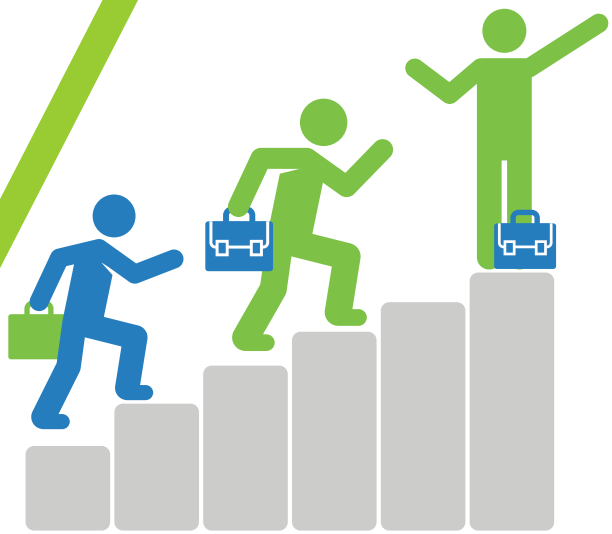
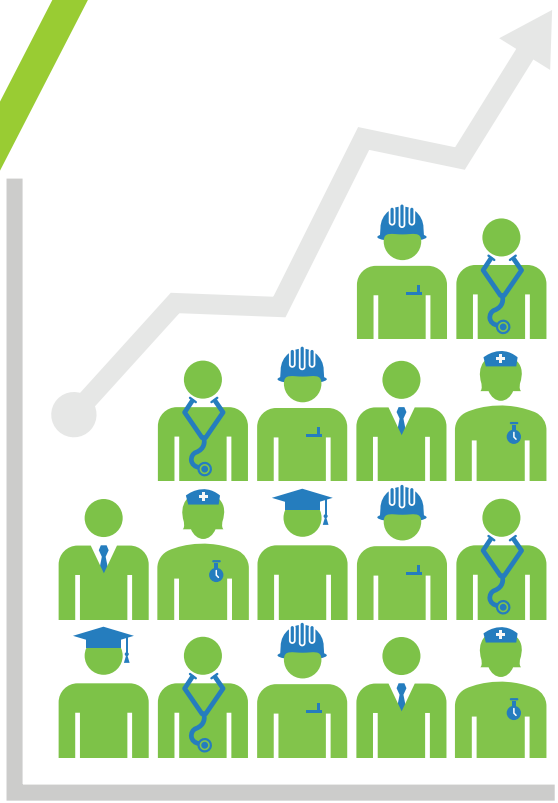
OECD Skills Strategy Diagnostic Report

Korea

2015





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BETTER POLICIES FOR BETTER LIVES

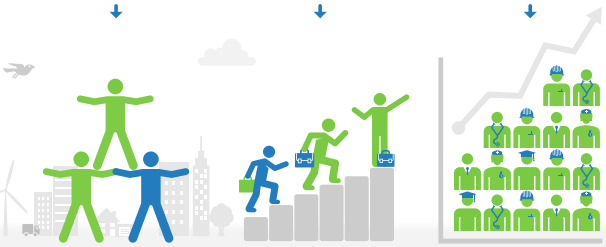
Building the right skills can help countries improve economic prosperity and social cohesion

In what way?

By contributing to social outcomes such as health, civil and social engagement.

By supporting improvement in productivity and growth.

By supporting high levels of employment in good quality jobs.



How is this achieved?

By strengthening skills systems

Designing and implementing an evidence-based national skills strategy.

Funding skills through public and private sources and designing effective incentives for employers and individuals.

Providing good information for the public, businesses and policy makers.

Contributes to economic prosperity

Contributes to social cohesion

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OECD SKILLS STRATEGY DIAGNOSTIC REPORT:

KOREA

OECD Skills Strategy

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FOREWORD

Skills not only drive economic growth, they also influence how the benefits of growth are shared within societies. Countries with large proportions of poorly skilled adults have difficulty introducing technologies that enhance productivity and new ways of working. This stalls innovation and improvements in living standards.

Skills affect more than just earnings and employment. The *Survey of Adult Skills* administered through the Programme for the International Assessment of Adult Competencies (PIAAC) shows that in all countries, adults with lower literacy proficiency are far more likely than those with better literacy skills to report poor health, to perceive themselves as objects rather than actors in political processes, and to have less trust in others. In other words, a lack of proficiency in foundation skills prevents people from fully participating in society, which hinders the development of fair and inclusive policies and engagement with all citizens.

The OECD Skills Strategy provides a useful framework for countries to build effective and integrated skills policies that develop relevant skills, activate skills supply and make effective use of skills. The countries most successful in activating their skills potential share a number of features: they provide high-quality lifelong learning opportunities, both in and outside school and the workplace; they develop education and training programmes that are relevant to students and flexible both in content and in how they are delivered; they make information about education and career pathways easy to find and understand; and they provide recognition and certification of competencies that encourage learners of all ages to keep learning.

Korea was one of the first OECD countries to undertake a collaborative project with the OECD in 2013-14. This diagnostic report identifies the 12 skills challenges for Korea distilled from an interactive diagnostic workshop held with a range of stakeholders and institutions. It draws upon an array of relevant OECD evidence, including Korea's results from the *Survey of Adult Skills*, to shed further light on these challenges. Finally, it offers some concrete examples of how other countries are tackling similar skills challenges.

We hope that this report will contribute to Korea's ongoing commitment to setting meaningful goals, measuring progress against the world's leading skills systems, and fostering constructive policy dialogue on skills policy between governments, employers, trade unions, and people of all ages. As ever, the OECD stands ready to contribute to these efforts to design and implement better skills policies for better jobs and better lives. We look forward to our collaboration in advancing the skills agenda in Korea as part of the Active Learning Phase in 2015-16.

Andreas Schleicher
Director for the Directorate for Education and Skills, and
Special Advisor to the Secretary-General on Education Policy

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ACKNOWLEDGEMENTS

This diagnostic report on Korea's skills system is part of a series of country projects within the OECD programme of work "Building effective national skills strategies".

The OECD is grateful to the Korean national project team, which was coordinated by Young-sup Choi at the Korea Research Institute for Vocational Education and Training (KRIVET) and Chan-ho Park at the Ministry of Education. This project team funded the project work, worked closely with the OECD team and was responsible for organising workshops with stakeholders. Members of the project team included: Ki-rak Ryu, Gye-taek Oh, and Dong-jin Park from KRIVET.

The OECD team also wishes to thank everyone who took part in the fact-finding interview sessions held in Seoul in August 2013 and the diagnostic workshop in November 2013. A list of institutions that participated in the diagnostic workshop is included in the Annex. Their insights and contribution to discussions during the interview sessions and the workshop have both driven the process and shaped this diagnostic report. We would also like to thank the many others who generously gave their time to answer our many questions regarding Korea's skills system, including the Permanent Delegation of the Republic of Korea to the OECD.

While the diagnostic report draws upon data and analysis from the OECD, the Korean government and other published sources, any errors or misinterpretations remain the responsibility of the OECD team.

The Korea Skills Strategy country project and diagnostic report drew upon the expertise of a cross-directorate OECD team, co-ordinated by Miho Taguma, Alessandro Goglio and Shinyoung Jeon. The lead author for this report was Shinyoung Jeon (Directorate for Education and Skills). Deborah Roseveare (Directorate for Education and Skills) provided thought leadership and strategic oversight for the project.

Broad cross-directorate contributions from OECD colleagues included valuable comments, advice and feedback on drafts, including from: Sung Ho Kim from the Directorate for Employment, Labour and Social Affairs; Randall Jones from the Economics Department; Alistair Nolan from the Directorate for Science, Technology and Industry; Bert Brys and Pierce O'Reilly from the Centre for Tax Policy; Jonathan Barr from the OECD's Local Economic and Employment Development Programme; and Tanja Bastianic, Joanne Caddy, Ji Eun Chung, Samuel Kim, Yong-Seong Kim, Viktoria Kis, Lindstrom, Siv Ineke Litjens, Patricia Mangeol, and Simone Stelten from the Directorate for Education and Skills. Louise Binns, Emily Groves, Elisa Larrakoetxea and Florence Wojtasinski and (Directorate for Education and Skills) provided support for project management and the layout of this report.

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EXECUTIVE SUMMARY

Why build a Skills Strategy? Better skills, better jobs, better lives

Skills have become the key driver of individual well-being and economic success in the 21st century. Without proper investment in skills, people languish on the margins of society, technological progress does not translate into growth, and countries are unable to compete in increasingly knowledge-based global economies. Effective skills systems connect skills with economic development to deliver prosperity and social cohesion.

The OECD Skills Strategy provides countries with a framework to analyse their strengths and weaknesses as a basis for taking concrete actions according to the three pillars that comprise a national skills system: 1) developing relevant skills from childhood to adulthood; 2) activating these skills in the labour market, and 3) using these skills effectively in the economy and society. An effective Skills Strategy strengthens a country's skills system by facilitating policy collaboration and coherence across these three pillars.

Korea's main skills challenges in a comparative perspective

This diagnostic report presents the main outcomes of Korea's collaborative project with the OECD, which ran from July 2013 to February 2014. It identifies 12 skills challenges that need to be addressed to build a more effective skills system in Korea. These challenges were identified through: 1) the OECD's recent data and research; 2) the national data and research; 3) a diagnostic workshop held in November 2013; 4) fact-finding interviews with key stakeholders in Korea. The report has also benefited from ongoing dialogue and consultation with a wide range of Korean stakeholders.

Box 1. The OECD Skills Strategy: defining the concept of "skills"

The OECD Skills Strategy defines skills (or competences) as the bundle of knowledge, attributes and capacities that can be learned and that enable individuals to successfully and consistently perform an activity or task and can be built upon and extended through learning. The concepts of "skill" and "competence" are used interchangeably in this report. The sum of all skills available to the economy at a given point in time forms the human capital of a country.

Thus, the OECD Skills Strategy shifts the focus from traditional proxies of skills, such as years of formal education and training or qualifications/diplomas attained, to a much broader perspective that includes the skills people acquire, use and maintain – and also lose – over the course of a whole lifetime. People need both hard and soft skills that help them to succeed in the labour market and a range of skills that help them to contribute to better social outcomes and build more cohesive and tolerant societies.

Source: OECD (2012), Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies. doi: 10.1787/9789264177338-en.

The 12 challenges for Korea are described under each of the main pillars of the OECD Skills Strategy and are framed as outcome statements. The first nine challenges refer to specific outcomes across the three pillars of developing, activating and using skills. The next three challenges refer to the "enabling" conditions that strengthen the overall skills system. Success in tackling these skills challenges will boost performance across the whole skills system.

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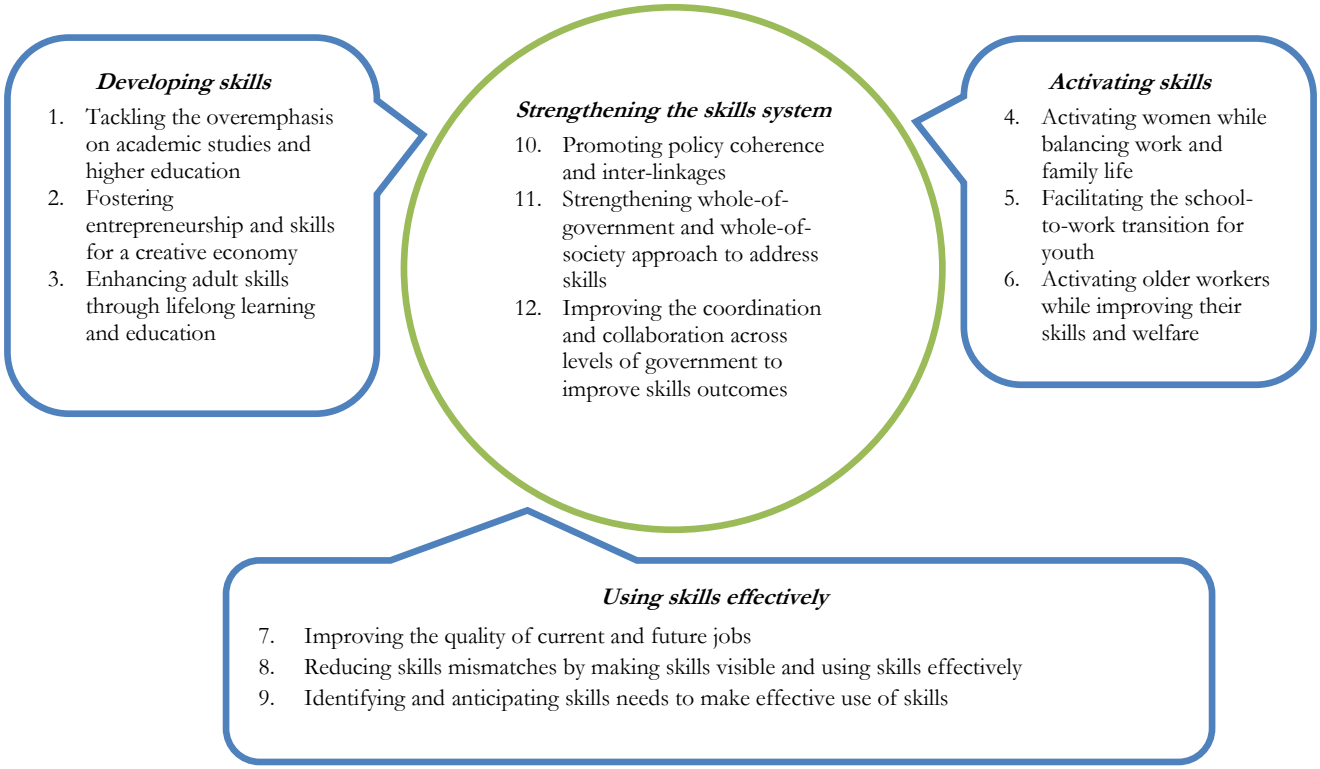
All of the challenges identified are strongly interlinked, and their connections with each other are identified throughout the report. Failure to look beyond policy silos will have implications for specific groups in Korea, such as youth, as well as for the economy and society's ability to recover following the economic crisis and build a solid foundation for future prosperity.

12 SKILLS CHALLENGES AND ENABLING CONDITIONS FOR KOREA



Developing skills

1. **Tackling the overemphasis on academic studies and higher education**. Korean students are among the top performers in reading, mathematics and science and a high share continue to tertiary education. There is no doubt that a well-educated workforce has been one of the key contributors to the economic success of Korea over many decades. However today, strong performance in skills and education is not translating into a higher likelihood of employment in Korea. Sustaining Korea's development in the future will depend upon how well skills contribute to positive labour market outcomes for people. Promoting work-based learning in school and boosting participation in vocational education and training will be crucial to achieving this goal. The Korean government's efforts to develop and to implement the National Competency Standards (NCS) to education and training are an important step forward to make skills development more relevant for the labour market. More effective collaboration among the relevant stakeholders will be critical for the standards to succeed.

2. **Fostering entrepreneurship and skills for a creative economy**. Creative and entrepreneurial skills are needed to drive further innovation, productivity and economic growth. The current education system, with its strong focus on academic studies, must be balanced with greater attention to fostering creative and entrepreneurial skills. Work-study programmes in schools and universities could be a way to teach students how to generate business ideas, raise funds and run a business. Workplace learning and training organised by companies can also play a role.

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3. **Enhancing adult skills through lifelong learning and education**. Opportunities to enhance skills are especially critical for low-skilled adults. In comparison to other countries, Korea has a high skills gap between young and older workers. Encouragingly, the skills of young adults are well above the average of countries participating in the *Survey of Adult Skills* (PIAAC). However, the skills of adults over 45 years are well below the average indicating the need for greater attention to this cohort. Greater opportunities should be available to low-skilled adults to improve their skills by lowering financial burdens when combining learning and work. Continuous learning and upskilling among all adults can be encouraged by recognising non-formal lifelong learning and education experiences through measures such as the National Qualification Framework. Lifelong learning and education also need to become more labour market relevant, which can be achieved through engaging employers in the design and delivery of the courses on offer.

Activating skills

4. **Activating women by balancing work and family life.** Recently the female labour force participation has improved, reaching 57% in 2014, up 3.5% points since 2002. However, it is still one of the lowest among OECD countries. Female employment rates decline significantly after marriage and childbirth, despite the relatively high skill and tertiary attainment levels of women in Korea. Women are more likely to work in low-level, part-time, and low-paying or informal jobs that require less intensive use of skills. The gender pay gap is one of the highest among OECD countries and fewer women reach managerial positions. To prevent women from leaving the labour market after marriage and childbirth, family-friendly policies should be monitored effectively and gender-awareness in the labour market needs to be further promoted. Such efforts may include encouraging the use of maternity and paternity leave, providing a flexible work schedule, and disseminating family-friendly management practices. In addition, work-family balance should be supported through the adequate provision of early childhood care and education.

5. **Facilitating the school-to-work transition for youth.** Activating youth and creating jobs which offer them career prospects are urgent issues for Korea to address. The share of youth not in employment, education or training (NEET) is above the OECD average and is particularly high among youth with tertiary education. A large proportion of youth are working in non-regular jobs (e.g. part-time, temporary) with low wages and limited career prospects. The transition rate from non-regular to regular jobs is one of the lowest in the OECD. Greater flexibility between vocational and general education tracks, as well as between school and work, could help young people to better align their career choices to labour market needs and increase their chances of finding employment. Better quality information on the labour market and career counselling and services could help guide youth in the transition from school to work.

6. **Activating older workers while improving their skills and welfare.** Many older workers are displaced by prime-age workers and retire early. Among OECD countries, Korea has the highest difference between the official retirement age and effective labour market exit age. Involuntary early retirement without appropriate skills tends to force many older workers to take up vulnerable jobs becoming self-employed or working in non-regular positions with poor working conditions and low wages. Precarious jobs coupled with weak social welfare programmes for older workers make Korea the OECD country with the highest relative poverty rate (almost 50%) among older people. Activating older workers skills may yield double dividends by reducing poverty and raising the labour force capacity. This calls for better human resource management and appropriate skills system for older workers. Strengthening incentives to continue to work and providing labour market relevant lifelong education to low-skilled older workers could help in achieving this goal.

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Using skills effectively

7. **Improving the quality of current and future jobs.** Korea could make much better use of workers' skills. Among OECD countries, Korea's workers have one of the lowest levels of productivity and work the second-longest hours. One in three workers is a non-regular with low job security and low wages. This contributes to high turnover rates, low average length of job tenure and low levels of motivation. Korea could benefit from focusing on creating a virtuous cycle to improve current workplaces and create new jobs that require a higher use of skills. A higher use of skills is critical for allowing individuals to maintain and further develop their skills and for employers to increase their productivity and overall competitiveness.

8. **Reducing skills mismatches by making skills visible and using skills effectively.** Korea has a comparatively high rate of mismatch with a large number of workers who have skills and qualifications that either exceed or fall short of the requirements of their jobs. One in five workers has higher qualifications than the level required by his or her job. In part, this may be due to the fact that education qualifications do not adequately signal the actual skill levels of workers. Skills acquired through non-formal and informal learning need to be recognised and validated in a transparent manner and used by employers and employees alike.

9. **Identifying and anticipating skills needs to make effective use of skills.** Education and labour market information allows a broad range of actors to make choices that facilitate a better alignment between skills supply and demand. To this end, information on labour supply and demand both at the national and regional level needs to be readily available to all stakeholders in an integrated and sufficiently co-ordinated manner. Strengthening skills assessment and anticipation measures of short-term and long-term skills supply and demand would generate better information for effective monitoring, designing skills policies, as well as informing individuals' education and career choices. Greater availability and integration of skills information can help to ensure that Korea's skills system responds rapidly to rapid technological and economic changes.

Strengthening the skills system

10. **Promoting policy coherence and coordination.** Greater policy coherence and coordination are critical as skills issues cover a broad range of sectors. For example, for the National Competency Standards (NCS) to work effectively, all relevant actors need to implement it coherently. In order for the NCS to be effective, education and training sectors need to incorporate those standards. They also need to be encouraged to be used by employers in their recruitment, employment, wage-setting, placement and promotion systems. Similarly, increasing female participation in the labour market requires co-ordinating a whole range of policies, such as the parental leave system, flexible working time arrangements, provision of adequate childhood care services, and reducing the gender pay gap.

11. **Strengthening whole-of-government commitment and whole-of-society approach to address skills.** When relevant actors have a shared sense of responsibility and ownership they are more likely to agree on how to address skills challenges together. Different mechanisms can facilitate such collaboration. For example, sector councils in Korea convene industrial associations, employers' associations, and research and training institutes to identify training needs, skill shortages and mismatches. However, some key stakeholders, such as labour unions, are not involved. The sector councils are managed by different ministries with competing roles. There is little co-ordination across the stakeholders and a lack of evaluation regarding their effectiveness. Existing mechanisms, such as the sector councils, and new initiatives are needed to facilitate collaboration among the wide range of stakeholders who often have different and at times divergent interests and needs.

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12. **Improving the coordination and collaboration across levels of government to improve skills outcomes.** Co-ordination is needed to ensure that skills policy delivery is consistent with design. Local governments in Korea differ in their capacity to raise taxes, which leads to wide disparities in the resources available for implementation at the local level. This results in some local governments being better equipped to address skills challenges than others. While the level of financial transfers from national government to the local government budget has decreased, local government has had to spend an increasing amount on social welfare programmes. This has led to budget deficits and conflicts between national and local governments in areas such as the provision of early childhood and care services. More needs to be done to improve information on the supply and demand of local skills and to engage stakeholders in addressing skills challenges at the local level.

How can this diagnostic report be used?

This report represents both an output of the diagnostic phase and a timely input to the broad area of skills policy in Korea. Of equal importance are the "intangible" assets generated through inter-ministerial co-operation and the engagement of the broad range of stakeholders this project has fostered. There are many possible ways that the results of this project can be put to use:

Awareness raising: the social partners and government officials who contributed to developing this diagnostic report could be encouraged to disseminate its findings and use them to foster a broader public debate about the skills challenges facing Korea today.

Priority setting: no country could be expected to tackle such a wide array of policy challenges simultaneously. So one possible next step could be to establish which challenges, from among those identified in this diagnostic report, should be tackled first.

Action planning: the ultimate aim would be to go beyond diagnosis to develop concrete plans for action. To be meaningful, this process should include all relevant skills actors, from national and regional government, to social partners and other stakeholders. Ideally, each actor in the national skills system could be encouraged to develop their own initiatives, within their respective spheres of responsibility, to tackle these skills challenges.

This diagnostic report will have served its purpose if it contributes to fostering a common understanding in Korea of the skills challenges ahead. It will have accomplished an even greater goal if it stimulates readers to go from diagnosis to action. For only by investing in strengthening Korea's skills system today will Korea be able to deliver better skills outcomes for its people in the future. The OECD stands ready to Support Korea in its ongoing efforts in designing and implementing better skills policies for better jobs and better lives.

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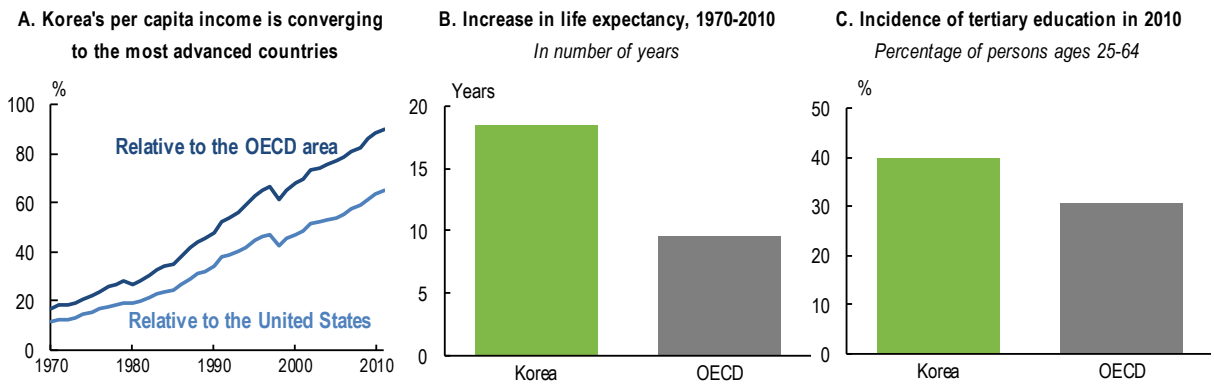
INTRODUCTION

Skills have become the key drivers of individual well-being and economic success in the 21st century. Without proper investment in skills, people languish on the margins of society, technological progress does not translate into growth, and countries can no longer compete in increasingly knowledge-based and creative economies. As countries strive to achieve the highest levels of innovation, competitiveness and social inclusion, they must focus on generating the right skills mix in the population: making sure that these skills are fully activated in the labour market, and maximising their use in workplaces.

