*

Definition: This table addresses the trial period (*probationary period*) teachers often undergo to assess their aptitude for teaching. Its successful completion leads them to access a permanent (or regular) teaching post or a provisional/temporary position.

Notes: *a* Information not applicable because the category does not apply; *m* Information not available

1. Teachers can only obtain civil servant status after some years of teaching experience. Upon entering the profession, they have a salaried employee status.

2. In addition to the probationary period described, the civil servant status is only granted after at least one 1-year fixed term contract.

3. Anecdotal evidence suggests that the rate is low.

4. Teachers have public service rather than civil servant status.

5. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies across the country.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

5.5. Responses to Short-term Staffing Needs

In some countries, schools face difficulties in the temporary replacement of teachers, as no prompt mechanisms for teacher substitution are available. In addition, the extra financial means are often not available to provide schools with extra teacher resources. The lack of a systematic response to replacement needs is potentially disruptive to school programmes, and can make it harder for teachers to participate in professional development activities.

Table 5.4 summarises the ways the countries handle short-term teacher replacements in public schools. In 70% of the countries there is a limit on the period for which a replacement teacher can be hired, most commonly for a maximum of one school year. By contrast, in seven countries a maximum period is not specified (Austria, Chile, Demark, England and Wales, Finland the Slovak Republic and Switzerland). However, when there is a time limit specified, countries generally provide the possibility of renewing a replacement appointment.

A little over one-half of the countries (13 out of 24) use some form of replacement pool, whereby teachers are recruited on a contract basis by the relevant education authority, to cover for short-term absences. Box 5.5 outlines the replacement pool system used in the Flemish Community of Belgium, which also serves to provide a form of guaranteed employment for beginning teachers as well as route back into teaching for former teachers. Some countries (Denmark, England and Wales, and the Netherlands) also make use of private employment agencies to obtain short-term replacements. [4]

Box 5.5. **The Replacement Pool of Teachers in the Flemish Community of Belgium**

During the late 1990s it became evident that, in the Flemish Community of Belgium, new teachers faced difficulties in obtaining secure appointments as the number of permanent positions declined. This was discouraging for beginning teachers, and led to many leaving teaching altogether. The Replacement Pool was introduced in the 2000/01 school year as one response to this problem. The Pool is a group of teachers whose salary is paid by the Ministry of Education and who supply short-term teaching for schools. The teachers specify the particular geographic area in which they wish to work, and are available to work in all the schools that register for the pool (*i.e.* they are not restricted to employment in a single network). The Flemish Employment Services and Vocational Training Agency (VDAB) manages the scheme. Successful applicants are assigned to an "anchor school," and work there when they are not required to replace teachers in other schools. Schools therefore find it easier to locate replacements for absent teachers, and beginning teachers have job security and a salary for at least one year. It also provides an opportunity for schools to assess the suitability of new teachers for longer-term posts. Teachers returning to the profession or other employees who are considering a teaching career can also register for the pool.

Over two-thirds of Flemish schools participate in the pool, and in 2003/04 about 4 100 teachers took part. These are significant numbers relative to the total number of beginning teachers in the system. Despite the widespread support for the scheme, there are concerns that the total number of places paid for by the government is too limited for schools' replacement needs.

[4] The role of such agencies in the United Kingdom is explored in Morrison (1999).

Table 5.4. **Short-term teacher replacements, public schools, 2004**

	For how long can a replacement teacher be hired?	Do replacement pools or intermediary agencies to provide schools with replacement teachers exist?	Can an increase in the hours of teachers be used to respond to the temporary absence of a teacher?	Can an increase in class size be used to respond to the temporary absence of a teacher?
Australia	Varies, depending on circumstances and jurisdictions, typically from 20 days up to one school year	Yes, usually a replacement pool	Sometimes yes, but with conditions, *e.g.* not exceeding a full-time teacher's hours	It varies, in instances when no suitable replacement teacher is available this may happen
Austria	No limit exists	No	No	No
Belgium (Fl.)	Maximum until the end of the school year	Yes, a replacement pool	Yes, with a maximum fixed extra hours with no extra pay and additional extra hours with extra pay	Yes
Belgium (Fr.)	Maximum of one school year	No	No	No
Canada (Qb.)	Maximum of one school year	Yes, local replacement pools	Yes, extra hours with extra pay	No
Chile	No limit exists	No	Yes, extra hours with extra pay	No
Denmark	No limit exists	Yes, intermediary agencies, municipal and team pools	Yes, extra hours with extra pay	Yes
Finland	No limit exists	No	Yes, extra hours with extra pay	At the discretion of the school principal and local education authority
France	Maximum of one school year but renewable	Yes, replacement pools exist	Yes, extra hours with extra pay	Yes
Germany	Maximum of one school year	Yes, replacement pools exist in some of the Länder	Yes, with a maximum fixed extra hours with no extra pay (on average, 4 hours per week) and additional extra hours with extra pay	Yes
Greece	Maximum until the end of the school year	Yes, replacement pools exist	Yes, with a maximum fixed extra hours with no extra pay	Yes, up to the legislated maximum class size
Hungary	Maximum of 5 school years, with some exceptions	No[1]	Yes, extra hours with extra pay	Yes, as a provisional solution with extra pay for the teacher
Ireland	Maximum until the end of the school year, but might be for 5 to 10 years if led by a career break or a secondment	Typically, no[2]	No	Only in primary education in a limited way, for short absences and when no substitute teacher is available
Israel	Maximum until the end of the school year	No	Yes, extra hours with extra pay for 1 year at most	Typically not
Italy	Maximum until the end of the school year	Yes, replacement pools exist	Yes, extra hours with extra pay	No
Japan	Maximum of one school year	No	No	No
Korea	Maximum of three years	No	No	No, with some exceptions (e.g. in small or rural schools)
Netherlands	Maximum of one school year	Yes, both replacement pools and intermediary agencies exist	Yes, extra hours with extra pay	Yes
Slovak Republic	No limit exists	No	Yes	Yes, up to a maximum class size
Sweden	Maximum of one school year	No	Yes, extra hours with extra pay	Yes
Switzerland	No limit exists	Some replacement pools in some cantons	Yes, extra hours with extra pay	Yes
United Kingdom (Eng. and Wal.)	No limit exists	Yes, both replacement pools and intermediary agencies exist	No	Yes
United Kingdom (N.Irl.)	Maximum of one school year	m	At the discretion of the employer and following the agreement of the teacher	At the discretion of the employer
United Kingdom (Scot.)	Maximum of one school year	Yes, replacement pools exist	Yes, with a maximum fixed extra hours with no extra pay	Yes, up to maximum class size authorised
United States[3]	Maximum until the end of the school year	Yes, replacement pools exist	Generally yes	Generally yes

Definitions: This table addresses the responses of school systems to the need to temporarily replace teachers. Absences of various lengths – from very short periods (due, for example, to sick leave or a short professional development activity), to periods of a school year or even longer (as in the case of a maternity leave, a sabbatical or another form of extended absence), are considered. *Replacement pools* refer to schemes in which teachers are recruited on a contractual basis by the education authority (at central or local level) to cover for temporary absences of teachers. *Intermediary agencies* are private employment agencies which operate as an intermediary between schools/local education authorities and potential replacement teachers.

Notes: *m* Information not available.

1. A decree of 1997 makes the establishment of replacement pools at local level possible, but it has not become a general practice so far.

2. For primary education, a Teacher Supply Scheme exists in a limited number of urban locations for defined catchment areas. It is a limited service, not available to all schools.

3. Policies vary by school district (local municipal education agencies) and it is difficult to express the average for the country as there are 15 000 school districts and no uniform policies across the country.

Source: Derived from information supplied by countries participating in the project. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

In most countries (18 out of 24), an increase in the hours of other teachers can be used to respond to the temporary absence of a teacher, and in most cases additional teaching hours above a specified level lead to extra pay. In over one-half of the countries (14 out of 23) the principal has the discretion to increase class size to respond to the temporary absence of a teacher, although this is usually seen as a temporary move.

5.6. Teacher Mobility

Mobility between schools

Another marked feature of the teacher labour market is the relatively low rate of teacher mobility within countries among schools and educational jurisdictions. While this can lead to schools having stable staffing, there are concerns that it can inhibit the introduction of fresh ideas and skills into schools. It can also worsen regional imbalances in teacher supply and demand.

For example, in Germany, statistics point to some mobility within Länder but very limited transfers across them. According to statistics from the KMK (Standing Conference of Ministers of Culture in Germany), which consider flows of full-time teachers for the 2001/02 academic year, about 9% of teachers left their initial teaching position. Of these, about one-third transferred to another school within the same Land while only about 2% of leavers transferred to a school in another Land. The same statistics reveal that, among the teachers staying in the profession, only 3% transferred to another school for the 2001/02 academic year.

Some countries in which education systems are highly decentralised are still affected by barriers to mobility, such as the limited recognition across the country of teaching qualifications from different provinces/states. For instance, in Germany, the limited mobility is not a surprise given that the KMK agreed only in 1999 that "the teaching career examinations carried out in accordance with the recommendations of the Standing Conference" should be reciprocally recognised by the different Länder. Yet the considerable differences across Länder in school system structures and the close linkage between these structures and initial teacher education systems are obstacles to the implementation of the agreement. It is clear that a full integration of the teacher labour market at the country level is far from being achieved.

In Japan, teachers are expected to periodically change schools throughout their career. This is intended to ensure that all schools have access to effective teachers and a balance of experienced and beginning teachers. It is also seen as a way of broadening teachers' skills by giving them experience in different schools. The allocation of teachers is decided by the prefectural education authority, in consultation with principals and municipal authorities about their staffing needs. The opinion of each teacher is usually reflected during this process. The process varies from prefecture to prefecture, but usually teachers are required to move periodically to different schools within the prefecture, and the typical period of working at one school is five to seven years. For instance, some prefectures classify schools according to population characteristics, geographical situation, and programme type, and teachers are required to gain experience in the different school types throughout their career. Teachers receive allowances to cover their transport and living costs. A similar approach to teacher mobility is followed in Korea.

Mobility between teaching and other occupations

Entering the teaching profession with professional experience outside education is still a fairly limited phenomenon, although as Chapter 4 noted, it is growing in a number of countries. To date, however, the use of people from other backgrounds has tended to focus on meeting skills shortages; while this is clearly important, it can mean that other potentially important sources of new teachers are not being tapped. The major exception to this is in vocational education where experience in another profession is often a prerequisite and there are mechanisms for people to commence teaching without necessarily having first completed teaching qualifications. In most countries, the current incentive structure does not encourage mobility between education and other sectors of activity. In particular, the recognition of the qualifications, seniority and skills acquired in sectors other than education is limited (see Table 3.4), which reduces the extent to which new skills are brought into teaching to help meet the changing demands on schools.

In most countries there also seems to be little scope for movement in the other direction – there are few opportunities for teachers to spend time working outside of education as a structured part of their career development (an exception in Japan is described in Box 5.6). Part of the explanation lies in the benefits provided by career-based public service systems, and regulations which restrict recognition of external job experience for salaries and pension benefits. Greater portability of pension benefits among the public and private sectors would assist considerably in this regard. In addition, teaching qualifications that are structured to signal employability to other employers would give scope for a greater movement from education to other sectors, more easily adapting the system to periods of excess supply of teachers and permitting exchanges with other economic sectors with potential benefits for education.

Box 5.6. **The Social Experience Training Programme for Teachers in Japan**

In Japan, teachers are provided the opportunity to work outside schools for limited periods of time through the *Social Experience Training Programme* promoted by local education authorities (prefectures) with support from the Ministry of Education. The broad objective is that teachers improve their skills (*e.g.* interpersonal, social, entrepreneurial), broaden their views and understand what society expects from schools. It is expected that the impact of teachers' experiences is reflected in school activities through improvements in their teaching and in the communication with students, parents and the community.

A wide range of possibilities exists. Teachers can work in private companies (*e.g.* hotel, department store), social welfare facilities (*e.g.* nursing home, facility for people with special needs), institutions of public interest (*e.g.* civic centre, museum, library) or in the administration (*e.g.* local government office). The nature and structure of the programmes depends on each local education authority. Typically, two types of programmes exist: (i) short programmes which last less than a month and are generally part of the induction process for beginning teachers; and (ii) longer programmes with a duration ranging from one month to one year, and targeted at more experienced teachers.

The number of participants in the long type of programmes is rapidly increasing and reached 1 353 teachers in 2002 (907 in private companies, 240 in social welfare facilities, 71 in institutions of public interest and 135 in other types of placements). During the training period, participants are paid by the local education authority. Often participants are asked to report on the training in teacher workshops and disseminate their experience at the school. The experience has received positive appraisal by educational authorities and growing interest among teachers.

Mobility between countries

There are indications that the mobility of teachers between countries is growing. Regional organisations such as the European Commission support a variety of teacher exchange schemes and provide other opportunities for teachers from different countries to work together. A number of countries are also involved in bilateral teacher exchange and networking arrangements. There are also indications of countries actively recruiting teachers from abroad to help meet general teacher shortages or to provide language teaching to children from immigrant groups. For example, among the German-speaking countries there is evidence of teachers from Austria and Germany working in Switzerland, where salaries are generally higher and there have been more job vacancies.

At the present time the United Kingdom is perhaps the most active in recruiting teachers from overseas. There are about 100 private agencies involved in supplying teachers to local authorities and schools, and the larger ones tend to have recruitment offices in Australia, New Zealand, South Africa and Canada. It was estimated that about 10 000 overseas teachers were recruited to teach in the United Kingdom in 2000 (Barlin and Hallgarten, 2002); this amounts to a large proportion of new teachers – in the same year around 16 000 graduates of United Kingdom teacher education courses started teaching. The overseas recruits are generally located in the areas with the most severe staffing shortages, especially in London. While generally seen as a useful short-term measure, there have also been concerns about how well prepared the often inexperienced overseas teachers are for teaching in the United Kingdom, especially in disadvantaged areas, and the limited support that many receive.

New Zealand is another country that is active in overseas teacher recruitment. The incentives offered include relocation grants, waivers of immigration requirements, recognition of overseas teaching experience for salary purposes (correspondingly, New Zealand teachers who have taught overseas are entitled to full service credit when appointed to any New Zealand school), and reductions in the regular teaching load for their first year.

Concerns are being raised about the impact of recruiting teachers from developing countries that have a shortage of educated workers (Barlin and Hallgarten, 2002). In response to concerns that such recruitment can impose large costs on low-income countries and make it more difficult to achieve the objectives of *Education for All*, Commonwealth Ministers of Education have agreed on a set of protocols designed to mitigate any harmful impact of teacher recruitment between countries (Commonwealth Secretariat, 2004).

5.7. Priorities for Future Policy Development

Most teachers are employed in the public sector, but there are some significant differences in the models of public employment that structure their work, as well as the pressures for change. The predominant model in teaching has probably been the "career-based" public service in which entry is highly competitive, career development is extensively regulated, and lifetime employment is largely guaranteed. In such systems, career advancement is heavily dependent on adhering to organisational norms, which helps to ensure uniformity and predictability of service provision and a strong group ethos. On the other hand, such systems often lack flexibility and the capacity or even incentives to tailor services to meet diverse needs in different settings. New opportunities in the wider job market have made steady progression in a relatively regulated working environment less attractive to young people. "Position-based" public service systems offer more

flexibility and responsiveness, but also have risks: potentially high staff turnover and a staff focus on positions rather than careers can increase recruitment and management costs, and make it harder to develop shared values and provide consistent service. Both models are also under pressure from the general push to decrease public-sector spending, which has meant that employment reforms have often coincided with budget cuts.

In response to the pressures for change, career-based systems with centralised staff recruitment and career development are introducing more contract or temporary employment positions, opening up possibilities for external recruitment, providing local managers with more scope for personnel decisions and instituting management by objectives. Position-based systems with more decentralised approaches to staff appointment and training are placing greater emphasis on system-wide criteria for staff selection, performance evaluation, and building career pathways.

The general experience of public sector reform is that it is not easy to graft features from a markedly different system onto a well-established employment model. Those in career-based systems who have met demanding entrance criteria and accepted relatively low starting salaries can feel threatened by a less predictable future in which more positions are opened up to internal and external competition. In position-based systems people often have a professional status and autonomy derived from their specialist skills, and may feel threatened by moves to institute system-wide standards. There can also be resistance to attempts to introduce more career-like structures if they are perceived to weaken the integrity of the competitive principle. Such tensions and uncertainties are clearly evident in regard to teachers' employment, and underscore the need for consultation and careful trial testing before major changes are implemented.

The policy suggestions in this section are drawn from the Country Background Reports, the country review visits, and other research. They do not necessarily apply to all of the participating countries because of their different circumstances and traditions of public service employment. However, some common themes are evident in the country reforms now underway, namely that students will be best served by the principles of open competition for teaching posts, and selection and career advancement based on demonstrated merit.

Using more flexible terms of employment

Teachers are generally employed as public servants, and in a number of countries this is associated with tenured employment once permanency is obtained. Under these circumstances there may not be sufficient incentives for all teachers to continuously review their skills and improve their practice, especially where there are only limited mechanisms for teacher evaluation and accountability. Tenured employment can also make it difficult to adjust teacher numbers when enrolments decline or curricula change, and may mean that the burden of adjustment falls on those who lack tenure, commonly teachers early in their career.

It may be worth considering a requirement that teachers renew their teacher certificates after a period of time, such as every five to seven years. The basis for renewal could be as simple as an attestation that the teacher is continuing to meet standards of performance that are agreed throughout the teaching profession. Such a change would require careful attention to ensuring an open, fair and transparent system of teacher evaluation involving teaching peers, school leaders and external experts who are properly trained and resourced for these tasks – and who are themselves evaluated on a regular basis. Underpinning this proposal is the view that the interests of students will be better served where teachers

achieve employment security by continuing to do a good job, rather than by regulation that effectively guarantees their employment. Periodic review also provides the opportunity to recognise and acknowledge quality teaching.

The introduction of more flexible forms of teacher employment would be a major change in many countries, and would require extensive consultation with teachers and teacher unions to ensure that the benefits are clearly understood and to avoid introducing approaches that may otherwise be unworkable. It also obliges employers to ensure that teachers have opportunities to improve their practice, thereby improving their capacity to secure the positions they want while responding to the changing needs of schools. Another important component is fair but speedy mechanisms to address ineffective teaching. Teachers in this situation should have the opportunity and support to improve but, if this does not eventuate, it should be possible to move these teachers either into other roles or out of the school system.

Providing schools with more responsibility for teacher personnel management

Successful enterprises often say that personnel selection is the most important set of decisions that they make. In the case of teaching, the evidence suggests that all too often the selection process follows rules about qualifications and seniority that bear little relationship to the qualities needed to be an effective teacher. The sheer size of school systems in many countries means that the process of teacher selection is often highly impersonal, and it is hard for teachers to build a sense of commitment to the schools where they are appointed – or for the schools to build a sense of commitment to them.

The school is emerging as the key agency within the education system for improving student learning, which implies that schools need to have more responsibility – and accountability – for teacher selection, working conditions, and development. School leaders will actively seek out and develop the best possible teachers where schools are judged on the quality of their learning outcomes. A more direct interaction through personal interviews and visits to schools by candidates is likely to improve the match between applicants and school needs. However, having schools play a greater role in teacher selection involves some complexity; there is the potential of an inequitable distribution of teachers, and the possibility of favouritism in teacher selection by schools. Such approaches seem to work best where parallel steps are taken to ensure that efficiency and equity are not jeopardised, for example by developing school leaders' skills in personnel management, providing disadvantaged schools with greater resources with which to recruit effective teachers, improving information availability in the teacher labour market, and monitoring the outcomes of a more decentralised approach and adjusting accordingly. Successful decentralisation of personnel management, and school decision-making more generally, requires that central and regional authorities play a strong role in ensuring an adequate and equitable distribution of teacher resources throughout the country. It is also important to have independent appeals procedures to ensure fairness and protect teachers' rights.

Broadening the criteria for teacher selection

The selection criteria for new teachers need to be broadened to ensure that the applicants with the greatest potential are identified. Broader selection processes typically include interviews, preparation of lesson plans, and demonstration of teaching skills. In order to address the concern that a seniority-based system results in beginning teachers being assigned to the more difficult and unpopular schools, with potentially adverse consequences for student learning and their own career development, the weight accorded

to seniority in determining which candidates are appointed to teaching vacancies has been reduced by some systems. Greater weight is given to characteristics which are harder to measure – enthusiasm, commitment and sensitivity to student needs – but which may be more directly related to the quality of teaching and learning than the traditional emphases on qualifications and years of experience.

For countries that rely on competitive examinations to select among large numbers of applicants for a teaching career, it is important that the selection process is based on clear, transparent and widely accepted standards of what beginning teachers need to know and be able to do to be effective practitioners. Such systems also need to provide appropriate avenues into teaching for mid-career entrants.

Making a probationary period mandatory

There is considerable evidence that some beginning teachers, no matter how well prepared and supported, struggle to perform well on the job or find that it does not meet their expectations. A formal probationary process can provide an opportunity for both new teachers and their employers to assess whether teaching is the right career for them. The satisfactory completion of a probationary period of one to two years teaching should be mandatory before full certification or a permanent teaching post is awarded. As was noted in Chapter 4, beginning teachers should be given every opportunity to work in a stable and well-supported school environment, and the decision about certification should be taken by a panel which is well trained and resourced for assessing new teachers. The successful completion of probation should be acknowledged as a major step in the teaching career.

Meeting short-term staffing needs

Schools often require teachers on a short-term basis to cover teachers who are absent due to illness or professional development, or who are working on special projects to assist the school. Without readily available replacement teachers and the budget flexibility to employ them, the workloads of other teachers increase and schools are often limited in the initiatives they can implement. Some countries are reporting success with the establishment of local/regional replacement pools, which can promptly respond to schools' short-term teacher needs. Such pools offer the potential to provide quick responses to imbalances between demand and supply, and relieve teachers of extra work to cover for absent colleagues. They also offer an opportunity for ongoing employment by beginning teachers who may be facing difficulties in obtaining regular teaching positions. A replacement pool of teachers is also potentially a good means to monitor local and regional labour markets and a way for municipalities/regions to co-operate in regard to teacher recruitment.

Encouraging greater teacher mobility

The limited mobility of teachers between schools, and between teaching and other occupations, restricts the spread of new ideas and approaches, and results in teachers having few opportunities for diverse career experiences. It can also mean an inequitable distribution of teachers where teachers do not move from the most favoured schools. In some cases the lack of mobility means that teacher shortages in some regions of the country are paralleled by oversupply in others. Providing incentives for greater mobility and removing barriers are important policy responses. In countries with different educational jurisdictions (such as federal systems) the mutual recognition of teaching qualifications is a fundamental step in that direction, as is ensuring the portability of entitlements to leave and retirement benefits. The recognition of skills and experience gained outside education is

also an important means of encouraging greater career mobility among teachers, as is the provision of flexible re-entry pathways to the profession.

It is likely that the teacher labour market will become increasingly internationalised in future years. Teachers, like other well-educated workers, are becoming more internationally mobile as transportation costs fall, national qualifications have greater international recognition, and there are country imbalances in teacher supply and demand. This has the potential to provide many benefits for the individual teachers concerned, as well as for the school systems in the receiving and sending countries. However, the growing internationalisation of the teacher labour market implies that countries will face a more complex policy environment with a wider range of potential sources of teacher supply, the need to address concerns about possible adverse effects on domestic as well as other countries' teacher workforces and possible pressures for greater coherence in teacher qualification and quality assurance systems.

Improving information flows and the monitoring of the teacher labour market

The efficiency of the teacher labour market is affected by information gaps. Given the large number of teachers and applicants involved in most school systems, it is often difficult and costly for employers to use extensive information in making selection decisions. Correspondingly, it can be difficult for candidates for teaching positions to have precise information on the schools to which they apply, or even about broad trends in the labour market and the available vacancies. Such information gaps and limitations imply that many application and selection decisions are sub-optimal.

The development of transparent and prompt systems to close the information gaps between teachers and schools is essential for an effective functioning of the teacher labour market, especially where schools are more directly involved in teacher recruitment and selection. Possible strategies are requiring all teaching vacancies to be posted, creating websites where the information is centralised or establishing a network of agencies to co-ordinate and foster recruitment activities. Since imbalances in the teacher labour market can take a long time to be rectified, tools for monitoring and projecting teacher demand and supply under different scenarios should be a particular priority.

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Chapter 6

RETAINING EFFECTIVE TEACHERS IN SCHOOLS

Summary

Teacher policy needs to ensure that teachers work in an environment which facilitates success and that effective teachers wish to continue in teaching. This chapter reviews the trends that are raising concerns about retaining effective teachers in schools. It examines the policy tools that are potentially available to maintain effective teachers in schools, reviews the evidence on the main causal factors involved and develops policy options for countries to consider.

There is concern in a number of countries that the rates at which teachers are leaving their positions are compounding school staffing problems and leading to a loss of teaching expertise. However, countries also observe that a certain level of teacher attrition is inevitable and that a low rate of attrition does not necessarily indicate that all is well with teaching and the schools. Whether a given level of teacher attrition is a positive or a negative indicator will be influenced by which teachers are leaving and which ones are staying, and the factors that lie behind their decisions.

Although attractive salaries are clearly important in improving teaching's appeal, the analysis suggests that policy needs to address more than pay. Teachers place a lot of emphasis on the quality of their relations with students and colleagues, on feeling supported by school leaders, on good working conditions, and on opportunities to develop their skills.