Korea's past economic record is impressive, but rising inequality highlights the need for inclusive growth

The economic progress achieved by Korea over the past four decades has been among the most rapid and sustained, both in terms of per capita income's pace of convergence towards the OECD average, and the extent and depth of the societal transformations that economic change has entailed (Figure 1). This achievement is due to the solid foundations of Korea's growth model: a hard-working, well-educated and inventive population, and a business environment that encourages innovation, trade and integration in a globalised world economy.

Figure 1. The socio-economic development of Korea over the past 40 years has been impressive



Notes:

a. Or first year available.

b. Or latest year available.

c. Unweighted average of the 34 OECD countries.

Sources:

Panel A: OECD (2015a), "National Accounts at a Glance", *OECD National Accounts Statistics* (database), http://dx.doi.org/10.1787/data-00369-en.

Panel B: OECD (2015g), *OECD Health Statistics Database Package*, www.oecd.org/els/health-systems/health-data.htm.

Panel C: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, Table A1.3a, http://dx.doi.org/10.1787/eag-2013-en.

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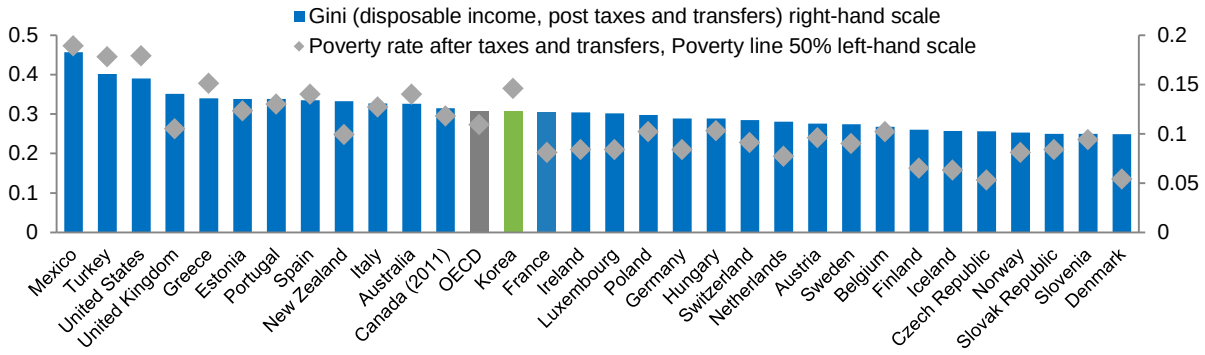
Despite these impressive achievements, greater attention is now needed to strengthen the skills and social policy agendas to reduce inequalities, while at the same time strengthening the broader framework of social cohesion. The following challenges remain for Korea:

- Over the past 15 years, Korea has experienced a marked rise in income inequality and relative poverty. The Gini coefficient, a standard measure of income inequality that ranges from 0 (when everybody has identical incomes) to 1 (when all income goes to only one person), has been on an upward trend and by 2009 had reached the OECD average (Figure 2), where it has remained. Meanwhile, relative poverty – conventionally measured as the share of the population living on less than half of the median income - has also been rising, reaching 15% in 2009, the eighth highest in the OECD.[1]

Figure 2. Income inequality has increased significantly in Korea and is now close to the OECD average, while relative poverty is one of the highest, 2010 or closest year



Notes:

a. Unweighted average of the 34 OECD countries, 2010 or closest year (2011 for Korea). The Gini coefficient of income inequality ranges from 0 (perfect equality) to 1 (perfect inequality). Relative poverty rates are defined as the share of individuals with income less than 50% of the median for the entire population. Data refer to the distribution of household disposable income in cash across people.

Source: Calculations based on OECD (2015b), *OECD Income Distribution Database*, www.oecd.org/social/income-distribution-database.htm.

Conventional well-being indicators confirm emerging tensions in Korean economy and society. Korea has the lowest birth rate in the OECD while the country is facing a tough demographic transition with a rapidly ageing population (Figure 3). The low birth rate also suggests a social context in which individuals cannot easily combine family life with work aspirations, and as a result cannot easily have children.

There are also strong signs that the considerable educational progress Korea has achieved so far has not translated fully into better labour market outcomes, particularly among women. Korea's economic model of working long hours makes it difficult to combine employment with family responsibilities. As a result, access to mainstream jobs for many women is limited, as they are often responsible for childcare. Female labour force participation rates are about the same now as 20 years ago (55% compared with an OECD average of 65%), with only one-tenth of all managerial positions being held by women compared with about one-third across the OECD. The overall gender pay gap among full-time workers is 39%: the highest among OECD countries.[2] Given the wage system that rewards based on seniority rather than performance and a relatively large share of temporary workers (labour market dualism), the loss in wages and career prospects for those who temporarily leave the labour force results in a very large "motherhood penalty".

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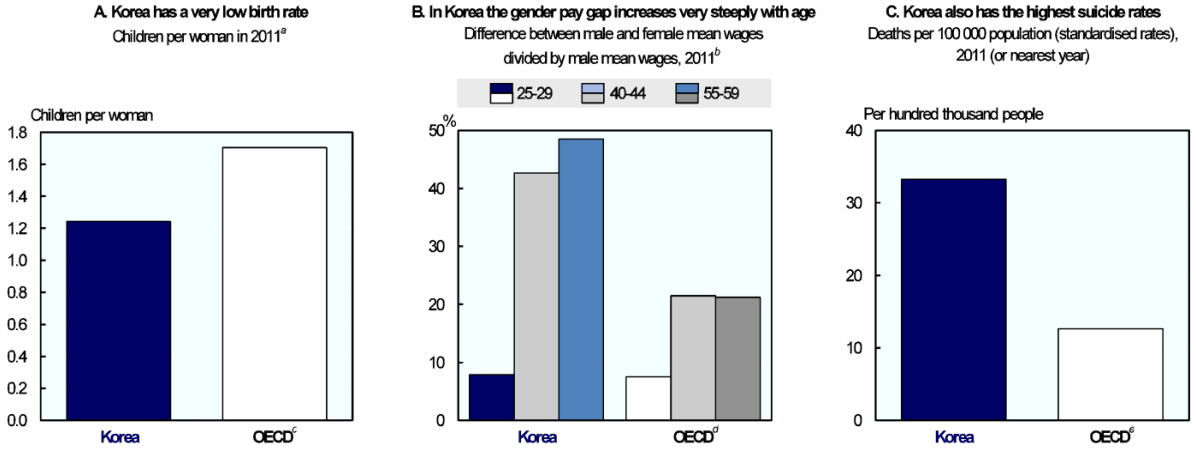
Korea has the highest income poverty rate for older people (65 and above) among OECD countries. The experience of poverty among this group has contributed to rising suicide rates, which have more than doubled in Korea over recent years to become the highest among OECD countries (Figure 3).

Figure 3. Korea faces multiple challenges in reducing inequality and improving well-being



Notes:
a. 2010 for Chile in the OECD average.
b. Data refers to 2012 for Korea.
c. Unweighted average of the 34 OECD countries.
d. Unweighted average of the 17 OECD countries (Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, Germany, Ireland, Japan, Korea, New Zealand, Norway, the Slovak Republic, Sweden, the United Kingdom and the United States).
e. Unweighted average of the 33 OECD countries (excluding Turkey).

Sources:

Panel A: OECD calculations based on OECD (2015c), *OECD Family Database*, http://www.oecd.org/social/family/database, Indicator SF2.1.

Panel B: OECD calculations based on OECD (2013t), *OECD Employment Database,* http://www.oecd.org/employment/onlineoecdemploymentdatabase.htm.

Panel C: OECD Calculations based on OECD (2013q), *OECD Health Database 2013*, http://www.oecd.org/health/healthdata.

Overall, Korea's combined social and economic record is a "mixed picture", which is surprising for a country that has a legacy of "egalitarian growth" and where, until well into the 1990s, economic growth was a powerful driver of social mobility. Looking to the future, there are worrying signs that today's imbalances could be compounded by several factors that make Korea particularly vulnerable to a continued rise in inequality (Figure 4):

The Korean labour market is characterised by a strong labour market dualism between regular and non-regular workers. This is a key factor behind growing inequality in pay and working conditions that feed into household income inequality and relative poverty

The redistributive impact of Korea's tax and transfer systems is among the weakest compared to other OECD countries.

The level of public social spending is among the lowest across OECD countries.

In light of these challenges the Korean Government has begun to implement ambitious reforms.

The Korean Government introduced measures to develop the necessary human resources for a "Creative Economy". In 17 major locations, the Government set up 'Centres for Creative Economy and Innovation (CCEI)' run by a partnership of large firms and SMEs in collaboration with regional sector

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councils, educational institutions, and the Government. They serve as a hub providing vocational education and training and entrepreneurship programs customised to local labour market demands.

Due to growing concerns that youth might experience a possible "employment cliff", a temporary but severe decline in employment, as a result of extending the mandatory retirement age up to 60 years old starting in 2016, the Korean Government recently announced the "Comprehensive Packages for Promoting Youth Employment" (hereafter the Packages, Mosf 2015) or '200,000 Plus Job Opportunities Project". What is worth noting in the Packages is that they place top policy priority to address skill mismatch problems and emphasise the relevance of the labour market in education. Specifically, they propose work-based learning (apprenticeship) expanding to cover students in secondary vocational high schools, and introduce professional vocational institutes (Uni-Tech) which provide 5 year courses by combining high school and vocational junior college. According to the Packages, college students become eligible to participate in the government-sponsored programmes such as the National Human Resources Development Consortium (CHAMP) and the Industry Professional Practices (IPP).

Boosting female labour market participation is crucial to achieve the "Roadmap aiming to 70% Employment by 2017". To do so, the Korean Government continues enhancing the accessibility to childcare centres in public and private sectors, and simultaneously promotes family-friendly labour market environments. To assist career-interrupted women in returning to the labour market, the Government increased the number of 'Saeil Centre for Woman' (from 72 in 2009 to 130 in 2014) which gives employment services and training programs to unemployed women. For women at work, the Government encourages them to exercise the right to reduced work hours during childbearing periods and to use parental leaves for child-rearing, hoping that these policies can prevent employed women to withdraw from the labour market. As an effort to promote flexible working hour arrangement, a subsidy is provided to employers who allow workers to switch from a full-time to a part-time position in 2015.

Korea needs to boost productivity, innovation and skills to drive inclusive growth

The OECD has been working closely with the Korean government to identify and address the country's main social challenges. *A Framework for Growth and Social Cohesion Policies in Korea* (OECD, 2011) included concrete policy suggestions for promoting more equitable social and economic outcomes in the country. The *2012 OECD Economic Survey of Korea* (OECD, 2012) delved further into these issues, followed by the policy analysis and recommendations presented in *Strengthening Social Cohesion in Korea* (OECD, 2013b) and the *2014 OECD Economic Survey of Korea* (OECD, 2014a).

OECD analysis has contributed to the policy debate in Korea about how to best achieve sustainable and inclusive growth. One broad conclusion is that while Korea needs to pursue structural reforms to sustain its strong record of economic growth, its pressing social challenges also need to be addressed as a priority. The steep rise in income inequality can have corrosive effects on social mobility, which undermines a key source of economic vitality. International experience suggests that the mobility to change earning levels across generations (intergenerational earnings mobility) tends to be low in countries with high income inequality – for example, Italy, the United Kingdom and the United States – and higher in the Nordic countries, where income is distributed more evenly.

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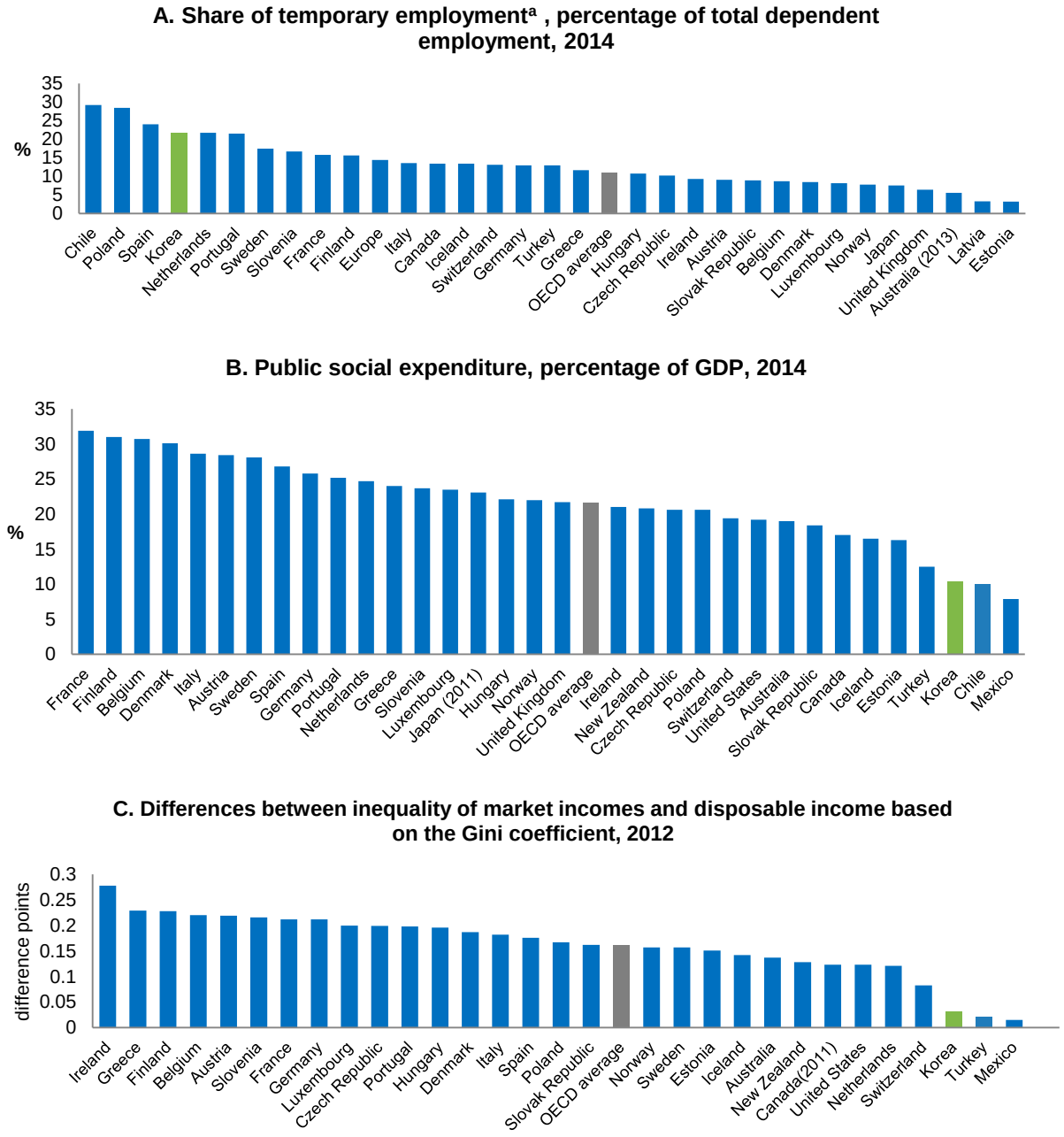
Figure 4. Three challenges that need to be met by Korean policy makers to reverse rising income inequality



Notes:
a. Temporary employees are defined as wage and salary workers whose job has a pre-determined termination date. For Korea, it includes only employees with a fixed-term contract, temporary agency workers and on-call workers (excluding double-counting).
b. Or nearest year; 2011 for Korea.
c. Weighted average of OECD countries whose data are available in 2012.
d. OECD estimated for all countries. Data for Turkey refer to 2009.
e. Unweighted average of the 34 OECD countries.
f. Unweighted average of the 30 OECD countries shown in Panel C (excluding Hungary, Mexico, Switzerland and Turkey).

Sources:
Panel A: OECD (2015d), *OECD Online Employment Database*, www.oecd.org/employment/database.
Panel B: OECD (2015e), *OECD Social Expenditure Database*, www.oecd.org/social/expenditure.htm.
Panel C: OECD (2015b), *Income Distribution Database*, www.oecd.org/social/income-distribution-database.htm.

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Fostering social cohesion is a source of concern for an increasing number of Korean citizens. For example, Koreans increasingly question the quality of fundamental services, such as health care and education. They also question the concrete opportunities provided by education and training and the actual returns to their investment in human capital. They are also increasingly worried about the quality of jobs available and whether they are stable enough to provide adequate career prospects and a decent pension (OECD, 2013b). At the same time, rapid population ageing means that addressing such issues is both increasingly urgent and more challenging. Korea's demographic transition, from one of the youngest populations in the OECD today to the second oldest by 2050, may slow economic growth and boost the need for public spending.

This multifaceted context implies that sustaining growth with stronger job creation, while simultaneously addressing issues of equity and solidarity across generations, requires a comprehensive policy framework. The government faces a delicate balancing act between legitimate social concerns and budget pressures and the need to ensure the fiscal sustainability of Korea's social protection system in the long run. Well-chosen and cost-effective solutions are required to tackle these issues.

Skills are key to economic growth and social cohesion in Korea

When considering the Korean context, several key questions arise in relation to skills: What is the potential for a skills strategy to support the pursuit of stronger, more inclusive growth in the years to come? How can this help promote employability among under-represented groups, such as women and older workers, which is a key priority for a rapidly ageing society? What positive feedback effects on the quality of jobs can be expected?

An integrated skills strategy for Korea could contribute to promoting inclusive economic growth and social cohesion in four main ways:

One: Skills enable sustainable growth, which is essential to social cohesion

Serious measures by the Korean government to promote a skills strategy would help to generate a virtuous cycle of growth, where increased household income and private consumption leads to greater investment and job creation by the business sector. In the Korean context, sustained economic growth will also be essential to generate the revenue needed to finance social programmes. Social spending is currently 9.6% of GDP in Korea, which is very low by OECD standards. By 2050, population ageing alone is projected to boost public social spending to reach the 2012 OECD average (OECD, 2013b). In a context of low economic growth it would be very difficult to further raise social spending towards the OECD average of 22.1%. Thus a skills strategy can contribute a dual dividend: sustained long-term growth along with strengthened social cohesion, the latter reflecting the increased affordability of adequate social programmes.

A review of the key drivers of economic growth from an international perspective (Figure 5) shows that in 2012, the gap in GDP per capita of Korea with respect to the top half of OECD countries was approximately 30%. Analysing this gap in terms of the effect of labour utilisation as distinguished from the effect of labour productivity suggests that output growth in Korea is by and large fuelled by strong growth of labour inputs, reflecting exceptionally long working hours. Working time per capita was more than 35% above the top half of OECD countries. This suggests that there is little scope to raise further labour utilisation, which is likely to decline as the working-age population begins shrinking in 2017 and working hours continue to decline from their high level. Priority should instead be given to adjusting its composition by reducing the high working hours and raising participation rates among groups that are currently under-represented in the labour market.

In contrast to labour inputs, Korea's labour productivity per hour worked is 51% below the average of the top half of OECD countries (Figure 5, Panel 3), explaining the 30% per capita income gap between

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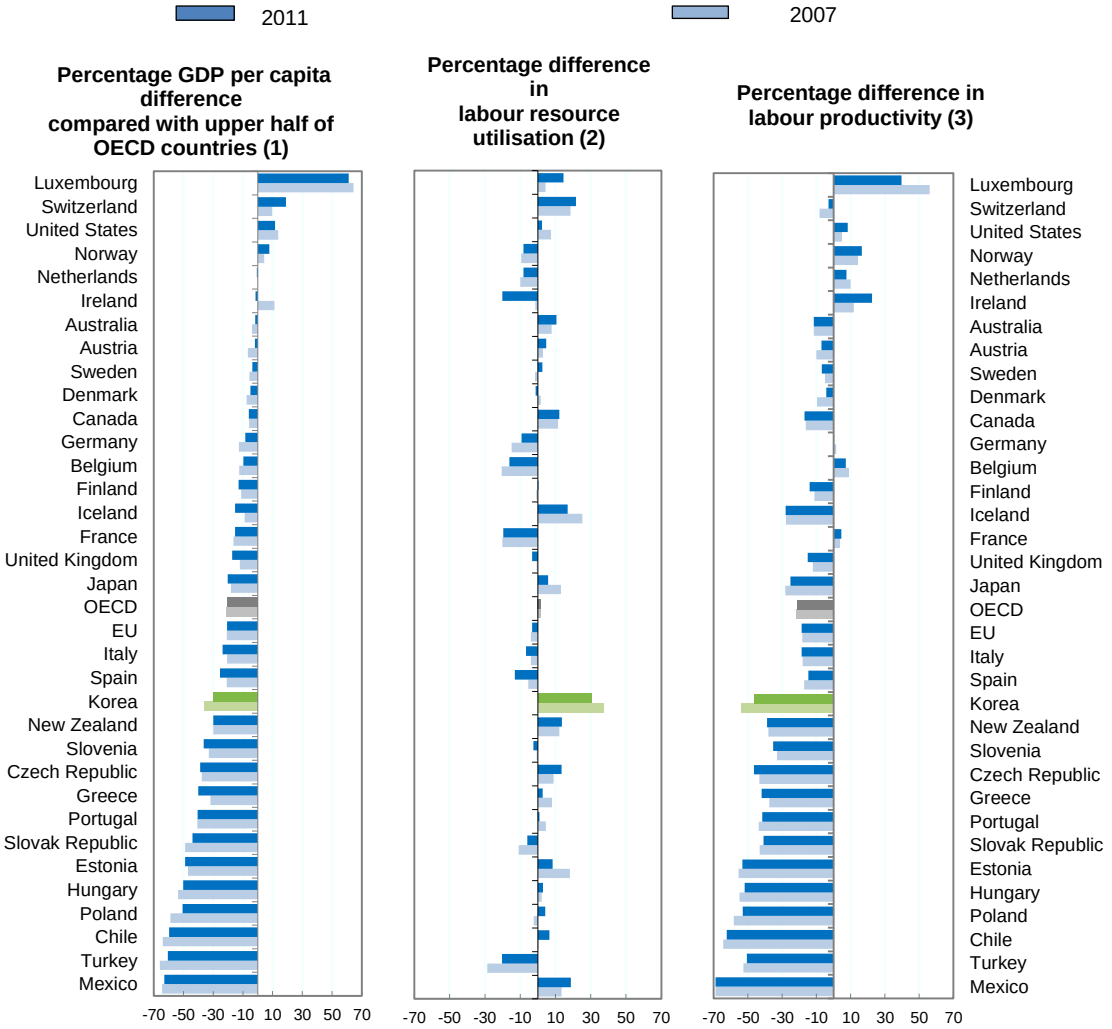
Korea and the high-income countries. The other key to sustaining output growth in Korea, therefore, will be to increase labour productivity, while limiting the decline in labour inputs through higher participation. Given that productivity is relatively high in the manufacturing sector, the priority should be on increasing productivity in the service sector, which accounts for two-thirds of total employment. Labour productivity in Korea's service sector is about 54% of productivity levels in its manufacturing sector, and 44% of the United States' service sector average in 2010.