There needs to be a stronger emphasis on teacher evaluation for improvement purposes which, while designed mainly to enhance classroom practice, would provide opportunities for teachers' work to be recognised and celebrated and help both teachers and schools to identify professional development priorities. It can also provide a basis for rewarding teachers for exemplary performance.

The analysis also reveals that the teaching career can benefit from greater diversification, which would help meet school needs and also provide more opportunities and recognition for teachers. Greater emphasis on school leadership would help address the need for teachers to feel valued and supported in their work. In addition, well-trained professional and administrative staff can help reduce the burden on teachers, better facilities for staff preparation and planning would help build collegiality, and more flexible working conditions, especially for more experienced teachers, would prevent career-burnout and retain important skills in schools.

Policies to attract, develop and recruit teachers need to be complemented by strategies ensuring that teachers work in an environment which facilitates success, and that effective teachers wish to continue in teaching. If school systems are to ensure a quality teaching workforce, not only will they need to attract able people to the teaching profession they will also need to retain and further develop the teachers currently employed in schools.

There is a close connection between the issues of retaining existing teachers in the profession and attracting new teachers. Because the teaching workforce is so large, even quite small changes in the attrition rate can have major consequences for the demand for new teachers. The issues of teacher retention and teacher recruitment are also linked in that the factors which make a profession attractive to new entrants are also likely to encourage people to stay. Competitive salaries, good working conditions, job satisfaction and opportunities for development will increase the appeal of teaching for new entrants and existing staff alike.

This chapter reviews the trends and developments that are raising concerns about retaining effective teachers in schools. It then examines the policy tools that are potentially available to maintain effective teachers in schools, reviews the evidence on the main causal factors involved, and discusses those that are most open to policy influence. The chapter includes descriptions of policy initiatives in participating countries, and develops policy options for countries to consider. In terms of the teacher labour market model outlined in Section 2.5, the chapter focuses on those who are currently in the teaching profession.

6.1. Concerns about Retaining Effective Teachers in Schools

There is concern in a number of countries that rising teacher attrition and turnover rates[1] are compounding school staffing problems and leading to a loss of teaching expertise.[2] However, countries also observe that a certain level of teacher attrition is inevitable. As the background report prepared for Australia notes: "in an increasingly global employment market and where career mobility becomes part of the normal discourse of the labour market, should, or can, teaching be regarded as typically a lifetime career?"

Correspondingly, a low rate of teacher attrition does not necessarily indicate that all is well with teaching and the schools. If few people are leaving teaching it may indicate that new ideas and energy are not coming into the profession. Whether a given level of teacher attrition is a positive or a negative indicator will be influenced by which teachers are leaving and which ones are staying, and the factors that lie behind their decisions.

[1] As used in this report, "turnover" refers to those teachers who leave their current teaching position, including those who transfer to different teaching jobs in other schools, while "attrition" refers to those teachers who leave the teaching profession altogether. Attrition is a subset of turnover.

[2] Unless otherwise indicated, references to country data and developments are taken from the background reports prepared by countries participating in the OECD teacher policy project. To save space, the background reports are not individually cited. Appendix 1 provides information on the background reports, their authors, and availability.

Table 6.1A. **Teacher attrition rate**

Percentage of teachers who left the teaching profession, primary and secondary public schools, 2001

Below 3%	Between 3% and 6%		Above 6%	
Italy	Australia	Ireland	Belgium (Fl.)	England and Wales
Japan	Canada (Qb.)	Netherlands	Israel	United States
Korea	France, Germany	Scotland	Sweden	

General note: This table was derived from data supplied by countries participating in the project. Data were requested in areas that are not already available through the OECD's Indicators of Education Systems (INES) project. Countries drew on existing data sets to meet the request, and did not engage in any new data collections. Not all countries were able to supply data in the form requested. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Definition: (for the purpose of supplying data in this area, countries were requested to follow this definition): The attrition rate is defined as the annual rate at which public school teachers leave the teaching profession altogether. It includes: teachers who retire; teachers who leave the teaching profession for employment in other occupations; teachers who leave the teaching profession for family or personal reasons; teachers who are dismissed; and teachers who leave to teach overseas. It excludes those public school teachers who obtain a position in another public school, or in a private school, or who go on leave from their position.

Specific notes: The reference year is 1998 for Israel, 1999 for Canada (Qb.) and 2000 for Scotland. Data for Belgium (Fl.), Germany and Sweden include both public and private institutions.

Table 6.1B. **Teacher attrition rate, by school sector**

Differences between primary and secondary public school teachers, 2001

Attrition greater in primary schools	Similar rates of attrition	Attrition greater in secondary schools	
France	Belgium (Fl.)	Australia	Japan
Scotland	England and Wales	Canada (Qb.)	Korea
	United States, Israel	Ireland, Italy	Netherlands

General note: See Table 6.1A.

Definition: See Table 6.1A for definition of attrition rate. Attrition rates are considered similar if the difference between them is less than one fifth of the value of the lowest of the two.

Specific notes: See Table 6.1A.

Table 6.1C. **Teacher attrition rate, by gender**

Differences between male and female public school teachers, 2001

Attrition greater for males		Similar rates of attrition	Attrition greater for females
Germany	Korea	Netherlands	Belgium (Fl.)
Japan	Israel	Sweden	England and Wales
		United States	Scotland

General note: See Table 6.1A.

Definition: See Table 6.1A for definition of attrition rate.

Specific note: See Table 6.1A.

Table 6.1D. **Teacher attrition rates, changes from 1995 to 2001**

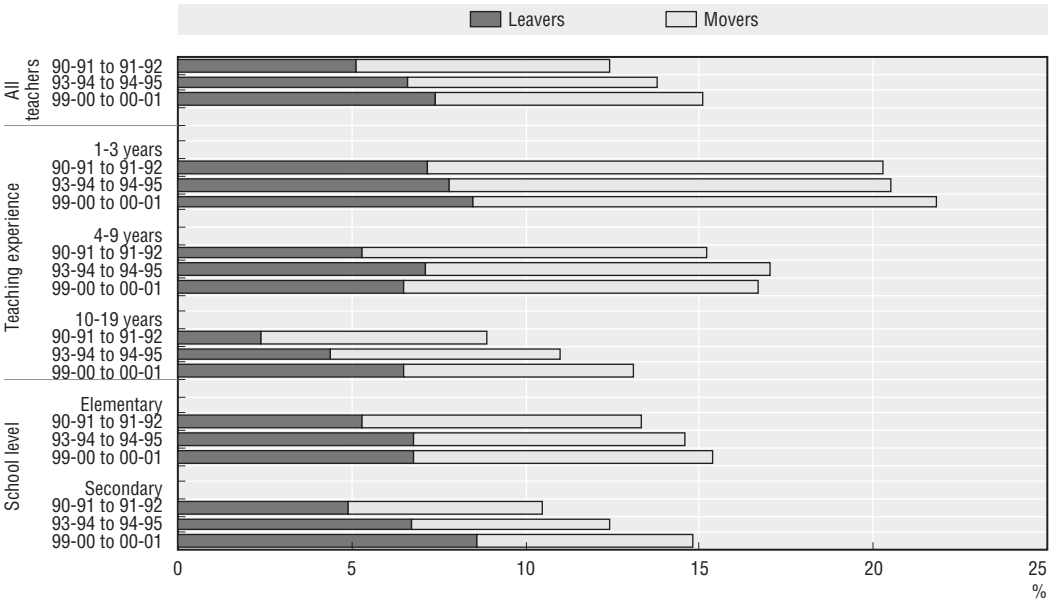
	Decreased	Little change	Increased	
Countries with 1995 attrition rates below 5%	Italy	Canada (Qb.) Japan	France Germany Ireland	Korea Netherlands
Countries with 1995 attrition rates above 5%	Scotland	Sweden England and Wales United States	Israel	

General note: See Table 6.1A.

Definition: See Table 6.1A for definition of attrition rate. Little change occurs in attrition rates between 1995 and 2001 if the change is less than one fifth of the 1995 value.

Specific notes: See Table 6.1A. The 1995 reference year is 1996 for Ireland and Scotland, 1997 for Italy and 1998 for Korea.

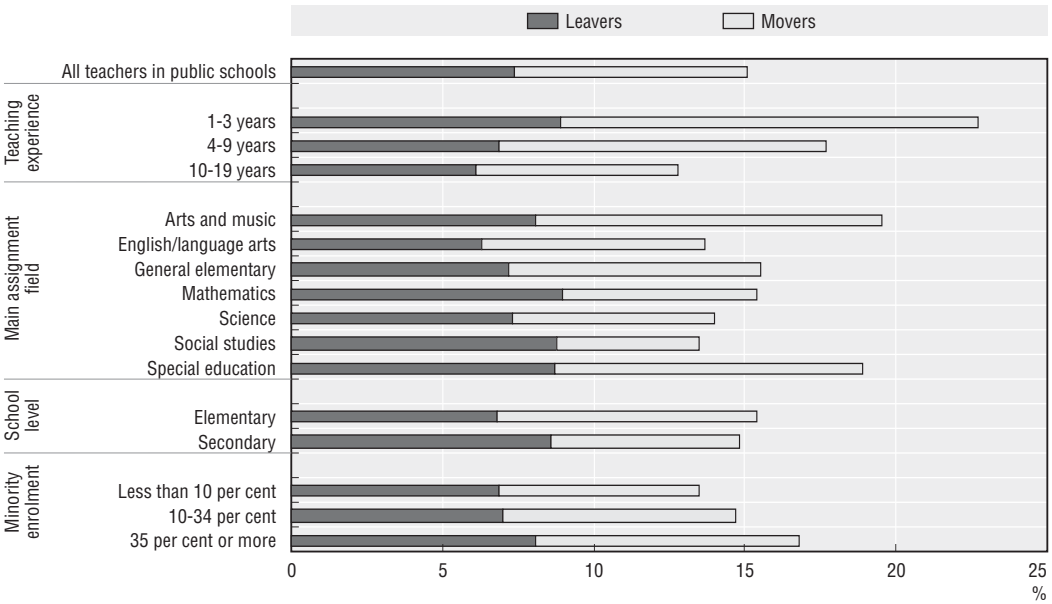
Figure 6.1A. **Proportion of public school teacher *leavers* and *movers*, by selected school and teacher characteristics, United States, for various school years**



Definitions: Movers are teachers who were still teaching in the current school year but had moved to a different school after the previous school year. *Leavers* are teachers who left the teaching profession after the previous school year.

Source: Luekens *et al.* (2004).

Figure 6.1B. **Proportion of public school teacher *leavers* and *movers*, by selected school and teacher characteristics, United States, 1999/2000 to 2000/01**



Definitions: Movers are teachers who were still teaching in the current school year but had moved to a different school after the previous school year. *Leavers* are teachers who left the teaching profession after the previous school year.

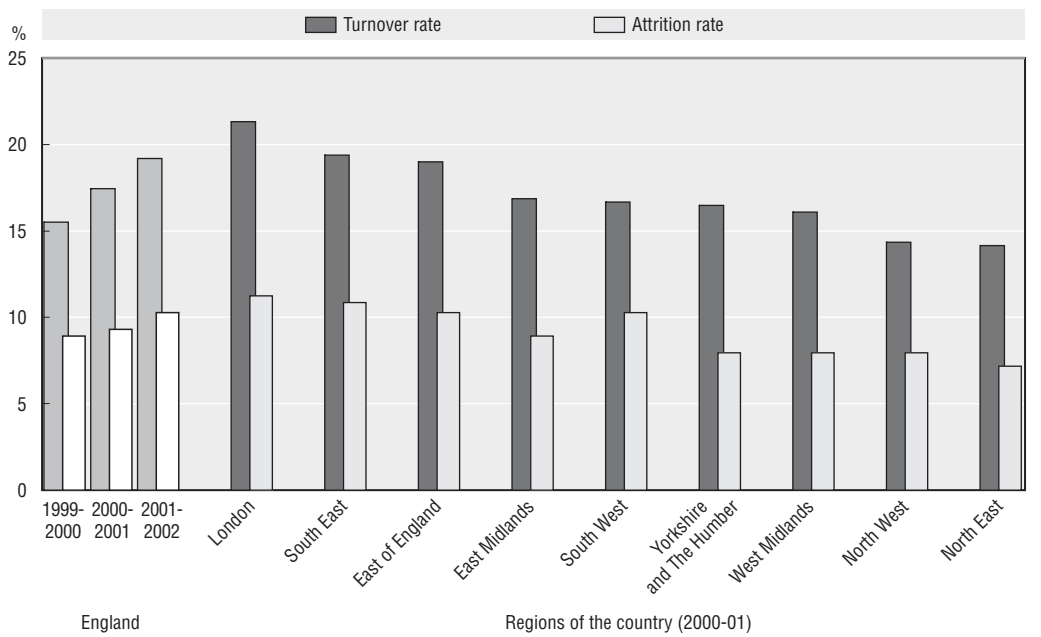
Source: Luekens *et al.* (2004).

Attrition and turnover rates are rising in some countries

There are wide variations among participating countries in the proportion of teachers in public schools who leave the teaching profession each year. As Table 6.1A shows, there is a small group of countries (Italy, Japan and Korea) in which the 2001 attrition rate was less than 3%. In five of the countries with broadly comparable data, however, the 2001 attrition rate was at least 6% (Flemish Community in Belgium, England and Wales, Israel, Sweden and the United States). Between 1995 and 2001, though, the attrition rate declined in only two countries (Italy and Scotland) from the group of 13 countries with broadly comparable data (Table 6.1D). In five of the countries there had been little change between 1995 and 2001, but in three (England and Wales, Sweden and the United States) attrition rates were already relatively high (above 5%). In six of the countries the attrition rates for public school teachers increased between 1995 and 2001, and in one of these countries (Israel) the 1995 rates were already relatively high.

National survey data provide more detailed information on rising teacher attrition and turnover rates in England and the United States. Figure 6.1A indicates that teacher attrition ("leavers") in the United States increased from 5.1% in the early 1990s to 7.4% in the late 1990s. Similarly, Figure 6.2 shows that between 1999/2000 and 2001/02 teacher attrition rates in England rose from about 8% to 10%, and that turnover (which includes attrition) increased from about 15% to 19%.

Figure 6.2. **Teacher turnover and attrition rates, England, all schools for full-time service in the maintained school sector, 2000/01**



Definitions: Attrition is defined as all teachers in full-time service in the English maintained schools sector on March 31, 2000 who were not in full-time service anywhere in the English maintained schools sector on March 31, 2001. This includes teachers leaving to part-time service. *Turnover* is defined as all teachers in full-time service in the English maintained schools sector on March 31, 2000 who were not in full-time service in the same establishment on March 31, 2001. Turnover therefore includes attrition, transfers to other establishments within the maintained schools sector and teachers leaving to part-time service. Not all employers record all movements between schools so rates are underestimated.

Source: Department for Education and Skills (2004).

Since age-related retirements are included in the definition of teacher attrition, it could reasonably be expected that attrition would be rising as teacher workforces are generally ageing and more teachers are reaching retirement age. However, as Table 6.2B shows, the proportion of all public school teachers who leave the teaching profession for retirement reasons actually fell between 1995 and 2001 in two-thirds of the countries with broadly comparable data. This suggests that reasons other than retirement are becoming more significant in accounting for the broad overall trend towards higher attrition among public school teachers. Table 6.2A indicates that relatively high proportions of teachers leave teaching for reasons other than retirement in countries such as Australia, England and Scotland, Sweden and the United States. By contrast, retirement accounts for the majority of those leaving the profession in Canada (Quebec), France, Italy and Japan. As was noted in Chapter 5, in the latter group of countries teaching is generally part of a "career-based" public service in which long tenure is the norm.

It is also important to assess whether a significant number of teachers retire before the regular retirement age. Table 6.3 indicates that this is the case in some countries. In Australia, Germany and the Netherlands, where 65 is the retirement age to obtain full benefits, the average age of teacher retirement is 58, 59 and 61 years, respectively. Other countries in similar circumstances are Canada (Quebec), Israel, and Korea.

Table 6.2A. **Proportion of teachers retiring among those leaving the profession**

Primary public schools, 2001

Below 30%	Between 30% and 60%	Above 60%
Australia England Scotland Sweden United States	Ireland	Canada (Qb.) France Italy Japan

General note: This table was derived from data supplied by countries participating in the project. Data were requested in areas that are not already available through the OECD's Indicators of Education Systems (INES) project. Countries drew on existing data sets to meet the request, and did not engage in any new data collections. Not all countries were able to supply data in the form requested. The table should be interpreted as providing broad indications only, and not strict comparability across countries.

Definition: Leaving the teaching profession is defined as covering the same categories as the attrition rate in Table 6.1A.

Specific notes: The reference year is 1999 for Canada (Qb.) and 2000 for Scotland. Data for Sweden include both public and private institutions. Data for England include both primary and secondary education and data for Sweden include both primary and lower secondary education.

Table 6.2B. **Proportion of teachers retiring among those leaving the profession**

Changes from 1995 to 2001

	Decreased	Little change	Increased
Countries with a 1995 proportion below 50%	England Sweden (primary and lower secondary ed.) United States (primary ed.)	Sweden (upper sec. ed.)	United States (secondary ed.)
Countries with a 1995 proportion above 50%	Canada (Qb.) Ireland Italy Scotland	France Japan	

General note: See Table 6.2A.

Definition: See Table 6.2A. Little change occurs in proportion of teachers retiring among those leaving the profession between 1995 and 2001 if the change is less than one tenth of the 1995 value.

Specific notes: See Table 6.2A. The 1995 reference year is 1996 for Ireland, 1997 for Italy, and 1996 for Scotland.

Table 6.3. **Retirement age of teachers, public schools, 2002**

	Retirement age to obtain full benefits	Early retirement: minimum age at which teachers can retire and obtain some benefits	Actual average age of retirement	Can teachers work in public schools beyond the retirement age?
Australia	65	55	58	yes
Belgium (Fl.)	60	58	m	yes
Belgium (Fr.)	60	55	m	m
Canada (Quebec)	60	55	56	yes
Chile	M: 65; F: 60	a	m	yes
Denmark	65	60	m	yes, until 70
Finland	60 - 65	58	m	yes
France	60 (with a minimum of 40 years of contributions)	Minimum of 15 years of service	P: 56; S: 61	yes, until 65
Germany	65	a	59	m
Greece[1]	65 (with 35 years of experience) or 37 years of experience	60 (with 30 years of experience)	60	no
Hungary	M: 62; F: 58	M: 50; F: 45	(M: 59; F: 56)[2]	yes
Israel	M: 65; F: 60 (with 35 years of experience)	40 with at least 10 years of service working at least 1/3 of workload	54	yes, up to 30% of workload
Italy	60 (with 40 years of contributions)	60 (with a minimum of 20 years of contributions)	61	yes
Korea	62	minimum of 20 years of service	(P: 47; S: 53)[3]	no
Netherlands	65	61	61	yes
Norway	67	62	m	yes, until 70
Slovak Republic	M: 60; F: 53-57 (with a minimum of 25 years of experience)	m	m	yes
Spain	65	60	m	no
Sweden	65	61	64	yes, until 67
United Kingdom	60	55	m	yes

Notes:
1. Primary education only.
2. Secondary education only.
3. The low figures are due to recent early retirement policies which boosted retirements during the period covered by the data.
Symbols:
M: Males; F: Females.
P: Primary education; S: Secondary education.
m: Information not available.
a: Not applicable.
Source : Data supplied by countries participating in the project.

Teacher attrition rates are highest early in the career

Teacher attrition rates tend to be higher in the first few years of teaching, and to decline the longer that teachers are in the profession, before they increase approaching the retirement age. For example, as Figure 6.1B shows for the United States, about 9% of teachers with one to three years experience left the profession in the transition between the 1999/2000 and 2000/01 school years, compared to 6% of teachers with 10-19 years experience. The cumulative effect can be substantial. For example, a survey of temporary teachers (most of whom are beginning teachers) undertaken in the Flemish Community of Belgium revealed that 24% left teaching between 1995 and 1999. In the United States, 18% of those who started teaching in 1994 had left by 1997 (U.S. Department of Education, 2001).

Some of those who leave teaching will eventually return to the job, but high attrition rates suggest that large private and social costs have been incurred in preparing people for a profession which they found did not meet their expectations, or was insufficiently rewarding, or which they found difficult, or some combination of all three factors. Since beginning teachers tend to leave the profession at a higher rate, this can mean that the schools lose many teachers before they gain the experience necessary to become effective. The schools and systems concerned have to incur the costs of training, recruiting and inducting large numbers of new teachers. The students in the schools are faced with a high turnover of teachers and possibly some loss of programme continuity. To the extent that teacher attrition rates are higher in disadvantaged locations, this suggests that educational problems become compounded and inequalities between schools increase.

Although attrition rates are generally highest early in the career, in some countries reasonably large numbers of more experienced teachers leave before retirement. For example, in a sample of Australian teachers across all age ranges, 33% intended to leave teaching within the next three years, of whom only 7% were intending to retire (Dempster *et al*., 2000). The other 26% (a quarter of the workforce) intended either to seek employment outside teaching or to leave employment altogether (*e.g.* for family reasons or travel). There were large numbers of teachers in the 30-50 age range who indicated such intentions, which suggests a potentially large loss of experienced teachers from the profession.

Attrition rates are higher for some types of teachers than others

Research indicates that leaving the profession for reasons other than retirement is more common for some types of teachers than others. The higher attrition rates among beginning teachers have already been noted. There is also some evidence that attrition rates are higher for secondary teachers than for primary teachers. The data collected as part of this study supports this broad conclusion. As Table 6.1B shows, secondary teacher attrition rates were higher in 7 of the 13 countries with broadly comparable data, primary teacher attrition rates were higher in 2 of the countries, while in 4 others the rates were similar between the two sectors. The general reason advanced for higher attrition rates among secondary teachers is that their skills and qualifications tend to provide more opportunities in other occupations relative to primary teachers.

The research also suggests that attrition rates tend to be higher among male than female teachers. For example, Dolton *et al.* (2003) showed that in the United Kingdom at least, male teachers were much more likely to leave in response to improved employment conditions and salaries outside teaching than were female teachers. However, the data collected for this activity shows a much more mixed picture in terms of the relationship between gender and attrition (see Table 6.1C), and no clear pattern is evident. Interpretation of the gender patterns needs to pay attention to differences in the distribution of males and females between primary and secondary schools, and among different age groups.

A disturbing aspect of differential attrition rates among teachers is the research which indicates higher attrition rates among teachers with relatively strong academic backgrounds and higher qualifications. In the United States, Murnane and Olsen (1990) have demonstrated that teachers who are paid more stay longer in teaching, and that teachers with higher "opportunity costs", as measured by their academic record, test scores, or subject specialisation, are more likely to leave teaching than other teachers. More recently in the USA, Stinebrickner (2001) showed that teachers with higher academic ability spend less time working as teachers. Dolton and van der Klaauw (1999) reached similar conclusions in the United Kingdom. Murnane *et al.* (1988), studying a sample of North Carolina teachers, showed that chemistry and physics teachers tended to leave teaching sooner than did secondary school teachers with other subject specialities. In addition, they were less likely to return to teaching once they had left the system. Figure 6.1B further indicates that, for the United States, attrition rates in the late 1990s were highest for teachers whose main field was mathematics. Such findings raise concerns about the capacity of schools to retain teachers whose skills are in demand elsewhere.

It is important to note, however, that not all of those who resign from teaching do so to obtain paid employment. In the Australian sample cited earlier, about half of those who intended to leave for reasons other than retirement planned to be at home with children or to travel. In the United States, Stinebrickner (1999a) found that about 60% of all exiting

teachers leave the workforce altogether, mostly for family reasons. This finding is significant because a large proportion of starting teachers are both young and female, and it suggests that a comprehensive teacher policy framework will include means to assist teachers with families by providing opportunities to continue teaching (*e.g.* through child-care support and part-time work) and to return to teaching later on. As was noted in Chapter 3, the Equal Opportunities Commission in the United Kingdom has expressed concern that many women who leave teaching for family reasons do not return because of the lack of suitable part-time positions, job-sharing, or other "family-friendly" employment policies.

Teacher attrition is higher in disadvantaged areas

The evidence suggests that attrition and turnover rates are not uniform across schools, but tend to be higher in schools located in areas that are disadvantaged to some extent. For example, Figure 6.2 shows that in England teacher turnover rates are substantially higher in inner London (21% in 2000/01) than in the north of the country (14%). Inner London has high living costs and a highly diverse student population. Similar geographic variations in teacher turnover have been reported in the Netherlands, with vacancies harder to fill in the large cities. Figure 6.1B provides an indication that, in the United States, attrition and turnover rates are higher in schools where the enrolment of minorities is greater. As noted earlier, the differential patterns of teacher turnover and attrition are likely to exacerbate inequalities among schools.

6.2. Factors in Retaining Effective Teachers in Schools

6.2.1. Sources of job satisfaction and dissatisfaction

Studies of the features that bring job satisfaction to teachers confirm the importance of the intrinsic benefits of the job. However, compared to those starting in teaching as a career (see Chapter 3), experienced teachers put greater weight on their personal circumstances, and identify factors that hinder job satisfaction such as a lack of recognition, inadequate working conditions, and few career prospects.

For example, Figure 6.3A uses a survey of secondary teachers in the French Community of Belgium to contrast their views on the "main reason for becoming a teacher" with the "most important factor while on the job" for current job satisfaction. Intrinsic aspects, namely "working with children" and "interest in subject matter", are dominant factors at both stages of the career, but considerably less so once the teacher is working (*e.g.* about 22% of teachers cite "interest in pedagogy" as the main reason for becoming a teacher while only 7% of the same group cite it as the most important factor while on the job). Those factors more closely related to teachers' personal circumstances become more important once the teacher is on the job. This is the case for "compatibility with private life" (13% of teachers cite it as the most important factor while on the job, while 11% do so as the main reason for becoming a teacher), "vacation time" (9% against 3%), "job stability" (4% against 3%), and "schedule flexibility" (4% against 1%). Notably, Figure 6.3A shows that the factors cited least as the "most important factor while on the job" are related to recognition and career opportunities. They include "social recognition" (about 3%), "remuneration" (3%), "pension benefits" (1%) and "career possibilities" (1%).

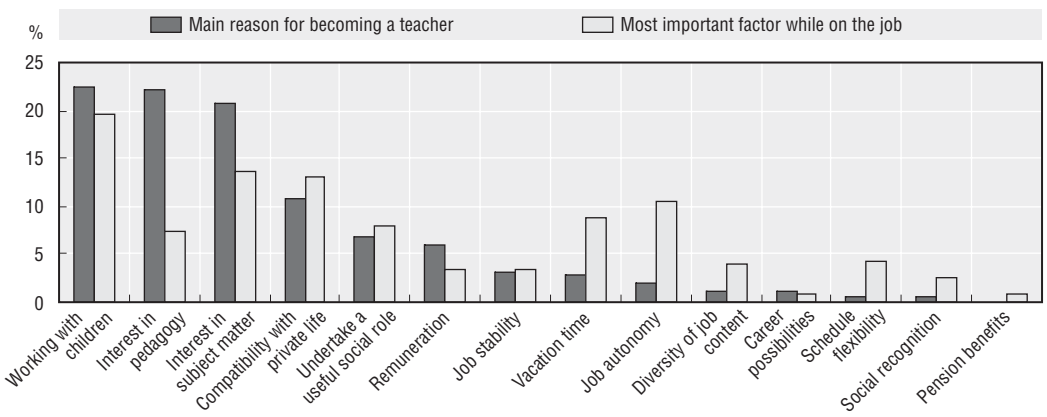
The reasons that teachers give for leaving the profession (other than retirement) confirm the pivotal role of working conditions. Figure 6.3B shows that, in England, strenuous working conditions head the list of reasons surveyed teachers give for leaving: "workload too heavy" (among the reasons to leave for 52% of primary teachers and 39% of secondary

teachers), "government initiatives" (39% and 35%), "stress" (37% and 34%), and "poor pupil behaviour" (34% in secondary schools). The survey also reveals that career-related factors such as "attracted by another job", "better career prospects", "school salary too low", and "offered higher salary" are of lesser importance. A substantial number of teachers indicate that feeling "undervalued" (22% in primary schools and 32% in secondary schools) has contributed to the decision to leave teaching. Personal circumstances were cited as important by around one-third of the teachers. An interesting pattern which emerges is that secondary teachers give greater weight to career-related factors (*e.g.* "attracted by another job", "better career prospects", "salary too low", "offered higher salary") than do primary teachers, while the latter tend to give greater emphasis to working conditions (*e.g.* "workload too heavy", "government initiatives", "stress").

Similar results are reported in the Background Report from Switzerland. A survey conducted by the Swiss teachers' nationwide union organisation (ECH/LCH) indicates that the major factors causing dissatisfaction are the erosion of teachers' public image; the frequent educational reforms; the excessive administrative burden on the teachers; salary levels; class sizes; unsatisfactory support from the supervisory bodies; and the limited involvement of teachers in school decision-making.

The Background Report from the Flemish Community of Belgium also notes teachers' concerns about the effects of consecutive educational reforms: "According to a number of respondents, some teachers are leaving teaching because they are tired of changes. There have been enormous changes in the last ten years, but according to the respondents, these were on such a large scale that the schools and teachers did not have the opportunity to implement the innovations. This means that many teachers lack job satisfaction because they can no longer prepare for changes. They constantly have to switch from one change to the next."

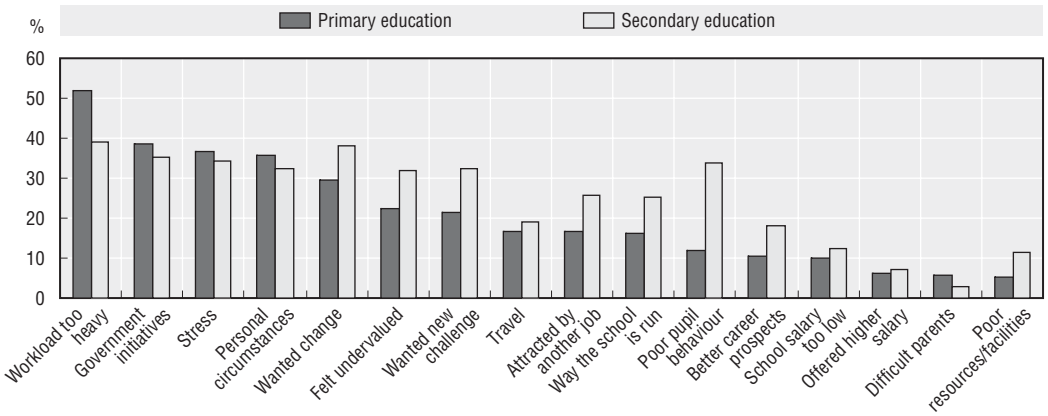
Figure 6.3A. **Main reason for becoming a teacher and main source of current job satisfaction, secondary teachers in the private Catholic grant-aided sector, French Community of Belgium, 1999**



Note: Figures are based on a survey of 3 600 secondary teachers from the private Catholic grant-aided sector in the French Community of Belgium.

Source: Maroy (2002).

Figure 6.3B. **Reasons given by teachers for leaving the profession, England, Summer 2002**

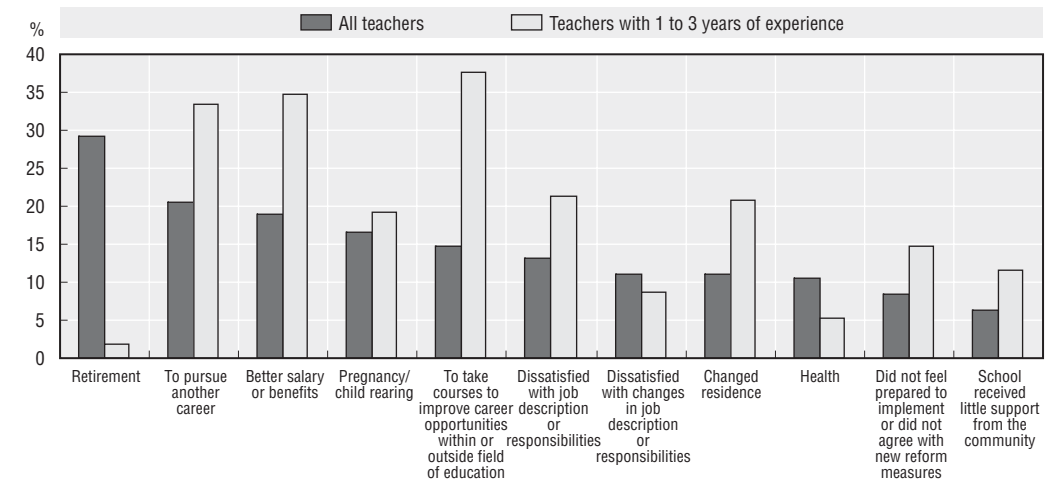


Note: Based on a survey of teachers leaving schools in England during the calendar year 2002 (sample size of 480 teachers for primary education and 530 teachers for secondary education). Retirement or maternity are not considered. Respondents could indicate more than one reason and so figures add up to more than 100%.

Source: Smithers and Robinson (2003).

Figure 6.3C distinguishes among the reasons given by new teachers (one to three years experience) and other teachers for leaving the profession in the United States. Career-related factors such as "to pursue another career", "better salary or benefits" and further study are rated as the top reasons for leaving (excluding retirement) for both groups of teachers, and generally have a greater weight than in the Belgian and English surveys. Personal circumstances (such as "pregnancy or child rearing") emerge as the second most important group, while reasons related to working conditions (such as "dissatisfied with job responsibilities" and "did not agree with new reform measures") are of lesser importance for the United States survey group, although still significant, especially for beginning teachers.

Figure 6.3C. **Percentage of public school teacher *leavers* who rated various reasons as very important or extremely important in their decision to leave the teaching profession, United States, 2000/01**



Source: Luekens *et al.* (2004).

6.2.2. Salaries and job prospects

There is substantial evidence that teachers' relative earnings are an important influence on career decisions – whether to join the profession and whether to stay. In general, the stronger are employment prospects outside teaching, the fewer qualified people who will stay long-term in teaching. In particular, those people with skills that are likely to command the best job prospects elsewhere are less likely to remain in teaching for very long. As was documented in Section 3.3.2, in 14 of the 19 countries with relevant data, the salary of a teacher with 15 years experience grew more slowly than GDP *per capita* between 1994 and 2002. Although this is a limited indicator, it does suggest that in many countries teachers' relative earning position has declined in recent years.

Research commissioned for this project indicated that teacher resignation rates are likely to rise when teachers' relative earnings fall – especially for male teachers and those with higher levels of qualifications (Dolton *et al.*, 2003). Dolton and van der Klaauw (1999) provide evidence on the importance of teacher salaries and relative forgone earnings in decisions about leaving teaching. Higher salaries elsewhere increase the tendency among teachers to switch careers. However, the likelihood of leaving teaching for family reasons or to leave work altogether tended to be more affected by teacher salary levels themselves, rather than teachers' salaries relative to other salaries. In the case of the United States, Stinebrickner (1999b) concludes that relative salaries are a more important influence on whether to leave teaching than working conditions as indicated by the student-teacher ratio.

The typical structure of teachers' salary scales suggests that it is unlikely that individual teachers are able to rapidly improve their earnings position. As Figure 6.4 shows, in 70% of the countries it takes at least 20 years for lower secondary teachers to move from the bottom to the top of the statutory salary scale (the country average is 24 years). On average, the top salary point is about 70% greater than the starting salary (although, as Figure 6.5 shows, this ratio varies widely from 13% in Denmark to 178% in Korea). This implies that each additional year of teaching leads to a pay rise of about 3%, on average. It is worth noting that while generally longer salary scales result in teachers earning proportionately more when they eventually reach the top, this is not always the case. For example, while in Hungary and Spain the salary scales are very long (almost 40 years) the teachers who reach that point do not earn substantially more than those at the bottom of the scale (Figure 6.5). On the other hand, teachers in New Zealand and Scotland have the shortest salary scales (7 years), but the ratio of the top to the bottom salary is relatively high.

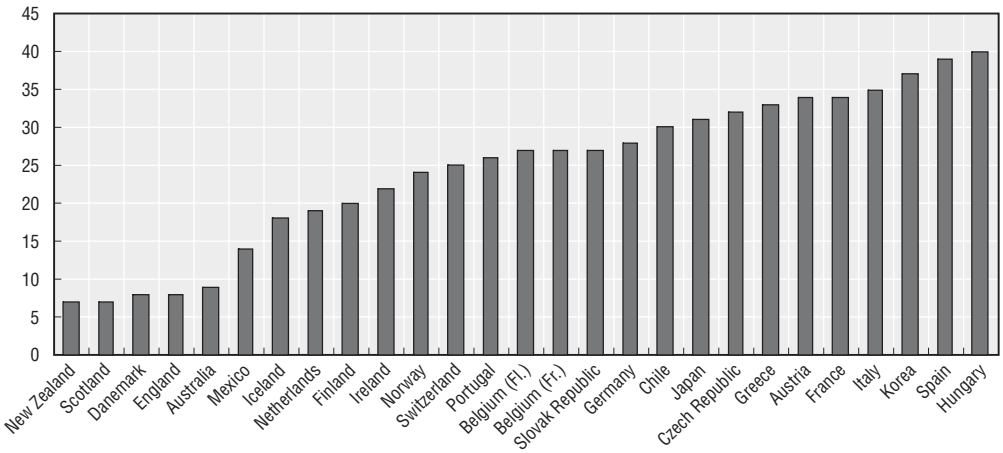
The distinction drawn in Chapter 5 between "career-based" and "position-based" models of public sector employment is reflected in the structure of teacher salary scales. As Figure 6.6 shows, there is a group of countries where salaries start relatively low, but climb steadily over a long scale, with the earnings peak occurring when people reach their fifties. The other broad model is where starting salaries are relatively high, and climb rapidly, but the salary scale is short and most classroom teachers find that their salaries plateau in their 30s. These two models are likely to be associated with different patterns of career entry and attrition. The former may lack appeal to those who are unsure about whether they wish to be a lifetime teacher. The latter may make it harder to retain a core of experienced teachers.

In recognition of the relationship between salary structure and attracting and retaining teachers, there is evidence that some countries are moving away from uniform salary rises for all teachers towards more targeted increases. For example, as described in Chapter 3, between 1996 and 2001 salaries for beginning teachers rose much more rapidly than for other teachers in countries such as Australia, Denmark, England and Norway. Correspondingly, in some countries whose main concern has been retaining experienced

teachers in schools, faster rises have been allocated to more experienced teachers (*e.g.* Hungary).

As Table 6.4 shows, all countries use allowances of various sorts to increase the base salary of at least some teachers. Three-quarters of the countries provide allowances for management responsibilities in addition to teaching duties, a similar number provide extra pay for teaching more classes or hours than required by a full-time contract, and about half provide allowances for teaching students with special educational needs. In total, such allowances can be substantial. For example, it has been estimated that for experienced teachers in Hungary bonuses and allowances above base salary amount to 20–25% of total compensation (Galasi and Varga, 2003). In Korea, the various sorts of allowances constitute about 60% of total remuneration for most teachers. Only about one-third of the countries, though, provide salary adjustments for teaching courses in a particular field or, as described below, for outstanding teaching performance.

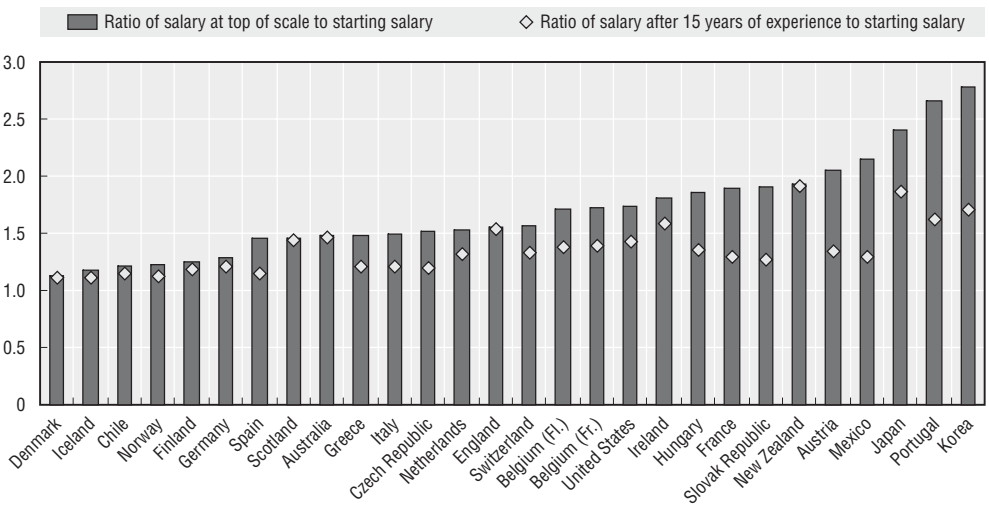
Figure 6.4. **Years from starting to top salary, lower secondary education, 2002**



Note: Data refer to annual statutory salaries in public institutions. Year of reference for Chile is 2001.

Source: OECD (2004a).

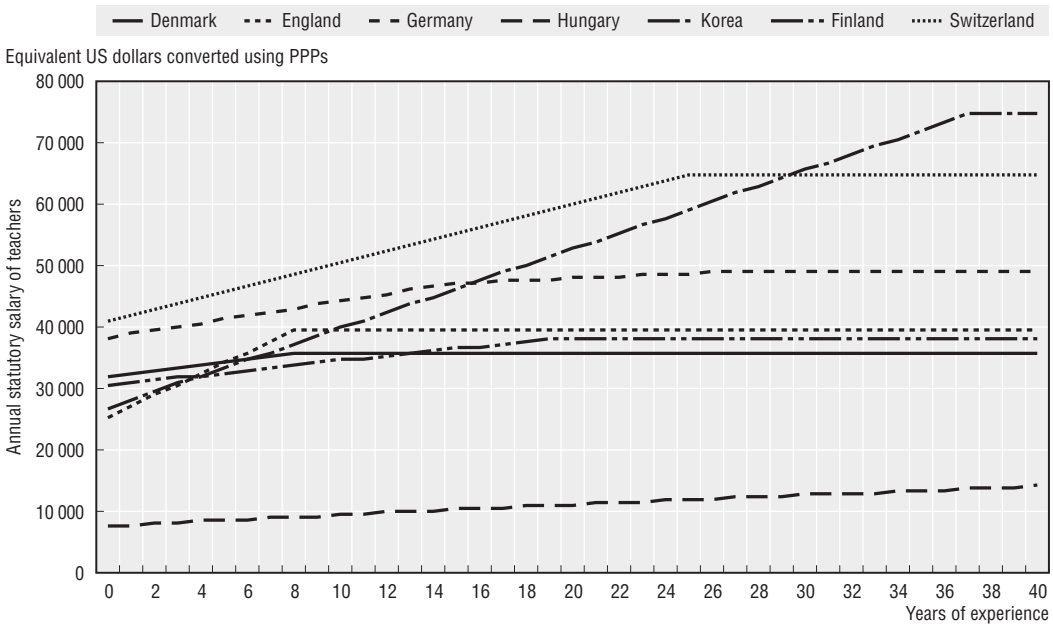
Figure 6.5. **Ratio of salary of teachers at the top of the scale and after 15 years of experience to starting salary, lower secondary education, public institutions, 2002**



Note: Data refer to annual statutory salaries in public institutions.

Source: OECD (2004a).

Figure 6.6. **Structure of the statutory salary scale of teachers, selected countries, lower secondary education, public institutions, 2002**



Note: The construction of this figure uses the values for the starting salary, salary after 15 years of experience, salary at the top of the scale, and years from starting to top salary. Salary progression over time within each phase was assumed to be linear.

Source: Derived from OECD (2004a).

6.2.3. Recognition and reward

Teachers' rewards generally comprise salaries, allowances, leave benefits and future pension benefits. Few countries have introduced instruments such as signing bonuses, provision of child care, time allowances, sabbatical periods, fee support for post-graduate courses, or opportunities for ongoing professional development activities as ways of recognising the work of teachers. In addition, the level of teachers' compensation is typically associated with qualifications, school sector and years of experience. Incentive structures are often not closely related to the wide variety of tasks that schools are now required to perform and are limited in the way they reward the accomplishment of teachers. A survey in Finland revealed that 91% of teachers felt that the outcomes of their work did not influence their salary levels. Three out of four teachers perceived that the amount of work not recognised in the pay system has increased in recent years (Korhonen, 2000).

Table 6.4 **Adjustments to base salary for teachers in public institutions, 2002**

Types of criteria to adjust base salary awarded to teachers in public institutions

	Criteria based on teaching conditions/responsibilities							Criteria related to teachers' qualifications, training and performance			Criteria based on demography	
	Management responsibilities in addition to teaching duties	Teaching more classes or hours than required by full-time contract	Special tasks (career guidance or counselling)	Teaching in a disadvantaged, remote or high-cost area (location allowance)	Special activities (sports and drama clubs, homework clubs, summer school)	Teaching students with special educational needs (in regular schools)	Teaching courses in a particular field	Holding an initial educational qualification higher than the minimum qualification required to enter the teaching profession	Outstanding performance in teaching	Successful completion of professional development activities	Family status (married, number of children)	Age (independent of years of teaching experience)
Australia	●		●	●		●		●				
Austria	●	●	●		●						●	●
Belgium (Fl.)		●										
Belgium (Fr.)												
Czech Republic	●	●	●			●			●			●
Denmark	●	●	●		●		●	●	●	●		
England	●	●		●	●	●	●	●	●			
Finland	●	●	●	●	●			●				
France	●		●	●	●	●					●	
Germany	●	●									●	●
Greece		●	●	●				●			●	
Hungary	●	●	●	●	●	●	●	●	●	●		●
Iceland	●	●	●	●	●	●	●	●		●		●
Ireland	●			●				●				
Italy		●	●	●	●						●	●
Japan	●	●		●	●	●					●	
Korea	●	●		●		●					●	
Mexico	●	●	●	●			●	●	●	●		
Netherlands						●						
New Zealand	●		●	●	●	●	●		●			
Norway	●	●	●	●			●	●	●			
Portugal	●	●	●		●	●		●	●	●	●	
Scotland	●			●				●			●	
Slovak Republic		●		●					●			
Spain	●			●						●	●	
Sweden	●	●	●	●	●	●	●	●	●	●		
Switzerland	●	●	●		●	●					●	
Turkey		●	●		●				●	●	●	
United States	●	●	●	●	●	●	●	●		●		

Source: Derived from Table D3.2.a of OECD (2004a). See Annex 3 of OECD (2004a) for notes.

There are few countries in which teachers' rewards are related to reviewed performance and evidence of ongoing professional development. As shown in Table 6.4, only 11 out of 29 countries provided an adjustment to the base salary for outstanding teaching performance. The lack of financial recognition of teaching performance is likely to contribute to teachers leaving the profession, especially for those with attractive job prospects elsewhere. Nonetheless, in recent years countries have enlarged the criteria for adjusting the base salary to account for special tasks such as career guidance or counselling (two-thirds of countries offer related salary supplements); teaching in a disadvantaged, remote or high-cost area (two-thirds of countries); or special activities such as summer school or school clubs (half of the countries).

The issues surrounding developing a closer relationship between teacher performance and reward are controversial in all countries.[3] There are three main models of performance-based reward systems: "merit pay", which generally involves providing individual teachers with higher pay based on student performance on standardised tests, and classroom observation; "knowledge- and skill-based" compensation, which generally involves higher pay for extra qualifications or professional development, and demonstrated knowledge and skills, which are believed to increase student performance; and "school-based compensation", which generally involves group-based financial rewards, typically based on student performance for a grade level or whole school. Many of the earlier programmes tended to focus on individual performance, in particular merit pay (Richardson, 1999), with recent debates more likely to consider group-based reward programmes, or knowledge- and skill-based rewards (Odden, 2000; Odden and Kelley, 2002).

Arguments in support of performance-based rewards typically include: it is fairer to reward teachers who perform well rather than paying all equally; performance-based pay motivates teachers and improves student performance; and a clearer connection between spending on schools and student performance builds public support. The arguments typically used to oppose performance-based pay include: fair and accurate evaluation is difficult because performance cannot be determined objectively; co-operation among teachers is reduced; teachers are not motivated by financial rewards; teaching becomes narrowly focused on the criteria being used; and the costs of implementation are too high.

Research in this field is difficult and there are few reliable studies. The limited evidence suggests that there are some benefits from group-based performance pay programmes, but less so from individual performance pay programmes.

There is a wide consensus that previous attempts at introducing performance-based reward programmes have been poorly designed and implemented (Mohrman *et al.* 1996; Ramirez, 2001). Problems in developing fair and reliable indicators, and the training of evaluators to fairly apply these indicators have undermined attempts to implement programmes (Storey, 2000). One problem identified is poor goal clarity because of a large number of criteria, which restricts teachers' understanding of the programme and makes implementation difficult (Richardson, 1999). Explanations of how, and on what criteria, teachers are assessed may be difficult to articulate. When this occurs, it is almost impossible to give constructive feedback and maintain teacher support for the programme (Chamberlin *et al.*, 2002).

[3] This section is based on a review prepared for the OECD project by Harvey-Beavis (2003).

It has also been argued that previous financial bonuses have been comparatively small, which undermines the motivational value of the programmes (Malen, 1999). When funding is limited, quotas are established, only a few teachers benefit and administrators find it difficult to explain why others missed out (Chamberlin *et al.*, 2002). Other explanations for difficulties in implementing performance-based reward programmes include: opposition from teacher unions, particularly in relation to merit pay; opposition from teachers, particularly related to concerns about unfair evaluation; and opposition from public school management systems to what are perceived as market-based models. In the United States, most attempts to implement merit pay for public school teachers have failed over the past 75 years, and most such schemes have either been dropped or heavily modified within five years of introduction (Murnane, 1996).

The results from group and school-based performance incentive schemes have been more promising. For example, Lavy (2002) studied the impact of a rewards programme implemented in 1995 in 62 Israeli secondary schools. The programme offered a substantial grant to the one-third of schools which achieved the highest value-added gains over time on a range of performance measures (student graduation rates, drop-out rates, and scholastic achievement). The measures were structured to encourage schools to direct more efforts towards low-performing students. Three-quarters of the grant for each school was allocated among teachers and all other school staff in proportion to their salaries; the other one-quarter was used to improve general facilities, such as the teachers' common rooms. The schools' performance incentives led to significant gains on all five student outcome measures. The study also contrasted the effects of this programme with a programme that provided another group of secondary schools with more resources in the form of extra teachers and support for potential drop-outs and low-performing students. This programme also led to improved student outcomes, although to a lesser extent than the schools' incentive approach. Under both programmes schools were given complete control over the additional resources and the freedom to develop effective interventions. However, the schools' performance-based incentives programme proved to be more cost-effective.