Figure 5. Korea's future output growth depends on gains in labour productivity, which is low by international standards



Notes:
1. Compared to the average of the 17 OECD countries with highest GDP per capita in 2012, based on 2012 purchasing power parities (PPPs). The sum of the percentage differences in labour resource utilisation and labour productivity does not add up exactly to the GDP per capita difference since the decomposition is multiplicative.
2. Labour resource utilisation is measured as the total number of hours worked per capita.
3. Labour productivity is measured as GDP per hour worked.
4. For Luxembourg, the population is augmented by the number of cross-border workers in order to take into account their contribution to GDP.
5. Data refer to GDP for mainland Norway which excludes petroleum production and shipping. While total GDP overestimates the sustainable income potential, mainland GDP.
6. Average of European Union countries in the OECD.
Sources: OECD (2015a), *OECD National Accounts Statistics*, http://dx.doi.org/10.1787/data-00369-en.
OECD (2015d), *OECD Online Employment Database,* www.oecd.org/employment/database.
OECD (2015f), *OECD Economic Outlook: Statistics and Projections,* http://dx.doi.org/10.1787/eo-data-en.
OECD (2013c), *Economic Policy Reforms 2013*, http://dx.doi.org/10.1787/growth-2013-en.

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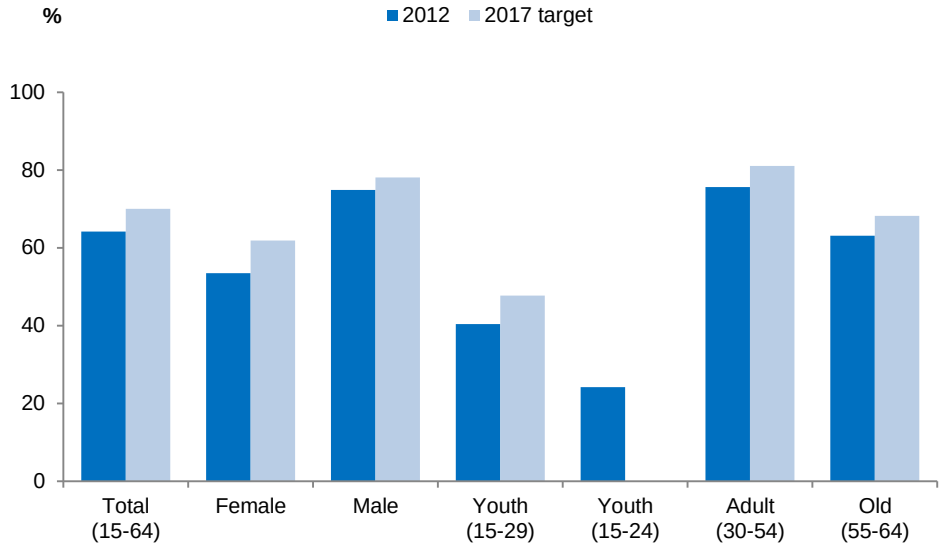
These structural features prompted Korea's new administration to announce an ambitious roadmap in mid-2013, aimed at raising employment to 70% of the working age population (15 to 64 years old) by 2017 (Figure 6). Since 2003, Korea's employment rate has remained close to 64%. Boosting it to 70% – a level achieved by 13 OECD countries, including Japan, Australia and New Zealand (Figure 7) – would provide numerous economic and social benefits. In particular, the female employment rate in Korea was 53.5% of the working-age population in 2012, the tenth lowest among 34 OECD countries. Given the high level of educational attainment of Korean women – 60% have a tertiary education, the second highest among OECD countries – low female labour market participation implies that Korea is underutilising an essential resource. As a result, the roadmap sets a target employment rate for women of 61.9% by 2017, which is to be supported by expanding the number of part-time jobs from 1.49 million in 2012 to 2.42 million in 2017, including in the government sector.

The roadmap aims to generate a shift in the focus of job creation from men and long working hours towards women's participation. It is also seeks to reinforce the productivity driver of the "growth machine" by promoting greater opportunities to spearhead a knowledge-based, more creative, economic model. This "creative economy" will require facilitating the development and expansion of young businesses with a strong entrepreneurial and inventive spirit. It will also need to involve a structural shift from manufacturing and large companies to a productive structure where services can play a greater role.

Figure 6. The employment rate targets set by the Roadmap

As a per cent of the working-age population in each age group



Source: Government of Korea (2015), Employment rate targets set by the Roadmap. http://www.employment70.go.kr.

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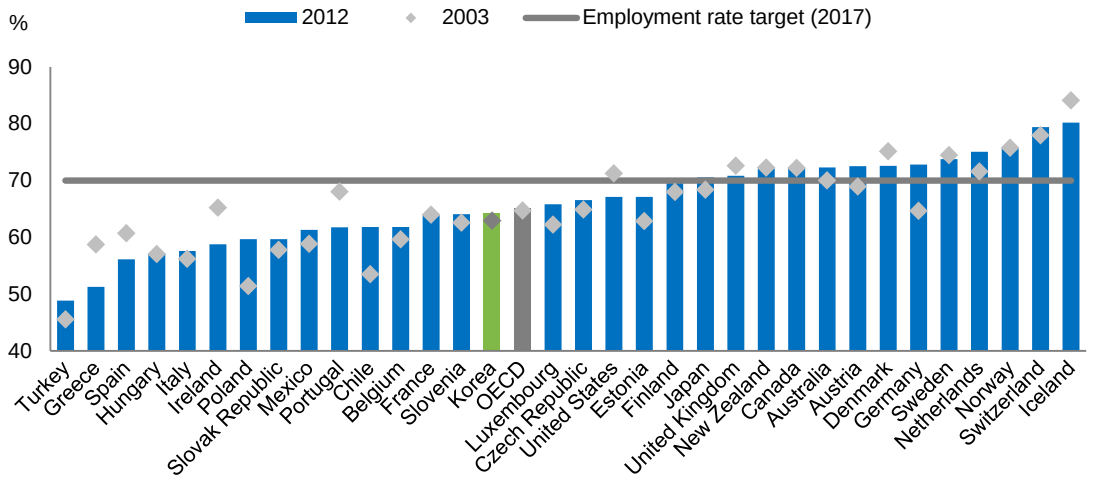
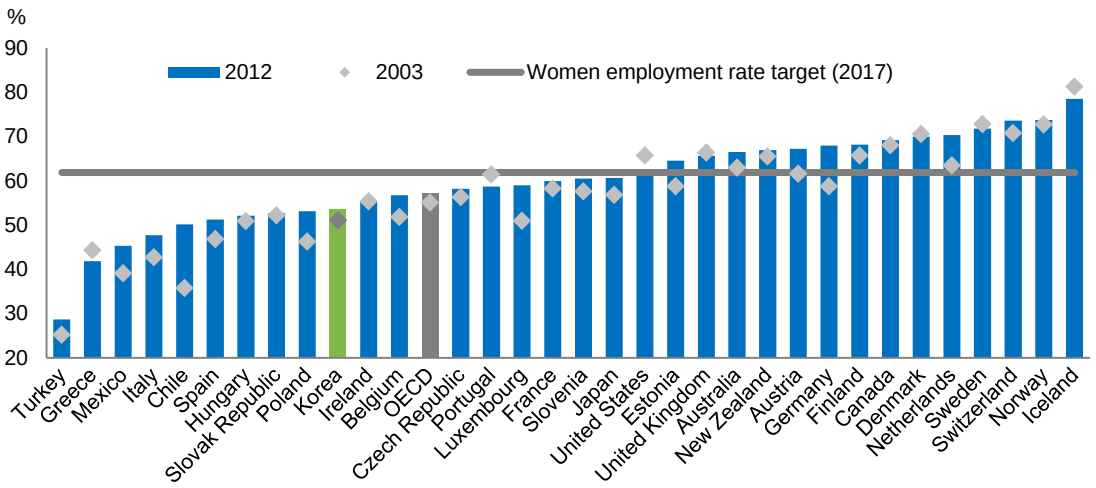
Figure 7. Korea's employment rate lags behind the most advanced economies

A. Total employment rate
Percentage of the working-age population



B. Women employment rate
Percentage of the female working-age population



Source: OECD (2013e), *OECD Labour Force Statistics Database*, http://www.oecd.org/std/labour-stats/.

To achieve the goals set out in the roadmap, Korea will need to build on a solid skills strategy. One key result of the *Survey of Adult Skills* (PIAAC) (OECD 2013d) is that the level of proficiency, beyond that acquired through initial education, plays a sizeable role in the likelihood that an adult will participate in the labour force. This finding implies, for instance, the need to strengthen lifelong learning and the development of skills beyond school to equip workers with the necessary skills to meet the fast changing needs of today's labour markets.

The *Survey of Adult Skills* (2013d) also shows that those countries able to make more intensive use of skills available in the workplace also enjoy greater productivity. Although this also depends upon other factors, such as capital stock, the quality of production technologies and the capacity of the labour market to match workers to jobs, skills are essential. For example, differences in the average use of reading skills

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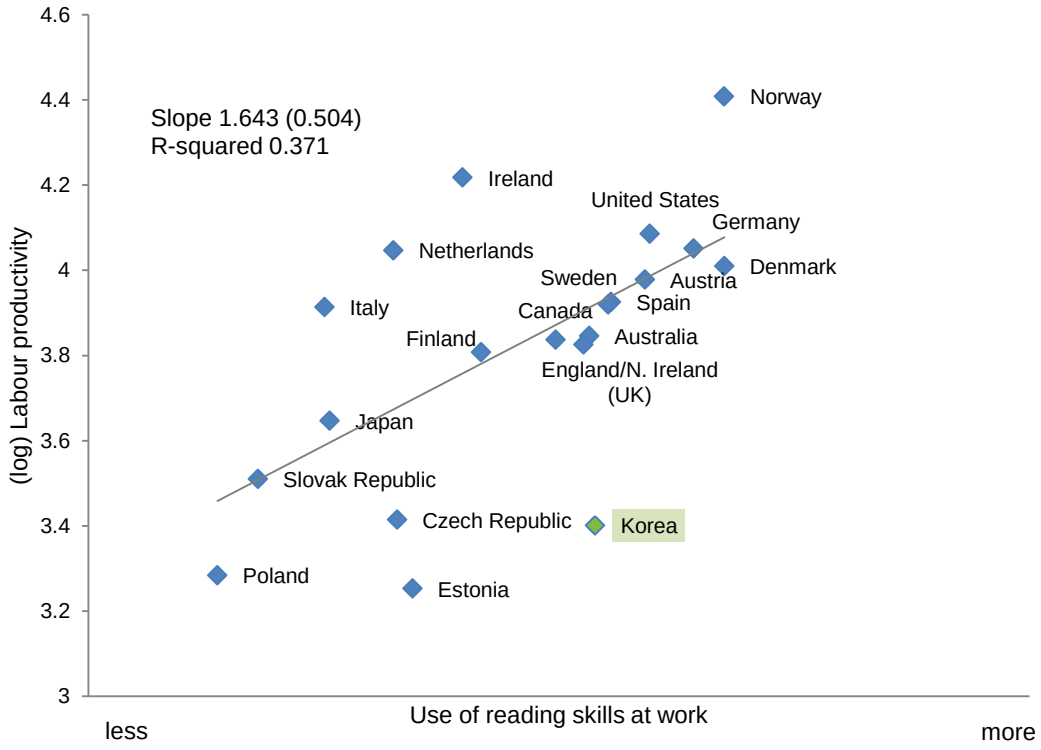
at work appear to explain around 30% of the variation in labour productivity across the sample of OECD countries reviewed by the Survey (Figure 8). Despite its notable educational achievements, Korea stands out as one of the countries where the relation remains very weak. Figure 8 shows that several OECD countries with similar skills proficiency levels to those of Korea – for example, Japan, the United Kingdom, Canada and Germany – perform much better in terms of productivity outcomes.

The strong positive relation between skills and labour market participation and productivity suggests that returns from Korea's investment in human capital could be raised if more attention were paid to a skills strategy aimed at reinforcing the match between skills available and those required by the labour market. At the macro-economic level, benefits would take the form of an increased adaptability of the workforce to changing labour needs, which is important to support long-term growth. At the firm level, the benefits would be visible in a reduced rate of turnover and strengthened productivity. For the individual workers, there would be lower working hours and higher job satisfaction.

Figure 8. Productivity gains of better matching the skills acquired in education with those required on the job are potentially large for Korea, 2012



Note: Lines are best linear predictions. Labour productivity is equal to the GDP per hour worked, in USD current prices. Adjusted estimates are based on OLS regression including controls for literacy and numeracy proficiency scores. Standard errors in parentheses.

Source: OECD (2013d), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en, *Table A4.4.*

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Two: Boosting skills helps to reduce labour market dualism

The evidence presented in *Strengthening Social Cohesion in Korea* (OECD 2013b) shows that non-regular workers account for a little more than one-third of all employees[3] and that their pay and other terms of employment are considerably less attractive than those for regular workers (Table 1, Panel A).[4] Non-regular work takes a number of different forms involving one or more of the following characteristics: Temporary or contingent workers accounted for 58% of non-regular employment in 2013 and the large majority have fixed-term contracts. Part-time workers accounted for 32% of non-regular employment in 2013.[5] Atypical workers, who have a number of different employment statuses (e.g. independent contractors, dispatched workers, daily and on-call workers), accounted for 39% of non-regular employment in 2013.[6]

Table 1. The incidence and relative pay of different types of non-regular employment, 2003-13

Panel A. Employed persons by status

	Total wage workers	Non-regular workers		*Share (%) of which*[a]						
				Temporary workers, with			Part-time workers	Atypical workers		
Year	(000)	(000)	%	Fixed-term contract	Open-ended contract, expect job to continue[b]	Open-ended contract, but could be dismissed[c]		Dispatched	Daily	Others[d]
2003	14,149	4,606	32.6	52.2	5.4	7.9	20.2	2.1	12.8	24.1
2005	14,968	5,483	36.6	49.8	5.5	10.7	19.0	2.2	13.1	22.0
2007	15,882	5,703	35.9	44.4	9.7	8.1	21.1	3.1	14.8	23.7
2009	16,479	5,754	34.9	48.9	3.0	9.1	24.8	2.9	15.3	23.6
2011	17,510	5,995	34.2	44.5	5.7	7.3	28.4	3.3	16.0	22.7
2013	18,240	5,946	32.6	46.4	4.4	6.9	31.7	3.4	13.8	21.3

Panel B. Hourly wages of non-regular workers relative to regular workers
Index "Regular worker" = 100

	Regular workers	Non-regular workers	*Of which*						
			Temporary workers, with			Part-time workers	Atypical workers		
Year			Fixed-term contract	Open-ended contract, expect job to continue[b]	Open-ended contract, but could be dismissed[c]		Dispatched	Daily	Others[d]
2003	100.0	71.6	70.7	88.4	55.8	85.1	68.0	63.2	65.5
2005	100.0	70.5	74.5	89.1	54.1	76.7	76.1	53.7	66.6
2007	100.0	70.9	76.3	98.1	48.0	66.6	70.8	52.0	61.9
2009	100.0	61.5	65.5	87.2	48.7	56.2	69.7	47.6	60.0
2011	100.0	65.3	69.0	93.7	52.4	59.3	66.5	47.4	63.7
2013	100.0	64.8	69.2	96.0	50.9	55.5	62.8	51.5	61.3

Notes:
a. The sum of the categories of non-regular workers exceeds 100% due to double-counting.
b. Workers whose term is not fixed and can be renewed regularly.
c. An employee could be dismissed, for example, due to seasonal factors, completion of a project or the return of an employee that they were replacing.
d. "Others" corresponds to atypical employment categories such as independent contractors and in-house workers. The hourly wage index for "Others" in Panel B is an employment-weighted average for these three employment types.

Sources:
Panel A: Statistics Korea (2013), Economically Active Population Survey (EAPS), Supplementary Results of the EAPS by Employment Type (August), http://kostat.go.kr/portal/english/index.action.
Panel B: Korea Labour Institute (2013), "2013 Korea Labour Institute Labour Statistics of Non-regular Workers" for relative earnings and OECD calculations based on the Ministry of Employment and Labour Survey on Labour Conditions by Type of Employment.

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The share of non-regular workers rose sharply following the 1997 economic crisis, reaching a peak of 37% in 2004. Since then their number has slightly declined to 33% in 2013, probably due to the regulatory changes introduced since 2007 to discourage the overuse of these types of jobs by employers.[7] However, Kim (2010) argues that 38% of regular workers under the definition used in Table 1 (in 2008), could plausibly be reclassified as a type of non-regular worker, a "disadvantaged worker", because they have little job security and face a pay penalty similar to that associated with non-regular workers. Despite the lack of a consensus regarding the best definition of non-regular work, there appears to be evidence that a significant share of workers in Korea hold jobs that provide substantially less job security and lower compensation than is available to core workers in large corporations.

The hourly wages of non-regular workers are far lower than those of regular workers and this pay penalty appears to be growing. On average, the hourly wage penalty for non-regular workers was 28% in 2003 but rose to 35% in 2011 and remained stable in 2013 (Table 1, Panel B). While all types of non-regular employment pay less than regular employment, the pay penalty varies somewhat, with daily workers receiving a particularly low hourly wage: roughly one-half the average wage for regular workers in the most recent years. Non-regular workers are also much less likely than regular workers to receive other forms of compensation, such as bonuses and allowances.

Ahn (2006) argued that a significant part of the overall wage gap for non-regular workers can be attributed to differences in the quality of these workers. However, even after taking into account individual characteristics, such as education and job tenure, a sizeable total pay difference remains. The *Survey of Adult Skills* (OECD 2013d) showed that the proficiency levels of temporary workers are not significantly different from those of permanent workers (Figure 9, Panel A). This suggests that the two groups of workers perform very similarly at work, meaning that the persistent wage differential between regular and non-regular workers is unlikely to be due to differences in the capacity to meet certain work requirements. Panel B of Figure 9 shows that one likely explanation of the gap is that temporary workers use significantly less skills at work than workers on permanent contracts.

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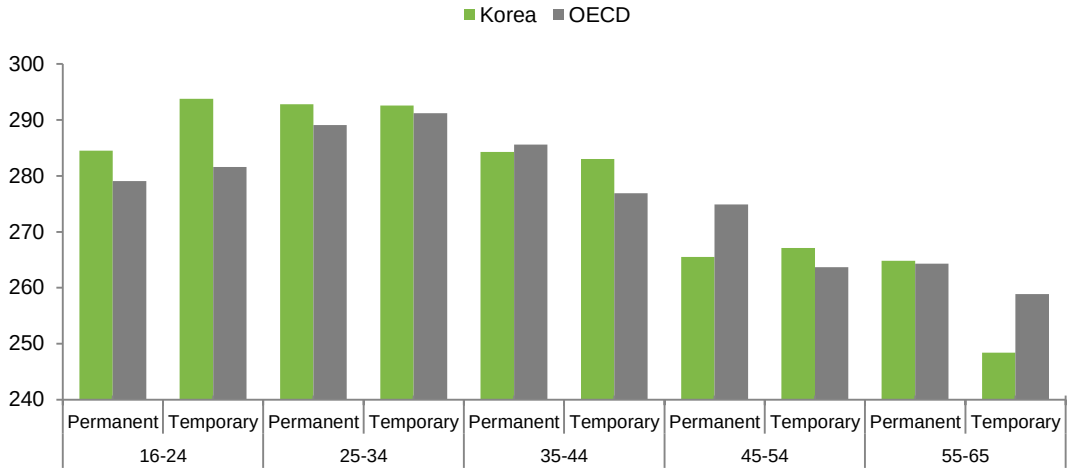
Figure 9. Proficiency levels differ little between temporary and permanent workers in Korea, but temporary workers use their skills less at work, 2012

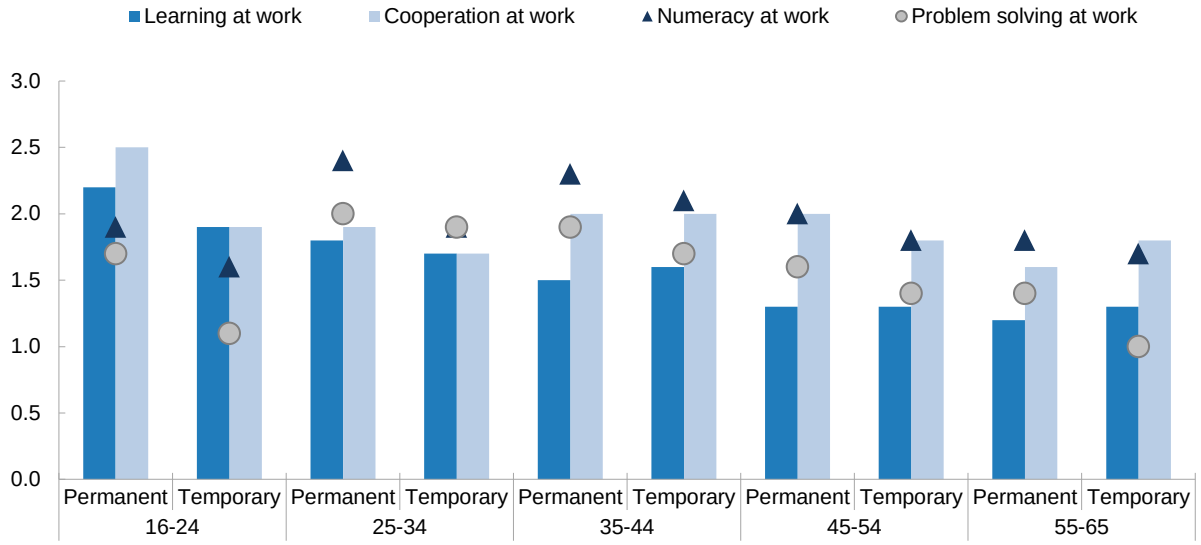
Panel A: Mean literacy proficiency score by type of contract and age group

(Mean literacy proficiency score by type of contract and age group)



Panel B: Skill used at work level by type of contract and age group

(Scores between 0 and 4; 0 "never" and 4 "every day", self-reported)



Source: OECD (2013d), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

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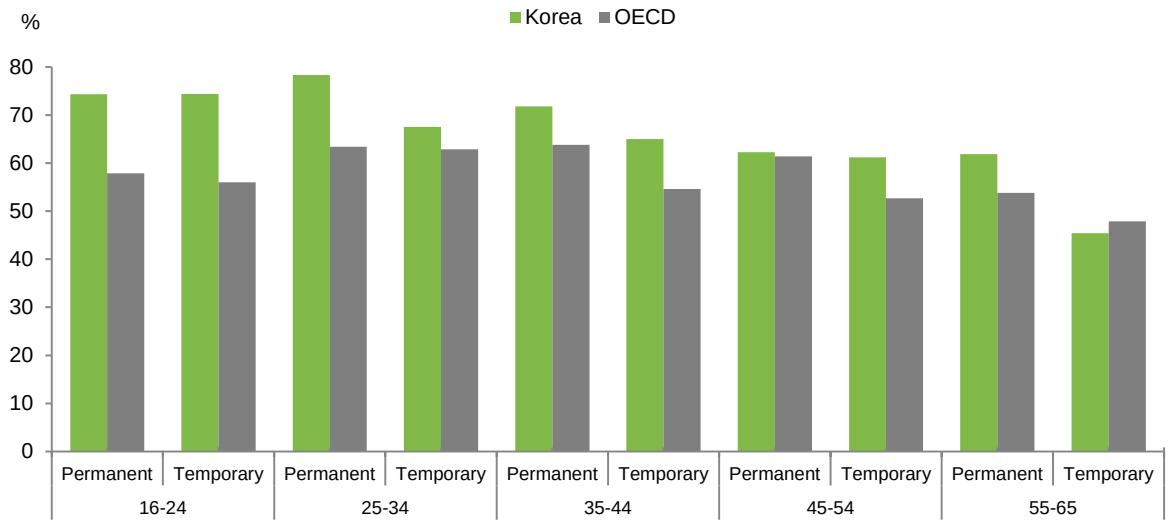
Figure 10. Access to training is generally lower for workers on temporary contracts, 2012

Proportion of people in training by type of contract and age group



Note: Training corresponds to individuals who report having had one or more learning activities during the last 12 months. The data do not provide any information about the quality of training.