The debate on the link between reward and performance is also evident in the health sector. Countries are showing increasing interest in paying physicians in the public health sector by results (Simoens and Hurst, 2004). For instance, in the United Kingdom about 20% of general practitioner's income is now based on a wide range of performance quality indicators. However, there is not much evidence, so far, that merit pay improves quality in public health delivery, and there remain many difficulties in designing objective performance appraisal systems (Simoens and Hurst, 2004). The concerns about performance-based pay in health include: whether it will distort practice between areas where quality can be measured and areas where it cannot; whether it will encourage the selection of less risky patients; and whether it could lead to distorted record keeping. Similar concerns are evident in the debate on performance-based pay in teaching.

Ballou (2001), among others, has reopened the issue by comparing teachers' pay in public and private schools in the United States, and using this to test the notion that merit pay is inherently ill-suited to teaching. He concludes that because, compared to public schools, private schools generally differentiate teachers' salaries more on the basis of teacher performance and are more likely to dismiss ineffective teachers, the concept of linking teacher pay to performance is not inherently flawed, and indeed is beneficial, but rather that its implementation has been hampered in most public school systems.

Certainly within the countries taking part in this project there is extensive discussion about introducing greater teacher salary differentiation, including moving towards a stronger link with performance. In general, though, the schemes underway or proposed are

not based on a single measure, such as student performance on tests. Rather, they involve assessments of teachers' performance and contributions inside and outside classrooms using a variety of measures. The column on "pay rise" in Table 6.5 provides, for participating countries, examples of programmes which link pay to teacher performance. The individual teacher pay system that Sweden introduced in the mid-1990s, and which includes elements of performance-based pay, was detailed in Box 5.3. As another example, in Finland the collective bargaining agreement for 2003/04 includes elements for assessing the standards of teachers' work, and provides scope for municipalities to pay bonuses on the basis of individual professional proficiency and performance. In the cantons of St. Gallen and Zürich in Switzerland teachers can move up to the next grade on the pay scale only if they are given a positive assessment, based on a process of self-evaluation and external assessment (see Box 6.1).

Box 6.1. **Links between teaching performance and salaries in Switzerland**

Two Swiss cantons, Zürich and St. Gallen, have introduced links between teaching performance and pay, as components of quality monitoring and improvement initiatives. In both schemes, salary increments are provided over a period of years, rather than applied on the basis of the assessment of a year's work.

In 2000 St. Gallen introduced a link between teachers' performance assessment and their pay scale through the "Systematic salary-effective qualification" (SLQ: *Systematische Lohnwirksame Qualifikation*). The St. Gallen scheme links performance to promotion (with influence on pay levels) but not directly to pay. The pay scale is made up of four grades, and moving up to the next grade is only possible if the teacher is given a positive assessment. Movement from increment to increment within a grade occurs largely automatically. Teachers are assessed every time they reach the top of a grade, and are not able to receive a salary increase unless their performance appraisal is positive. The assessment criteria are jointly agreed by the teacher and the evaluator. The assessment focuses on three skill areas: organisation and delivery of lessons; interactions with students, teachers and parents; and participation in in-service training. The assessment is based on self-assessment and external assessment. The external assessment is the responsibility of one of the members of the school committee/commission.

In 1999 Zürich introduced a similar link through the "Salary-effective qualification system" (LQS: *Lohnwirksames Qualifikationssystem*). Teacher assessments affect salaries only for teachers in the "principal phase" of their careers (beyond the initial years, and short of the late career years when only truly exceptional appraisals will lead to salary increments). Salary increments, on the basis of favourable assessments, are provided on the order of 1-3% for the four years following the assessment. If an assessment is unsatisfactory, promotion is delayed for a year and measures are agreed upon to overcome deficiencies. The assessment is undertaken by a team formed of representatives of the school committee, all of whom receive special training. The assessment includes class observation, an interview with the teacher, and the preparation by the teacher of a report describing his or her pedagogical approach.

Chile has introduced a "Pedagogical Excellence Reward" that recognises and rewards teachers with outstanding skills (see Box 6.2), among other initiatives. In Mexico, on the basis of voluntary applications, teachers can request a salary increment to reflect their teaching performance through the *Carrera Magisterial* and *Escalafón Vertical* programmes. Similarly, in England and Wales special evaluation procedures undertaken on a voluntary basis (*Threshold Assessment* and *Advanced Skills Teacher*) provide teachers with the possibility of linking their performance to salary levels. Other countries that have introduced similar programmes include Australia, Hungary and the Slovak Republic.

Box 6.2. **Rewarding teaching excellence in Chilean schools**

The *Pedagogical Excellence Reward* (AEP, *Asignación de Excelencia Pedagógica*), introduced in 2002 following an agreement between the Ministry of Education and the Teachers Association of Chile, aims to recognise and reward teachers with outstanding knowledge and skills. Teachers voluntarily apply for an assessment, and those who are certified as excellent classroom teachers receive extra pay. Teachers are classified according to their years of teaching experience into four groups, and are able to apply for the Excellence Reward twice within each group. Applicants are assessed against the performance standards defined by the Ministry of Education. Two instruments are used in the procedure: (i) a written test that measures pedagogical and subject knowledge; and (ii) a portfolio of classroom teaching which includes a video of their teaching practices. Every year, the Ministry establishes the quota of teachers for each region of the country who are awarded the Excellence Reward. Quotas fluctuate as a result of budget constraints. In 2002, about 6 000 teachers applied for the Excellence Reward out of a total teaching workforce of about 125 000 teachers. Successful applicants are paid an extra allowance twice a year, which continues while the teacher remains in the original teaching experience group and performance remains at satisfactory levels (to a maximum of 10 years).

Teachers are also rewarded collectively when they work in schools which are identified as performing at high levels by the National Performance Evaluation System of Subsidised Schools (SNED). This programme, which was established in 1995, is based on the amount of improvement in school performance on a variety of indicators, including student achievement on standardised tests; it assesses schools against other schools within a socio-economic cluster. Every two years, the SNED awards a monetary bonus to all teachers who work in the top-performing schools within each group. This reward was awarded to about 1 900 schools in 2002/03 to the benefit of 34 000 teachers (about one-third of the workforce), who received an average annual bonus of US$ 430 (about 4% of the average annual teacher salary).

Another initiative consists of the *National Teaching Excellence Awards*. The objective is to grant wide public recognition to the most outstanding teachers in the country. Every year 50 teachers representing all regions of the country are the recipients of this prize. Teachers are recommended on the basis of their merit through a pyramidal process that involves the schools, the communes and the different regions of the country.

The United States offers another model of teacher recognition and reward through the non-governmental National Board for Professional Teaching Standards (NBPTS). This is a voluntary scheme in which experienced teachers apply for an extensive evaluation process based on criteria developed from research and consultation with teachers' professional associations (see Box 6.3).

Box 6.3. **Certifying teaching excellence in the United States**

In the United States, experienced teachers may voluntarily seek national certification through the privately run, but largely government-funded, National Board for Professional Teaching Standards (NBPTS). This credential, known as *National Board Certification*, is designed to provide recognition to teachers who demonstrate superior knowledge and teaching skills. Teachers enter an extensive application process which consists of two major parts: the portfolio of their work including a videotape of a lesson they have taught; and the assessment centre exercises where teachers address a set of questions that relate to the specific content of their field.

The assessment is undertaken against detailed teaching standards established by NBPTS.

These are based on NBPTS' five core propositions: (i) teachers are committed to students and their learning; (ii) teachers know the subjects they teach and how to teach those subjects to students; (iii) teachers are responsible for managing and monitoring student learning; (iv) teachers think systematically about their practice and learn from experience; and (v) teachers are members of learning communities. The standards are developed and reviewed by teachers and other experts. National Board Certification is issued for a period of 10 years but can be renewed on the basis of the preparation of a *Profile of Professional Growth*.

Over 30 states now offer financial incentives to teachers who earn National Board Certification, including subsidisation of teachers' application fees, and financial bonuses and higher pay. As of November 2002, the National Board had certified 24 000 teachers nationwide, and more than 15 000 applicants were seeking certification in 2002/03. Between 1999 and 2002, about 50% of first-time applicants were certified.

Some criticise the National Board approach on the basis of the absence of a link with student achievement gains and a lack of external validity of teaching practices (*e.g.* Podgursky, 2001). There is some recent evidence, based on data from North Carolina primary schools, that teachers certified by the Board were more effective than their non-certified colleagues at increasing student achievement and that NBPTS is successfully identifying the more effective teachers among applicants (Goldhaber and Anthony, 2004). The authors note, however, that since the process is relatively costly in terms of both evaluation process and the higher salaries that certified teachers generally earn, its effectiveness should be judged against other means of identifying and rewarding quality teaching.

6.2.4. Teacher evaluation

Table 6.5 summarises the main features of teacher evaluation schemes in the countries participating in the study. When teachers apply for a higher position, or if they are the subject of a complaint, there is generally a process of formal evaluation, either by the principal, external staff or some combination of the two. However, in half of the countries (13 out of 26) all public school teachers have some form of periodic evaluation as part of their regular work. In nine countries – Austria, Canada (Quebec), Denmark, Finland, Germany, Greece, Israel, Italy and Spain – teachers are normally not regularly evaluated once tenure is granted. In Ireland, Norway and Sweden, the emphasis is on school evaluation rather than individual teacher evaluation; in Hungary evaluation of teachers is mostly at the discretion of the school principal; in Japan some prefectural boards of education are now introducing teacher evaluation; and in Mexico evaluation occurs when teachers voluntarily apply.

In most cases, regular teacher evaluations involve the school principal and other senior school staff. In three of the countries (the French Community of Belgium, France, Switzerland), the evaluation is conducted by a panel involving both the principal and external members. Criteria typically include the subject and pedagogical knowledge of the teacher, some assessment of teaching performance, levels of in-service training and, in some cases, measures of student performance. Classroom observation, interviews, and documentation prepared by the teacher are the typical methods used in the evaluation. In Mexico, the Slovak Republic and Spain (for teachers applying for promotion) student surveys also sometimes form part of the evaluation.

Table 6.5. **Teacher evaluation in public cchools, 2002**

	Are all teachers evaluated periodically?	Scope of evaluation procedures described	Recipients and frequency	Evaluator	Criteria	Tools	Pay rise			Linkage to professional development	Response to ineffective teachers
							Base salary or allowance	Quota	Duration		
Australia	Generally, yes	State of Victoria Performance and development plan	All teachers, annually	Internal (principals) and senior teachers	State-wide performance standards appropriate to the teachers' career stage	Demonstrated performance (e.g. student learning, data, documentation agreed with principal	Annual salary increment	No	Permanent	Helps set priorities	Salary increment withheld; Improvement plan; Further evaluation
Austria[1]	No, only for changes in employment status, for promotion, or as a result of a complaint	Summative performance evaluations	Teachers for promotion, or conversion to permanent contract	Internal; External (Inspection)	Student performance; Subject and pedagogical knowledge of teacher; Teaching performance; In-service training; Other skills	Classroom observation	Base salary	No	Permanent	No	Permanent contract not granted; Improvement plan; Further evaluation
Belgium (Flemish)[2]	Yes	Public-authority schools provided by the Flemish government	All teachers, periodically	Internal (principals)	m	m	No Pay Rise			No	Dismissal
Belgium (French)	Yes	Whole country	All teachers, with no fixed periodicity	Internal (principals); External	m	m	No Pay Rise			No	m
Canada (Quebec)[3]	No, only when teachers are the subject of a complaint or for changes in employment status	Complaint procedure	Teachers who are the subject of a complaint	Internal (school administration)	m	m	a			Advice	Improvement plan
Chile	Yes, both individually and as part of school evaluation; Monetary rewards possible as a result of special evaluation procedures undertaken either on a voluntary or mandatory basis	National Teaching Excellence Award	50 teachers, national annual competition	Peer assessment, school community, external	Community acknowledgment of performance throughout career	Teacher test; Documentation on performance throughout career	Fixed allowance	Yes	Once	Yes	*a*
		National Performance Evaluation System	All teachers in a given school based on school performance, every 2 years	External	Mostly student performance but taking account of school's socioeconomic cluster	Set of indicators agreed upon by Ministry	Allowance	Yes	2 years	No	*a*
		Teaching Performance Evaluation System	All teachers, every 4 years	Self assessment, peer assessment, principal and external	Subject and pedagogical knowledge, teaching performance and other skills (Good teaching framework)	Portfolio, interviews, classroom videos	Allowance	Yes	4 years, paid every 3 months	Yes	Improvement plan Further evaluation Dismissal
		Pedagogical excellence reward	Teachers on a voluntary basis, annually if teachers wish	External	Subject and pedagogical knowledge, teaching performance and other skills	Written test, portfolio, video	Allowance	Yes	From 2 to 10 years	Yes	*a*
Denmark[4]	No, only when teachers are the subject of a complaint	Complaint procedure	Teachers who are the subject of a complaint	Internal (principals)	Teaching performance; Other skills	Classroom observation; Interview	a			Compulsory training	Improvement plan; Compulsory training; Further evaluation; Suspension; Dismissal
Finland	No, only when teachers are the subject of a complaint	No regulation exists at national level. Evaluation is at school, regional or national levels and individual teachers are generally not evaluated. The local education provider has the responsibility for evaluation. Based on an official complaint, individual techers may be assessed by the provincial government.									
France[5]	Yes	Administrative grade in secondary schools	All teachers, annually	Internal (principals)	Authority, punctuality, among others	m	m			m	Deferral of promotion
		Pedagogical grade in secondary schools	All teachers, with no fixed periodicity	External	Subject and pedagogic knowledge; teaching performance	Classroom observation; Interview	m			m	Deferral of promotion
Germany[6]	Generally not, only for promotion or as a result of a complaint	Land of Baden-Württemberg	All teachers	Internal (principals)	m	m	Base salary	Yes	Permanent	m	m
Greece	No	Under a Law enacted in 2002, all individual teachers should be periodically evaluated by external evaluators and principals. However, this scheme has not yet been implemented. Currently no systematic teacher evaluation exists.									
Hungary[7]	At the discretion of the school	School evaluation	Teachers as part of school evaluation, periodically	External	m	m	m			m	m
		Individual teacher evaluation	m	Internal (principals)	m	m	Allowance	No	m	m	m
Ireland	All teachers are evaluated periodically but in the context of a whole school approach	School evaluation	Teachers as part of whole school evaluation	External	Student performance; Subject and pedagogical knowledge of teacher; Teaching performance	Classroom observation	No Pay Rise			Advice	In primary and vocational education sectors: Improvement plan Further evaluation Dismissal

Table 6.5 **Teacher evaluation in public schools, 2002** (continued)

	Are all teachers evaluated periodically?	Scope of evaluation procedures described	Recipients and frequency	Evaluator	Criteria	Tools	Pay rise			Linkage to professional development	Response to ineffective teachers
							Base salary or allowance	Quota	Duration		
Israel	No, unless teacher is the subject of complaint	No regulation exists at national level. Once teachers obtain tenure, they are no longer evaluated. Inspectors make an individual assessment of a teacher at the request of the principal in case performance problems are identified.									
Italy	No, unless teacher is the subject of complaint	Complaint procedure	Teachers who are the subject of a complaint	External	m	Classroom observation	a			m	m
Japan	Generally not. Since 2000 some prefectural boards of education (such as Tokyo) introduced teacher evaluation	City of Tokyo	All teachers, periodically	Internal (principals); Self-evaluation	m	Documentation on teacher; Interview; Classroom observation	m	m	m	Advice	Deferral of promotion
Korea	Yes	Whole country	All teachers, periodically	Internal (principals); Self-evaluation	m	Classroom observation; Documentation on teacher	No Pay Rise			No	Deferral of promotion
Mexico	No, only through a voluntary application to *Carrera Magisterial* (CM) or *Escalafón Vertical* (EV), or as a result of a complaint. In practice, all the teachers are enrolled in EV and around 70% of them in CM	*Carrera Magisterial*	Teachers on a voluntary basis, periodically	Internal; External	Student performance; Subject and pedagogical knowledge of teacher; Teaching performance; In-service training; Other skills	Documentation on teacher; Student survey; Teacher test	Base salary	Yes	Permanent	No	Deferral of promotion
		Escalafón Vertical	Teachers on a voluntary basis, periodically	External	In-service training; Other skills	Documentation on teacher	Base salary	Yes	Permanent	No	Deferral of promotion
Netherlands	Generally, yes. No regulations exist at national level and school boards have responsibility for evaluation	Whole country	All teachers, periodically	Internal (principals)	Subject and pedagogical knowledge of teacher; Teaching performance; Other skills	Classroom observation; Interview	m	m	m	Advice	m
Norway	No, only when teachers request it, for promotion or as a result of a complaint - either rarely occurs. The emphasis is on school evaluation	Whole country	Teachers for promotion; Teachers who are the subject of a complaint	Internal (principals)	m	m	m	m	m	m	m
Slovak Republic	Yes, teachers are evaluated by school inspection, if they are the subject of a complaint, and for defining the level of allowances received	School inspection	Teachers as part of school evaluation	External	Subject and pedagogical knowledge of teacher; Teaching performance	m	No Pay Rise			m	m
		Allowance	m	m	m	m	Allowance	m	m	m	m
		Complaint procedure	Teachers who are the subject of a complaint	Internal (principals)	m	Classroom observation; Interview; Documentation on teacher; Student survey	a			m	Transfer; Salary reduction; Dismissal
Spain	No, evaluation occurs only when teachers want to become principals, apply for a study leave, and when they are the subject of a complaint	Application for study leave or complaint procedure	Teachers on a voluntary basis; Teachers who are the subject of a complaint	External	Student performance; Subject and pedagogical knowledge of teacher; Teaching performance	Classroom observation; Interview; Documentation on teacher; Student survey	a			No	m
Sweden	Yes, teachers are evaluated by principals and the discussion of performance includes decisions on rewards. This is in a context where the emphasis is on school evaluation	Whole country	Teachers as part of school evaluation	Internal (principals, peer review); External; Self-evaluation	Student performance; Subject and pedagogical knowledge of teacher; Teaching performance; In-service training; Other skills	Classroom observation; Interview; Documentation on teacher; Student survey	Base salary	No	Permanent	Advice	Improvement plan; Further evaluation; Deferral of promotion; Transfer

Table 6.5. **Teacher evaluation in public schools, 2002** (continued)

	Are all teachers evaluated periodically?	Scope of evaluation procedures described	Recipients and frequency	Evaluator	Criteria	Tools	Pay rise			Linkage to professional development	Response to ineffective teachers
							Base salary or allowance	Quota	Duration		
Switzerland	Generally, yes. The majority of cantons focuses on school evaluation. A few cantons link teachers' assessment with salaries	Canton of St. Gallen	Teachers for promotion	External; Self-evaluation	Subject and pedagogical knowledge of teacher; In-service training; Other skills	Classroom observation; Documentation on teacher	Base salary	No	Permanent	Advice	Deferral of promotion
		Canton of Zürich	Teachers for promotion	External; Self-evaluation	m	Classroom observation; Interview; Documentation on teacher	Base salary	No	Permanent	Advice	Improvement plan; Deferral of promotion
United Kingdom[8]	Yes. Links to salaries possible as a result of special evaluation procedures undertaken on a voluntary basis	England (Performance management)	All teachers, periodically	Internal (principals)	Subject and pedagogical knowledge of teacher; Student performance; Other skills	Classroom observation	No Pay Rise			Advice; Compulsory training	m
		England, Wales (Threshold assessment)	Teachers on a voluntary basis for promotion	External; Internal (principals)	Subject and pedagogical knowledge of teacher; Student performance; In-service training; Other skills;	Documentation on teacher	Base salary	No	Permanent	Advice	m
		England, Wales (Advanced Skills Teacher)	Teachers on a voluntary basis for promotion	External	Subject and pedagogical knowledge of teacher; Student performance; Other skills	Documentation on teacher; Interview; Classroom observation	Base salary	No	Permanent	m	m
United States[9]	Generally, yes. Several school districts have introduced schemes which link teachers' assessments to salaries	Whole country	All teachers	Internal (principals)	m	Classroom observation	No Pay Rise			Compulsory training	Compulsory training; Further evaluation
		Cincinnati	All teachers	m	Subject and pedagogical knowledge of teacher; Other skills	m	Base salary	No	Until next evaluation	m	Further evaluation; Salary loss
			All teachers as part of school evaluation	m	Student performance	m	Allowance	No	m	m	m
		Douglas County	All teachers	m	m	m	Base salary	No	Permanent	Compulsory training	Improvement plan
			Teachers on a voluntary basis	m	Subject and pedagogical knowledge of teacher; In-service training; Student performance; Other skills	m	Allowance	No	m	m	m
			Teachers on a voluntary basis as part of school evaluation	m	Student performance	m	Allowance	No	m	m	m
		Kentucky	All teachers periodically, as part of school evaluation	m	Student performance; Other skills	m	Allowance	No	m	m	m
		Charlotte-Mecklenburg	All teachers periodically, as part of school evaluation	m	Student performance	m	Allowance	No	m	m	m

Definitions: Regarding the *Evaluator*, *Internal* or *External* is relative to the school. The column on *Pay Rise* assesses the link between the results of the evaluation and pay levels. Where a link exists, it can be through the *base salary* or an *allowance*, a maximum number of teachers might benefit from pay rises (*Quota*), and *duration* of pay adjustments might differ (*e.g.* permanent, fixed term, until next evaluation, once).

***Notes*:** This table excludes evaluations of school principals and teachers in their probationary period.

a Information not applicable because the category does not apply; *m* Information not available.

1. There are two evaluation schemes: summative evaluation and formative evaluation. More emphasis is given to summative performance evaluation.
2. Job description describes the roles and tasks of teaching staff (currently for secondary teachers only). Teachers are evaluated against the job description.
3. The complaint procedure is not regulated at Province level. Apart from this procedure, teachers are evaluated only when they go through the probationary period or apply for tenure.
4. Evaluation of the individual performance of teachers rarely takes place, and it is mainly based on a complaint.
5. Promotion is based on a ranking of teachers for which the evaluation of performance is not the major factor. More dominant factors are years of experience and the ranking achieved at the entrance examination.
6. Teachers are rarely evaluated after they obtain tenure except for promotion decisions and when serious performance problems arise. Moving up to the next salary step depends essentially on years of experience.
7. There is no national scheme for the regular evaluation of individual teachers. Some forms of school-level evaluation in which teachers' performance is evaluated have been introduced. Teachers may be provided with allowances for outstanding performance, although this procedure is not regulated at national level.
8. An annual teacher evaluation has been introduced in England, Wales and Northern Ireland. In Scotland, annual appraisal is offered on a voluntary basis. Some evaluation schemes linked with promotion or monetary rewards have been introduced.
9. Practices in each state differ. The table indicates general trends and some innovative practices.

Source: Derived from the Background Reports prepared by countries participating in the project and other country-specific documents.

In most countries the regular teacher evaluations are used to identify priorities for professional development. Several countries use the evaluation to develop improvement plans, including professional development (*e.g.* some states in Australia, Sweden, and Switzerland) for teachers identified as performing ineffectively. It is also common for teachers assessed as ineffective to have salary increments deferred until performance improves.

Despite the fact that teacher evaluation takes place on a regular basis in half the countries, and generally appears to be becoming more common, the country review visits indicated that principals and other senior staff often lack the time, tools or training to perform teacher evaluations satisfactorily. Particularly in secondary schools, there appears to be little observation of classroom teaching by principals, and teachers often express concerns about whether principals and other senior staff are adequately equipped for evaluation tasks; teachers also question the criteria which are used. However, because a coherent and well-resourced system of teacher performance appraisal is lacking in a number of countries, including in some cases where regular evaluation is compulsory for all teachers, teachers do not receive appropriate recognition for their work, and there is little systematic information to guide professional development priorities. Apart from anything else, the lack of regular feedback to teachers about their work is likely to increase their sense of professional isolation and build the perception that their efforts are not appreciated.

Chile has recently introduced a broad teacher performance evaluation system following an extended period of consultation with teachers, and with clear links to rewards and improvement plans for teachers' practice (see Box 6.4). Surveys conducted in 1999 and 2000 by the Centre for Educational Research and Development (CIDE) revealed that over 70% of Chilean teachers strongly agreed with an individual evaluation of teaching performance. Another survey conducted in 2003 by CIDE further indicated that 64% of the teachers agreed with implementing a teaching performance evaluation system that includes both incentives and sanctions.

Box 6.4. **The Teaching Performance Evaluation System in Chile**

In Chile, since August 2003, all teachers in schools belonging to the municipal system are evaluated every four years via the Teaching Performance Evaluation System (*Evaluación del Desempeño Profesional Docente*) agreed upon by the Ministry of Education, the Teachers' Association, and the Chilean Association of Municipalities. The agreement followed two rounds of country-wide consultations, which resulted in over 10 000 written contributions by teachers.

The municipalities administer the evaluation process and take responsibility for teacher improvement plans. The Ministry of Education, through the Centre for Training, Experimentation and Research in Pedagogy (CPEIP) provides the legal framework, reviews and updates the teachers' performance standards, designs and validates the evaluation instruments, selects and trains the evaluators, and monitors the operation of the evaluation system. University experts assist the CPEIP in the production of evaluation tools and the training of evaluators.

Evaluation is based on criteria defined by the "Good Teaching Framework" (*Marco para la Buena Enseñanza*). The framework covers four domains: preparation of teaching; creation of a setting which promotes learning; teaching for the learning of all students; and professional responsibilities. Each domain takes into account between four and six criteria.

The evaluators must: (i) be teachers selected, accredited and trained by the CPEIP; (ii) belong to the same level and type of school as the teacher being evaluated; (iii) not work in the same school as the teacher concerned, although preferably work in the same community. The

evaluation uses four instruments: a portfolio of the teacher's work including a video with a sample of the teacher's classroom teaching; a written self-evaluation by the teacher; a peer interview structured according to the "Good Teaching Framework"; and a report on the teacher's performance by the principal or other senior staff member. The appraisal informs teachers about the strengths and weaknesses of their practice and the priorities for professional development actions they can take, and is also used to inform municipalities and teacher education institutions about overall training needs.

Teachers are ranked in four categories: *excellent*, *competent*, *basic* or *unsatisfactory*. Teachers evaluated as *excellent* or *competent* have preferential access to professional development opportunities, internships abroad, mentorship positions, and participation in conferences and seminars, among other things. Teachers rated with a *basic* or *unsatisfactory* performance follow a tailored professional development programme, and receive another evaluation a year later. If the second evaluation is still not satisfactory the teacher is removed from his or her teaching post and follows a second improvement plan, after which a third evaluation is organised one year later. A third unsatisfactory evaluation results in removal from the education system. In 2003, about 4 000 primary school teachers were evaluated with the following distribution of results: 9% were assessed as excellent, 57% competent, 30% basic and 4% unsatisfactory.

6.2.5. Recertification of teachers

Teacher recertification describes a process by which teachers who are already working in the school system renew their teaching licence at regular intervals. This renewal is typically based on proving that a teacher has obtained positive assessments in performance evaluation and/or has taken part in a required number of professional development courses based on core standards of teaching. Recertification of teachers is a comparatively rare practice across countries taking part in the project. Where it happens it tends to be based on the latter approach – teachers successfully completing designated professional development activities – rather than more direct assessments of their performance in the classroom.

Several states in the United States have passed laws that make renewing teaching licences at regular intervals mandatory. In February 2000, for example, the Illinois State Board of Education's new teacher recertification legislation became effective. The law now requires all teachers to renew their licences every five or ten years by engaging in high-quality professional growth activities. To maintain a teacher certificate as "valid and active", certificate holders must complete *Certificate Renewal Plans* that include: i) at least three personal goals for improvement; ii) a statement of the knowledge and skills to be enhanced, reflecting relevant professional teaching or content area standards for each goal; iii) the professional development activities to meet those goals; and iv) projected timelines for completing the activities within the five-year period of validity (*Standard*) or ten-year period (*Master*). Teachers must submit their plans to their district's *Local Professional Development Committee*. The committee approves the plans, verifies that activities have been completed, monitors progress, and recommends whether certificates should be renewed.

In June 2001, the Canadian Province of Ontario passed legislation requiring all teachers to earn 14 professional development credits every five years in seven core categories (curriculum, knowledge, student assessment, special education, teaching strategies, classroom management and leadership, use of technology, and communicating with parents and students) with accredited training institutions to maintain their certification. The Ontario College of Teachers, the teacher professional organisation, received information from approved providers whenever teachers had successfully completed approved courses.

Due to a highly controversial debate, however, the newly elected Ontario government repealed the recertification programme in December 2003.

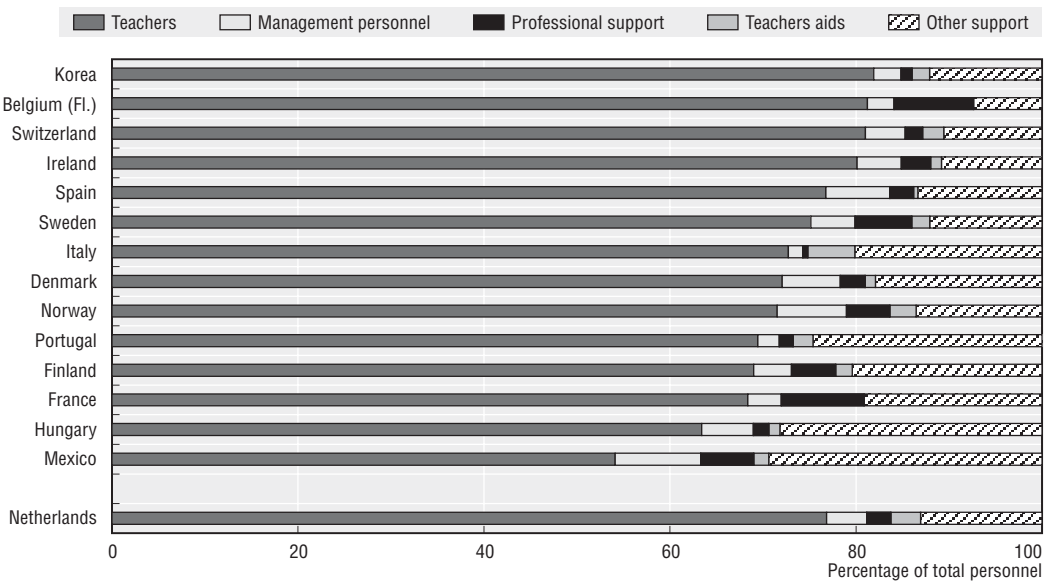
Teacher recertification has certain clear benefits: It provides strong incentives for teachers to update their knowledge and skills continuously and it allows school systems to identify core areas in which teachers need to keep improving. If recertification is based on profession-wide standards of good practice, it enables a system to create a coherent understanding of what teacher professionalism means, and should help to build public confidence in the schools and teaching. However, it is not clear that recertification programmes based on teachers completing designated developmental activities are necessarily going to be cost-effective. Professional development is important, but there also needs to be a close link between recertification and what teachers are actually doing in schools and what their students are learning.

6.2.6. Promotion and career diversification

In most countries opportunities for promotion and new responsibilities are generally limited for teachers who want to stay in the classroom. Promotions generally involve teachers spending less time in classrooms, and therefore diminish one of the major sources of job satisfaction. Even for those who would like to take on more roles outside the classroom, the opportunities in many countries are still quite limited. As Figure 6.7 shows, in 2001, on average only about 5% of the staff working in upper secondary schools were classified as management personnel, and only 4% were classified as professional support personnel.

Figure 6.7. **Distribution of school staff by personnel category according to reports by school principals, upper secondary schools, 2001**

Full-time equivalents



Notes: For Ireland data should be interpreted with caution due to a possible slight inflation in the number of professional support personnel and other support personnel. The Netherlands did not meet international sampling requirements.

Management personnel includes professional personnel who are responsible for school management and administration, *i.e.* principals, assistant principals, headmasters, and assistant headmasters. *Teacher aids* includes non-professional personnel or students who support teachers providing instruction to students. *Professional support* personnel includes professional staff who provide student services, *e.g.* guidance counselors, librarians and psychologists. *Other support* personnel includes maintenance and operations personnel, *e.g.* receptionists, secretaries, plumbers, drivers, cleaning personnel, etc.

Source: OECD ISUSS database, 2003. Published in OECD (2004b).

Box 6.5. **Providing greater career diversity in Australia, England and Wales, Ireland, Quebec (Canada), and the United States**

In *Australia*, teachers typically have access to a career structure that involves two to four stages with annual salary increments within each stage. The stages normally range from beginning teacher to experienced teacher, to experienced teacher with responsibility (leading teacher) or learning area or grade level co-ordinator, assistant principal, principal, and regional/district office positions. Advancement from one stage to the next, especially at the higher levels, usually requires applying for widely advertised vacancies. Teachers, as they move up the scale, are expected to have deeper levels of knowledge, demonstrate more sophisticated and effective teaching, take on responsibility for co-curricular aspects of the school, assist colleagues and so on. By "leading teacher" stage, they are expected to demonstrate exemplary teaching, educational leadership, and the ability to initiate and manage change.

In *England and Wales*, the new career grade of Advanced Skills Teacher (AST), introduced in 1998, is designed to allow teachers who wish to stay in the classroom an alternative route for career development. Their role is to provide pedagogic leadership within their own and other schools; typically, they will spend 20% of their time in an "outreach" role supporting professional development of their colleagues, and teach in class for the remaining time. Teachers can take up an AST post at any point in their career but in order to do so must pass the AST assessment. They prepare a portfolio that shows how they meet the prescribed standards for the grade, which is evaluated by an external assessor. The assessor also interviews the applicants and observes their professional practice. In July 2004 some 5 000 teachers had passed AST assessment. The intention is that the grade will ultimately form between 3% and 5% of the workforce.

Ireland has introduced four categories of promotion posts: Principal; Deputy Principal; Assistant Principal; and Special Duties Teacher. They have each special management duties, and receive both salary and time allowances. In addition to classroom teaching, Assistant Principals and Special Duties Teachers have special responsibility for academic, administrative and pastoral matters, including timetabling arrangements, liaison with parents' associations, supervising the maintenance and availability of school equipment, and so on. They are selected by a panel, which consists of Principal, chair of the Board of Management and an independent external assessor. Over the course of their career about 50% of teachers can expect to receive one of these positions.

In *Quebec* experienced teachers can work as mentors for student teachers. Experienced teachers coach and guide the student teachers, undertake specific training, and they receive either additional pay or a reduction in classroom teaching responsibilities. About 12 000 teachers participate in the mentor programme. Some of these experienced teachers also have an opportunity to become co-researchers with university staff and to participate in collaborative studies on subjects such as teaching, learning, classroom management and student success or failure. In addition, experienced teachers may receive time release from their normal duties to provide support for less experienced colleagues.

In the *United States*, the Milken Family Foundation's Teacher Advancement Project (TAP) is a recent initiative that aims to create more opportunities for promotion and career advancement for classroom teachers. Each school adopting the TAP programme offers three levels of teacher positions: career teacher; mentor teacher and master teacher. Master and mentor teachers are selected through a competitive performance-based process. Successful applicants take on additional responsibility and authority, and are required to have a longer work year. Each level offers separate pay structures. The Foundation provides training and certification services to prepare master and mentor teachers to conduct professional growth activities and teacher evaluations. The programme is based on three additional elements: ongoing, applied professional growth; instructionally focused accountability; and performance-based compensation. In early 2004, over 70 schools were at different stages of TAP implementation.

Teaching is often characterised as a “flat” career, with few recognised roles outside of the classroom and few promotion and career diversification opportunities. Roles such as mentor of beginning and trainee teachers, co-ordinator of in-service training, school project co-ordinator and curriculum development staff would help meet school needs and introduce career diversity without necessarily making schools more hierarchical.

Some countries are moving to open more career opportunities for teachers, stimulated in part by the greater variety of roles in schools that have been delegated significant decision-making responsibilities. Such roles include departmental head, team leader, and manager of curriculum development and/or personnel development. Such posts, which represent the introduction of “middle management” positions in schools, normally involve higher pay, reduced classroom teaching hours, or some combination of both. Box 6.5 provides recent examples from Australia, England and Wales, Ireland, Quebec (Canada) and the United States.

Similar developments are evident in the health sector. For example, in the United Kingdom, the Department of Health has recently promoted career progression in the nursing profession by extending the roles of nurses, increasing the number of senior nurses and nurse consultants (Simoens and Hurst, 2004).

6.2.7. Leadership and school climate

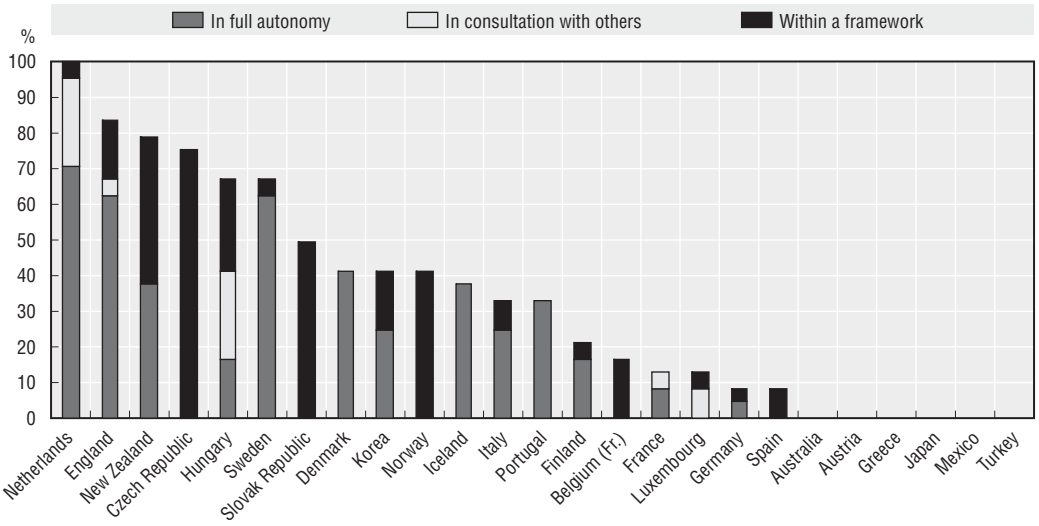
Research has shown that school leadership is an important influence on teacher retention by helping to foster a stimulating and supportive school culture, as well as helping to buffer teachers against mounting and sometimes contradictory external pressures (Mulford, 2003). Skilled leaders can help foster a sense of ownership and purpose in the way that teachers approach their job, introduce shared leadership and build collegiality, provide professional autonomy to teachers and help teachers achieve job satisfaction and continue to develop professionally. Teachers who work together in meaningful and purposeful ways have been found to be more likely to remain in the profession because they feel valued and supported in their work.

In many countries, principals are no longer seen as "head teachers,” but rather as leaders and managers of increasingly complex organisations. School principals and other school leaders are now often perceived as critical for the success or failure of a school. School leaders are increasingly expected to create a collaborative work ethos among staff members, to acquire and to allocate resources, to promote teacher professional development, to improve students' performance, to build effective community partnerships, and to manage innovation and reform (Drake and Roe, 2003; Pierce, 2000). These are demanding requirements, and this project activity has revealed major concerns within a number of countries about attracting and supporting effective leaders in schools, especially in the context of greater school decision-making responsibility.

Figure 6.8 gives an overview, for a number of countries, of the extent to which school leaders are involved in three particular domains of personnel management in public schools: hiring and dismissal of staff; determination of duties and conditions of service of staff; and fixing of staff salaries. In countries such as the Czech Republic, England, Hungary, the Netherlands, New Zealand, the Slovak Republic and Sweden most such personnel decisions are taken at the school level but with different degrees of autonomy. For instance in the Czech Republic, Hungary, New Zealand and the Slovak Republic, a majority of school-level personnel decisions are taken either in consultation with others or within a framework set by a higher authority. By contrast, schools have much more autonomy for personnel decisions in England, the Netherlands and Sweden. There seems to

be little school involvement in the designated areas of personnel management in Australia, Austria, Germany, Greece, Japan, Mexico, Spain and Turkey.

Figure 6.8. **Percentage of decisions relating to personnel management taken by schools by mode, lower secondary education, public schools, 2003**



Notes: Countries are ranked in descending order of the percentage of decisions taken at the school level. The domain "personnel management" considers the hiring and dismissal of staff; the duties and conditions of service of staff; and the fixing of salaries. The school level includes school administrators and teachers or a school board or committee established exclusively for individual schools. "In full autonomy" means that decisions are subject only to any constraints contained in the constitution or in legislation that is of a general nature and not specifically aimed at education. "In consultation with others" means that decisions are taken in consultation with bodies located at another level within the education system. "Within a framework" means that decisions are taken within a framework set by a higher authority *(e.g.*, a binding law, a pre-established list of possibilities, a budgetary limit, etc.). Data for Turkey refer to primary education. See OECD (2004a) for further details.

Source: OECD (2004a).

To help meet the enhanced expectations and responsibilities, many countries now provide school principals and senior staff with significantly more training, assistance and guidance than they received in the past. For instance, England has taken a number of initiatives such as the development of school leadership programmes (*e.g.* the Headship Induction Programme), the creation of the National Professional Qualification for Headship, and the establishment of the National College for School Leadership (see Box 6.6). In 2004 Australia established the National Institute for Quality Teaching and School Leadership which aims to support and advance the teaching profession and innovation in schools; the governing board is predominantly drawn from principal and teacher associations. Some countries offer specific university qualifications in school leadership, while others focus on on-the-job training opportunities.

Sweden has a long-standing four-step approach to principal training: recruitment of those who want to become principals; induction for those newly appointed; a national professional development programme after two years in the job; and ongoing career development, including university courses and extensive support from professional associations of school leaders (Johansson, 2002). In the United States, "New Leaders for New Schools" is a public-private partnership dedicated to recruiting and training inner-city principals. Prospective principals receive seven weeks of tuition-free training in educational leadership, a one-year paid "residency" under the tutelage of a master principal and, once in

charge of their own schools, two years of intensive professional development (Goldstein, 2001).

Box 6.6. **Leadership programmes for school principals in England**

In England, since 1995 there has been a rapid development in school leadership programmes. The *Headship Induction Programme*, which was launched on 1 September 2003, offers tailored training and support in a head teacher's first three years in post. A grant of £2 500 is available for head teachers taking part in the programme to purchase training.

The *National Professional Qualification for Headship* (NPQH) was introduced in 1997 and re-launched in 2000 following wide-ranging consultation. It is delivered through activities in school, training sessions, tutorials and e-learning. Over 8 600 individuals are currently undertaking NPQH and over 12 900 have completed the programme. From April 2004, all those taking up their first headship position in maintained schools must hold the NPQH or be working towards it.

The *Leadership Programme for Serving Heads*, established in 1998, is designed for current principals to reflect on and develop their leadership skills. These courses are administered by the *National College for School Leadership*, which was launched in 2000. It has developed a range of programmes to support groups that are under-represented in school leadership positions, such as women and cultural minorities.

The programme *Leading from the Middle*, which began in 2003, is training middle-level leaders, working in small teams within a school or group of schools to enhance their leadership skills, receive coaching and support from a senior colleague in school, and review the changing role of the middle leader. The aim is to have some 7 000 participants in the programme in 2004/05.

Evaluations by the Office for Standards in Education (Ofsted) and Earley *et al.* (2002) concluded that leadership and management have improved in schools, and that the programmes provided are generally effective, though they do not always meet the diverse needs of all participants. Recommendations for improvement state that leadership programmes should include strategies for managing workload, work-life balance and disseminating good practice.

Standards of professional performance are increasingly being used to measure the success of school leader development programmes. Leithwood *et al.* (2002) compared five sets of standards for educational leadership development from the United States, Australia, the United Kingdom and New Zealand. They found that all five sets had a common emphasis on: financial management including hiring appropriate staff; being a role model; establishing professional development as an ongoing school-wide activity; monitoring and evaluating teacher and pupil progress; using test scores to guide curriculum and instruction; wide consultation; parent and community involvement and effective communication with all stakeholders and valuing diversity. Areas that were less commonly covered in the lists, or were missing altogether, were teacher leadership, balancing the full range of duties expected of the school leader, teacher morale, implanting innovations, marketing, working effectively with school councils, outreach or entrepreneurial functions, and working effectively within wider political and social contexts.

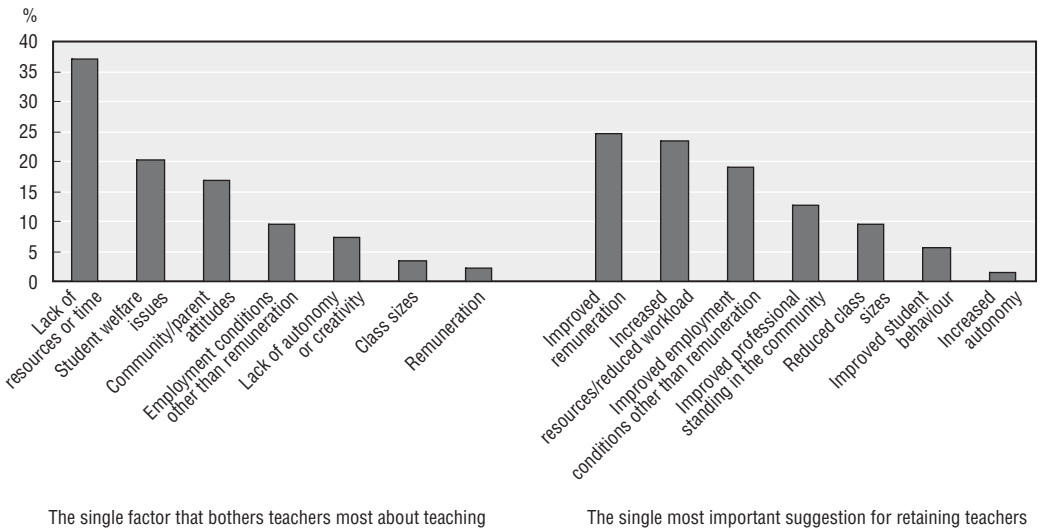
Although a number of promising initiatives and programmes are now underway, the overall impression is that the relationship between school leadership, school climate and teacher job satisfaction should be higher up the policy agenda.

6.2.8. Working conditions

As seen earlier, the particular reasons that teachers give for leaving teaching vary somewhat from country to country, as does the weight that they attach to individual factors. But it is clear that, aside from the attraction of what are seen as better career opportunities elsewhere or the role of personal circumstances, poor working conditions are often the reason teachers give for leaving the profession. These are typically associated with concerns about a heavy workload, a lack of resources and support, and dealing with difficult students and, increasingly, difficult parents.

As Figure 6.9 shows, Australian teachers identified "lack of resources or time" as the single most important source of concern about their teaching (37% of teachers). Correspondingly, "increased resources /reduced workload" was the second most common suggestion for retaining teachers (23% of teachers), just behind "improved remuneration" (25%). As noted earlier in Figure 6.3B, a survey of teachers in England revealed that "workload too heavy" was the main reason for leaving the profession when retirement and maternity factors were excluded, and "stress" was also indicated as one of the main reasons to leave. The Background Report prepared for Finland notes that "teachers perceive that rush causes the most stress in their day-to-day teaching work, because they feel that they cannot perform their compulsory work assignments within the time restrictions". A study by Korhonen (2000) revealed that 88% of Finnish teachers perceived increasing time pressure as a problem in their work.

Figure 6.9. **Factors identified by teachers as negatives of teaching, and teachers' suggestions for retaining teachers, Australia, 2002**



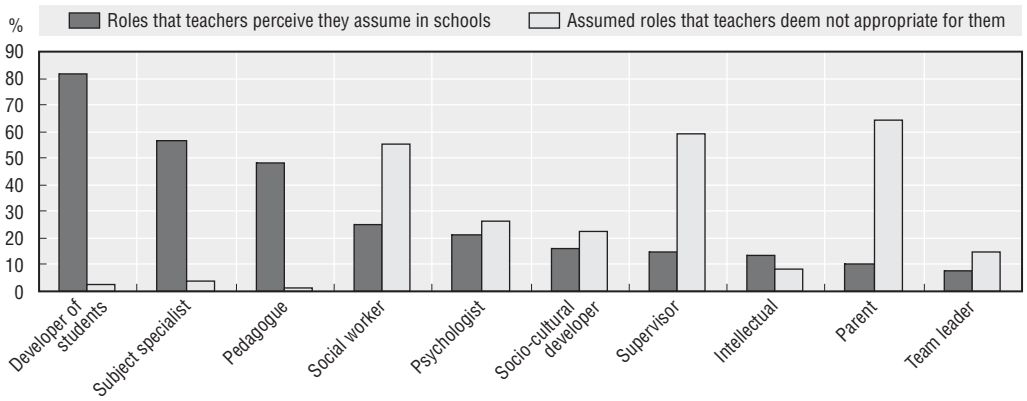
Note: Figures are based on a survey of 2 500 teachers from government and non-government schools, in metropolitan and non-metropolitan Australia, and from primary and secondary schools.

Source: Ministerial Council on Education, Employment, Training and Youth Affairs (2003).

One major challenge is that there is often a lack of any clear job profile or framework for a teacher's work at school. In some countries all that is specified is class teaching time, and this substantially understates the range of tasks teachers are expected to undertake. For example, Figure 6.10 shows the roles that secondary teachers in private Catholic grant-aided schools of the French Community of Belgium perform, but which they do not

consider appropriate given their training. These include "social worker" (identified by 55% of teachers), "supervisor" (59%), "parent" (64%) and "psychologist" (27%). The Australian survey data in Figure 6.9 also identified student welfare issues and community/parent attitudes as the second and third most important concerns that teachers have about teaching.

Figure 6.10. **Perceived roles of teachers in schools and assumed roles that they deem not appropriate for them, secondary teachers in the private Catholic grant-aided sector, French Community of Belgium, 1999**



Note: Figures are based on a survey of 3 600 secondary school teachers from the private Catholic grant-aided sector in the French Community of Belgium. Teachers were required to provide three answers only for each of the two aspects depicted above and so the percentage shown indicates the proportion of teachers who selected the corresponding option among the three answers provided.

Source: Maroy (2002).

Some of the additional tasks required of teachers stem from a lack of support staff. As shown in Figure 6.7 for upper secondary schools in a range of countries, "professional support" and "teacher aids" on average comprise only 4% and 2% of school staff members, respectively. On the basis of the country review visits, the number of support staff tends to be even more limited in primary schools.

England has recently launched an initiative that seeks to substantially expand the role and number of support staff in schools, and through this to improve teachers' working conditions (see Box 6.7).