Source: OECD (2013d), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

In this context, the most common reasons cited by involuntary non-regular workers for accepting a job are to obtain immediate income (77%) or their inability to find a more desirable job (13%). Furthermore, non-regular workers are considerably more likely than regular workers to report that they feel over-educated for their job (Table 2). In addition, they receive less continuing vocational training, and more frequently report that they are either not learning any new skills at work or only learning skills specific to their current job. These results are consistent with the outcomes of the *Survey of Adult Skills* (OECD, 2013d), where temporary workers reported receiving less training of any type than permanent workers during the last 12 months (Figure 10). While these figures must be interpreted carefully as the data available do not provide any information about training quality, this suggests that non-regular workers seem to be particularly exposed to the risks of skills losses, both because they are precluded from the possibility to fully apply their skills at work and due to more limited opportunities of access to formal training or other forms of on-the-job learning. The combination of these two factors makes it more difficult for them to qualify for better jobs.[8]

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Table 2. Skills use and development for regular, non-regular and self-employed workers

Average percentages, 2002-09

Educational mismatch	Very over-educated	Over-educated	Matched	Under-educated	Very under-educated
All paid workers	1.6	17.9	79.0	1.4	0.1
Regular workers	1.2	16.1	81.3	1.4	0.1
Non-regular workers	3.0	24.7	70.7	1.6	0.1
Self-employed workers	1.4	16.3	81.0	1.2	0.1
Portability of skills learned on current job	Fully general skills	Partly general skills	Mostly specific skills	No learning	
All paid workers	50.4	33.3	10.3	6.1	
Regular workers	53.7	33.9	8.1	4.4	
Non-regular workers	43.7	33.6	13.9	8.8	
Self-employed workers	48.8	31.6	11.9	7.6	
Continuing vocational training in the past year	Received training	No training			
All paid workers	10.9	89.1			
Regular workers	13.2	86.8			
Non-regular workers	10.1	89.9			
Self-employed workers	6.7	93.3			
Who paid for continuing vocational training	Worker	Worker's family	Employer	Government	Other
All paid workers	13.7	0.8	64.9	19.2	1.4
Regular workers	7.1	0.8	70.9	20.4	0.9
Non-regular workers	10.3	0.7	73.6	13.8	1.6
Self-employed workers	46.3	1.0	28.9	20.2	3.5

Note: Non-regular workers identified using the closest possible approximation of the official definition in the Korean Labour and Income Panel Study (KLIPS) dataset (as advised by the Ministry of Employment and Labour).

Source: Korea Labour Institute (2013b), *Korea Labour and Income Panel Study for Korea* (waves 5-12), https://www.kli.re.kr/kli_ehome/main/main.jsp.

A key concern regarding temporary employment is that it may expose workers to higher levels of employment insecurity. The incidence of low job tenure in Korea is the highest observed among OECD countries (Figure 11), which implies a high worker turnover rate. Job turnover can play a useful role in re-allocating workers from declining sectors and firms to more dynamic ones, but the high levels in Korea appear to reflect the "churning" of workers through ongoing jobs.[9] This suggests that the increase in temporary employment since the 1997 economic crisis has provided employers with considerable flexibility to adjust the size and composition of their workforces, and points to the fact that the associated adjustment costs may be excessively high and unfairly concentrated on non-regular workers.

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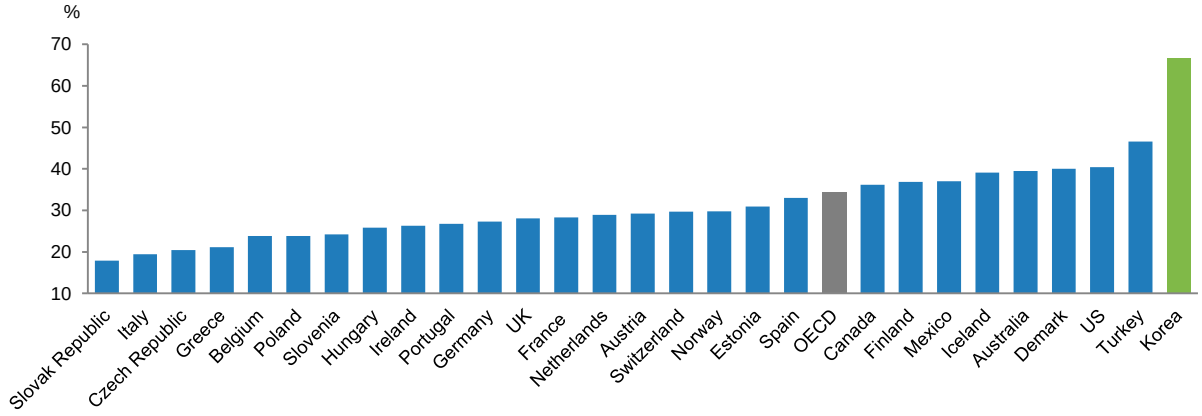
Figure 11. Worker turnover in Korea is the highest in the OECD area

Sum of gross hirings and separations as a percentage of employment in 2012

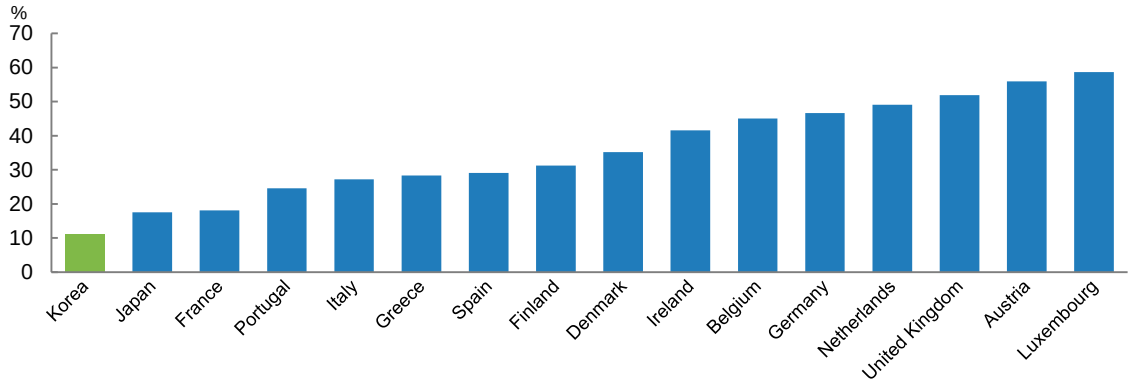


Source: OECD (2015d), *OECD Employment Database,* http://www.oecd.org/employment/onlineoecdemploymentdatabase.htm.

Comparative data can shed light on the transition from temporary to permanent employment (Figure 12). Temporary workers in Korea are less likely to move into permanent employment than their counterparts in 15 other OECD countries. This is true over both an one-year and a three-year time horizon (Challenge 7). This form of mobility is also low in Japan, whereas in Europe, the "stepping-stone" pattern is much more prevalent. This implies that non-regular workers in Korea appear to be more at-risk of becoming trapped in poor quality jobs than their counterparts in other OECD countries. One likely reason for this is that the majority of temporary workers in Europe are young, and temporary jobs often provide a bridge between study and stable career jobs.[10]

Figure 12. Temporary jobs are less often stepping stones to permanent jobs in Korea

1-year transition probabilities from temporary to permanent employment



Source: Korea Labour Institute (2013), *Korea Labour and Income Panel Study for Korea* (waves 5-12), https://www.kli.re.kr/kli_ehome/main/main.jsp; European Commission (2013), *European Union Labour Force Survey* (waves 5-8), http://ec.europa.eu/eurostat/web/microdata/european-union-labour-force-survey.

Japanese estimate from Shikata, M. (2012), "Is Temporary Work 'Dead End' in Japan? Labour Market Regulation and Transition to Regular Employment", in *Japan Labour Review*, Vol. 9, No. 3, Summer.

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The evidence suggests that a significant portion of the Korean labour force working in precarious jobs does so at relatively low wages, and tends to remain stuck in the same status. Lower wage costs are a strong incentive for firms to hire non-regular workers. However, as these workers are unable to build up seniority they have limited opportunities to move to a more stable position. At the same time, the lack of career prospects, combined with the fact that they use their skills less than regular workers, means that their wages tend to stay relatively low. Firms appear to have few incentives to provide adequate training to non-regular workers. A skills strategy aimed at widening the opportunities for non-regular workers to access good quality lifelong learning would help them accumulate and maintain valuable skills, and perhaps enable them to cross the divide to regular employment. The double-dividend effects of such a strategy would be visible in terms of stronger productivity growth and reduced dualism in the Korean labour market.

Three: A skills strategy will help align the labour market to the needs of the economy

The high level of labour market dualism in Korea is partly a result of the relative under-development of the service sector and of small and medium-sized enterprises (SMEs). SMEs are far less productive in Korea than large manufacturing firms, some of which have become world leaders. However, it also reflects notable weaknesses in the performance of the service sector (OECD, 2012; Park and Shin, 2012). Over time, the relatively small productivity gains of service sector firms and SMEs have translated into large cumulative declines in the relative wages of workers employed in those firms, as compared to the wages in large manufacturing firms. Low productivity and wages in service sector and smaller firms are therefore an important source of earnings inequality. Going forward, it will become increasingly difficult for overall productivity and living standards in Korea to align with those in the highest income countries if the productivity performance of the service sector, which accounts for a large and rising share of total employment, does not improve.

While wages in services have fallen relative to those in manufacturing in most large OECD countries, in Korea the decline has been much steeper (Figure 13, Panel A). For example, average service sector wages were nearly as high as manufacturing wages at the beginning of the 1990s in both Korea and Japan, but are now only 55% as high in Korea compared to 84% as high in Japan. The wage gap between SMEs and larger firms has also increased substantially (Figure 13, Panel B). Currently, average wages in firms with 5-9 workers are about 50% of the wages in firms with more than 300 employees.

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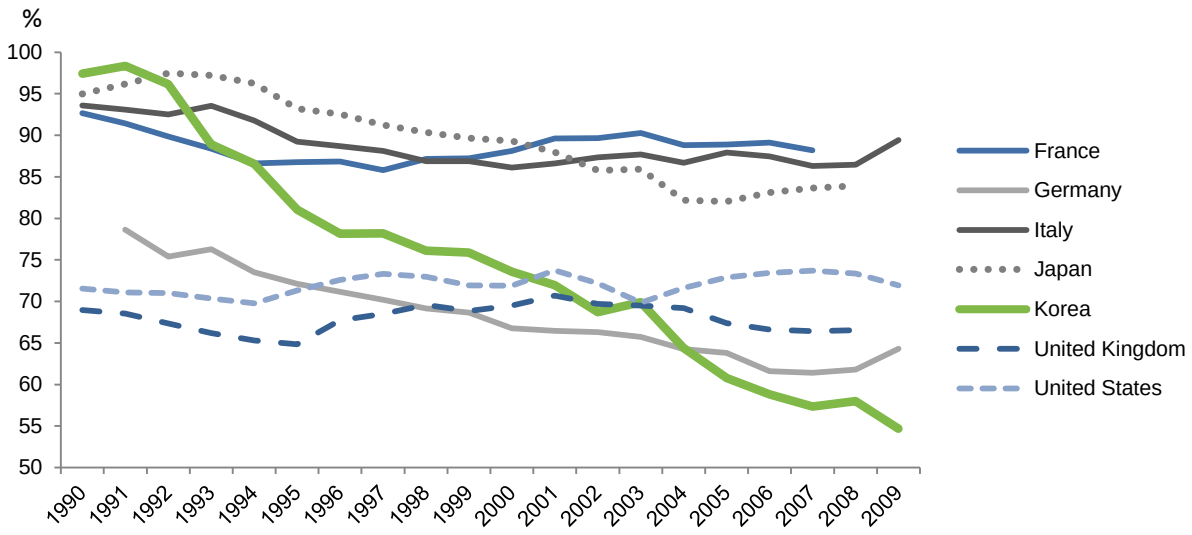
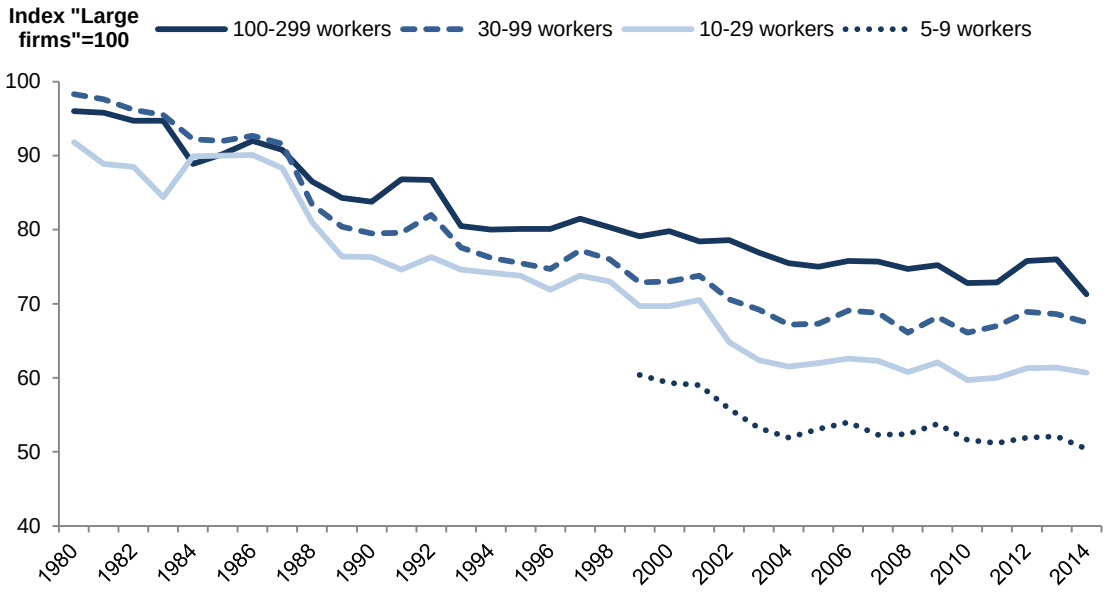
Figure 13. Relative wages are low and have fallen sharply in the Korean service sector

Panel A. International comparison of trends in service sector wages, 1990-2009[a]

Index manufacturing = 100



Panel B. Trends in wages by firm size in Korea, 1980 – 2011



Notes:

a. Compensation per employed person in the service sector as a percentage of compensation per employed person in manufacturing.

b. "Large firms" corresponds to firms with more than 300 employees.

Sources:

Panel A: OECD (2013f), *OECD STAN Indicators Database,* http://www.oecd.org/trade/stanindicatorsdatabase.htm.

Panel B: Statistics Korea (2013), *Report on the Labour Force Survey at Establishments*, http://laborstat.moel.go.kr.

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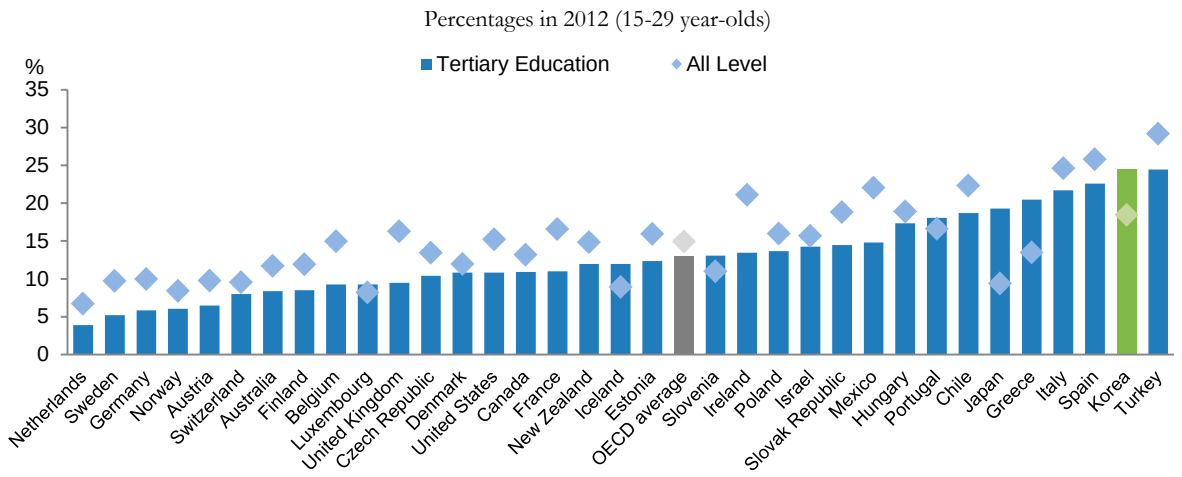
The very rapid expansion of educational attainment in recent decades brings with it the risk that an increasing share of recent school leavers will encounter difficulties in finding jobs that make good use of their skills. These concerns are reflected in the statistics on the number of youth who are neither in employment nor in education or training (NEETs). Figure 14 shows that the share of NEETs among Korean youth with a tertiary education is almost double the OECD average (24% versus 13%), while the rate among all youth is only moderately above average (19% versus 15%). By contrast, only 5% of the least educated out of school youth in Korea (i.e. those not having finished upper-secondary schooling) are neither employed nor in training, well below the OECD average of 15%. This pattern is consistent with the widespread belief that the labour market for Korean youth is characterised by an over-supply of highly educated workers, with employers unable to offer all university graduates jobs that match their qualifications. However, this has to be qualified by the fact that many NEETs in Korea are studying to prepare for recruitment tests and exams to work in the public sector or large firms, even though they are not counted as formally enrolled in an education or training course.

Figure 14. Share of youth neither in employment nor in education or training, 2012



Note: A significant share of Korean youth who are classified as being NEET according to the OECD definition is engaged in some form of study. For example, data on the category ISCED 4, which captures programmes that straddle the boundary between upper secondary and post-secondary education, are not available in Korea and 11 other OECD countries. This category could potentially include persons in an apprenticeship or in training outside of school. Unweighted average of the countries is shown on the chart. The OECD average for tertiary education (ISCED 5-6) excludes Japan and Chile.

Sources:

OECD (2014a), *Education at a Glance 2014: OECD Indicators*, Table C5.4, http://dx.doi.org/10.1787/eag-2014-en.

A skills strategy better tailored to the needs of the economy, particularly the key priority of reinforcing the productivity of the service sector, could play a significant role in boosting youth employment and help young people obtain higher economic returns on their investment in education. If this strategy could mobilise the rapidly growing supply of highly educated workers to upgrade the productivity performance of SMEs and the service sector, then the incidence of skills mismatch could be minimised. At the macroeconomic level, a skills strategy could support the strategic priorities of the government by catalysing a desirable shift towards the "creative economy". Moreover, at the level of individual workers it would open up new career opportunities for a generation of well-educated young workers.

Four: skills can help smooth the intergenerational gap in education

Educational attainment has increased much more rapidly in Korea during recent decades than other OECD countries (Figure 15). Whereas educational attainment for Koreans between the ages of 55 and 64 is significantly below the OECD average in Korea, educational attainment is significantly above the OECD average for Koreans between the ages of 25 and 44. For example, 98% of Korean 25 to 34-year-

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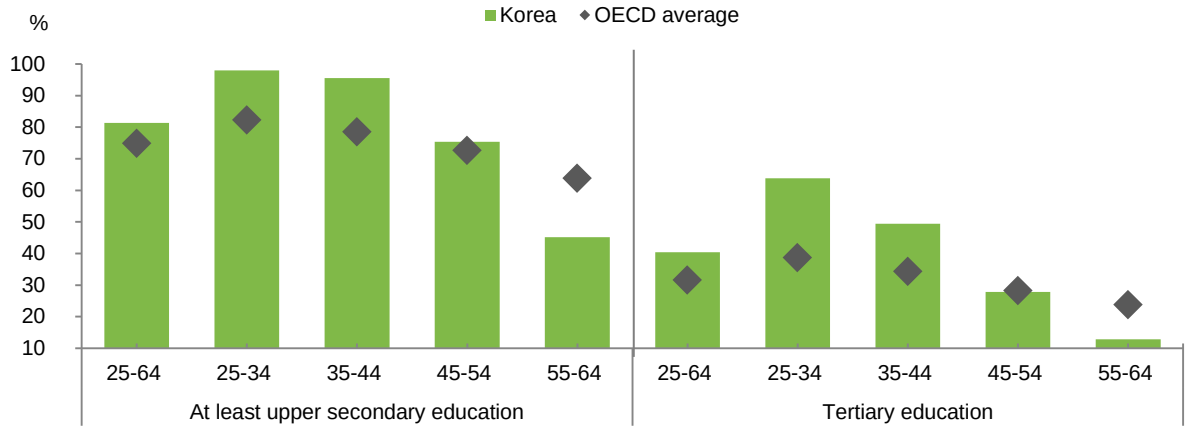
olds has completed upper-secondary school and 65% a university-level tertiary degree, compared with OECD averages of 82% and 38%, respectively. The large differences in the skill profiles of Korean workers who are now retiring and those who are beginning their working lives suggests a potentially serious mismatch between the skills profile of labour market entrants and the skills needs of employers. This mismatch, due to the apparent over-emphasis on higher education among young people, raises the risk of a sharp fall in the returns to their large investments in tertiary education.

Figure 15. Educational attainment in Korea by age group (% in 2011)



Note: Unweighted average of the 34 OECD countries. "At least upper secondary education" excludes short programmes for upper secondary education (ISCED 3C).

Source: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, http://dx.doi.org/10.1787/eag-2013-en.

The obsolescence of skills and lack of suitable employment services contribute to the decreased employability of older workers in many OECD countries. In Korea, these factors are further reinforced by the relatively low educational attainment levels of older people compared to younger people, which explains why many older people work in non-regular jobs with low pay. Firms pushing older workers out, even before the mandatory retirement age set by firms (which averages 57), is a source of serious economic hardship as the public pension scheme pays benefits to only a quarter of the elderly and the levels of such benefits are low. Starting in 2016 the mandatory retirement age will be 60-year for firms with more than 300 employees and starting in 2017 applied to all firms.

Available figures dating to the end of 2010 suggest that government expenditure on lifelong learning, including vocational training, amounts to about 0.1% of GDP, and that participation rates for adults is only about 30%. In this context, workers with an already high level of education appear to benefit from greater opportunities to access lifelong learning. Greater efforts are needed to target the provision of continuous training to those most in need, i.e., less-educated workers (Lee, 2012). One key factor behind the limited access of older workers to training and the strong bias towards those who are fairly well educated is that older workers have fewer skills acquired on the job. For example, firms that do a lot of training for information and communication technology (ICT) face few incentives to hire older workers. A skills strategy could help address these concerns by including a focus on continuous learning, particularly for unskilled workers. Such a tailored approach would also have the potential to improve the employment prospects of older workers.

The OECD Skills Strategy can help Korea maximise its skills potential

A coherent, strategic and long-term skills strategy would contribute to securing the future prosperity and well-being of the Korean population. Given the importance of skills for a wide range of economic and social outcomes, many advanced and emerging economies are making skills policies central to their

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strategies for reinforcing economic and social well-being. Recognising this, Korea has already implemented a number of reforms designed to increase employment and better align skills development with the needs of the economy and society.

The OECD Skills Strategy provides an integrated, cross-government strategic framework to help countries maximise their skills potential to drive inclusive economic growth and improve well-being. It helps countries identify the strengths and weaknesses of their existing national skills pool and skills systems, benchmark them internationally, and develop policies for improvement. In particular, the strategy provides the foundations upon which governments can work effectively with all interested parties – national, local and regional government, employers, employees, and learners – and across all relevant policy areas to: develop high quality and relevant skills from early childhood to adult education; activate skills in the labour market; and put skills to effective use in the workplace and the economy at large.

Fostering a whole-of-government approach to skills

Maximising a country's skills potential requires a co-ordinated effort across a range of government agencies and ministries. A whole-of-government approach to skills is needed to integrate the diverse fields of education and training, labour, economy, tax, local economic development, research and innovation. Each OECD Skills Strategy project is designed to foster greater interaction and exchange among relevant national authorities in order to forge a common understanding of the skills challenges at stake as a basis for co-ordinated action.