Teachers also express concerns about regulations, which they perceive as both restricting their professional autonomy and also diverting time and energy from more important tasks. For example, as indicated by the Background Report prepared for the Flemish Community of Belgium "[Stakeholders] indicated that for some teachers an important reason for leaving teaching is that they are irritated by the far-reaching regulations, the restrictions of rules and the planning workload. Teachers are burdened with too many administrative tasks so that they can no longer carry out their core tasks." Similarly, the Danish Background Report notes that "The frustrations in a teacher's life are caused … especially by a working hours agreement, whose [excessive] inflexibility [diminishes] the professional liberty of action [of teachers]."

Box 6.7. **School Workforce Remodelling in England and Wales**

Raising Standards and Tackling Workload (the National Agreement with local authority employers, and support staff, teacher and head teacher unions) was signed in January in 2003. Remodelling is about helping teachers focus on their core teaching responsibilities. Teachers are no longer expected routinely to undertake administrative and clerical tasks. From September 2004 there are limits on the extent to which teachers have to take classes for absent colleagues and from 2005 they will have guaranteed time for planning, preparation and assessment.

At the heart of this reform is a wider role in schools for support staff. As well as expanding support staff numbers the programme improves training, qualifications and career opportunities. Developments include regulations which clarify the respective roles of teachers and support staff; guidance on the management and supervision of support staff; induction training for support staff; and expansion of the Teacher Training Agency's role to include support staff as well as teachers.

Implementation is being facilitated through the National Remodelling team (NRT) which assists schools to identify local solutions, manage change, and share experiences with other schools.

A primary school survey conducted for the Department for Education and Skills (DfES, 2004) showed that: use of support staff had increased in 70% of schools in the last three years;: 97% of respondents said teaching and learning improved; 57% of the respondents said teachers' stress was reduced; and about half of the respondents said the workload of teachers had decreased overall.

The country review visits indicated that in some countries schools often lack adequate facilities and resources to assist teachers in planning and preparation. Teachers often lack their own offices or work areas, and do not have access to information technology or to facilities to ensure that collaborative work is productive. One result is that in some countries teachers do not remain on school premises when they are not teaching, which can hinder collegiality and joint planning. For instance, full-time teachers in private Catholic grant-aided schools in the French Community of Belgium report that about two-thirds of their classroom preparation is done at home, and many indicate that they would stay longer at school if there were better staff facilities (Maroy, 2002). In this context, Korea provides an example of extensive ICT support available to teachers, as well as generally good staff facilities in schools (see Box 6.8).

Student discipline and school safety issues are additional causes of stress. For example, a study by Santavirta *et al.* (2001) reveals that 20% of Finnish teachers felt that student discipline problems caused them strain, and about 10% of teachers perceived bullying from students to be a daily source of stress. An evaluation by the State Provincial Offices carried out in Finnish compulsory schools in 2001 revealed that threats, violence and bullying directed at teachers had been reported in 20% of the schools. In the case of the United States, Ingersoll (2001) found that low salaries, inadequate support from the school administration, student discipline problems, and limited teacher input into school decision-making all contribute to higher rates of teacher turnover.

In countries where teacher incomes are low, such as Mexico and the Slovak Republic, teachers often have more than one job, either at another school or in a completely different field. The need to devote time to earning extra income makes it difficult for such teachers to become extensively involved in developing their school or working closely with their colleagues.

Box 6.8. **ICT support for teachers and students in Korea**

In 1996 Korea adopted the *Education Informatization Affirmative Master Plan* to develop ICT resources and support for students and teachers. All Korean teachers now have their own computer, classrooms are often equipped with big-screen TVs with an internet connection, all schools across the country are linked to the internet, and a high proportion of teachers have undertaken in-service training in ICT applications in schools.

In addition, two major online services have been launched. *Edunet* (www.edunet.net) is a comprehensive educational information service, which provides students, teachers, and the general public access to educational information and allows the creation of online learning communities. It is managed by the Korea Education and Research Information Service and in June 2002 had 5.3 million members. Among other services, it offers a "Teaching and Learning Resource Center". Teachers have access to multimedia teaching resources, designed to allow teachers to use ICT in their classes. Students have also access to a "Cyber Teacher" online service provided by qualified teachers and comprising "subject advice", "help in learning" and "questions and answers." Another innovative project is the *Teaching and Learning Center* (http://classroom.kice.re.kr) run by the Korea Institute of Curriculum and Evaluation. It provides comprehensive information on the new national curriculum, disseminates innovative teaching strategies and good practice, and provides extensive teaching materials, guidelines and assessment tools for teachers to use. Most schools have websites to improve communication among teachers, parents, students and the local community and to promote school programmes and teachers' work.

The research generally indicates that teachers who leave the profession often report that the factors which attracted them to teaching – working with students and colleagues, professional autonomy, and opportunities for personal and intellectual growth – were increasingly difficult to achieve in the day-to-day realities of the job. Although most keenly felt by young teachers, such factors are also cited by more experienced teachers as reasons for leaving the profession.

6.2.9. Retirement policies

Table 6.3 presented information about teachers' retirement age in a number of countries. The retirement age to obtain full pension benefits is generally about 60-65 years, with a range from 53 (for female teachers in the Slovak Republic) to 67 years (Norway). However, in all countries it is possible to retire earlier than this and receive some pension benefits. The actual average age of retirement among teachers is generally much lower, for example 54 years in Israel and 56 in Quebec. Some countries offer even more flexibility. For example, in Korea teachers can retire after 20 years of service regardless of age and in Israel teachers can retire at age 40 provided they have at least 10 years of service.

In almost all countries teachers are able to work in public schools beyond the regular "full" retirement age. In some cases there is an age limit for such arrangements (*e.g.* up to the age of 65 in France, 67 in Sweden and 70 in both Denmark and Norway). In Israel teachers above retirement age can only work up to 30% of the load of a full-time teacher. Among the countries covered in Table 6.3 only Greece, Korea and Spain prevent teachers from working in public schools beyond the legal retirement age.

The reasons for early retirement among teachers include the incentives offered by different pension schemes and the attraction of other non-work activities, but they also include stress and career burn-out. In the case of Germany for example, the average retirement age for teachers is 59 years, which is six years less than the regular full retirement age. In 2001 only 6% of German teachers worked until the age of 65. The Background Report prepared for Germany cited evidence from medical and psychological

studies indicating that up to one-third of teachers suffer from various physical, psychosomatic and psychological problems often described as the "burn-out syndrome".

In Germany, as in a number of other countries, the age structure of the teacher workforce indicates that the proportion of teachers retiring will rise over the next 5-10 years, and that this could put increased pressure on the teacher labour market. In addition to more recruitment difficulties, there will be a considerable loss of teaching experience and a potentially smaller pool of teachers from which to recruit the next generation of school leaders. As noted by the Australian Background Report "there are clearly important challenges to develop appropriate policies and strategies to ensure both a reasonable distribution of age bands overall and to ensure that, whatever the age of the teacher, the career itself is perceived to be attractive and have demonstrable benefits to students' education."

One part of the policy response concerns general policies towards retirement across the workforce as a whole and the public service in particular. In the light of increases in life expectancy, ageing populations, rising pension costs, and declining workforce participation among those aged 50 years and over, many countries are seeking to increase the normal age of retirement or at least remove some of the current incentives to retire early. Efforts are also underway to reform alternative pathways into early retirement (particularly long-term sick and unemployment benefits), assist older workers to stay in employment, provide more flexible working conditions and address age discrimination in employment (OECD, 2003).

A number of countries are seeking to encourage older teachers to stay in teaching by creating more opportunities to work part-time, take extended leave, and reduce their working hours without jeopardising their long-term employment and pension rights. Some countries have developed programmes focused particularly on senior teachers as a means of reducing career burn-out and retaining their skills in schools. Initiatives in Germany, the Netherlands and Norway are described in Box 6.9.

Box 6.9. **New opportunities for experienced teachers in Brandenburg (Germany), the Netherlands and Norway**

In *Brandenburg (Germany)*, experienced teachers are eligible for a part-time employment scheme, under which they can cut their workload in half by accepting a salary reduction of about 20%. About 10% of eligible teachers used this scheme in 2002/03. Also, almost all Länder in Germany offer a sabbatical year to teachers whereby the teacher works longer hours for same pay or same hours for lower pay during a given period which is then used to fund the sabbatical year (this programme is not exclusively for experienced teachers).

In the *Netherlands*, the *BAPO* (regulation to stimulate the labour market participation of experienced teachers) scheme launched in 1994 uses the reduction of required teaching time to reward long service. Teachers aged between 52 and 55 can reduce working hours by 10% with a salary reduction of 2.5%. For teachers aged 56 and over, a 20% reduction of working hours is possible with a 5% salary reduction. In 2002, 41% of all eligible teachers in primary education and 47% in secondary education participated in the programme.

In *Norway* some municipalities are implementing "senior policies" for older teachers, which include targeted professional development activities, reduced classroom teaching hours and reduced hours working overall, and new tasks including curriculum development, advising other schools and mentoring beginning teachers.

6.3. Priorities for Future Policy Development

Many of the factors which make teaching an attractive career choice for new entrants are also important in encouraging people to stay in the profession. The strategies outlined in Chapter 3 for improving teaching's appeal to recent graduates and people from other careers – such as improving the image and status of teaching, ensuring competitive salaries and working conditions, and providing flexible forms of employment – will also encourage teachers to stay. However, once people have been in the job for some time, other factors also start to become important in shaping their attitudes to teaching as a career, including workload, interactions with students, school climate, facilities, support staff, school leadership, and opportunities for career growth. Such factors can be difficult for prospective teachers to assess, but surveys of current and former teachers indicate their important influence on whether teachers stay or leave.

Policy makers also need to be concerned about the continuing effectiveness of the teacher workforce. The policy goal, after all, is retaining effective teachers, which implies not only that all teachers have the opportunities, support and incentives to continue to improve and perform at high levels, but also that ineffective teachers do not remain in the profession. Some groups in public discussion want to focus mainly on the latter issue, to the detriment of the image and achievements of the large majority of teachers. Others do not seem to want to acknowledge that this is a real problem.

Although attractive salaries are clearly important in improving teaching's appeal, policy needs to address more than pay. Surveys of teachers indicate that teachers place a lot of importance on the quality of their relations with students and colleagues, on feeling valued and supported by school leaders, on good working conditions, and on opportunities to develop their skills. Such factors go to the heart of the way that schools and teaching are organised.

The policy suggestions in this section are drawn from country experiences and initiatives as documented in the Country Background Reports, the country review visits, and other research. They do not necessarily apply to all of the participating countries since in some cases the policies are already well underway, while others differ in the nature of the teacher retention issues they face.

Evaluating and rewarding effective teaching

A number of countries seem to lack a solid basis for recognising and rewarding the work of teachers. Public school teachers are not evaluated on a regular basis in half the countries participating in the project. A limited focus on teacher evaluation runs the risk of sending teachers an implicit message that their work is not important. Regular appraisal should be considered as an integrated, routine part of professional life.

There needs to be a stronger emphasis on teacher evaluation for improvement purposes (*i.e.* formative evaluation). This can be low-key and low-cost, and include self-evaluation, informal peer evaluation, classroom observation, and structured conversations and regular feedback by the principal and experienced peers. Designed mainly to enhance classroom practice, such appraisal would provide regular opportunities for teachers' work to be recognised and celebrated, and help both teachers and schools to identify professional development priorities.

As was discussed in Chapters 4 and 5, it is important for individual teacher appraisal to occur within a framework provided by profession-wide agreed statements of teachers' responsibilities and standards of professional performance. Principals and other senior

colleagues need to be trained in evaluation processes (and to be regularly evaluated themselves), and schools need to have the resources to meet identified needs in teachers' professional development. Evaluation frameworks and tools would assist principals and other senior staff, and also help teachers to better prepare for assessment –and to benefit from it.

Although the principal focus of formative assessment is on teacher improvement, it can also provide a basis for rewarding teachers for exemplary performance. For example, outstanding performance and contributions could enable teachers to progress two salary steps at once. Rewarding teachers with time allowances, sabbatical periods, opportunities for school-based research, support for post-graduate study, or opportunities for in-service education could be more appealing for many teachers and help to overcome the limited flexibility in raising salaries that applies in many systems.

Building a closer linkage between evaluation and reward, though, needs to ensure that the measures used to assess teacher performance are broadly based to reflect school objectives, and take account of the school and classroom contexts in which teachers are working. In many circumstances it may be more effective to focus on group recognition and rewards at the school or grade level rather than individual teacher rewards.

Ongoing, informal evaluation directed at teacher improvement must be distinguished from the evaluation needed at key stages in the teaching career, such as when moving from probationary status to established teacher, or when applying for promotion. Such evaluations, which are more summative in nature, need to have a stronger external component and more formal processes, as well as avenues for appeal for teachers who feel they have not been treated fairly.

Responding to ineffective teachers

There needs to be simple, transparent and accepted procedures for dealing with ineffective teachers. Although the number of such teachers is likely to be small, the problem is often not addressed, which causes difficulties not only for schools and the general teaching force, but also for the poorly performing teachers themselves.

Stronger systems of initial teacher education, more rigorous approaches to selection and probation before teachers are granted tenure, and ongoing, regular formative teacher evaluation will help to prevent poor teachers from entering and remaining in the profession. However, in such a large profession, preventive measures cannot be relied upon exclusively, and there are also likely to be individual cases where formerly competent teachers start to perform below expectations for a variety of reasons.

The initial focus needs to be on regular, ongoing teacher evaluation providing clear and constructive feedback to teachers on their performance, and jointly identifying appropriate developmental strategies. However, if improvements do not occur, processes should exist to move ineffective teachers either out of the school system or into non-teaching roles. At these stages it would be important for authorities external to the school, including representatives of the teaching profession, to become involved in decision-making and for appeals mechanisms to protect individual teachers' rights.

Providing more support for beginning teachers

The high attrition rates experienced by beginning teachers in some countries require special attention. As was proposed in Chapter 4, all beginning teachers should participate in structured induction programmes that involve a reduced teaching load, trained mentor teachers in schools, and close partnerships with teacher education institutions. In addition,

the criteria and processes used to allocate teachers to schools should ensure that new teachers are not concentrated in the more difficult and unpopular locations.

Providing more opportunities for career variety and diversification

The teaching career in a number of countries could benefit from diversification, which would help meet school needs and also provide more opportunities and recognition for teachers, including those who wish to remain focused on classroom teaching. For these objectives to be achieved, a dual approach is needed: (i) the creation of new positions associated with specific tasks and roles in addition to classroom teaching, which would lead to differentiation of a largely horizontal kind; and (ii) a competency-based teaching career ladder associated with extra responsibilities, which would lead to differentiation that is more vertical in nature.

The recognition that schools and teachers need to take on a greater range of tasks and responsibilities calls for the creation of roles such as mentor of beginning and trainee teachers, co-ordinator of in-service training, and school project co-ordinator. Such roles, which would not necessarily involve differentiated pay but instead release time from classroom teaching, could be for fixed periods to enable a wider group of teachers to take part and gain experience.

On the other hand, in order for teachers to build a career that reflects their developing skills, performance and responsibilities, there would be merit in considering a performance- and competency-based professional career ladder. Such systems define teacher competencies as a part of a lifelong learning continuum, make intensive use of formative evaluation, and generally have a minimum of three different stages moving from beginning teacher to established teacher and to advanced or expert teacher. Each stage progressively becomes more demanding with more responsibilities, and is open to fewer people, but involves a significant rise in status and compensation. Roles associated with extra responsibility include departmental head, team leader, and curriculum and/or personnel development manager.

A professional career ladder would be a marked departure from the current model of a teacher's career in most countries, which involves a steady, largely automatic progression for nearly everyone over a very long time scale. Not only does the latter approach lead to a steady increase in total system costs as the workforce ages, it may not be attractive to the skilled and motivated people that schools need to attract and retain as teachers.

Improving leadership and school climate

Given the critical role of school principals and other leaders in school and teacher development, it is disturbing that a number of countries report that they are struggling to attract well-qualified applicants to take on leadership roles. Priorities include improved training, selection and evaluation processes for school leaders, upgraded support services, and providing more attractive compensation packages.

Given the range of responsibilities that principals have, it is important that there be a leadership team in each school to share the load and ensure effective delivery. This would enable the principal to focus on educational leadership for improving learning and teaching of students and staff, rather than concentrating mainly on administrative tasks. In a number of countries principals need additional administrative support to gain more time for important tasks related to educational leadership, such as teacher performance appraisal, teacher coaching and designing professional development. The need for extra support seems to be a particular priority in primary schools.

In reflection of their importance in the school system, principals' positions should be openly advertised on the basis of clear criteria. Professional development activities, formal qualifications and leadership experience as a teacher should be taken into account when appointing principals. Selection of principals should be done through a broadly-based panel including external experts. The renewal of principals' terms of office should result from a formal evaluation, and thus be dependent on their continuing effectiveness. Fixed-term contracts would also offer an opportunity for those who did not want to continue as principals to return to classroom teaching or look for other positions.

A key requirement is that principals and other school leaders be trained and supported in conducting teacher evaluations and linking this to professional development planning. Teachers must be able to see that principals and other school leaders are themselves evaluated on a regular basis, and that they actively engage in professional development.

Improving working conditions

In a number of countries teachers' workload has traditionally been conceived in terms of classroom teaching hours. This has formed the basis of industrial negotiations about teachers' pay and conditions, and shaped school staffing provision. Yet class teaching time is actually only one aspect of a complex job profile. The lack of explicit recognition of the wide variety of tasks that teaching actually entails can create stress through uncertainty about who is responsible for what, and add to workload because adequate resources are not always made available. The breadth and complexity of teachers' roles and responsibilities need to be explicitly recognised in job profiles. These can then be used as the basis for industrial negotiations, and used to shape teacher education and professional development programmes.

It is clear that in a number of countries the lack of support staff and adequate school facilities means that teachers are over-worked, but students are not gaining as much as they should from teacher expertise. Schools are complex organisations, and many different tasks are involved in delivering quality education. Well-trained professional and administrative staff can help to reduce the burden on teachers and free them to concentrate on the tasks of teaching and learning, and helping young people to develop, for which teachers are specially trained and from which they derive great job satisfaction. Better facilities at schools for staff preparation and planning would also help considerably in building collegiality and in programme provision.

Providing more flexible working hours and conditions

To make continuing in teaching an attractive option for people from a wide variety of personal and family circumstances, and from across the age range, it is necessary to provide flexible working conditions. These can include programmes that enable teachers to work part-time, take more leave opportunities, and reduce their working hours without jeopardising their long-term employment and pension rights.

In a number of countries early teacher retirements cause staffing problems and mean the loss of valuable experience from the schools. Part of the response depends on more general policy changes concerning retirement ages, pension schemes and the financial incentives for early retirement. However, school systems could be more proactive in ensuring that schools provide attractive working environments for older teachers. There is no benefit if older teachers continue working for extended periods because they feel they have to, but many older teachers may want to continue making a contribution. Therefore, programmes aiming at preventing career burn-out and retaining important skills in schools would be beneficial. The elements could include professional development activities tailored to meet

the needs of older teachers, reduced classroom teaching hours and reduced hours overall, and new tasks including curriculum development, advising other schools and mentoring beginning teachers.

One possible model would be to offer older teachers the option of a gradual reduction in their working hours for a lower salary, but retaining their long-term pension benefits. This would amount to substituting a gradual move away from full-time work to part-time work, rather than the early retirement that seems to be common in a number of countries. Older teachers would earn less but also work less, and the "saved" hours of work could be used to recruit additional young teachers. Such an approach could be largely budget-neutral. This would also ensure that the experience of older teachers would not be lost prematurely from the school system.

Of course, it is possible that some older teachers who currently have managerial roles in schools or education authorities would appreciate the opportunity to leave those posts and to focus on classroom teaching and working with young people. Policies for senior teachers must be individually tailored to meet the needs of the people and schools concerned.

Developing a more comprehensive approach

There is no single strategy that will ensure that all teachers will continue to develop and improve, and that effective teachers will wish to remain in teaching. Action is needed on a wide variety of fronts, including career structure, evaluation, work environments, and funding. Similar challenges exist in the health profession where there are major concerns about attracting and retaining high-quality nurses. Box 6.10 illustrates an interesting example from the United States that involved workplace strategies aimed at retaining nurses by enhancing their skills and empowering them, and also by recognising those hospitals that were successful in retaining nurses.

Box 6.10. **Organisational and workplace change in nursing in the United States**

In the early 1980s, the American Academy of Nursing conducted a study to identify which hospitals were successful in retaining nurses and which organisational features were shared by these hospitals. As a result, 41 Magnet Hospitals were identified that had a number of common organisational features that promoted and sustained professional nursing practice. These included open and flexible organisational structures, staff autonomy and accountability for decision-making, and investments in the education and expertise of nurses. These organisational attributes of Magnet Hospitals are associated with better patient outcomes and higher levels of patient satisfaction. Nurses have experienced higher levels of job satisfaction, lower rates of burn-out, increased perceptions of productivity and quality of care, and higher nurse retention rates. Although Magnet Hospitals tended to have a higher nurse-to-patient ratio, their larger wage bill was more than offset by shorter lengths of patient stay, less need for intensive care treatment, and lower staff turnover and recruitment costs.

In the early 1990s, the American Nurses Association through the American Nurses Credentialing Center established the Magnet Nursing Services Recognition Program to recognise excellence in professional nursing practice. This programme is available to all hospitals and represents a voluntary form of external professional nurse peer review that is based on a hospital's ability to meet 14 standards of nursing care. Certification as a Magnet Hospital involves a multi-stage process of written documentation and on-site evaluation by nurse experts. The programme requires hospital recertification every four years. In 2003 there were 90 Magnet-designated hospitals. *Source*: Derived from Box 4.3 in Simoens and Hurst (2004).

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Chapter 7

DEVELOPING AND IMPLEMENTING TEACHER POLICY

Summary

Teacher policy needs to draw on well-informed research, lead to sound agreements between stakeholders and offer solid implementation strategies. This chapter discusses the processes of consultation, development and implementation that underpin policies that work. It also examines the major gaps in the research and information base to support teacher policy, and suggests priorities for future work.

Experience from a number of countries indicates that unless teachers and their representatives are actively involved in policy formulation, and feel a sense of "ownership" of reform, it is unlikely that substantial changes will be successfully implemented. On the other hand, stakeholder groups should not be able to exercise a veto over education reforms that are mandated through democratic political processes. It is difficult to find the right balance, but open and ongoing systematic dialogue and consultation are fundamental to the process.

In addition to consultative mechanisms, there are also institutional arrangements that can help to promote dialogue and engage teachers and their professional associations in policy formation. This is illustrated by the development in several countries of Teaching Councils that provide teachers and other stakeholder groups with both a forum for policy development and, critically, a mechanism for profession-led standard setting.

It has also become apparent that the available data and information on teachers, their work and careers addresses only part of the spectrum covered by teacher policy, making the development of better national and international information on teachers a priority. In most countries there are also extensive research gaps concerning the teaching profession. Such research is important not only for improving the knowledge base for teacher policy, but also as a way of introducing new information and ideas to schools and ensuring that teachers engage more actively with new knowledge. Policy formulation would also benefit from more extensive monitoring and evaluation of innovation and reform, with more policies launched on a pilot basis before widespread implementation.

Teacher policy is a complex and often controversial area, and this chapter discusses the processes of consultation, development and implementation that underpin policies that work. It also examines the major gaps in the research and information base to support teacher policy, and suggests priorities for future work.

7.1. Engaging Teachers in Policy Development and Implementation

The issues raised in this report go to the heart of teachers' work and careers, and the success of any reform requires that teachers themselves are actively involved in policy development and implementation. Experience from a number of countries indicates that unless teachers and their representatives are actively involved in policy formulation, and feel a sense of "ownership" of reform, it is unlikely that substantial changes will be successfully implemented. On the other hand, stakeholder groups should not be able to exercise a veto over education reforms that are mandated through democratic political processes. To do so would be to risk losing the public support on which education so critically depends. It is difficult to find the right balance, but open and ongoing systematic dialogue and consultation are fundamental to the process.

Box 7.1. **Consultation and Teacher Policy Reform in Chile and Italy**

Chile

The Teachers' Act of 1991 was designed to introduce teacher evaluation systems in elementary and secondary schools. The scheme allowed employers to dismiss teachers who were negatively evaluated two years in a row. This evaluation system, however, had not been implemented because of objections from the Teachers' Association about the composition of the evaluation committees, and the fact that the system focused on punishment rather than improvement. However, teacher evaluation continued to be a topic of public and political concern throughout the 1990s. In response the Minister of Education established a technical committee comprising representatives of the Ministry, the Municipalities and the Teachers' Association. After several months the committee reached agreement on a model for teacher evaluation. At the same time, its members agreed to prepare guidelines for standards of professional performance and to implement a pilot project in several areas of the country to evaluate and adjust the procedures and instruments to be used. After wide consultations throughout the country and agreement with the teaching profession, a framework for performance standards was developed and officially approved. The pilot project for teacher performance evaluation has been applied in four regions. In June 2003 the Ministry, the Municipalities and the Teachers' Association signed an agreement that established the progressive application of the new evaluation system. (Details on teacher evaluation in Chile are provided in Boxes 6.2 and 6.4.)

Italy

In March 2003 major new legislation, *General regulations on education and basic level of performance regarding education and professional training*, was passed by the Italian Parliament. The legislation is considered a landmark in the decentralisation of education, and involves a major new focus on outcomes and quality. In order to pass this new legislation, numerous political activities and debates were undertaken throughout Italy; the Commission for Education and Culture of the Parliament scheduled many meetings with different stakeholders, community groups and experts. Committee members also offered direct access to citizens through email. Parents were a particular focus of the legislation, with initiatives to improve choice of school, provide better quality information, and strengthen school and system accountability. The legislation also encompassed establishment of a national evaluation system, and changes to initial and in-service teacher education requirements. The process took place over an 18-month period, and the widespread consultations were seen as vital in building the momentum for change.

When OECD Education Ministers met in Dublin in March 2004 there was a clear recognition of the importance of teacher engagement: "It is vital that teachers and their professional organisations are fully engaged in the debate about educational reform, and in the implementation of change. Ministers committed themselves to consultative and participatory processes, and were encouraged by the reports from some countries of the lead that teachers' organisations were taking in designing new approaches to teacher evaluation and career structures." (Dempsey, 2004).

The importance of teacher engagement was also noted by the ILO/UNESCO Committee of Experts on the Application of the Recommendations concerning Teaching Personnel (CEART): "Social dialogue is the glue for successful educational reform. Without full involvement of teachers and their organisations – those most responsible for implementing reform – in key aspects of educational objectives and policies, education systems cannot hope to achieve quality education for all." (CEART, 2003). However, the Committee also observed that "social dialogue in education remains a fragile process of decision-making in most [countries]."

System-wide consultations can be major drivers and facilitators of reform. Box 7.1 provides two recent examples from Chile and Italy in which extensive consultations laid the foundations for fundamental changes in teacher policy.

Consultations on matters affecting teacher policy also need to include groups such as teacher educators, employers and students. Box 7.2 outlines the range of consultation structures used in Hungary.

Box 7.2. **Consultation structures in Hungary**

In Hungary, various mechanisms of dialogue and consultation are established to provide professional and civil organisations with opportunities to present their interests in teacher policy reforms. The National Public Education Council (Országos Köznevelési Tanács) has the right to initiate and propose actions, to formulate opinion on the issues concerning school education (e.g. regulation of syllabus, course books, teaching equipment, examination system, in-service training of teachers). In several fundamental issues of public education the agreement of the Council is mandatory. Its members include representatives of teachers' professional educational organisations, teacher education institutes, the Hungarian Academy of Sciences, employers' associations and chambers as well as those delegated by the Minister of Education. The National Minority Committee (Országos Kisebbségi Bizottság) is invested with similar rights in the education of minorities; all national minority self-governments delegate one member to the Committee. The Council of Public Education Policy (Közoktatáspolitikai Tanács) acts for the Minister of Education as a board for preparing decisions, forming opinions and making proposals. It deals with every issue related to public education policy (except employer–employee relations). All significant professional, social and government partners are represented in this board, which is organised at the national level. The National Council for Students Rights (Országos Diákjogi Tanács) may submit proposals on decisions pertaining to students' rights. It consists of nine members – three are delegated by the Minister, three by the national student organisations for students between 6 and 14 years of age, and three by the student organisations for students between 15 and 18 years of age. Other consultative and policy bodies are concerned with tripartite issues between education sector unions, education employers, and the relevant Ministries; and the operation of vocational education and training.

In addition to consultative mechanisms, there are also institutional arrangements that can help to promote dialogue and engage teachers and their professional associations in

policy formation. Chapter 4 documented the development in several countries of Teaching Councils that provide teachers and other stakeholder groups with both a forum for policy development and, critically, a mechanism for profession-led standard setting and quality assurance in teacher education, teacher induction, teacher performance and career development. Such organisations seek to obtain for teaching the combination of professional autonomy and public accountability that has long characterised other professions such as medicine, engineering and law. This would provide teachers with greater input into the criteria for entry to their profession, the standards for career advancement, and the basis on which ineffective teachers should leave the profession. Box 7.3 outlines the development of the Teaching Council in Ireland.

Box 7.3. **The Teaching Council in Ireland**

A Teaching Council was launched in early 2005 and will be legally established on 1st March 2006. The Teaching Council seeks to promote and maintain best practices in the teaching profession and in teacher education and training. As a statutory body, the Council will regulate professional practices of teachers, oversee teacher education programmes and enhance teachers' professional development. It is expected that, through these activities, the Council will provide teachers with a large degree of professional autonomy and thereby enhance the professional status and morale of teachers. The main functions of the Teaching Council are to:

- Establish, publish and maintain a code of professional conduct.
- Establish and maintain a register of teachers.
- Determine the education and training requirements for teacher registration.
- Review and accredit programmes of teacher training.
- Regulate the induction and probation of teachers.
- Promote teachers' continuing education and professional development.
- Represent the teaching profession on educational issues and establish procedures for the exchange of information with teachers, organisations involved in education and the public.
- Advise the Minister on such issues as; the minimum standards of educational qualifications required for entry into programmes of teacher education and training, the professional development of teachers, teacher supply and on the work of the Council.
- Conduct inquiries into the fitness of teachers and impose sanctions on underperforming teachers, where appropriate.

The Council comprises 37 representatives from various parties involved in school education: 22 registered teachers, the other 15 from teacher education institutions, school management organisations, national parents associations, industry and business and Ministerial nominees.

In addition to system-level consultative mechanisms and policy-making bodies, it is also important that teacher engagement occurs at the school level. Box 7.4 provides examples from Spain and Sweden about teacher involvement at the school level, including, in the Swedish case, local implementation of national and regional collective bargaining agreements.

Box 7.4. **School-level Teacher Involvement in Spain and Sweden**

Spain

School participation mechanisms are well established through a number of different bodies:

- *The School Council* is the basic policy framing body, and generally includes the principal, director of studies, teachers, students, parents, local authorities, and non-teaching staff. Its responsibilities include developing guidelines for the overall school programme, the internal organisation of the school, the disciplinary regime, out-of-school activities and facilities management.

- *The Teachers' Assembly* is formed by the principal and the teachers. It is responsible for co-ordination of pedagogical issues such as the definition of student assessment criteria, the organisation of support classes for underperforming students, and the counselling and guidance of students.

- *Co-ordination bodies* within the teaching staff complement school organisation. These include: tutors, teams for different grade levels and pedagogical coordination committees.

Sweden

The principle of consensus is a central feature of the Swedish decision-making process. Dialogue and collaboration among various parties in the education sector is common, although it does not always result in consensus on changes in education policy. At the central government level, representatives of the Swedish Association of Local Authorities (SALA) and the teachers' unions often participate as experts in government committees or consultation groups on school policy. Stakeholders may also present their views through review bodies in connection with official inquiries and government proposals. Apart from such organised collaboration arrangements, various forms of talks and meetings offer opportunities for dialogue and consultations among parties.

At the local level and in individual schools, the Co-determination at Work Act guarantees that employers consult with employees before making major decisions about their workplace issues. Moreover, the employee representatives concluded an agreement in 1992 which sets the framework for collaboration in the workplace. Under this collaboration agreement, employers and teachers seek to reach solutions on matters concerning workplace conditions.

The need to more actively engage the teaching profession extends beyond reasons of politics and pragmatism. One of the main challenges for policy makers facing the demands of a knowledge society is how to sustain teacher quality and ensure that all teachers continue to engage in effective modes of ongoing professional learning. Research on the characteristics of effective professional development indicates that teachers must be active agents in analysing their own practice in the light of professional standards, and their students' progress in the light of standards for student learning.

Hargreaves (2003) has drawn attention to the difficulties of building collaborative cultures in schools, and of extending these beyond a few enthusiastic well-led schools and school districts. He argues that the approach adopted in a number of school systems amounts to "contrived collegiality", that is, collaboration imposed from above that "by crowding the collegial agenda with requirements about what is to be done and with whom, it inhibits bottom-up professional initiative … As a result teachers sometimes actually collaborate less or abandon collaborative ways of working once the urgency of

implementation or creating a school improvement plan has passed." (p. 130) He argues instead for the creation of professional learning communities within and beyond schools, which policy can be stimulated by policy that includes:

- Leadership development strategies that describe how to build and sustain learning communities.
- Building indicators of professional learning communities into processes of school inspection and accreditation.
- Linking evidence of commitment to professional learning communities to performance-related pay and measures of teacher competence used in recertification.
- Providing seed money for self-learning in schools and among schools.
- Professional self-regulation through processes and organisations that include all teachers.
- Supporting the development and extension of professional networks of teachers.

7.2. Improving the Knowledge Base to Support Teacher Policy

Identifying and filling data gaps

The activity has drawn heavily upon available data and information on teachers, their work and careers. In the process it has become apparent that this information addresses only part of the spectrum covered by teacher policy, and that there are many substantial gaps. Developing better national and international information on teachers would contribute to an understanding of the underlying issues and problems confronting countries.

Indicators for informing teacher policy should be able to serve three main purposes: inform the process of policy formation and allow key teacher policy issues to be addressed; reinforce public accountability by allowing judgments to be made about the quality and effectiveness of teaching and learning in schools; and provide insight into teacher policy issues and policy responses in other countries.

Specifically, a framework for indicators to inform teacher policy should describe:

- The societal and school factors that contextualise the teaching profession.
- Overall trends in the teaching profession and a profile of the teaching workforce.
- Trends, institutional structure, and outcomes of the preparation and development of teachers.
- Trends and factors in attracting individuals into the profession, including determinants of demand and incentive structure.
- Structural elements and outcomes of the teacher labour market, including recruitment procedures and selection criteria.
- Trends and factors in retaining effective teachers in schools, including school processes that shape teachers' work.

Such a framework would enable these dimensions to be related to characteristics such as: region of the country; characteristics of teachers; educational level and subject area; and type of school and programme. For example, although the current project was designed to encompass secondary teachers of vocational programmes, and teachers of students with special needs, relatively little information is currently available on policy issues concerning these types of teachers.

In addition, longitudinal data sets that follow groups of people over time, and which are important for understanding career decisions of teachers at key stages, could provide many important insights, but are largely unavailable in countries at the present time. There is also a particular lack of data that compare teachers' working conditions and careers with those in other professions. Much of the data and research used in teacher policy formulation are largely self-referential, and comparative information on other careers would help provide a perspective on trends and findings in regard to teachers – as well as ideas for change.

Appendix 2 provides an indicators framework for informing teacher policy along with an assessment of the general availability of data at both the national and international levels. Key areas in which data are lacking in many countries as well as at the international level include:

- The nature and severity of teacher shortages.
- The characteristics and backgrounds of entrants to teacher education, progression rates within teacher education and the impact of institutional structure and programme type on student success.
- The destinations of recent teacher education graduates, the reasons graduates do not enter teaching, and the early career experiences of new teachers including induction mechanisms.
- Attrition and turnover rates for teachers by background characteristics and school type, the reasons for leaving, and the destinations they choose.
- Teachers' attitudes towards their work, including the major sources of job satisfaction and dissatisfaction.
- Teacher time use, including the subjects taught and their relation to qualifications, and non-classroom tasks and responsibilities.
- Salaries, non-salary benefits and working conditions, in relation to occupations requiring similar qualifications.
- The provision of professional development including types of activities, time use and incentives.
- Support staff and the ways that their roles interact with those of teachers.

The OECD is working with countries to improve international data on teachers and their work, in particular through its Indicators of Education Systems (INES) project, which provided much of the data used in this report. The data gaps and priorities identified in the

project will feed into the future developmental work of INES.[1] In addition, the work of the Programme of International Student Assessment (PISA) in measuring student learning outcomes is contributing to a better understanding of the environment in which teachers work. Other international organisations such as the ILO, UNESCO, IEA (International Association for the Evaluation of Educational Achievement), and Eurydice are also producing significant work to improve the international information base on teachers. For example, the ILO and UNESCO have produced a statistical profile of the teaching profession in a wide range of countries throughout the world (Siniscalco, 2002). Eurydice has recently completed a comprehensive study of the teaching profession in Europe covering topics such as initial training and transition to working life (Eurydice, 2002a), teacher supply and demand (Eurydice, 2002b), and working conditions and pay (Eurydice, 2003).

Key research priorities

In most countries there are extensive research gaps concerning teachers' preparation, work and careers. Such research is important not only for improving the knowledge base for teacher policy, but also as a way of introducing new information and ideas to schools and ensuring that teachers engage more actively with new knowledge.

A crucial area in which research has yet to deliver more clear indications concerns the attributes that make a good teacher. This makes it difficult to design a set of standards teachers should meet and to conceive preparation and developmental programmes for teachers, or to devise strategies for dealing with ineffective teachers.

There is a lack of comparative and cross-national studies on initial teacher education. Several research gaps must be filled to learn more about effective teacher education and development: Which pedagogical courses and instructional methods best serve professional teacher preparation? What are the effects of subject matter courses and pedagogical courses, and which mix is most effective? Little is known about the impact of different forms of field experience on teacher effectiveness, or how these are best combined with more theoretical studies. Longitudinal research is needed on the entrants to initial teacher education and their subsequent careers, including those who enter the profession through alternative routes.

The effects of different induction models on job satisfaction, teacher effectiveness and teacher attrition should be more thoroughly measured. In particular, cross-national research could open new ideas about mentor recruitment, preparation and incentive schemes. Other research priorities include different approaches to the selection and training of school leaders, and the relationship between school leadership, school climate and teacher performance and job satisfaction.[2]

Little is known about the effects of different models of professional development on teacher effectiveness and motivation to learn. Research is needed to determine the efficacy of various types of professional development activities for different types of teachers at different stages of their career. At this stage little is known about the providers of teacher professional development and the ways that demand and supply interact.

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[1] OECD work to improve international data on teachers also includes the World Education Indicators (WEI) project conducted in collaboration with UNESCO.

[2] In 2005 and 2006 the OECD will be conducting a project on improving leadership in schools.

Career opportunities and the promotion process in the teaching profession have not been extensively studied, although education systems are now placing less emphasis on seniority in shaping career development. Current research tends to concentrate on the decision to become a teacher, and much less attention is paid to what motivates teachers in the profession. Further research is also required in the area of evaluation and accountability. Little is known about key features of effective teacher evaluation schemes and the factors in their successful implementation.

It is also clear that researchers have devoted relatively little attention to the elements that structure the teacher labour market – *e.g.* the role of teacher unions, contractual factors, bargaining mechanisms and recruitment practices. Questions to be addressed in the literature include: What are the effects of making schools the direct recruiters or employers of teachers? What are the effects of opening the profession to individuals with experience outside education by creating alternative pathways into teaching?

Perhaps the most substantial research gap is the limited attention paid to the cost-effectiveness of different policy alternatives. Although it is clearly important to know whether a given policy change is likely to affect student achievement, this is an insufficient basis for policy making. It is also necessary to measure the resources and costs involved, and to determine whether those resources could have produced greater gains if used in other ways.

Policy formulation would also benefit from more extensive monitoring and evaluation of innovation and reform. Countries are finding that they can capitalise more on the diversity within their systems by testing policy reforms on a pilot basis, with volunteer schools and regions, before widespread implementation. Identifying the factors involved in successful innovations and creating the conditions for their dissemination, mainstreaming and sustainability in other schools are central to an effective implementation strategy.

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Eurydice (2002b), *The Teaching Profession in Europe: Profile, Trends and Concerns*, Report II, Supply and Demand, General Lower Secondary Education, Key Topics in Education in Europe, Volume 3, Eurydice, Brussels.

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Appendix 1

HOW THE ACTIVITY WAS CONDUCTED

Background to the OECD Activity

The OECD Education Committee launched the Activity *Attracting, Developing and Retaining Effective Teachers* in April 2002. The OECD Education Ministers placed great importance on teachers in their April 2001 Communiqué *Investing in Competencies for All*. They set out a challenging agenda for schools in responding to rapidly changing societal needs and in providing the foundations for lifelong learning. The Ministers also drew a clear connection between the challenges facing schools and the capacity of the teaching profession.

> *"We have reviewed some of the development options for our schools. The more optimistic of these could be jeopardised if a serious teacher shortage occurs. We need to explore together strategies to attract and retain high-quality teachers and school principals."* Investing in Competencies for All, *(p.4).*

Teacher policy issues were also a focus of the meeting of OECD Education Ministers held in Dublin in March 2004. That meeting, which was concerned with *Raising the Quality of Learning for All*, included a discussion of policy initiatives to improve teacher supply and effectiveness. Ministers noted that "the quality of teachers and their work are key determinants of student learning and the improvement of school systems." (Dempsey, 2004).

Purposes of the OECD Activity

The OECD Activity was designed to respond to the strong interest in teacher policy issues evident at national and international levels. The overall purpose was to provide policy makers with information and analysis to assist them in formulating and implementing teacher policies leading to quality teaching and learning at the school level. The project's purposes, analytical framework and methodology are detailed in OECD (2002a). The main objectives were:

- To synthesise research on issues related to policies concerned with attracting, recruiting, retaining and developing effective teachers.
- To identify innovative and successful policy initiatives and practices.
- To facilitate exchanges of lessons and experiences among countries.
- To identify options for policy makers to consider.

The Activity was intended to extend and add value to the existing body of international work on teachers. The critical role that teachers play is reflected in a wide variety of other OECD activities including *Staying Ahead: In-service Training and Teacher Professional Development* (OECD, 1998), *Teachers for Tomorrow's Schools* (OECD and UNESCO, 2001) and the work by the Centre for Educational Research and Innovation (CERI) on *Schooling for Tomorrow* (OECD, 2001) and developing teachers' skills in formative assessment (OECD, 2005). In addition, the OECD has led a major effort to strengthen the international comparative database on teachers, including the annual publication *Education at a Glance*: *OECD Indicators*, and the developmental work of the Indicators of Education Systems (INES) *Taskforce on Teaching and Learning*. The latter, to a great extent building on the OECD Teacher Policy Activity, has established the foundations of an international survey of teachers, teaching and learning which it is proposed will be conducted periodically.

The growing attention to teacher policy is also evident in the work of other international organisations, including: the Council of Europe; the European Commission; the European Training Foundation; Eurydice; the International Association for the Evaluation of Educational Achievement (IEA); the International Labour Organisation (ILO); the United Nations Educational, Scientific and Cultural Organization (UNESCO); UNESCO European Centre for Higher Education (CEPES); UNESCO International Institute for Educational Planning (IIEP); and the World Bank. The OECD Activity has benefited from close co-operation with these international organisations, and with the Business and Industry Advisory Committee to the OECD (BIAC) and the Trade Union Advisory Committee (TUAC).

The Activity focused on primary and secondary schools. It encompassed vocational programmes that serve secondary students, and special education programmes that enrol students of school age, although in practice few of the country reports provided much data on vocational or special needs teachers. The Activity's design included both public and private schools, although in practice much of the country data and policy discussion has concentrated on schools in the public sector. While the major focus was on teachers, the scope included other staff working in schools, and the ways in which their roles interact with those of teachers.

Methodology and Country Participation

Cross-Country Collaboration

The Activity was based on volunteer countries working collaboratively with each other and with the OECD Secretariat. It involved examining country-specific issues and policy responses in attracting, developing and retaining effective teachers, and placing these experiences within a broader, international framework to generate insights and findings relevant to countries as a whole.

The collaborative approach provided countries with an opportunity to learn more about themselves by examining their experiences against those of other countries. It was also intended to add to the broader knowledge base by accumulating international evidence on the impact of policy reforms, and the circumstances under which they work best.

Two Complementary Strands

The project involved two complementary approaches: an *Analytical Review strand*; and a *Country Review strand*. The Analytical Review strand used several means – Country Background Reports, literature reviews, data analyses and commissioned papers – to analyse the factors that shape attracting, developing and retaining effective teachers, and possible policy responses. All 25 participating countries were involved in this strand. In addition, nine countries also chose to host a Country Review, which involved external review teams undertaking an intensive case study visit whose conclusions were then reflected in a Country Note.

Participating Countries

The countries taking part in the project were:

- *Analytical Review strand* (25 countries, involving 26 Background Reports): Australia; Austria; Belgium (Flemish Community); Belgium (French Community); Canada (Québec); Chile; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea; Mexico; the Netherlands; Norway; the Slovak Republic; Spain; Sweden; Switzerland; the United Kingdom; the United States.
- *Country Review strand* (9 countries involving 10 review visits): Austria; Belgium (Flemish Community); Belgium (French Community); Germany; Hungary; Italy; Korea; Spain; Sweden; Switzerland.

National Co-ordinator

Each participating country appointed a National Co-ordinator. The Co-ordinator was responsible for: communications with the OECD Secretariat about the Activity; communications within the country about the Activity; ensuring that the Country Background Report was completed on schedule; liaising with the OECD Secretariat about the organisation of the review team visit for those countries which participated in the country review strand; attending international meetings and workshops associated with the Activity; co-ordinating country feedback on draft materials; and assisting with dissemination activities. National Co-ordinators are listed in Table A.1.

National Advisory Committee

Most participating countries appointed a National Advisory Committee representing key stakeholder groups. Its role included supporting the work of the National Co-ordinator, overseeing the preparation of the Country Background Report, and assisting in the Activity more generally. Where a country decided not to establish a National Advisory Committee, it established processes for ensuring that the Country Background Report adequately reflected the views and perspectives of the different stakeholder groups concerned with teacher policy.

Country Background Report

All participating countries prepared a Country Background Report. These were prepared in response to a common set of issues and questions, and used a common framework to facilitate comparative analysis and to maximise the opportunities for countries to learn from each other. The Background Reports were a major source of material for this report. The guidelines for preparing the Country Background Reports are detailed in OECD (2002a).

The Country Background Reports were intended to be about 70 pages in length and to be structured around the following main chapters:

1. *National context*
2. *The school system and teaching workforce*
3. *Attracting able people into the teaching profession*
4. *Educating, developing and certifying teachers*
5. *Recruiting, selecting and assigning teachers*
6. *Retaining effective teachers*

Table A.1. **National Co-ordinators in the Participating Countries**

Country	National Co-ordinator
Australia	Ms. Georgina Webb, Department of Education, Science and Training
Austria	Ms. Dagmar Hackl, Federal Ministry of Education, Science and Culture (until November 2003 and from May 2004) Ms. Sonja Euller, Federal Ministry of Education, Science and Culture (from December 2003 to May 2004)
Belgium (Flemish Comm.)	Mr. Guy Janssens, Ministry of Education of the Flemish Community
Belgium (French Comm.)	Mr. Dominique Barthélémy, Ministry of the French Community of Belgium
Canada (Québec)	Mme Sylvie Turcotte, Ministry of Education, Québec
Chile	Ms. Vivian Heyl, Ministry of Education
Denmark	Mr. Laust Joen Jakobsen, Centre for Higher Education, Greater Copenhagen Mr. Jørgen Thorslund, Centre for Higher Education, Greater Copenhagen
Finland	Ms. Birgitta Vuorinen, Ministry of Education (until December 2002) Ms. Maija Innola, Ministry of Education (from January 2003)
France	Mme Nadine Prost, Ministry of National Education, Higher Education and Research
Germany	Mr. Michael Krueger, Ministry of Education of Hesse
Greece	Mr. George Bagakis, Education Research Centre of Greece Ms. Fani Stylianidou, Education Research Centre of Greece
Hungary	Mr. László Limbacher, Ministry of Education
Ireland	Mr. Ian Murphy, Department of Education and Science, (until September 2003) Ms. Emer Egan, Department of Education and Science (from October 2003)
Israel	Ms. Nora Cohen, Ministry of Education Ms. Ruth Zuzovsky, Tel-Aviv University
Italy	Ms. Caterina Veglione, Ministry of Education, Universities and Research
Japan	Mr. Noriyuki Takeshita, Ministry of Education, Culture, Sports, Science and Technology (until July 2004) Mr. Hayashi Towatari, Ministry of Education, Culture, Sports, Science and Technology (from July 2004)
Korea	Ms. Ee-gyeong Kim, Korean Educational Development Institute
Mexico	Ms. Dulce María Nieto de Pascual, Ministry of Public Education (until November 2003) Mr. Francisco Deceano, Ministry of Public Education (from December 2003) Mrs. Maria del Refugio Guevara, Ministry of Public Education (from December 2003)
Netherlands	Mr. Ben van der Ree, Ministry of Education, Culture and Science (until December 2002) Mr. Hans Ruesink, Ministry of Education, Culture and Science (from January 2003)
Norway	Mr. Vidar Sollien, Norwegian Board of Education
Slovak Republic	Mr. Vladislav Rosa, State School Inspection
Spain	Ms. Myriam Valle, Ministry of Education, Culture and Sport (until September 2002) Ms. Paz De La Serna, Ministry of Education, Culture and Sport (from October 2002)
Sweden	Ms. Ingrid Holmbäck-Rolander, Ministry of Education and Science (until August 2003) Ms. Annelie Sträth, Ministry of Education and Science (from September 2003) Ms. Ann-Katrin Wirén, Ministry of Education and Science (from September 2003)
Switzerland	Mr. Stefan Denzler, Swiss Coordination Centre for Research in Education Mr. Stefan Wolter, Swiss Coordination Centre for Research in Education
United Kingdom	Ms. Hazel Briant, Department for Education and Skills (from October 2002 to March 2004) Ms. Hilary Emery, Department for Education and Skills Mr. Max Galla, Department for Education and Skills (from May 2004) Mr. Robert Mace, Department for Education and Skills (until February 2003)
United States	Ms. Kate Walsh, National Council on Teacher Quality

Chapters 3 to 6 concentrate on the identification of the main policy concerns, a description of trends and main causal factors, and a discussion on relevant policy initiatives and their impact.