The project on Building an Effective Skills Strategy for Korea was conducted in close collaboration with a national project team led by the Korea Research Institute for Vocational Education and Training (KRIVET) during the "diagnostic phase" (2013-2014) and by the Korean Development Institute (KDI) in the current 'active learning' phase (2015-2016). The Korean project team played a major role in setting the strategic direction for this collaborative project and ensured that the diagnostic phase covered all relevant aspects of the national skills system.

Engaging stakeholders in strengthening the skills system

Effective skills policy design and implementation requires a broad and shared understanding of the need to enhance skills, the current strengths and challenges facing a country's skills system, and priorities for action. The OECD Skills Strategy underscores the need to look beyond government and build strong partnerships with all actors involved, such as employers, trade unions, training institutions, students and other stakeholders.

Each national project is designed to ensure stakeholder engagement and ownership, and to build a shared commitment for concrete action. This is achieved by actively engaging with stakeholders throughout the process, notably through structured workshops that privilege small group discussions among participants speaking in their native language as they work through a series of exercises. As an external, independent organisation, the OECD is well placed to convene a diverse set of stakeholders, create a "level playing field" for all actors in the skills system and foster constructive dialogue. In the case of Korea, close to 30 participants from ministries, government agencies, university, labour unions, employer association, regional institutes, research institutes, educational institutes took part in the diagnostic workshop held in Seoul on 7 November 2013 (See Annex for more details)

Through their active participation in the workshop, stakeholders have played an important role in helping to identify the main challenges faced by Korea's skills system, and their input has helped to shape this diagnostic report. While many of these skills challenges are long standing and well known to all participants, the exercises also generated new insights into how different stakeholders perceived or formulated challenges.

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Drawing upon diverse sources of information when developing a skills diagnosis

To deliver this project, the OECD has drawn upon the expertise of a multidisciplinary team of staff working in a range of OECD directorates including: Education and Skills; Labour and Social Policy; Local Economic Development; Public Governance; Taxation; Economics; Science, Technology and Innovation.

This diagnostic report draws upon three main sources of information: input from workshops with stakeholders, OECD comparative data, and relevant country case studies from other OECD countries.

Korea's stakeholders

The skills challenges identified by a diverse set of stakeholders who participated in the workshop constitute the "backbone" of this report.

OECD comparative data and analysis

The wealth of OECD comparative data and analysis which serves to shed light on the challenges identified by stakeholders, placing Korea's challenges in a broader international context. Each section examines one skills challenge and provides international comparative data from OECD and other sources.

Country case studies

The report features a selection of concrete cases to illustrate how other OECD member countries have tackled similar challenges in their own contexts.

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Box 2. Measuring adult skills in Korea through the Survey of Adult Skills (PIAAC)

The results of the *Survey of Adult Skills* (a product of the OECD's Programme for the International Assessment of Adult Competencies [PIAAC]) were released in 2013. Korea is one of the 24 countries and regions to have participated in the first round of the survey and this report draws upon those results as part of the OECD's comparative data and analysis.

This unique survey was designed to provide insight into the availability of some of the key skills in society and how they are used at work and at home. A major component of the survey was the direct assessment of a select number of skills that are considered to be "key information-processing skills", namely literacy, numeracy and problem solving in technology-rich environments. This direct measure of skills was supplemented with in-depth background information from each survey respondent. In this way, the *Survey of Adult Skills* provides new insights into the skills people have in Korea today, how they use them, and the impact that a person's background can have on skills development throughout life.

Source: OECD (2013d), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

Korea's skills challenges

The *OECD Skills Strategy Diagnostic Report: Korea* identifies 12 skills challenges that are described under each of the main pillars of the OECD Skills Strategy. The first nine challenges refer to specific outcomes across the three pillars of developing, activating and using skills. The next three challenges refer to the "enabling" conditions that strengthen the overall skills system. Success in tackling these skills challenges will boost performance across the whole skills system.

Pillar 1: Developing skills

1. Tackling the overemphasis on academic studies and higher education
2. Fostering entrepreneurship and skills for a creative economy
3. Enhancing adult skills through lifelong learning and education

Pillar 2: Activating skills

4. Activating women while balancing work and family life
5. Facilitating the school-to-work transition for youth
6. Activating older workers while improving their skills and welfare

Pillar 3: Using skills effectively

7. Aligning quality job creation and boosting the quality in existing employment
8. Reducing skills mismatches by making skills visible and using skills effectively
9. Identifying and anticipating skills needs to make effective use of skills

Strengthening the skills system

10. Promoting policy coherence and inter-linkages
11. Strengthening whole-of-government commitment and whole-of-society approach to address skills
12. Improving the coordination and collaboration across levels of government to improve skills outcomes

All of the challenges identified are strongly interlinked, and their connections with each other are identified throughout the report. Failure to look beyond policy silos will have implications for specific groups in Korea, such as youth, women and older workers, as well as for the economy and society's ability to build inclusive growth and future prosperity.

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Notes

1. Unlike the path observed in several other OECD countries, the latest indicators suggest that income inequality has declined – albeit slightly – during Korea's strong recovery from the Great Recession of 2008-09. It also appears that the relative poverty rate has remained fairly stable in the recent past (OECD, 2013a).
2. However, at 10% the gender pay gap is considerably smaller for young adults and just slightly above the OECD average.
3. Definition adopted by the Economic and Social Development Commission (formerly the Tripartite Commission) in 2001.
4. There is considerable debate in Korea concerning the definition of non-regular work and this chapter does not attempt to identify one best definition. It makes use of several different definitions as dictated by data availability and the different questions that are addressed. The main qualitative conclusions of the empirical analysis appear to be quite robust to the choice of definition used, although quantitative results would of course differ.
5. This definition of temporary workers differs significantly from the internationally harmonised definition used by the OECD. The second and third types of temporary employment shown in Table 2 are not included in the international definition, whereas several of the categories of atypical workers shown in the table are included (daily, on-call and dispatched workers). Note that daily workers may have contracts somewhat longer than a single day, while dispatched workers typically would be called temporary agency workers in most other OECD countries.
6. These percentage shares add up to 126% due to considerable overlap between the three forms of non-regular employment.
7. By providing additional protection for workers on fixed-term contracts these reforms, together with related reforms for dispatched and part-time workers, may have reduced the incidence of non-regular work, as measured in the EAPS by inducing employers to replace some of these workers via expanded use of in-house outsourced worker (Lee 2011 and 2012). This latter type of employment may not show up as non-regular employment in Table 2, but raises many of the same issues about low job quality and limited career prospects.
8. KDI (2009) finds that non-regular jobs are rarely a stepping stone to regular jobs, but that this is more frequently the case for non-regular workers receiving training.
9. Some of the high level of turnover could be the result of unintended incentives created by labour market policies. OECD (2012) argues that the requirement to convert fixed term workers into regular workers once they have accumulated two years of tenure with the firm, which was introduced in 2007, has led to a greater churning of fixed-term workers. Similarly, the fact that workers with less than one year of tenure are not entitled to the retirement allowance might also induce some additional churning.
10. In order to make valid international comparisons, Figure 10 makes use of the OECD harmonised definition of temporary employment, which differs from the national definition used in Korea (e.g. as shown in Table 2). Mobility from temporary to permanent employment is much more common when this national definition is used. For example, the 1-year probability rises from 11% to 43%. As discussed above, much of this mobility appears to reflect an inability to accurately identify the second and third types of temporary employment tabulated in Table 2 when using the information available in the Korean Labor and Income Panel Study (KLIPS).

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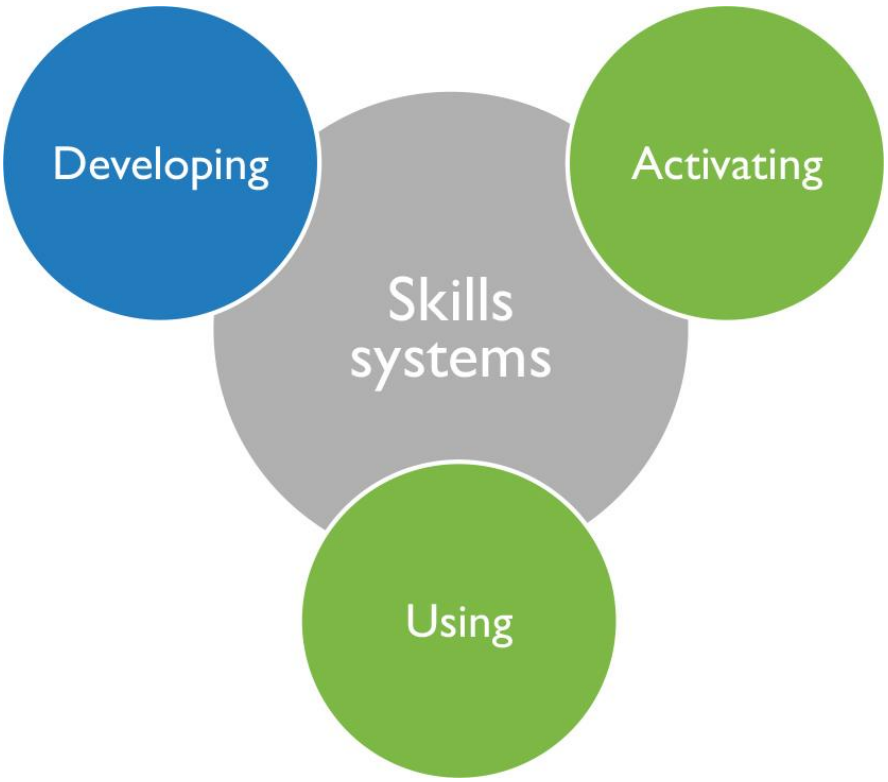
DEVELOPING SKILLS



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PILLAR ONE: DEVELOPING SKILLS

Korea has made rapid progress in improving its education and training system. Secondary students in Korea are among the strongest performers in foundation skills, as measured by the Programme for International Student Assessment (PISA). The tertiary education attainment rate among young adults is higher than in most OECD countries.

However, academic studies and university education are overemphasised and vocational education and training (VET) is neglected. Although university graduates have lower employment rates than graduates from some high-performing VET institutes, participation in VET programmes remains low. Sustaining Korea's development in the future will depend upon how well skills contribute to positive labour market outcomes for people. Promoting work-based learning in school and boosting participation in vocational education and training will be crucial to achieving this goal. The Korean government's efforts to develop and to implement the National Competency Standards (NCS) to education and training are an important step forward to make skills development more relevant for the labour market. More effective collaboration among the relevant stakeholders will be critical for the standards to succeed.

Education in Korea could promote more creativity and entrepreneurship. The current education system, with its strong focus on academic studies, must be balanced with greater attention to fostering creative and entrepreneurial skills. Creativity is considered an important first step towards entrepreneurship. Young people head up only a small share of start-ups. Relatively few people receive any type of training, whether formal or informal, in starting a business. Work-study programmes in schools and universities could be a way to teach students how to generate business ideas, raise funds and run a business while workplace learning and training organised by companies can also play a role.

Adults in Korea are less likely to participate in lifelong learning. In comparison to other countries, Korea has a high skills gap between young and older workers. Encouragingly, the skills of young adults are well above the average of countries participating in the *Survey of Adult Skills* (PIAAC) (OECD, 2013b). However, the skills of adults over 45 years are well below the average indicating the need for greater attention to this cohort. The low-skilled older cohorts are much less likely to participate in lifelong learning, even though they are the ones who need it the most. Other groups with low participation rates in lifelong learning include women, workers with non-regular contracts and workers in small and medium-sized enterprises (SMEs). Continuous learning and upskilling among all adults can be encouraged by recognising non-formal lifelong learning and education experiences through measures such as the National Qualification Framework. Lifelong learning and education also need to become more labour market relevant, which can be achieved through engaging employers in the design and delivery of the courses on offer.

Skills are critical for Korea's society and economy. When people have strong skills they adapt quickly to changing skills needs of workplaces and participate more fully in society. Skills are the key driver of innovation, productivity, economic growth and higher living standards.

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CHALLENGE 1. TACKLING THE OVEREMPHASIS ON ACADEMIC STUDIES AND HIGHER EDUCATION

Academic studies and credentials are overemphasised in Korea. The current education system is lacking in quality in terms of skills development and/or labour market relevance. Although some high-performing vocational education and training (VET) institutions already exist, advancement to the VET track is interpreted as a failure to enter the academic track. Similarly, employers prefer hiring university graduates. However, not all university graduates are successful in getting a job with promising wages. Thus Korea faces the twin challenges of enhancing the quality and labour market relevance of tertiary education, and expanding VET programmes while continuing to enhance their quality and relevance. Facing this dual challenge is essential for enabling the diversification of educational pathways and alleviating the financial burden on Korean families of a strong focus on academic studies and higher education.

1.1. Addressing the quality and labour market relevance in education

Korea's strong education performance at the secondary level is not matched at higher levels

The *Survey of Adult Skills* (PIAAC) (OECD, 2013b) shows that years of education and literacy skills[11] have little impact on the likelihood of employment in Korea, which is the opposite to general findings from other countries. This reflects the disproportionate focus on educational attainment and school brand rather than relevant skills development in Korea. Acquiring a qualification from a prestigious university is related to an expectation of job security, future earnings, and social status. Korea's education system is strongly focused on funnelling students into this path, with a net entry rate of close to 58% for tertiary-type A students (generally three or four year university programmes). More than 33% go into tertiary-type B programmes (generally junior college programmes, polytechnics and other programmes in Korea's case, such as the army, air force or nursing) (Figure 16). The majority of graduates from two-year junior college programmes then move on to university to complete a four-year degree.

Provision of skills in junior colleges is driven by student preference and not systematically balanced by signals of labour market needs (Kis and Park, 2012). Junior colleges also offer programmes of variable and sometimes low quality, although the government has introduced various policy measures to tackle this in recent years, such as formula funding with performance criteria and accreditation. However, quality assurance mechanisms remain relatively weak.

In general, the skill levels of young Koreans (16-29 year-olds) shown in the survey positively correlates with the strong education performance of Koreans at age 15, as shown in the Programme for International Student Assessment (PISA) (OECD, 2014f). However, when disaggregating skill levels of 16-29 year-olds by level of education and orientation, it appears that the strong performance of Koreans at age 15 is not sustained through to the post-secondary or tertiary education system. In particular, the literacy proficiency of the top 25% students with tertiary-type A education attainment is among the lowest in the OECD (Figure 17). To some extent, this may reflect the larger share of tertiary type-A graduates.

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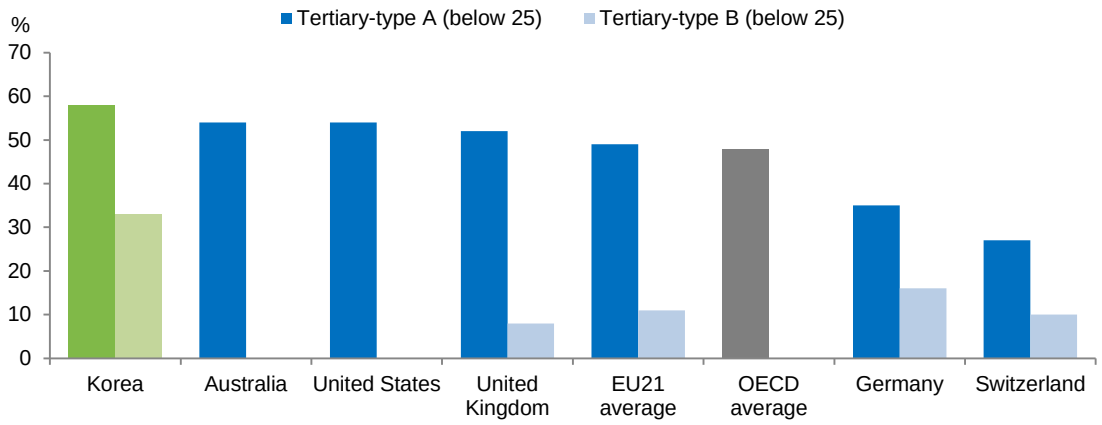
Figure 16. Entry rates into tertiary education of students under the age of 25

Sum of net entry rates for each year of age up to 25 for tertiary-type A or B (2011)



Source: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, http://dx.doi.org/10.1787/eag-2013-en.

Type of school, field of study and orientation (academic or vocational) have a strong influence on labour market outcomes

Labour market outcomes vary greatly within each level of education and by type of school: prestigious or non-prestigious. The employment rate of university graduates in 2013 was 56%, but again, the rate varies a great deal depending on university, major choice and type of employment (Kang, 2004). For vocational institutions, the employment rate of Meister high-schools in 2013 was over 90% (Box 3), for Korea Polytechnics the rate was 85% and for Korea University of Technology and Education it was 82% (Box 4). Successful school to work transition among these vocational institutions was possible through the establishment of more market-relevant curricula with quality education and workplace-based training. However, there are still low-quality and low-relevance vocational schools, which is reflected in the average employment rate of junior college graduates being just 61% and that of specialised vocational high-school graduates just 41% in 2013 (Ministry of Education, 2013a; SMBA, 2013).

Labour market outcomes also vary by field of study and the combination with types of schools. In particular, the prestige of the university and the field of study matter for both earnings and the probability of being employed in a large firm. For example, a male humanities graduate from a prestigious university earns less than an engineer from a prestigious university, but has around twice the probability of being employed by a large firm than a humanities graduate from a non-prestigious university (Kang, 2004). While the overall number of university students is rising, the percentage of those students who are studying humanities, arts and physical education, and social sciences is also rising. This is due to the difficulty and expense of quickly increasing the intake of students in engineering, medical sciences and pharmacy, and other technical fields, compared to the relative ease of increasing the intake of students studying subjects with lower job-finding or study-job match rates, such as arts, humanities and social sciences (OECD, 2007a).

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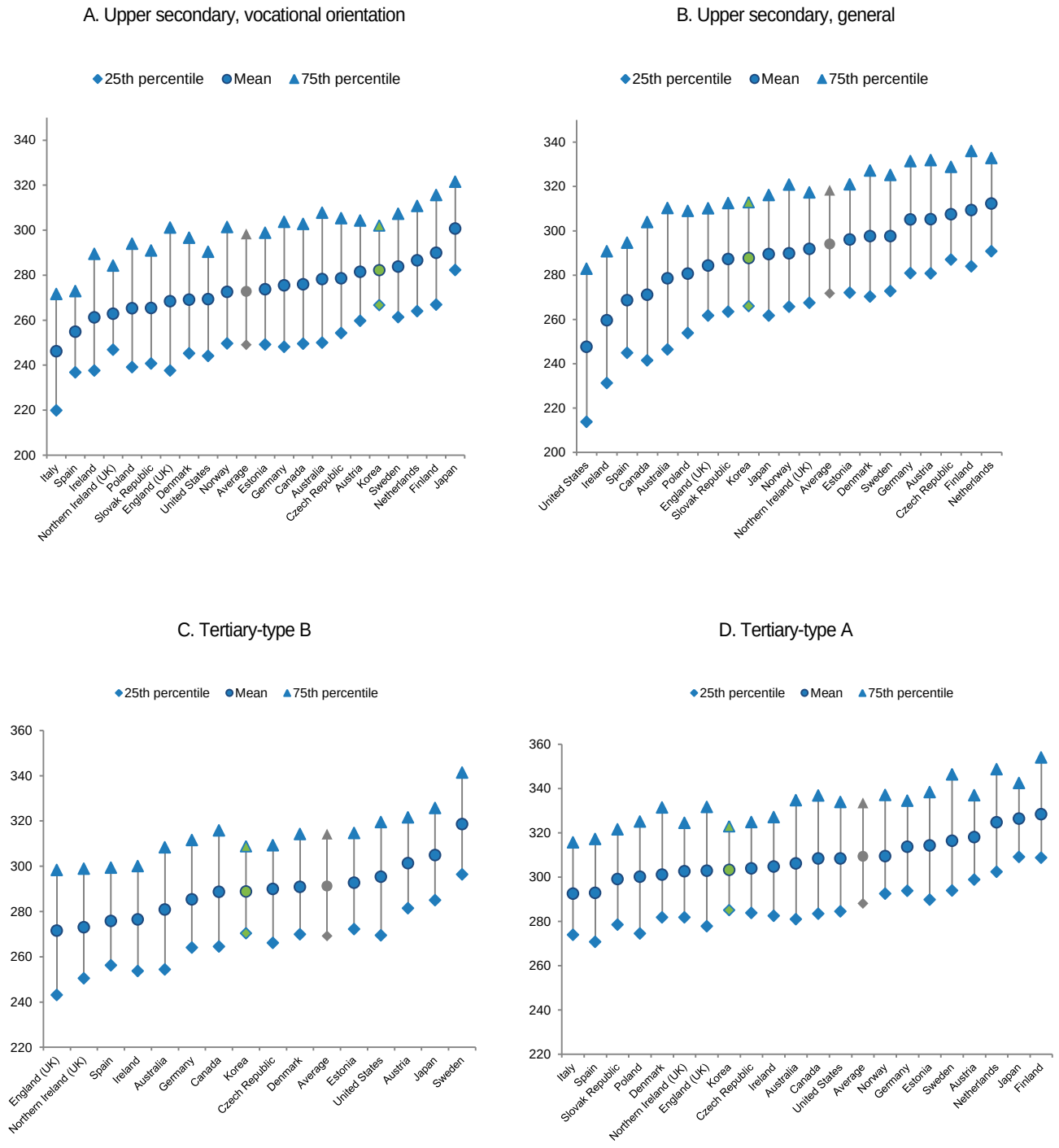
Figure 17. Distribution of literacy proficiency scores, by educational attainment and orientation of education (16-29 year-olds), 2012



Note: Tertiary-type B refers to vocational track and tertiary-type A refers to academic track. "Upper-secondary or post-secondary non tertiary education" applies to a person with a high school diploma or with vocational training, ready to enter the workforce.

Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

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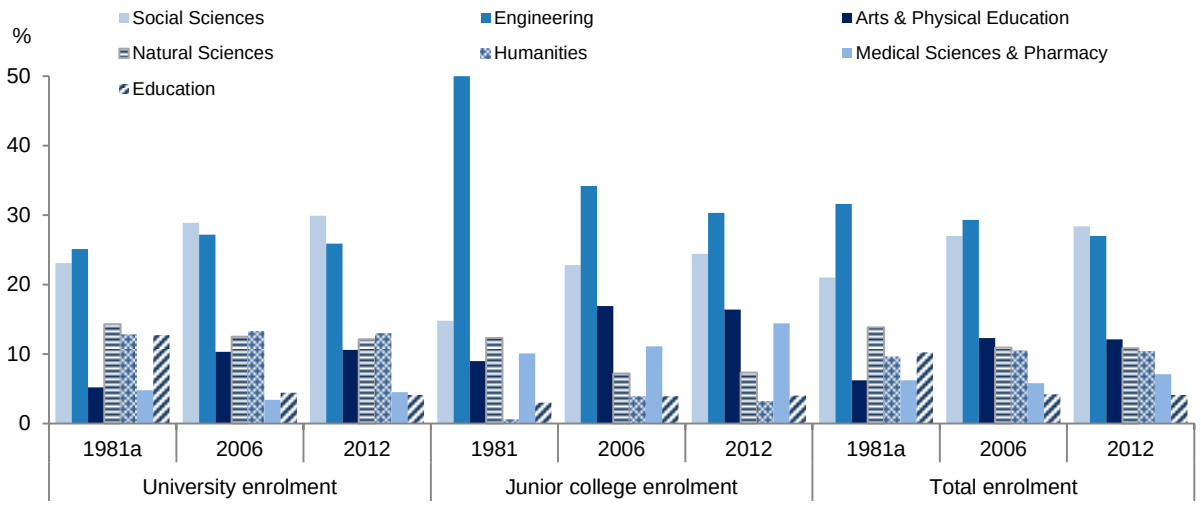
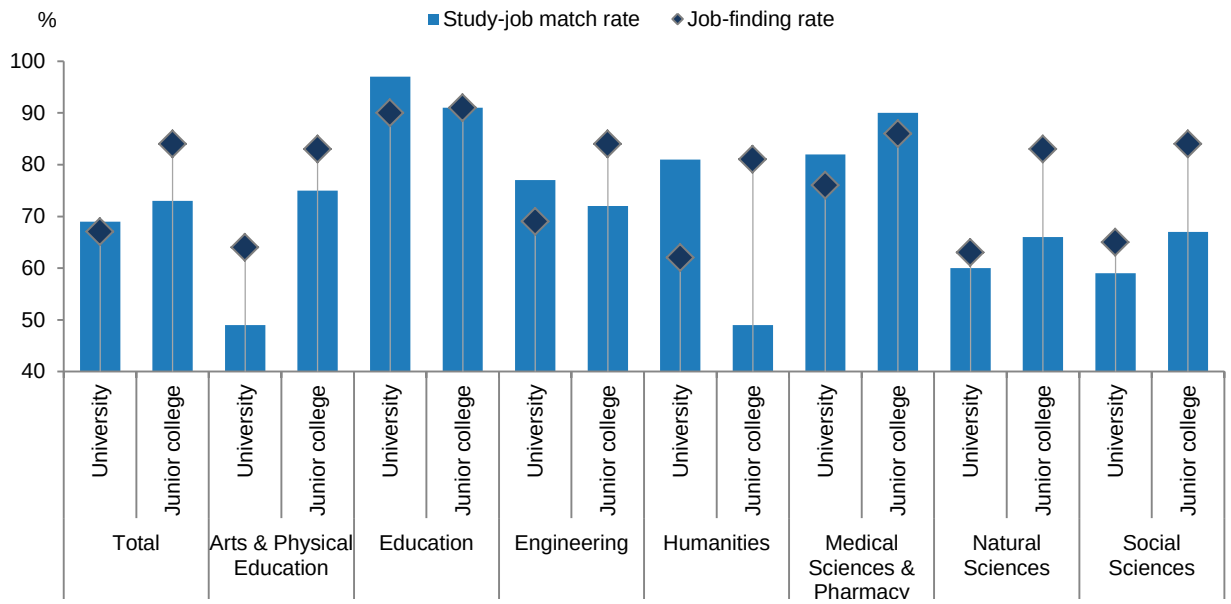
Figure 18. Proportion of students in tertiary education by field, 1981, 2006, 2012



Note: Data refer to students in tertiary A and B, excluding miscellaneous specialised colleges (839 344 enrolments in 2006). A: For the year 1981, total does not match with the sum of each field, since there were 10 915 students in "general field unclassified".

Source: OECD (2007a), *Jobs for Youth: Korea 2007*, Paris, http://dx.doi.org/10.1787/9789264040809-en. Ministry of Education (2015), Statistical Yearbook of Education for 2006 and 2014, http://kess.kedi.re.kr.

Figure 19. Rates of finding a job after graduation and of study-job matches of tertiary graduates, by field of study, 2006



Source: OECD (2007a), *Jobs for Youth: Korea 2007*, pp 60, http://dx.doi.org/10.1787/9789264040809-en.

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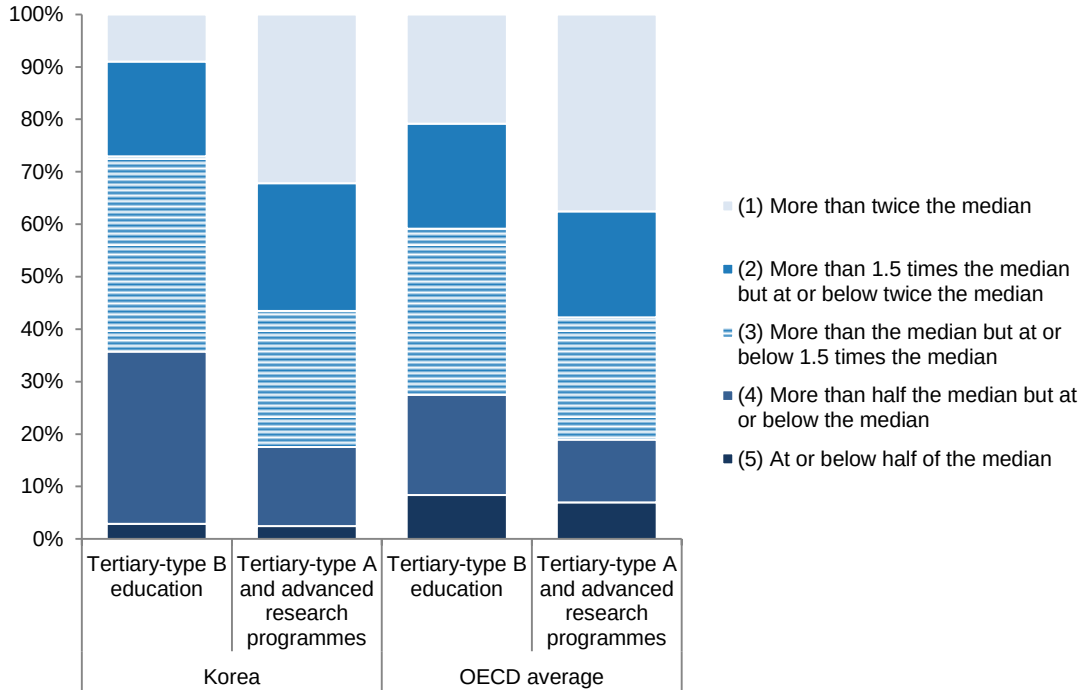
A higher level of educational attainment typically leads to higher wages, although education orientation (university or junior college) leads to different earning levels (Figure 20). The earnings gap between tertiary type-A and tertiary type-B graduates is larger in Korea than in most OECD countries, although this is mainly because Korean tertiary type-B graduates are less likely to earn very high salaries than graduates in other OECD countries. This earning gap reflects a lack of high-paying and high-skilled jobs in Korea for tertiary type-B graduates, which in turn encourages the overemphasis on academic studies and higher education. In this context, it is worth noting that the number of junior colleges declined from 158 to 142 and that of universities increased from 161 to 189 during the period of 2000 to 2012. Many junior colleges have been transformed to universities since 2000.

Figure 20. Distribution of 25-64 year-old men, by level of earnings and educational attainment, 2010



Note: 2010 or latest available year. Belgium, Korea and Turkey report earnings net of income tax.

Source: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, Table A8.4b, http://dx.doi.org/10.1787/eag-2013-en.

Such a strong increase in the education level of the labour force has resulted in an increased proportion of university degree holders in employment over the past thirty years. The share of those employed with less than upper-secondary level decreased by 12 percentage points between 2000 and 2013, whereas those with tertiary qualifications increased by 17 percentage points to 42%. At the same time, Korea Employment Information Service (KEIS) projections indicate a potentially significant shortage of high-school graduates by 2020 (KEIS, 2012) that may need to be filled by the expected surplus of tertiary graduates, which would imply a significant degree of over-qualified employees.

However, rather than discouraging students who want to advance to higher education or artificially match highly skilled workers to lower skilled jobs, a better approach would be to enhance the quality and labour market relevance of the tertiary education system by providing relevant curricula and pedagogy in tertiary education, particularly universities, that would support a smooth transition from school to highly skilled jobs (Challenge 5 and 7).

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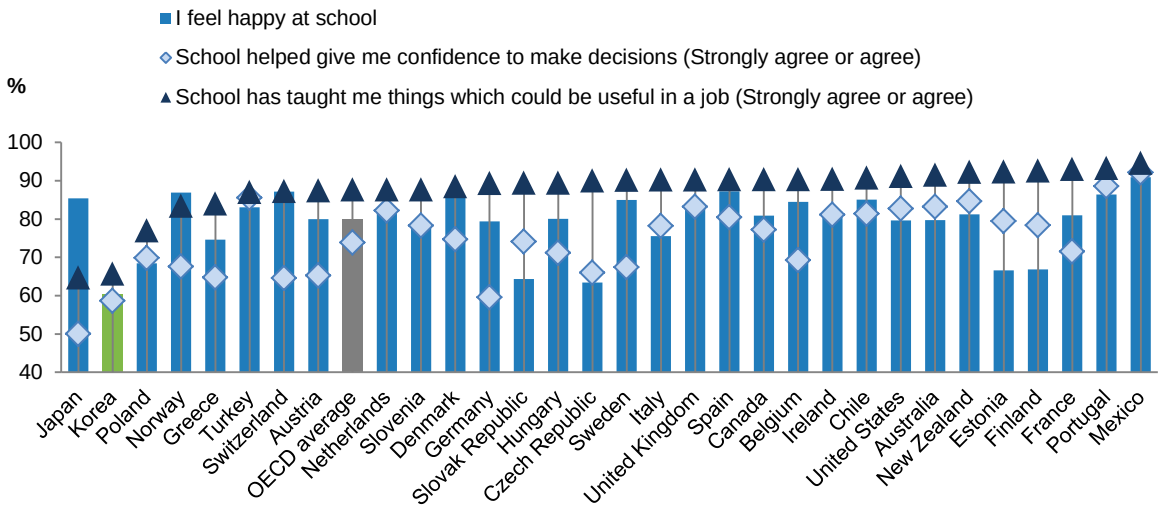
Efforts for providing labour market relevant skills in the education system

Enhancing the labour market relevance of the education system needs to start at the school level. Compared to the international average, a much smaller proportion of Korean 15-year-olds report being happy at school and thinking that school can be useful for their job or decision making (Figure 21). University programmes often remain strictly academic and do not provide students with an opportunity to gain work experience, despite the fact that the employment rate of some university graduates is lower than that of graduates from vocational tracks in tertiary or secondary education.

High quality alternatives to university and a wider range of educational paths for students could be provided by: finding a balance between vocational education and training (VET) and non-VET; strengthening upper secondary vocational education through policy tools aimed at increasing the employment rates of high-school graduates; and developing apprenticeship-type models that combine work and study programmes. At both secondary and post-secondary education levels, workplace-based learning has been shown to be a very powerful tool for enhancing the labour market relevance of VET programmes, and yet 88% of vocational graduates at the upper secondary level did not experience job-related education and training (KEDI, 2012; Park and Jo, 2011: 88).

Figure 21. Do students think school is useful for a job?



Sources:
OECD (2013c), *PISA 2012 Results: Ready to Learn (Volume III): Students' Engagement, Drive and Self-Beliefs*, PISA, Figure III.1.2, http://dx.doi.org/10.1787/9789264201170-en.

OECD (2013i), *What do students think about school?* PISA in Focus 2013/01, OECD Publishing, Paris, http://www.oecd.org/pisa/pisaproducts/pisainfocus/pisa%20in%20focus%20n24%20(eng)--FINAL.pdf.

Korea's vocational education system is under intense pressure and scrutiny to see whether its reforms and a work-study dual system can deliver necessary skills that are adapted to the fast-changing needs of the labour market (Box 3). Junior colleges and higher education institutions are also being reformed by increased competition (Box 4). Evaluation for tertiary education providers is now heavily based on job-related factors such as the responsiveness of curricula to the needs of industries, basic job skills, and the employment rate of graduates.[12] Voluntary university evaluation is undertaken through biennial self-evaluation, competency accreditation, and industry-perspective university evaluation. The results are shared with the public. Despite these steps in the right direction, competency accreditation still has few evaluation indicators that reflect vocational needs (Kis and Park, 2012). The industry perspective from enterprises, business associations and industry-related ministries, including the Ministry of

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Employment and Labour, evaluate competency (curricula, skills, and vocational competencies), responsiveness and conformity to the labour market needs, but these scattered efforts need to be part of a common framework (Box 5).

Box 3. Spotlight on Korea: Vocational High-School Advancement Plan (2010 May-2015)

The Vocational High-School Advancement Plan (2010 May-2015) aims to build vocational schools based on industrial needs and sector-specific skills, favouring employment over college admission after high-school graduation. The curriculum is tailored by industry needs and principals with an industry background will be appointed at Meister high-schools. The plan is to restructure 691 vocational high-schools (as of 2010) into more skills-driven schools. By 2015, 21 Meister high-schools, 168 specialised vocational high-schools, and 275 general vocational and 227 other vocational high-schools are planned to become 50 Meister high-schools, 350 specialised vocational high-schools, and 291 general, comprehensive or other high-schools. In 2013, there were about 13 600 students from 35 Meister high -schools, and there will be 37 Meister high-schools in 2014. There are incentives for vocational high-school graduates to advance to the tertiary level education after working 2-3 years. However, there is a need for further monitoring and assessment on this measure in terms of skills development, employability, and the effect on tertiary education.

Source: Ministry of Education (2013b), Ministry of Education website, http://english.moe.go.kr/enMain.do.

Box 4. Spotlight on Korea: Tertiary vocational education institutions

Polytechnics, equivalent to junior colleges, are supported by the Ministry of Employment and Labour and are aimed at training multi-skilled technicians. There are eight polytechnics and 34 campuses nationwide and each campus is specialised to a specific industrial field. Among them, 22 campuses award graduates an industrial bachelor's degree following a two-year programme, equivalent to a college degree. Those who have graduated from junior colleges or multi-skilled courses and have at least one year of work experience are offered bachelor's degrees. The other 12 campuses maintain vocational training programmes, aimed at specific national technical qualification examinations. The Korea University of Technology and Education (KUTE), or "Korea Tech", is specifically targeted towards high quality vocational skills. It was established to produce vocational school instructors, but currently also offers practice-oriented curricula and high quality vocational training programmes to professional engineers, technicians, or enterprises. By using high quality facilities and equipment, it can provide graduates with more practical experience and more effective vocational training that are well matched to the specific needs of companies.

Stimulated by such high performance, the Government's initiative *Measures for Fostering Junior Colleges 2013* aims to raise employment rates of junior college graduates to 80% by 2017 from a figure of about 60% in 2013. The measures include: 1) fostering specialised junior colleges (100 out of 139 junior colleges by 2017 according to local industry and school strengths); 2) fostering skilled craftsman (equivalent to the level 7 European Qualification Framework) through establishing graduate schools of industrial technology master and tackling the gap between measurable qualification and intangible experience and skills; 3) converting 16 junior colleges into National Competency Standards (NCS)-based Lifelong Vocational Education Advancement Colleges (LEAD) by 2015; and 4) assisting employment and learning experience in companies abroad for college students.

Source: Ministry of Employment and Labour (2013a), Ministry of Employment and Labour Website, http://www.moel.go.kr/english/main.jsp.

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Box 5. Employers' perspective on tertiary education graduate employability

According to findings from research into the employer perspective by the Research Centre for Education and the Labour Market, main indicators for employability of higher education graduates are field of study and work experience. Field of study and job mismatch can, to some extent, be compensated with relevant work experience. The value of a bachelor's and a master's degree on the labour market differs between countries, but not having a master's degree can be compensated for with relevant work experience. Grades are important, as is the prestige of the university, when considering the impact of grades on employability, but work experience can compensate for having below average grades. General academic skills cannot compensate for a lack of professional expertise.

Similar findings are found in data from the American Community Survey for 2009 and 2010, which compared three groups: recent college graduates (those between ages 22 and 26 with a bachelor degree), experienced college graduates (those between ages 30 and 54), and graduate degree holders (those between ages 30 and 54 with a master's degree or higher). Unemployment rates decline and earnings increase as recent college graduates gain experience and graduate education.

Sources: Humburg, van der Velden & Verhagen (2013), "The Employables: What Makes the Difference?" Research Centre for Education and the Labour Market.

Carnevale, Cheah & Strohl (n.d.), "College majors, unemployment and earnings: Not all college degrees are created equal", https://www.cgsnet.org/ckfinder/userfiles/files/Unemployment_Final_update1.pdf.

1.2. The link between skills development and alleviating the financial burden on households

In the context of low public expenditure for education, emphasising higher levels of academic studies puts a massive burden on households. The relative contribution from households to financing education in Korea is one of the highest among OECD economies (Figure 22). High private education spending by households contributes to a low fertility rate as the burden for parents starts when their children are very young and lasts until they find a well-paid job. It also contributes to low adult participation in lifelong education, as it may reduce resources available for such studies. Alleviating this burden will require long-term and arduous education reforms as well as a whole-of-government approach.

High private spending during primary, secondary and upper secondary education: Although household expenditure for this level of education accounted for a relatively low 18% in 2010, this was still one of the highest OECD levels of household expenditure on education. At the secondary education level, the public school system has been trying to address exceptionally high private spending on private tutors or after-school lessons (*hagwon*) by providing after-school curricula and improving the quality of schools. However, this will not be sufficient to address the underlying structural problems facing the private education market.

High tuition fees during tertiary education: Households covered 47% of expenditure on tertiary education in 2010 – a share that is high by international standards (Korea has the lowest levels of public expenditure allocated to tertiary education as a percentage of GDP). In addition, financial aid to tertiary students was relatively low (OECD, 2013a) and student loans introduced in 2010 have been granted to only about 9% of tertiary students (OECD, 2013d). Though progress has been observed recently, a more systematic approach could better address issues derived from an overemphasis on higher education, such as high university tuition fees and less developed student support systems in the context of high tertiary entry rates (OECD, 2013a: 229).

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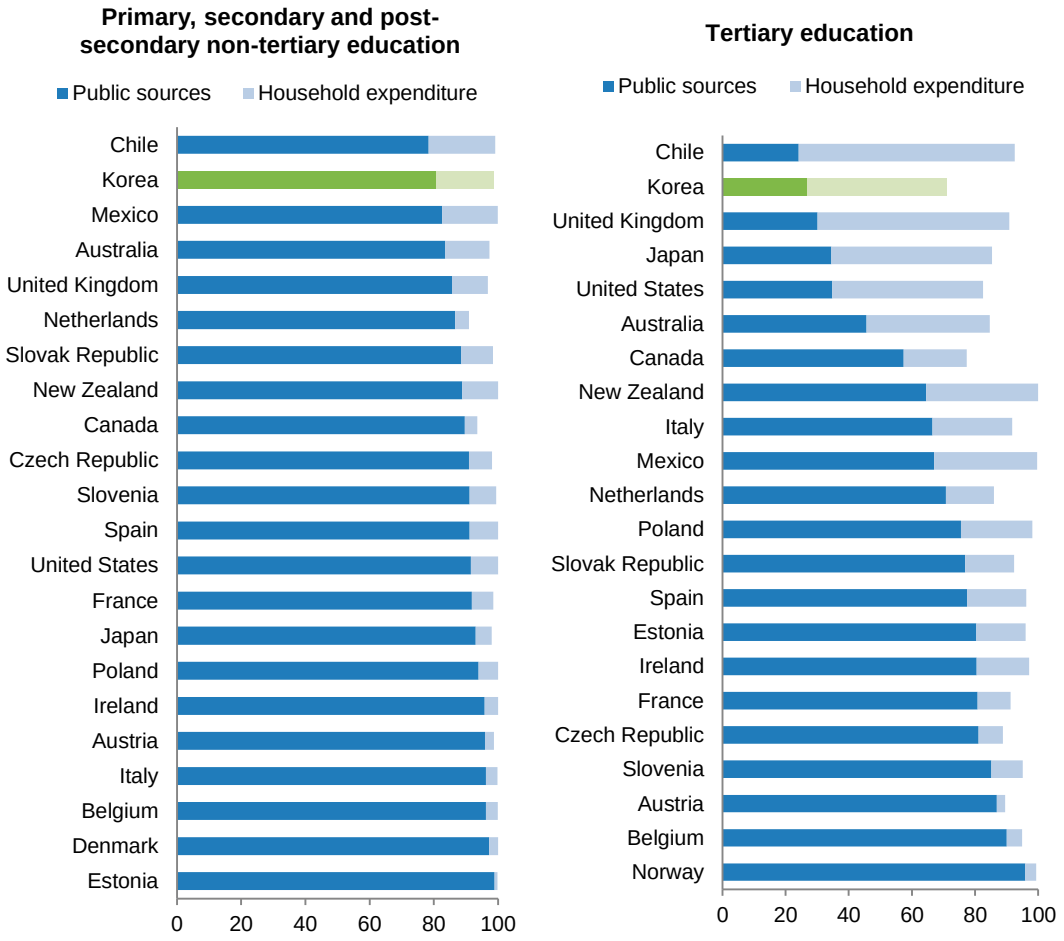
Figure 22. Distribution of education expenditure by education level, 2011



Note: The sum of public sources, household expenditure and expenditure of other private entities in percentage is 100. Countries are ranked in descending order of household expenditure. Extracted from table B3.2a relative proportions of public and private expenditure on educational institutions, by level of education.

Source: OECD (2014a), Education at a Glance 2014: OECD Indicators, Table B3.1, http://dx.doi.org/10.1787/eag-2014-en.

Heavy financial burden for families with primary, secondary and tertiary school children

The financial burden of education for families is highest at the primary, secondary, and upper secondary levels, and due mainly to the pressure of private tutoring or after-school lessons. Although high-school education will become free of charge by 2017, the burden of private education remains. Almost 70% of students receive private tutoring with an average monthly expenditure of KRW 236 000 (USD 220) per student in 2012, although there has been a decreasing trend of private tutoring participation in recent years (Figure 23). At the tertiary level, high tuition fees combined with low levels of public support, especially for university, adds to the financial burden of households. However, a national scholarship project was launched in 2012 and the government scholarship budget was increased by 480% between 2011 and 2013 (National Assembly Budget Office, 2013).

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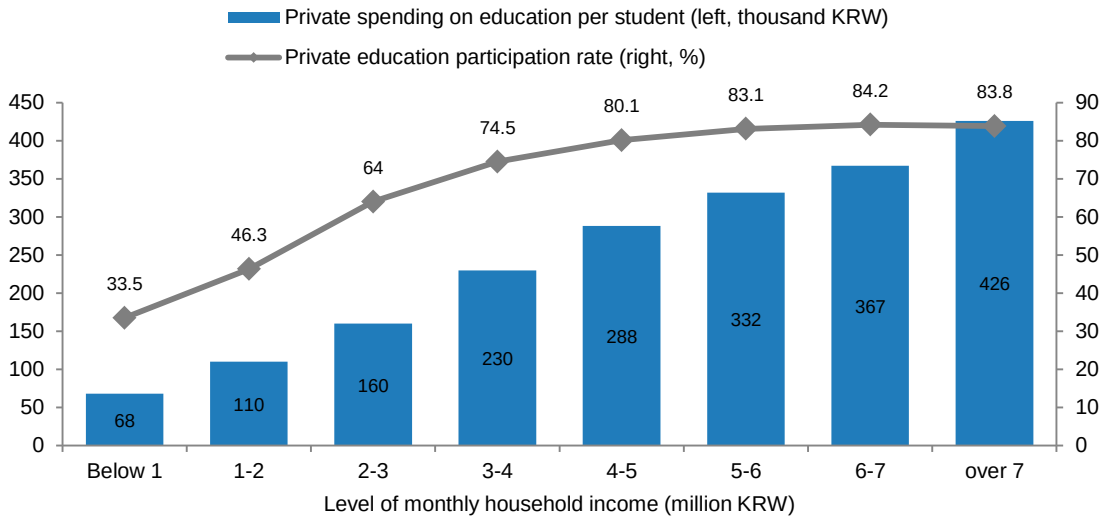
Figure 23. Spending and participation on private education by income level



Note: Data include primary, secondary, and upper secondary levels, and students who do not take part in the private education system.

Source: KOSTAT (2013), Report on private education expenditure survey, http://kostat.go.kr/portal/english/resources/2/2/5/index.static.

One reason for high private spending on education may be the relatively higher net return of private spending, compared to the relatively lower net return of public spending (OECD, 2013a). A high private return constitutes a strong incentive for individuals to invest in education beyond compulsory schooling.[13] For example, Korea's private net returns for a person attaining upper secondary or post-secondary non-tertiary education, as compared with returns from below upper secondary education, are the highest among OECD countries (Figure 24). However, this benefit derived from education is dispproportionate across different levels of household income, resulting in different levels of private spending on education and participation in private education (Figure 24).