The work on the Country Background Reports took place mainly between June 2002 and December 2003. Countries differed somewhat in the time they joined the study and time needed to complete and publish their Country Background Report. Countries also differed in the extent to which they were able to include current data and policy developments in their reports. Therefore the Country Background Reports do not all refer to the same period, although most encompass developments up to about 2002. In early 2004 some countries prepared updates on their Country Background Report for publication on the project website.

The Country Background Report is intended for four main audiences: the OECD Secretariat and other countries participating in the Activity as an aid to sharing experiences and providing material for this report; the team of external reviewers who visited the countries who took part in the Country Review strand; those interested in teacher policy issues within the country concerned; and those interested in teacher policy issues at the international level and in other countries. The authors of the Country Background Reports are listed in Table A.2.

Table A.2. **Authors of the Country Background Reports**

Country	Authors
Australia	Mr. Malcolm Skilbeck, Connell Skilbeck Educational Consultancy and Research Ms. Helen Connell, Connell Skilbeck Educational Consultancy and Research
Austria	Ms. Dagmar Hackl, Federal Ministry of Education, Science and Culture
Belgium (Flemish Community)	Mr. Geert Devos, University of Ghent / Vlerick Management School Ms. Karlien Vanderheyden, University of Ghent / Vlerick Management School
Belgium (French Community)	Mme Jacqueline Beckers, Université de Liège M. Steve Jaspar, Université de Liège Mme Marie-Catherine Voos, Université de Liège
Canada (Pan-Canadian Overview)	Council of Ministers of Education
Canada (Quebec)	M. Clermont Gauthier, Université Laval M. M'hammed Mellouki, Université Laval
Chile	Co-ordinated by: Ms. Paula Darville, Ministry of Education Mr. Mauricio Farías, Ministry of Education Mr. Cesar Muñoz, Ministry of Education, under the supervision of Vivian Heyl, Ministry of Education
Denmark	Mr. Jens Christian Jacobsen, Centre for Higher Education, Greater Copenhagen Mr. Jørgen Thorslund, Centre for Higher Education, Greater Copenhagen
Finland	Ms. Maija Innola, Ministry of Education Mr. Touko Hilasvuon, Ministry of Education Ms. Armi Mikkola, Ministry of Education Ms. Kristiina Volman, Ministry of Education Ms. Birgitta Vuorinen, Ministry of Education
France	Mme Françoise Cros, Conservatoire National des Arts et Métiers M. Jean-Pierre Obin, Inspecteur général de l'éducation nationale

Table A.2. **Authors of the Country Background Reports** *(Continued)*

Germany	The background material had a number of separate components: – Country Background Report: Secretariat of the Standing Conference of the Ministers of Culture of the Länder. – Supplement to the Country Background Report: Peter Döbrich, Klaus Klemm, Georg Knauss and Hermann Lange. – Trade Union views at Federal Level: by DBB (*Deutscher Beamtenbund*, German Federation of Civil Servants); and GEW (*Gewerkschaft Erziehung und Wissenschaft*, Trade Union of Education and Science). – Länder Background Reports: Baden-Württemberg: Ministry of Education, Youth and Sport. Brandenburg: Ministry of Education, Youth and Sport. Hamburg: Department for Education and Sport (edited by Monika Renz). North-Rhine Westphalia: Ministry of Schools, Youth and Children (edited by Günther Neumann); report complemented with contributions from local stakeholders.
Greece	Ms. Fani Stylianidou, Education Research Centre of Greece Mr. George Bagakis, Education Research Centre of Greece Mr. Dimitris Stamovlasis, Education Research Centre of Greece
Hungary	Co-ordinated and edited by László Limbacher, Ministry of Education, with contributions from: – Anna Imre, Nóra Imre, Mária Nagy, Tamás Schüttler, National Institute of Public Education. – Mihály Kocsis, University of Pécs. – Mária Beáta Varga and Magdolna Faragó-Soós, Ministry of Education. – Péter Galasi and Júlia Varga, Budapest University of Economic Sciences and Public Administration.
Ireland	Mr. John Coolahan, National University of Ireland Maynooth
Israel	Ms. Ruth Zuzovsky, Tel-Aviv University Ms. Smadar Donitsa-Schmidt, Tel-Aviv University
Italy	Mr. Rosario Drago, Ministry of Education, Universities and Research Appendix on the "burn-out syndrome" among teachers by Mr. Giorgio Basaglia and Mr. Vittorio Lodolo D'Oria
Japan	Mr. Kazumitsu Fujita, Ministry of Education, Culture, Sports, Science and Technology
Korea	Ms. Ee-gyeong Kim, Korean Educational Development Institute Ms. You-kyung Han, Korean Educational Development Institute
Mexico	Ms. María del Refugio Guevara, Ministry of Public Education Ms. Laura Elena González, Ministry of Public Education
Netherlands	Ms. Marion Meesters, Bureau Meesters en Oudejans
Norway	Ms. Selma Therese Lyng, Work Research Institute Mr. Jon Frode BlichFeldt, Work Research Institute
Slovak Republic	Co-ordinated and edited by Mr. Matej Be o, Institute for Information and Prognoses of Education, with contributions from: – J. Herich, M. Lipská, J. Rašková, E. Rebrošová, J. Smida, P. Straka, L'.Šim áková, E. Tomanová, M. Zvalová, and P. Zverka, Institute for Information and Prognoses of Education. – V. Rosa, L'.Tužinský, and S. Christenko, State School Inspection, Bratislava. – E. Petlák, University of Constantinus Philosopher in Nitra. – M. Novák, Methodical-Pedagogical Centre in Banská Bystrica.
Spain	Mr. Ernesto Ortiz Gordo Mr. Virgilio Sanz Vallejo Mr. Juan José Alvarez Prieto
Sweden	Produced jointly through collaboration between the Ministry of Education and Science (Ms. Ingrid Holmbäck-Rolander, Ms. Annelie Stråth and Ms Ann-Katrin Wirén), Uppsala University (Ms. Maria Folke-Fichtelus and Mr. Ulf P. Lundgren), and the other members of the National Advisory Committee
Switzerland	Ms. Karin Müller Kucera, Education Research Center (SRED), Geneva Mr. Martin Stauffer, Swiss Conference of Cantonal Ministers of Education (CDIP/EDK), Bern
United Kingdom	Mr. Alistair Ross, London Metropolitan University Mr. Merryn Hutchings, London Metropolitan University
United States	Ms. Kate Walsh, National Council on Teacher Quality

Note: The Country Background Reports are available from: *www.oecd.org/edu/teacherpolicy*

Country Review Visits

Another major source of material for this report was the set of Country Notes prepared by the external review teams that visited countries taking part in the Country Review strand. By providing an external perspective on teacher policy issues in the countries

concerned, the Country Notes were also intended to contribute to national discussions, as well as inform other countries about policy innovations underway.

For each country visited, a team of up to five reviewers (including at least one OECD Secretariat member) analysed the Country Background Report and associated materials and subsequently undertook an intensive case study visit of about 10 days in length. The reviewers were selected in consultation with the country authorities to ensure that they had experience relevant to the main policy issues in the country concerned. The study visit aimed to provide the review team with a variety of perspectives on teacher policy and included meetings with senior policy makers, teachers, parents, school principals, teacher unions, teacher educators and researchers; visits to schools and teacher education institutions were also included. The objective was to accumulate sufficient information and understanding on which to base the analysis and policy recommendations. Details on the country review visits are given in Table A.3.

Table A.3. **Thematic Country Reviews and Team Members**

Country	Review team
Austria 27 April – 6 May 2003	Mr. Phillip McKenzie, OECD Secretariat Ms. Françoise Delannoy, formerly with The World Bank, France (Rapporteur) Mr. Ben van der Ree, formerly with the Ministry of Education, Culture and Science, the Netherlands Mr. Stefan Wolter, Swiss Co-ordination Centre for Research in Education, Switzerland
Belgium (Flemish Community) 3-12 November 2002	Mr. Phillip McKenzie, OECD Secretariat (Rapporteur) Mr. Paulo Santiago, OECD Secretariat Ms. Hilary Emery, Department for Education and Skills, United Kingdom Ms. Anne Sliwka, University of Erfurt, Germany
Belgium (French Community) 9-17 June 2003	Mr. Paulo Santiago, OECD Secretariat Mr. Claude Lessard, University of Montreal, Canada (Rapporteur) Mr. Jeannot Hansen, Ministry of Education, Luxembourg Ms. Karin Müller Kucera, Education Research Centre (SRED), Geneva, Switzerland
Germany 14-26 September 2003	Mr. Paulo Santiago, OECD Secretariat Mr. Gábor Halász, National Institute of Public Education, Hungary (Rapporteur) Mr. Mats Ekholm, National Agency for School Improvement, Sweden Mr. Peter Matthews, Office for Standards in Education (Ofsted), United Kingdom Mr Phillip McKenzie, OECD Secretariat (Brandenburg visit only)
Hungary 8-17 June 2003	Mr. Phillip McKenzie, OECD Secretariat Mr. Dale Ballou, Vanderbilt University, United States (Rapporteur) Mr. Michael Andersen, Danish Evaluation Institute (EVA), Denmark Mr. Ewald Brunner, University of Jena, Germany
Italy 12-23 May 2003	Ms. Yael Duthilleul, OECD Secretariat and The World Bank Mr. Ulf Lundgren, University of Uppsala, Sweden (Rapporteur) Mr. Ian Murphy, Department of Education and Science, Ireland Ms. Maria Jesus San Segundo, University Carlos III, Spain
Korea 20-29 April 2003	Mr. Paulo Santiago, OECD Secretariat Mr. John Coolahan, National University of Ireland Maynooth, Ireland (Rapporteur) Mr. Akira Ninomiya, University of Hiroshima, Japan Ms. Rowena Phair, Ministry of Education, New Zealand
Spain 8-18 June 2003	Ms. Yael Duthilleul, OECD Secretariat and The World Bank Ms. Françoise Cros, University Paris V, France (Rapporteur) Mr. Christian Cox, Ministry of Education, Chile Mr. Kari Kantasalmi, University of Helsinki, Finland
Sweden 18-27 May 2003	Mr. Phillip McKenzie, OECD Secretariat Mr. Geert Devos, University of Ghent / Vlerick Management School, Belgium (Rapporteur) Mr. Lawrence Ingvarson, Australian Council for Educational Research, Australia Mr. Frode Hauge, Ministry of Education, Norway
Switzerland 9-18 March 2003	Mr. Paulo Santiago, OECD Secretariat Mr. Alan Wagner, State University of New York at Albany, United States (Rapporteur) Mr. Christian Thieme, Standing Conference of the Ministers of Education and Culture (KMK), Germany Ms. Danielle Zay, Université Charles de Gaulle Lille 3, France

Note: The Country Notes prepared by the review teams are available from: *www.oecd.org/edu/teacherpolicy*

Data Request

In addition to the Country Background Reports, all countries supplied data on teachers in areas that were not already available through the OECD's Indicators of Education Systems (INES) project. The data covered the supply and mobility of teachers, teacher vacancies, the appointment and qualifications of teachers, union membership and retirement age. Countries drew on existing data sets to supply the information, and did not engage in any new data collections. Selected indicators derived from some of these data are used in several parts of this report. These indicators must be treated cautiously, however, since most countries were only able to supply limited data, and the data were not originally collected with a view to international comparability. The data provided by countries have been helpful in mapping the current availability of data on teachers, and identifying priorities for further work. The latter was undertaken in close collaboration with the Indicators of Education Systems (INES) *Taskforce on Teaching and Learning*.

Commissioned and Background Papers

The Activity was enriched through two commissioned papers and one literature review taking up particular issues in depth:

- *The Economic Cycle and Teacher Supply*, 2003, by Peter Dolton, University of Newcastle-upon-Tyne and London School of Economics; Andrew Tremayne, University of York and University of Sydney; and Tsung-Ping Chung, London School of Economics.
- *School Leaders: Changing Roles and Impact on Teacher and School Effectiveness*, 2003, by Bill Mulford, University of Tasmania.
- *Performance-Based Rewards for Teachers: A Literature Review*, 2003, by Owen Harvey-Beavis, University of Melbourne.

In addition, two background reports were prepared to assist the conceptualisation and preparation of the Activity:

- *Teacher Demand and Supply: Improving Teaching Quality and Addressing Teacher Shortages*, 2002, by Paulo Santiago, OECD Secretariat.
- *Teacher Education and the Teaching Career in an Era of Lifelong Learning*, 2002, by John Coolahan, National University of Ireland, Maynooth.

Experts Meeting and National Representatives Meeting

At the conceptualisation stage, the Activity derived great benefit from the views and perspectives of a group of researchers and policy-makers convened at an *Experts meeting* organised in Paris on January 2002. The group was composed of Peter Dolton (University of Newcastle-upon-Tyne and London School of Economics), Richard Ingersoll (University of Pennsylvania), Guy Janssens (Ministry of the Flemish Community, Belgium), Alain Michel (Inspection générale de l'éducation nationale, France), Rowena Phair (Ministry of Education, New Zealand), Joron Pihl (Oslo University College, Norway), Juana Sancho Gil (University of Barcelona, Spain) and Jan van Ravens (Ministry of Education, the Netherlands).

In addition, prior to the launching of the Activity, a meeting of national representatives was organised in Paris on March 2002 with the participation of 19 countries, relevant stakeholders and other international organisations. The meeting outlined the way in which

countries could take part and led to a final agreement regarding the design and implementation plan for the Activity.

Workshops

In order to facilitate sharing of lessons and experiences among participating countries, country-hosted workshops were periodically organised throughout the Activity. In addition to the country presentations, international experts and key stakeholders were invited to contribute to the debate. Details on the workshops are provided in Table A.4.

Table A.4. **Workshops of Participating Countries**

Date and location	Hosts	Main Issues treated
Brussels, Belgium 27-28 May 2002	Ministry of Education of the Flemish Community of Belgium	– Preparation of Country Background Reports. – Data needs and developments. – Eurydice work on lower secondary teachers. – Attracting and retaining effective teachers in the Flemish Community.
Paris, France 25-26 November 2002	OECD	– Country progress on the Activity. – Work on teachers by other International Agencies. – Thematic discussion groups (improving teacher recruitment and supply, strengthening teacher competencies, reorganising teachers' work and the role of support staff). – Improving the information base for teacher policy (perspective from several international organisations). – Stakeholders' views on key issues in teacher policy (trade unions and employers' organisations).
Athens, Greece 4-5 June 2003	Education Research Centre of Greece	– Country progress on the Activity. – Work on teachers by other International Agencies. – Leadership in schools: discussion of the commissioned paper. – The economic cycle and teacher supply: discussion of the commissioned paper. – Initial themes and issues arising from the Activity.
Paris, France 29-30 January 2004	OECD	– Country progress on the Activity. – Work on teachers by other International Agencies. – Synthesis Report from the Activity: Discussion of the extended outline. – Demand for Teachers: a microsimulation model for projecting teacher needs. – Discussion of dissemination plans and possible follow-up projects.
Bordeaux, France 10-11 June, 2004	Ministry of National Education, Higher Education and Research of France	– Discussion on teacher policy in France (teacher recruitment policy and human resource management; the education and development of teachers). – Draft Synthesis Report: detailed discussion. – Planning of dissemination activities. – Future work on teachers at national and international levels.

Dissemination

The Activity had a strong emphasis on dissemination from the outset. Participating countries were encouraged to consult widely with the education community in the preparation of Country Background Reports. A number of countries published their reports and distributed them to schools and teachers. When conducting the country review visits the review teams sought the views of large numbers of organisations and individuals.

To facilitate dissemination and encourage feedback, all project documents have been placed on the Activity's website: www.oecd.org/edu/teacherpolicy. Throughout the Activity, the OECD Secretariat made over 30 presentations about the project to a wide range of conferences, and to groups of visitors to the OECD, and gave a large number of media interviews.

The Netherlands Ministry of Education, Culture and Science hosted an international conference in Amsterdam on 18 and 19 November 2004 to conclude the Activity and launch this report. The conference, entitled *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, examined how teacher policy can be developed and

implemented to promote quality teaching and learning in schools. Keynote addresses were given by Andrew Hargreaves (Boston College) and Victor Lavy (The Hebrew University of Jerusalem). Details are available on the conference's website: http://www.minocw.nl/congres_ocw-oecd. National and regional conferences are also planned.

In addition, the Activity also contributed with:

- Documentation – *Issues Paper*, *OECD Policy Brief*, and *OECD Observer* articles – to support the discussion of the theme *Improving teacher supply and effectiveness*, which was part of the meeting of OECD Education Ministers held in Dublin on 18-19 March 2004.
- A chapter on *The Teaching Workforce: Concerns and Policy Challenges* for the 2002 edition of the OECD's publication Education Policy Analysis (OECD, 2002b).
- A chapter on The Labour Market for Teachers for the International Handbook on the Economics of Education (Santiago, 2004) published by Edward Elgar.

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Appendix 2

A FRAMEWORK FOR INFORMING TEACHER POLICY

A FRAMEWORK FOR INFORMING TEACHER POLICY

THE TEACHING PROFESSION and the TEACHING WORKFORCE

Area	Type of information	Aspects	General availability of data	
			At national level	At international level
General views on teaching profession	General public attitudes	Public perceptions on the teaching profession	⊙	○
	Teachers' attitudes	Teachers' views on their profession	⊙	○
		Teachers' morale, enthusiasm and commitment	⊙	○
		Major sources of job satisfaction and dissatisfaction	⊙	○
Size of the teaching workforce		Absolute size and relative to total labour force	●	●
		Resources on teachers relative to total investment in schools	●	●
Profile of the teaching workforce	Demographic profile	Age, gender	●	●
		Cultural background/ethnicity	⊙	○
	Credentials	Certification status; academic qualifications	◉	⊙
		Proportion of qualified teachers in subject taught	◉	⊙
		Years of experience	⊙	○
	Teaching status	Full-time/part-time	●	●
Flows in and out of teaching profession	Entrants into initial teacher education	Number and characteristics of entrants	◉	○
	Graduates from initial teacher education	Progression and completion rates in initial teacher education	⊙	○
		Destinations of recent teacher education graduates	⊙	○
		Early career experiences of new teachers	⊙	○
	Entrants into teaching and outcomes of recruitment processes	Number and origins of newly appointed teachers	⊙	○
		Characteristics of entrants, including academic credentials	⊙	○
		Number of applicants relative to teaching vacancies	◉	○
		Number of vacancies that remained unfilled or are "difficult to fill"	⊙	⊙
		Methods used to cover vacancies which are difficult to fill	◉	⊙
		Distribution of teacher resources across schools	○	○
	Teachers leaving profession/moving to another post	Turnover and attrition rates	⊙	○
		Destinations of teachers who leave their teaching position	⊙	○
		Destinations of teachers who leave the teaching profession	⊙	○
		Reasons for leaving the teaching profession	⊙	○
	Re-entrants into teaching	Number and characteristics of re-entrants	○	○
	Retirees	Legal and actual retirement age	◉	○
		Schemes for working beyond retirement age	◉	○
	Recruitment in foreign countries	Number and background of teachers hired from abroad	◉	○

PREPARATION and DEVELOPMENT of TEACHERS				
Area	**Type of information**	**Aspects**	**General availability of data**	
			At national level	**At international level**
Initial teacher education	Entrance into initial teacher education	Entrance requirements	●	⦿
	Structure of programmes	Diversity of routes	●	⦿
		Organisation of programmes (*e.g.* consecutive or concurrent, flexibility of provision); duration	●	⦿
		Content and emphasis (subject-matter knowledge, pedagogical preparation, practical school experience)	⦿	⊙
		Links and partnerships with schools	⦿	○
	Structure of *alternative* programmes of initial teacher education	Setting (*e.g.* traditional institutions, school-based, distance learning); organisation of programmes; duration	⦿	○
	Accreditation and evaluation of initial teacher education programmes	Institutions granting accreditation, criteria for accreditation	●	○
		Credentials and background of teacher educators	⊙	○
		Evaluation of programmes	⦿	○
	Outcomes of initial teacher education programmes	Profile of graduates' competencies; graduation requirements	⦿	○
	Incentives to undertake initial teacher education	Financial and other incentives	●	○
Certification of teachers		Requirements to obtain a teaching licence	●	⊙
		Recertification programmes for practising teachers	●	○
Professional development	Participation and choice of programmes	Minimum legal requirement for teachers	●	⊙
		Participation levels	⊙	⊙
		Identification of needs and priorities for professional development	⊙	○
	Providers	Types of institutions providing prof. dev. activities	⊙	⊙
		Accreditation and evaluation of providers	⊙	○
	Professional development activities	Content and emphasis; organisation; duration	⊙	⊙
		School-based provision	⊙	⊙
		Links to promotion and recertification	●	⊙
		Research opportunities for teachers	⦿	⊙
		Programmes for those returning to teaching profession	⦿	○
	Financing of professional development	Sharing of costs; school budget for professional development	⦿	⊙
DEMAND for TEACHERS				
Demand for teachers	Student population	Age structure of the school-age population	●	●
		Age school participation rates; in-grade retention rates	●	⦿
		Starting and ending age of compulsory education	●	●
		Geographical distribution of student population	●	○
	Organisation of schooling	Average class size; student-teacher ratio; teaching load	●	●
		Required instruction time for students	●	●
		Availability of support staff in schools	●	⦿
		Use of technology and distance learning; curriculum structure	●	⊙

CAREER OPPORTUNITIES and INCENTIVES				
Area	**Type of information**	**Aspects**	**General availability of data**	
			At national level	**At international level**
Career opportunities	Career structure	Salary scales (*e.g.* number, structure, length)	●	⦿
	Promotion	Opportunities for promotion as a teacher; basis for promotion	●	○
		Differentiation: opportunities for new roles and responsibilities	●	○
Monetary incentives	While teaching	Salary levels, allowances and criteria	●	●
		Bonuses (*e.g.* signing, retention); subsidies (e.g. housing, childcare)	●	⊙
	Retirement	Pension benefits	●	○
Non-monetary incentives	Flexibility of profession	Part-time work; flexibility of schedule; flexibility to take leave	●	○
	Leave benefits	Vacation time; sabbatical periods	●	○
		Opportunities to work outside school for limited time	⦿	○
	Other	Teaching awards; opportunities for in-service training	●	○
STRUCTURE of the TEACHER LABOUR MARKET				
Labour market institutions	Contractual elements	Employment status of teachers; type of contract	●	⦿
		Probationary period; basis for renewal or termination of contract	●	⊙
	Level of centralisation of bargaining	Existence of collective agreements	●	○
		Existence of individual-level rewards	●	⊙
	Degree of unionisation		⊙	○
Recruitment procedures and selection criteria	Recruitment procedures	Eligibility criteria to apply	●	⦿
		Recruitment responsibilities, procedures and selection criteria	⦿	⦿
	Recruitment in foreign countries	Mechanisms and incentives to recruit teachers from abroad	●	○
Mobility	Mobility within teacher labour market	Barriers to mobility (*e.g.* recognition of teaching qualifications and work experience within countries)	●	○
		Incentives (*e.g.* transportation subsidies; compensation for high cost of living)	●	○
	Mobility between teacher labour market and other sectors of activity	Programmes for *side-entrants* to teaching	●	○
		Programmes for teachers to work in industry	⦿	○
Short-term replacement of teachers		Mechanisms used to replace teachers for short periods of time	●	⦿

SCHOOL PROCESSES

Area	Type of information	Aspects	General availability of data: At national level	General availability of data: At international level
Induction to teaching	Participation	Existence of mandatory induction programmes	●	⊙
		Elements (*e.g.* coaching, reduced workload, discussion groups, further training); duration	◉	◉
		Collaboration with teacher education institutions	◉	○
	Provision of support	Persons responsible for providing support, their training and compensation	◉	◉
Organisation of work	Definition of tasks and responsibilities	Existence of job profile for teachers; teacher time use	⊙	⊙
	Differentiation of roles in school	Existence and conditions of non-classroom-teaching roles	◉	⊙
		Team teaching	⊙	⊙
Working conditions	Workload	Teaching hours; class size; number of classes	●	●
		Tasks other than teaching	⊙	⊙
		Facilities and instructional materials	⊙	⊙
	Availability of support staff		●	◉
School decision making	Areas of school autonomy	Personnel selection, working conditions and development	●	◉
	School management	Structure, appointment procedure and duration	●	○
Teacher professional autonomy		Areas of teacher decision making and responsibilities	⊙	○
Teacher evaluation and accountability	Existence	Existence of formal mandatory schemes; periodicity	●	○
	Context	Individual teacher evaluation; school evaluation	●	○
	Evaluators	Persons responsible for evaluation	●	○
	Methodology	Criteria for evaluation; tools used	◉	○
	Responses to evaluation results	Link to rewards and professional development	◉	⊙
		Processes for ineffective teachers	◉	○

Notes:

General availability of data at national level refers to an assessment of the number of participating countries which have data/information about the aspect concerned:

○ Few countries have this information
⊙ Some countries have this information
◉ Most countries have this information
● All countries have this information

For the country information to be most useful it must be available for different types of regions, schools and teachers. It has not been possible to assess the availability of data at these disaggregated levels.

General availability of data at international level refers to an assessment of the availability of data/information which has already been published by international organisations in a way that enables comparisons across countries:

○ No information is available
⊙ Little information is available
◉ Some information is available
● Extensive information is available

Both the periodic collection of data and recent one time studies were considered in this table. The availability is assessed for data/information on the teaching profession itself and not relative to other occupations. Much of the information on teachers, their work and careers would be more useful if comparable information was available for occupations requiring similar qualifications. Unfortunately, there is little such comparative data available.

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