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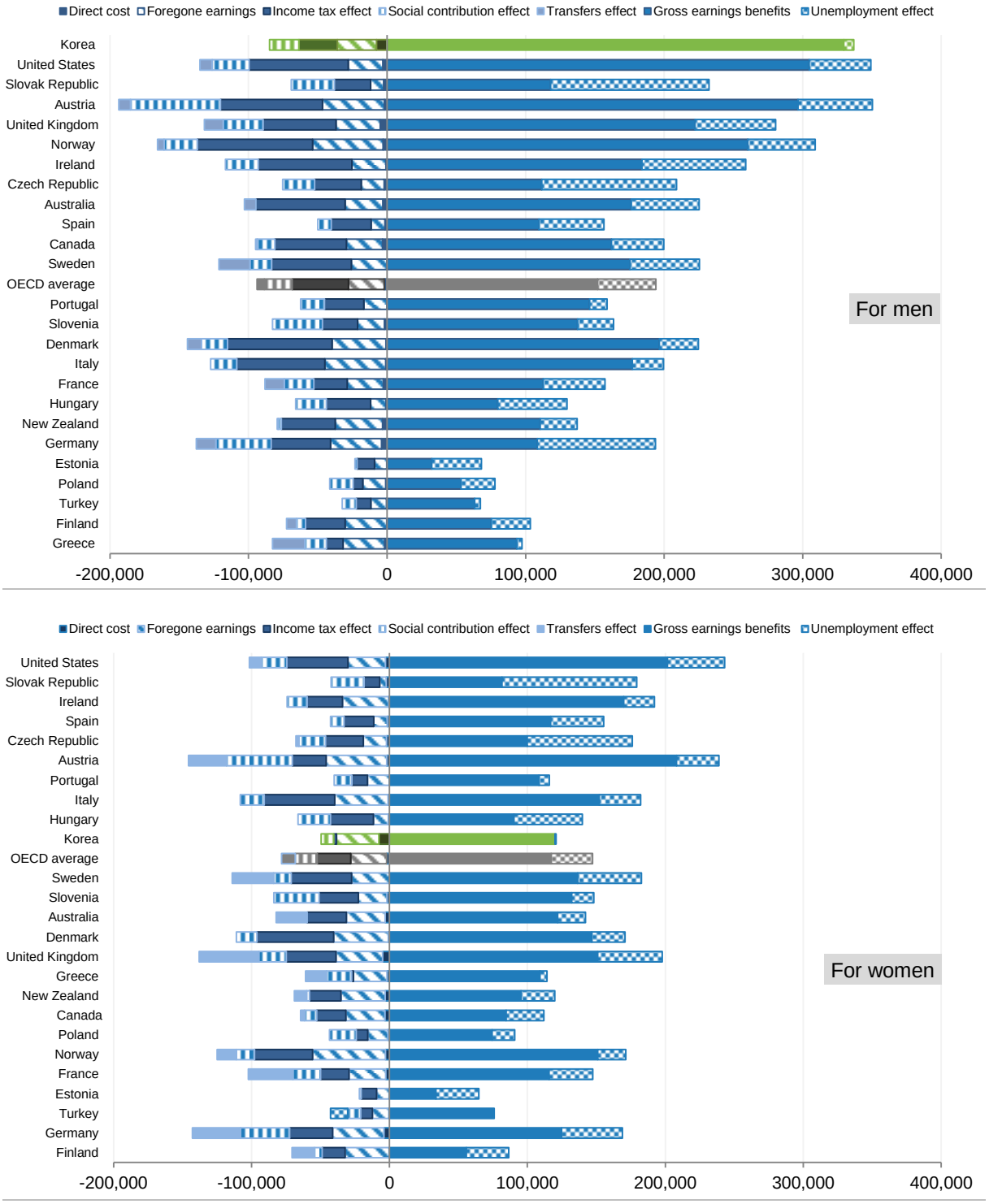
Figure 24. Private costs and benefits for a man and for a woman attaining upper secondary or post-secondary non-tertiary education

As compared with returns from below upper secondary education



Note: 2009 data (Turkey refers to 2005; Italy and Poland refer to 2008). All other countries refer to 2009. Cash flows are discounted at a 3% interest rate. Countries are ranked in descending order of the private net present value, which is marked right side of the country name.

Source: OECD (2013a), *Education at a Glance 2013: OECD Indicators*, Chart A7.2, http://dx.doi.org/10.1787/eag-2013-en.

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1.3. Introducing the National Competency Standards to make skills development more relevant for the labour market

As part of the effort to transform Korea into a competency-based and creative economy, the Korean government has set the National Competency Standards (NCS) as a key administration priority by investing KRW 213 billion (USD 200 million). The NCS identify the knowledge, skills and attitudes necessary to perform tasks in workplaces, depending on the field and level of industry. There have been fragmented efforts to establish an NCS in the past decade. For example, in 2002, the Human Resources Development Services of Korea (HRD-Korea) and the Ministry of Employment Labour (MoEL) attempted to devise National Occupational Standard (NOS), and the Korea Research Institute for Vocational Education and Training (KRIVET) and the Ministry of Education (MoE) then attempted to construct Korea Skills Standard (KSS). However, the current government is encouraging active inter-ministerial collaboration to move this agenda forward. The full-scale attempt for the NCS started in 2013 by MoEL (developing NCS) and MoE (applying the NCS in education) with a vision of shifting towards a competency-based society by integrating labour market needs into competency standards.

Currently, 797 out of 857 NCSs have been completed and the rests are planned to be developed by 2017, along with the revision of training standards and qualification examination criteria based on the NCS (2015-2017) and the establishment of a new national qualification framework (NQF). The NQF is a comprehensive system that demonstrates the equivalence of education, training, qualifications and work experience based on the amount and level of learning. Revamping Korea's skills system will depend on the following three key factors: 1) how far school curricula and training systems, including vocational education and training (VET), tertiary education, training in enterprises, and lifelong education, can incorporate the NCS-based learning standards; 2) how far the NCS as testing standards reinforces the improvement of a NQF; and 3) to what extent the labour market utilises the NCS and the NQF in their recruitment, employment, wage-setting, placement and promotion systems (see Challenge 3.2 and 8.1, Cho, 2012; Cho and Oh, 2013).

Working together to create a set of National Competency Standards that have impact

Working groups that develop NCS and application packages consist of 5 444 industry, education and training, and qualification experts chosen in order to enhance field application and pilot tests with 30-50 representative firms related to a specific standard. The NCS working group committee inspects and verifies the industry relevance of the standard developed by the working group, as well as the selection and the composition of the working group. The composition criterion is to include at least seven industrial experts, three education and training experts (recommended by MoE), and one qualification expert (recommended by KRIVET).

In order to strengthen inter-ministerial and inter-institutional collaboration, the 16-member NCS operating committee consists of vice ministers from MoE and MoEL as co-chairmen, related ministry officials, social partner representatives, and members of academia and personnel from education institutions. The operating committee reviews the process of NCS development and application and pushes forward other plans, such as course-completion-based qualification system and the NQF. The NCS Steering Committee co-chaired by vice ministers of MoE and MoEL had been established in 2013 to support the operating committee and check the development and improvement status, with a regular consultative group including HRD-Korea and KRIVET.

Learning modules are also developed using this collaborative system. Public training institutions, such as polytechnics, will gradually make first use of the modules. Private training centres will receive incentives (2013-2014) for training course recognition that use NCS-based modules. From 2015, the degree of NCS use in private training courses will be evaluated. In order to apply the NCS in VET courses, the revision of training standards will be completed during 2013-2015, alongside the NCS development and revision. Junior colleges and specialised vocational high-schools will be supported to adapt NCS-

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based curricula that will be better connected to their qualifications and employment focuses, while also promoting best practices. Junior colleges will be self-led and specialised vocational high-schools will be government-led in this process.

However, there are several barriers facing the completion of the NCS. For example, the application of the initial 331 standards was insufficient for education, training, and qualification systems. One reason for this is that NCS development did not fully consider the application aspect. HRD-Korea selected development institutions without including experts in education, training and qualification, or systemically planning for NCS application and distribution through learning modules and application packages. Although some improvements were made, such as integrating the link with Korean Employment Classification of Occupations (KECO), further efforts are required to connect NCS with occupational and employment information, technical qualifications and training standards, and career paths.

International practice shows that one way to push forward the development of learning modules is by running pilots to show how already-developed NCS learning modules can be used and to determine best practices. Based on the results of pilots, the importance of completing the development of the modules becomes more apparent. The National Institute for Lifelong Education (NILE) can contribute in this regard by acting as a test bed for the NCS and the higher education modules. It can help to develop the limited links with existing lifelong learning schemes (Box 6) as well as testing the modules in junior colleges and specialised vocational high-schools.

In order to progress with the application of NCS standards, considerable efforts are needed to retrain teachers and develop teaching materials. As the development of the NCS and learning modules is being carried out without differentiating between sector, type of worker, size of firm, or gender; the role of teachers and teaching materials is key to the application of the NCS and learning modules in different needs and contexts. Moreover, the NCS needs to be widely distributed and public awareness needs to be increased. Currently, firms, junior colleges, specialised vocational high-schools, and training centres can use the NCS, and there is training material available for each competence level in the NCS that is developed by HRD-Korea and distributed via their website. The NCS-based learning modules will first be applied to specialised vocational high-schools, Meister high-schools, junior colleges, and other vocationally oriented colleges. Since general education institutions are more focused on academic studies and not vocationally oriented they will face challenges in adopting NCS-based learning modules. Moreover, government-wide resources and capabilities need to be mobilised to complete the remaining development and application process of the NCS.

To tackle the overemphasis on higher education and academic studies and maximise the utility of the NCS, attempts are being made in co-ordination with the NCS in junior colleges, as these are relatively flexible in their ability to incorporate the new NCS and NCS-based curriculum. For instance, colleges that incorporate an NCS-based curriculum and meet labour market needs will be approved to diversify their term of study from two to three years to one to four years. The Measures for Fostering Junior Colleges 2013 that include these plans show the political will for fostering the development of competency-based and field-based tertiary VET institutions. By increasing competition among colleges, as well as universities with similar subject focus, the quality and competencies of colleges are expected to improve. However, if there is no quality improvement through such efforts, an increasing term of study in colleges will only present an additional burden to students.

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Box 6. International experience in developing and applying skills standards

Australia's Training Package is a nationally endorsed, integrated set of competency standards, assessment guidelines and Australian Qualifications Framework (AQF) qualifications for a specific industry, industry sector or enterprise. It consists of national competency standards (NCS), assessment guidelines and qualifications that are linked to the competency standards. Training packages are developed in consultation with industry through National Industry Advisory Bodies so that they meet the training needs of specific industries or sectors.

Scottish Vocational Qualifications (SVQs) are designed to benchmark skills against the NCS that describe a candidate's ability to work in real conditions by recognising the job-related skills and knowledge people need at work. The National Occupational Standards (NOS) are developed by Sector Skills Councils (SSC), a network of independent employer-led UK-wide organisation, so that having an SVQ should be a guarantee that a candidate is competent to the standards. Along with each set of NOS there is a qualification structure and an assessment strategy. The quality of SVQs is assured by the Scottish Qualifications Authority. The Scottish Modern Apprenticeship (MA) is designed by industry based on NOS to help employees acquire certificated competencies required on the job. This is achieved through work-based learning and/or off-the-job training. SSC develop and update the content of MA frameworks. MAs contain a relevant SVQ, Higher National Certificates, Higher National Diplomas, or an appropriate competence-based qualification, as well as training on core and specific skills.

The European Centre for the Development of Vocational Training (Cedefop), which is an agency of the European Union supporting the development of European vocational and training policies, has observed in 32 **European countries** that more countries are introducing outcome-based standards and institutionalising the participation of social partners in standard-setting procedures. There is reform activity concerning the definition and renewal of occupational and educational standards, with consequences for the role and profile of qualifications. Two thirds of the countries have developed, or are in the process of developing, occupational standards. These standards are expected to simplify and update qualifications relevant to the labour market needs while providing information on the job profile targeted by the qualification.

Sources:

Australian National Quality Council (2013), Australian National Quality Council Website, www.ukstandards.co.uk.

Kuczera (2013), *OECD Reviews of Vocational Education and Training: A Skills Beyond School Commentary On Scotland,* http://www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnScotland.pdf.

Cedefop (2009) *The dynamics of qualifications: defining and renewing occupational and educational standards,* http://www.cedefop.europa.eu/EN/Files/5195_en.pdf.

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Summary and policy implications

The labour market relevance and quality of education needs to be improved. Unlike other countries, years of education and foundational skill levels have little impact on the likelihood of employment in Korea. Academic studies and university education are emphasised while vocational education and training is neglected and, despite some high-performing VET institutes, participation rates are low.

The strong emphasis on academic studies and university education comes at a significant cost for families. Parents have to pay a large amount to support their children's education and increase their chances of entering university through private tutoring and after-school lessons. The capacity to invest in private education beyond compulsory education varies among families and depends on their income level, which contributes to inequitable outcomes in education.

The National Competency Standards are an important step forward to make skills development more relevant for the labour market. Well-designed National Competency Standards, based on the needs of employers, can: improve the relevance of the curriculum in schools, universities and training centres; be used in standardised exams to assess students' learning progress; and be useful for employers to assess their current and prospective workers' skill levels, identify their skill gaps and manage their workforce accordingly. Effective collaboration among the relevant stakeholders is critical for this to succeed.

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CHALLENGE 2. FOSTERING ENTREPRENEURSHIP AND SKILLS FOR A CREATIVE ECONOMY

To increase employment and boost the economy, Korea has set the goal of building a creative economy. Fostering creative individuals, as laid out by the Ministry of Science, ICT and Future Planning (MiSIP) and the MoE, is the first step (Box 7). Entrepreneurs, SMEs, and venture capital firms are the target group. Measures to support them include the protection of intellectual property, development of human resources in the area of entrepreneurship and creativity, and scientific technologies and ICT.

Box 7. Fostering Creative Talent Measures (6 August 2013)

1. Activating general career education.
2. Establishing career service centres for talent in science and technology.
3. Introducing a work-study dual system based on the National Competency Standards.
4. Expanding hybrid project-based learning courses.
5. Establishing software Meister high-schools in 2015.
6. Developing start-up friendly education.
7. Converting parts of junior colleges into lifelong education institutions.
8. Increasing credit earned by distance courses for those serving in the military.

Sources: Ministry of Science, ICT and Future Planning (2013), Ministry of Science, ICT and Future Planning Website, http://english.msip.go.kr/english/msipContents/contents.do?mId=Mjgx. Ministry of Education (2013b), Ministry of Education website, http://english.moe.go.kr/enMain.do.

For a more systematic implementation of the measures, there are several issues to consider. The first is how the policy agenda of fostering creative talent and promoting entrepreneurship fits into the current public education system. Creative talent promotes divergent thinking, creativity, and collaboration rather than "teach to the test" or an environment based upon competition. The current division of education and classroom-based education may not work well when tasked with promoting entrepreneurship and creativity.

The introduction of entrepreneurship education and creative skills development in schools needs to be incorporated within a strategic and concrete plan designed to strengthen the employability of graduates, particularly for under-represented groups, and increase overall employment. Successful vocational education can be a driving force to catalyse the creative skills plan and expand best practices. A rapid increase in the number of start-up courses in universities and junior colleges could encourage policy momentum.

The second issue to consider for implementing the measures is how to facilitate effective work-study programmes for opening a business and how to accumulate the lessons-learned from both failure and success cases. For a more systematic implementation of these programmes, corporate co-operation is essential in the entire process from curriculum development to student assessment. Implementation also needs to be in line with a changing hiring environment based on competencies and a decent working environment.

A recent boom of jobs and training related to invention patents, patent applications, patent law, patented technology transfers, venture, and ICT is leading to the creation of faculties of invention patents in junior colleges. This boom is also a catalyst for the linking of new qualification requirements for entry and graduation, and classes and infrastructure for invention and patent education at the vocational secondary levels. However, this requires effective inter-ministerial support and collaboration, such as among the MoE, MiSIP, MoEL, and the Ministry of Trade, Industry and Energy (MoTIE), as well as Small Medium Business Administration (SMBA), regional authorities, universities, companies and research institutions. Inefficiency derived from overlapping areas and incoherent policy mechanisms need to be carefully managed (Challenge 2 and Challenge 12).

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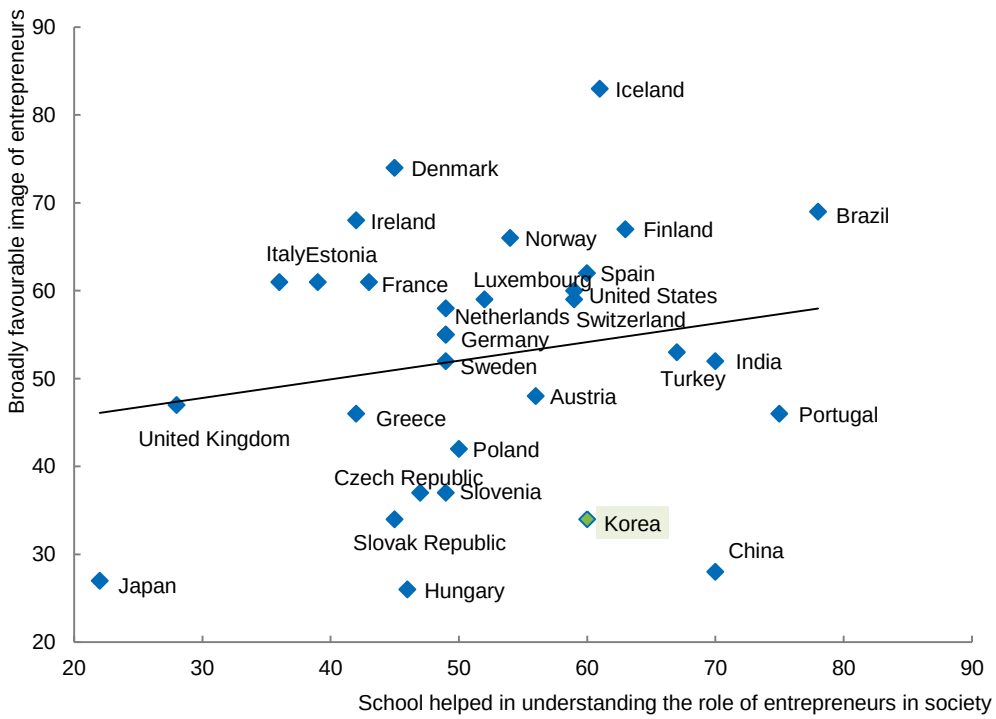
2.1. Promoting entrepreneurship through skills development

Teaching specific skills relevant to entrepreneurship and start-ups can be useful, but more important in Korea is to tackle the negative perception of entrepreneurship and attitudes to failure. This negative perception is related to the fact that starting a business in Korea is mainly driven by necessity from international standards rather than ambition (OECD, 2014a). This also reflects the higher share of older workers starting businesses compared to younger people (Challenge 6). The number of start-ups headed by Korean adults under the age 30 accounted for less than 5% of all start-ups in 2012 (SMBA, 2012).

Although people in Korea generally consider that school helps in the understanding of the role of entrepreneurs in society, the overall image of entrepreneurs is broadly less favourable than it is in most OECD countries (Figure 25). Young people are interested in starting new businesses, but they often have to fight against negative perceptions of parents, friends, teachers and society, as well as an adverse business and financial environment.

Figure 25. Entrepreneurship education and the image of entrepreneurs



Source: OECE (2013e), *Entrepreneurship at a Glance 2013*, Figure 6.3, http://dx.doi.org/10.1787/entrepreneur_aag-2013-en.

Apart from the unfavourable perception of entrepreneurship, the biggest barrier for potential entrepreneurs seems to be a lack of skills (Figure 26). Over 50% of adults acknowledge the role played by school education in terms of entrepreneurial attitude in Korea, but only 40% agree that school education provides enabling skills and the know-how necessary to run a business (Figure 27). Relatively fewer people in Korea, compared to other OECD countries (Figure 28), received any type of training in starting a business in both formal and informal training Compared to trained individuals there are proportionately fewer trained entrepreneurs in Korea. Practical training for potential entrepreneurs, such as business management, negotiation and marketing skills, financing skills and an understanding of legal and regulatory frameworks, still needs to be provided in Korea.

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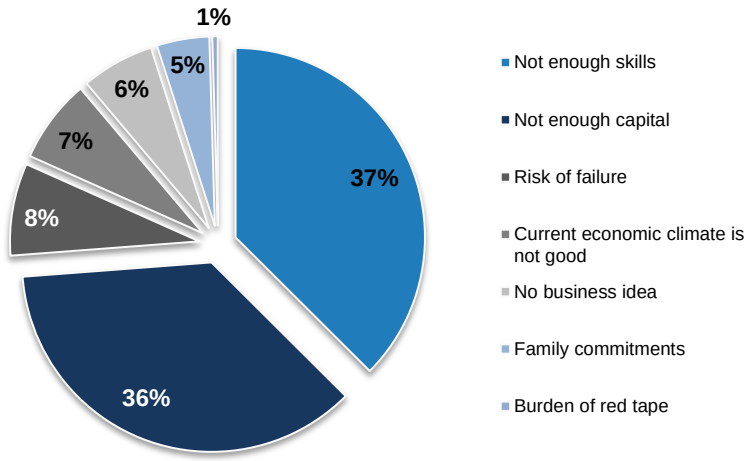
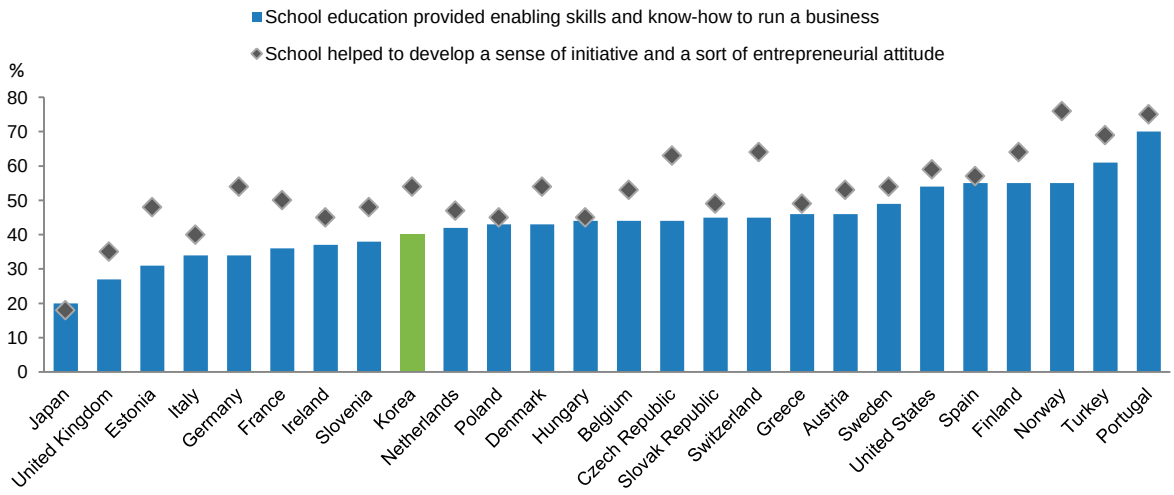
Figure 26. Why is it not feasible for you to become an entrepreneur in Korea?



Source: OECE (2013e), *Entrepreneurship at a Glance 2013*, Figure 6.4, http://dx.doi.org/10.1787/entrepreneur_aag-2013-en.

Figure 27. School helped to develop a sense of initiative and a sort of entrepreneurial attitude, 2012



Source: OECE (2013e), *Entrepreneurship at a Glance 2013*, Figure 6.1 and 6.2, http://dx.doi.org/10.1787/entrepreneur_aag-2013-en.

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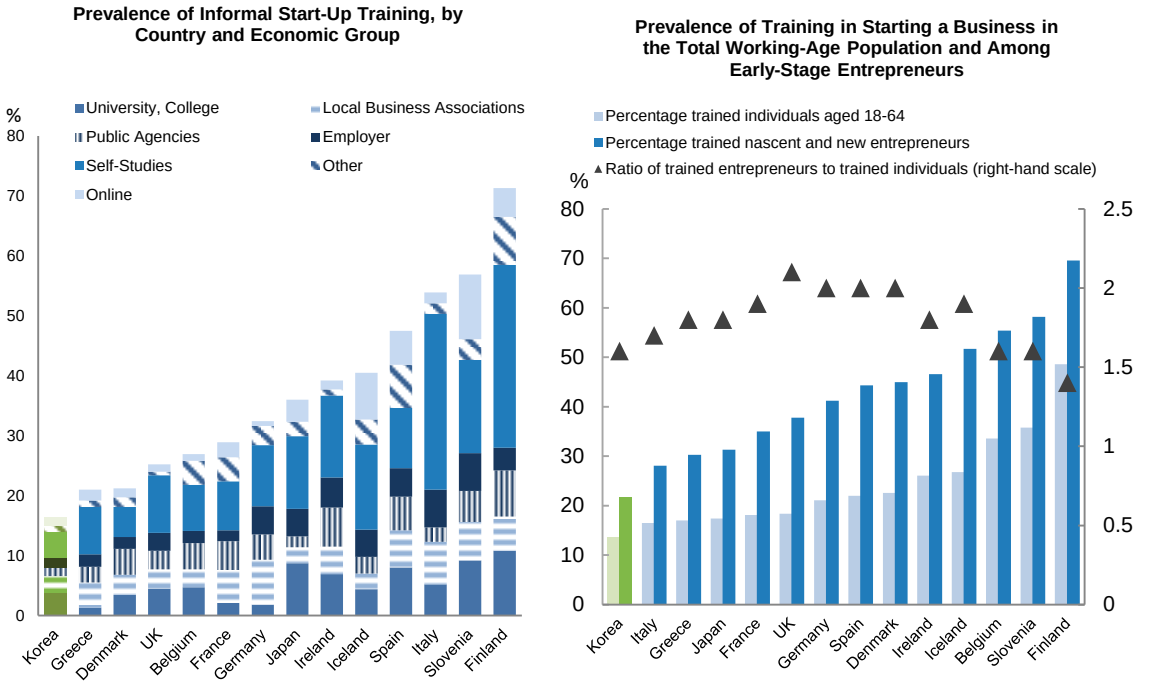
Figure 28. Entrepreneurship training



Note: Prevalence of Training in Starting a Business in the Total Working-Age Population (18-64) and Among Early-Stage Entrepreneurs compares the proportion of the whole working-age population and the proportion of early-stage entrepreneurs who have received training in each nation, in three economic groups, ordered by relative frequency of training. These countries are innovation-driven, wealthier economies that are becoming less price-competitive and need to focus on providing the conditions that allow opportunity-based entrepreneurship and innovation to flourish. The Global Entrepreneurship Monitor model predicts that training in starting a business is most effective and relevant in innovation-driven countries.

Source: Global Education Monitor (2013), *Global Entrepreneurship Monitor Adult Population Survey 2008*, http://gemconsortium.org/wiki/1141.

In 2013, Korea planned to invest about KRW 14 trillion (USD 13 billion) for start-up education (Bizchool and start-up academy). Government agencies, such as Small & Medium Business Corporation (SBC), Korea Institute of Startup & Entrepreneurship Development (KISED, SMBA-affiliated), and Korea Venture Business Association (KOVA), as well as universities, private companies, local authorities, and financial institutions; operate, facilitate and supervise start-up training programmes such as KOBIA and Changup-NET.

The Korea Business Incubation Association facilitates technology-based start-ups in collaboration with the Korean Intellectual Property Office (KIPO). The Association trains start-up managers (business incubator managers) as well as students through short-cycle start-up schools or start-up competitions for university students. Similarly, Venture Incubators are run in Seoul by KOVA. The private initiative DemoDay connects start-ups with large companies and investors (venture capital) to provide innovation for large companies, infrastructure for start-ups in a fair environment, and a learning environment for both. It also connects entrepreneurs with training and consulting providers. The government-affiliated Small Enterprise Development Agency (SEDA) also provides training and consulting services for entrepreneurs and small enterprise owners, such as start-ups, field conversion, business management and e-learning.

KIPO estimates that there will be a need for 300 000 workers skilled in intellectual property (IP), management, and services to support start-ups between 2013 and 2017. To this end, KIPO is: attempting to increase education and training programmes for SMEs in related fields; promoting interdisciplinary and hybrid curricula and IP curricula; improving institutions for patent attorneys; facilitating invention

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education for youth; and promoting inter-ministerial and local partnerships. KIPO has also launched a certification system for invention teachers, which provides incentives for invention teachers and enhances the skills of those who have teaching certification. These teachers can work at KIPO's Invention Education Centre and four Invention Teacher Education Centres, as well as give advice to invention education related businesses.

KIPO will collaborate with the SMBA to link start-up education with start-up funding. SMBA, KIPO, Korea Institute of Start-up & Entrepreneurship Development (KISED, SMBA-affiliated) and Korea Invention Promotion Association (KIPA, KIPO-affiliated) have held joint start-up camps for secondary level students. Training included start-up business items, marketing, funding management, and start-up skills education.

Start-up assistance for high-skilled people is also receiving particular attention. An industry-university project, Leaders in Industry-University Cooperation (LINC), provides and strengthens entrepreneurship and start-up education for university or graduate students. A start-up education centre was established and start-up assistants provided for each university participating in LINC. MoTIE also focuses on high-level skills such as bio-design, and provides start-up skills education programmes. Key areas include transformative and hybrid technologies that combine manufacturing with more technologically advanced services. These examples show the growing public interest across the country in invention, patents, and related education and training.

Ministries, including MoTIE, understand the side-effects of previous efforts to boost start-ups during a start-up boom: those who attempted to start their own businesses had often failed previously in the job market and lacked further training on how to succeed in start-ups or gain practical experience through such opportunities. Opening a business may be an obvious employment alternative, but it is risky without understanding the prerequisites and chances of failure. For these reasons, entrepreneurship education and training for start-ups needs to be provided early on in the education curriculum, at least for those who plan to open up a business, in addition to initial funding support for start-ups.

Adding a screening process to examine start-up capacity or competition mechanisms into entrepreneurship education and training can be helpful. For example, two Smart Venture Institutes, established by SMBA, support start-ups and job creation in the field of software hybrid, content, and applications, through a gradual competition system. The institutes select entrepreneurs and support them for 28 weeks of education and training, infrastructure, and consulting, with a ceiling of KRW 100 million (USD 94 000), and also connect them with venture capitalists. After graduation from the Institutes, assistance continues for five years through the monitoring of management performance, aiming for a 90% survival rate.

Accompanying entrepreneurship education and training with good quality formal and informal learning opportunities is also important. For example, incubators strengthen skills development for start-ups and reduce the cost of access to necessary services and knowledge (OECD, 2013f: 54-55). In recognising this, MoE, MiSIP, and SMBA announced a Five-year Plan for University Start-up Education on 6 September 2013, incorporating the opinions from start-up student clubs, start-up education personnel, and the Special Committee on Creative Economy of the Federation of Korean Industries. The plan promotes the establishment of a double major with start-up related disciplines, graduate programmes related to start-ups, online education, credit replacement for start-ups, start-up leave, and a cross-registration system for taking start-up specialised courses. For strengthening teacher capacity, it supports a start-up year for teachers and a start-up expert database, as well as a training and recognition system for start-up experts. For students, it promotes start-up camps, idea competitions, start-up clubs, and the recognition of start-up experience as a skills asset. Start-up indicators will be included in university evaluation and will be related to funding support.

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Box 8. Comparative experiences in entrepreneurship and fostering start-ups by skills development

In **Norway**, the Norwegian Action Plan for Entrepreneurship in Education and Training takes an approach that differs between compulsory education and post-secondary education, with the main emphasis being on the latter. In compulsory education, the key approach is to develop entrepreneurship awareness programmes, at the discretion of individual educational institutions: e.g. through the Norwegian branch of the European Junior-Achievement – Young Enterprise (JA-YE) programme. One widely used programme in Norway, the Company Programme, involves teams of students role-playing in setting-up and developing a company and reporting to shareholders. According to JA-YE Norway, while there may be some self-selection in those students who choose to enrol, students who have followed the company programme are around 50% more likely to start their own business. In secondary and post-secondary vocational education, guidelines require entrepreneurial skills to be included as part of the instruction. In higher education, the plan includes short modules and full semester courses in many degree programmes, and the setting-up of specific courses in entrepreneurship, including at masters level. For example, the Norwegian Technical University in Trondheim offers a masters course that allows the opportunity to commercialise a self-developed technology-based product.

In Malmö, **Sweden**, there is an attempt to provide a level playing field for enterprise and business development. ALMI – a public service that provides advice, loans, venture capital and incubation for start-ups – have created a team specifically tasked with facilitating business development among migrants. The small team of five meet with approximately 1 000 migrant individuals each year to provide contacts, access to finance and, where necessary, language support. Over one third of those ALMI has contact with go on to start a business, with 70% remaining active after three years. Currently predominantly male (61% in 2011), successful recipients of ALMI's business development support include migrant businesses such as *Nablus Mejeri*, a family owned business now producing and exporting cheese based on a traditional Palestinian recipe from a factory in Malmö.

In **Finland**, entrepreneurship education is included as an obligatory subject in all primary and secondary schools (lower and upper general secondary education) and has been strongly emphasised in the latest five year development plan for education and research (2011-2016) elaborated by the Ministry of Education and Culture. The national core curriculum for basic education includes a cross-curriculum theme called "participatory citizenship and entrepreneurship" (for primary and secondary education level) and "active citizenship and entrepreneurship" (for upper secondary education level). While methods of implementation may vary due to school autonomy, guidelines are included as part of the core curriculum and these specify that the main focus should be on practical exercises and the creation of personal participation experiences. In primary and secondary schools, the learning outcomes concern attitudes and knowledge about entrepreneurship, career opportunities and the world of work and business. For some students in upper secondary education, learning outcomes may concern practical exploration of entrepreneurial opportunities. A key component of entrepreneurship education is the learning environment where the focus is on the learner's own activity, learning takes place in a real-world setting.

The support of university technology transfer offices, business incubators and accelerators, science and technology parks, and angel-investor networks and associations can play a determinant role in favouring knowledge sharing. **Australia and Finland** use incentives to facilitate access to finance and knowledge transfer between universities and businesses, and support for start-ups. These countries have taken measures to foster the creation of university and corporate spin-offs. Spin-off support schemes include services to develop skills in knowledge based business management, such as specialist advice in knowledge and intellectual-property management, and training in dealing with investors and improving business models and plans (OECD, 2013f).

In **Latin American countries**, technology transfer offices (TTOs) support students and researchers in setting up new businesses (OECD, 2013f: 55). Some institutions are specialised in providing business training services. These services include grants and tax incentives for training programmes, awareness initiatives and education by universities, technical schools and associations linked to innovative entrepreneurship, such as chambers of commerce. Some countries also have capacity-building programmes and programmes to enable venture-capital fund managers to sharpen their specialist skills. Angel investors and venture-capital funds not only provide capital, but also play an important role in incubating new firms by providing them with specialist consultancy services in high-growth business management, and sharing their management experience and technical know-how (OECD, 2013f: 55-56)

Sources:

OECD (2014b), *OECD Economic Surveys: Norway*, http://dx.doi.org/10.1787/eco_surveys-nor-2014-en.

OECD (2012a), OECD Territorial Reviews: Skåne, Sweden 2012, http://dx.doi.org/10.1787/9789264177741-en.

Finland Ministry of Education (2009), *Guidelines for entrepreneurship education*, http://www.minedu.fi/export/sites/default/OPM/Julkaisut/2009/liitteet/opm09.pdf.

OECD (2014a), *Industry and Technology Policies in Korea*, http://dx.doi.org/10.1787/9789264213227-en.

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2.2. Supporting skilled workers for small and medium-sized enterprises

In addition to entrepreneurship, achieving the 70% employment goal and a creative economy will require increased employment in SMEs. However, although SMEs in Korea accounted for 99% of employers and employed 86% of workers in 2012 (Statistics Korea, 2013; SMBA, 2013), their added value as a proportion of GDP is lower than large firms, which create more than half of value added in Korea (OECD, 2013g). Moreover, the gap is widening: labour productivity in SMEs compared to large companies fell from 33% in 2000 to 28% by 2011 (OECD, 2014c). Wages in SMEs are only half of those in large companies, meaning that investment in skills development is correspondingly lower. Koreans also prefer to work for large enterprises, which reinforces the existence of weaker skills in SMEs.

SMEs face criticism for not investing or participating in skills development, despite their skills needs. However, SMEs often cannot invest in skills due to the lack of resources and infrastructure for skills development. Moreover, the high risk of skills leakage discourages such investment. The government, notably MoTIE and the SMBA, has put in place a number of measures designed to support SMEs, including a wide range of training programmes and subsidies. However, the large number of programmes – 1 304 in total – can lead to duplication and waste (Challenge 12).

Vocational training programmes focusing only on SMEs within the employer-assistance programme by MoEL include:

- SME learning organisation: intended to encourage work and learning activities in SMEs by supporting overhead costs or fees for external experts.
- SME core competency development: to give more opportunities for SME employees to take the high quality courses necessary for the SME to improve its organisational ability and productivity. The employer may also benefit from the programme because many SME employers are directly in charge of management affairs such as personnel, financial, and production management.
- SME training assistance: to support overhead costs and consulting fees that is necessary to develop on-the-job training systems.

In order to attract workers to SMEs:

- MoTIE provides salary subsidies for SMEs to hire high-skilled workers (master and doctoral level) or dispatches experts with high-tech skills from government funded research centres to technology and innovation oriented-SMEs.
- SMBA supports skills development in specialised vocational high-schools, Meister high-schools, and junior colleges in order to provide SMEs with low and intermediate-skilled workers.
- MoEL runs the *Duru Nuri* Social Insurance Subsidy Programme which covers low-income workers in the smallest establishments, those with nine workers or fewer (OECD, 2013d).

In October 2013, the MoE, the Ministry of Strategy and Finance (MoSF), and the SMBA announced Measures to Alleviate SME Skills Mismatches. These measures encompass the existing plans with the addition of new elements, such as:

- Expanded skills industry personnel and tailored military specialists working to offset the lost opportunities of skills development due to military service.
- Hope Ladder Scholarships run by MoE and the Korea Student Aid Foundation (KOSAF) gives awards to enable university and junior college students to gain work experience and incentives to

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work in SMEs.[14] This can help to activate young graduates as well as acting as a safety net for those who cannot afford tertiary education.

- Improved working conditions in industrial complexes (e.g. child care system and commuting services), establishing better job databases, and incentivising for long term holding of an SME position.

These measures, although positive developments, cannot avoid skills leakages following the obligatory period of employment and may include the dependency of SMEs on public support for a lengthy period, which could prevent their independent growth. For example, companies that use Hope Ladder Scholarships often do not comply with regulations such as minimum wages or working conditions, which may adversely affect students. Therefore, on top of the already planned financial incentives, SMEs should be encouraged to gradually comply with regulations and provide career services after employment in order to retain students longer, develop their skills, and contribute to the development of SMEs in general. Based on the implementation of such regulations, it would be more beneficial to broaden the eligibility for the scholarship – currently limited to tertiary institutions that have workplace learning courses – or make a separate tool for students from non-eligible institutions so that all students from tertiary institutions can take advantage of this opportunity.

The SME-focused Committee on Creative Economy was established in July 2013 and gathers nine SME associations including K-Biz, KOVA, and Innobiz, and representatives from the Institute for the Future of State, KOSBI, successful venture companies as well as academia, research institutions, and experts. There have not yet been any concrete outcomes from the committee, but it will be a positive step if it can play a role in governing the building of creative talent for SMEs.

Box 9. Findings from Leveraging Training and Skills Development in SMEs (TSME) project

Seven regions participated in this OECD project: East Flanders (Belgium); the Middle East Industry and Trade Centre (OSTIM) industrial zone in Ankara (Turkey); Canterbury (New Zealand); the Zaglebie sub-region (Poland); the West Midlands region (United Kingdom); and Quebec and Manitoba in Canada. SMEs used both formal and informal training, particularly for their innovation and entrepreneurial processes. Better outcomes were reported from informal training with a divergence between high- and low-skilled employees. The main skills development areas for low-skilled employees were generic, routine, occupational health and safety, and information technology (IT) skills; whereas for highly skilled employees, the focus was on productivity and competence-building skills areas (e.g. technical and management skills, entrepreneurship), and green skills. Findings showed that regulation and public policies still provide important support for training activities, but for most firms, the motivation for training activities initially stems from their need to respond to market forces (OECD, 2013g).

Under the Plato initiative, which started in the Flemish region of **Belgium**, expertise pooling is based on learning by interaction among participating SMEs and SMEs and large, well-established companies – who play the role of tutors. Typically, Plato is a two-year programme that addresses the managerial needs of a regional network of small firms. Small business owners and managers form groups of 8-12 members, each group containing two leaders representing large local parent companies. The Plato initiative has now been replicated in many European countries including Denmark, France, Germany, the Netherlands, Sweden and the UK (OECD, 2014d).

Sources:

OECD (2013g), *Skills Development and Training in SMEs*, OECD Skills Studies, http://dx.doi.org/10.1787/9789264169425-en.

OECD (2014d), *OECD Skills Strategy Diagnostic Report: Norway*, http://skills.oecd.org/developskills/documents/OECD_Skills_Strategy_Diagnostic_Report_Norway.pdf.

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2.3. Collaborating to provide skills development for creative talent

The changing needs and mechanisms of corporate skills development

During the industrialisation period in Korea, the national skills system focused on rapidly providing a sufficient quantity and quality of labour for major firms. This centralised skills regime has led to training providers that are insensible to labour market needs, and firms that focus on an individual firm-based training system based upon their individual needs, without interest in sector or occupation-based skills development.

Large companies have the capacity to provide training for their workers, which means they prefer hiring workers with higher educational attainment and from more prestigious higher education institutions, based on the presumption that these workers will be better equipped to benefit from the training. For employees, in the absence of quality information and market signals of skills needs and supply, individuals choose to pursue higher degrees in order to get a job in a large company. SMEs are likely to underprovide or underinvest in training for firm-specific skills due to costs, and for generic skills due to the risk of skills leakage. This compounds the difficulty they face in often having to hire workers with intermediate or low skills and qualification. Despite this, there are still few public or private training programmes geared to the particular needs of SMEs.

SME participation in the employer-assistance training programme is 25%, whereas for large firms it is 60%. This is despite the fact that the majority of the workforce is in SMEs. In September 2013, critics of the vocational training related to employment insurance argued that large companies benefit most from employment insurance vocational training, with 0.8% of large conglomerates receiving 29% of the funds (the top ten conglomerates received 21% of the funds.) Only 6% of 1.6 million companies that are registered in the employment insurance used the vocational training fund per annum (SBS, 2015). For large firms, the benefits received from employment insurance are lower than they are for SMEs, when compared to their contributions to the employment insurance system. However given the difficulty facing SMEs in training and improving working conditions, Korea needs to take measures to motivate SMEs to participate in these training programmes.

In this context, in order to improve the equity and effectiveness of vocational training, questions remain on funding support mechanisms and implementation, and who should be supported: employer, employee, unemployed, training provider, or disadvantaged groups (KLEA, 2009). The provision of vocational training needs to become more decentralised and demand-driven, yet also more collective and favourable towards disadvantaged groups, such as SMEs as they seek to upgrade skills relevant to rapidly changing needs. This is especially the case given the low registration rates of SMEs in employment insurance. It would also be helpful to provide SMEs with collective training courses through sector- or value chain-based cooperation, given that SMEs are often subcontractors to large firms.

In order to meet these changing needs and the drive to a competency-based skills system, more tailored and job-relevant training is needed. The Individual Training Account Programme (ITA), a voucher-type assistance programme, was introduced in 2010 (Box 10). The job placement rate of participants plummeted from 46% in 2010 to 23% in 2011. This was partly due to a new method of calculation for employment rates, replacing reports by providers with reports by employment insurance data (employees without employment insurance, notably in SMEs and the self-employed, are not counted). Jobseekers and the unemployed with comparatively lower employability or willingness to work – those who would have had less opportunity to participate in training programmes under the previous system – participated more in the ITA: for example female participation increased from 56% in 2007 to 71% in 2011, though mostly in programmes that are not relevant to employment (Table 3).

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Table 3. Job placement rate of participants in unemployment training programmes over time

Year	2008	2009	2010	2011	2012	2013
Placement rate of Unemployed in the training programmes (%)	40	47	46	23	22	23
Unemployed participants (number of participants, thousand)	116	154	304	394	337	450
Employee participants (number of participants, thousand)	4,032	4,979	4,269	3,362	3,477	3,616
Budget spent on training for unemployed (billion KRW)	342	466	437	420	402	471
Budget spent on training for employees (billion KRW)	641	747	638	581	548	639

Note: Placement rate is calculated by the number of unemployed who succeed in getting a job divided by those unemployed who completed training programmes

Source: MoEL Report on Vocational Education and Training in Korea (2014). From 2010, figures for unemployed participants include ITA.

Following these findings, the government reformed the ITA system: it strengthened screening and counselling processes for public employment services by eligibility (job seeking purposes) and increased the share of user cost burden for courses that are less relevant to the labour market (e.g. in 2012, the personal burden on training costs increased up to 45% for cooking, hair design, and make-up courses). However, the ITA did not adopt any filtering device, such as a means test, and still has broad eligibility. There remains a need for a continuous monitoring and evaluation process and providers often favour applicants with higher employability. A wide range of diversified and approved courses and easy access to information on those courses are required.

According to the Korean Labour and Income Panel Study (KLIPS), employer-assistance training participation rates are likely to be higher among men, those with higher education attainment, regular workers, trade union members, those in the manufacturing sector, and those who have stayed in the same job for a long time. However, there are concerns that vulnerable groups in need of support for training are benefiting to a greater degree from employment insurance than others, and there are suggestions that other mechanisms could supplement this support. Stakeholders have raised equity issues in terms of who benefits more or less within the employment insurance system, and will need to reach consensus on how to better use employment insurance while increasing social benefits (KLEA, 2009; Box 10).

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Box 10. Spotlight on Korea: Vocational training programmes and employment insurance

Vocational training programmes in Korea can be classified into three categories: employer-assistance programmes, employee and jobseeker-assistance programmes, and public training programmes. The total budget spent on vocational training programmes by the Ministry of Employment and Labour (MoEL) in 2012 was KRW 1 374 billion (USD 1 280 million), most of which was financed by the Employment Insurance Fund, which was in turn financed by contributions from companies and employees. The Employment Insurance System contains programmes for employment security, skills development, maternity protection and unemployment benefit.

Training is funded by a levy-grant system. Companies contribute from 0.25% (fewer than 150 workers) to 0.85% (1 000 or more workers) of total taxable wages to both the employment security programme and skills development programme. This is distinguished from contributions for the unemployment benefit and maternity protection benefit, to which companies and employees each have a duty to contribute half. In the assessment of vocational training courses and providers, employment relevance is the key factor, more so if funded by the government. It is related to the periodic evaluation with employment insurance training programmes that goes through planning, implementation and performance and feedback.

Employer-assistance programmes: These include skills development for employees and jobseekers, training on paid leave, loans for training facilities, SME learning organisation, SME core competency development, and SME training assistance. The costs of vocational training programmes by companies are rebated by 80-100%. For SMEs (fewer than 300 employees), the costs are rebated by 240% as a training incentive.

Employees and jobseeker-assistance programmes: These include a rebate of training costs for SME employees, non-regular workers and the self-employed with employment insurance on a voluntary basis; Individual Training Account Programme (ITA); loans for tuition fees for tertiary education, and loans for living costs for training; training for national key and strategic industries that experience a large skills shortage; and vocational training for left-behind youth. Non-regular workers with a high likelihood of training exclusion and jobseekers are eligible for ITA. They can receive a card after having counselling through public employment services. The cardholder can take any training course with partial cost sharing, up to a ceiling of KRW 2 million (USD 1 862) per year. Due to the free selection of training courses, providers compete for quality. The number of approved training courses has increased from 3,948 in 2007 (before ITA) to 16,705 in 2012(after ITA) (KRIVET, 2013). The government has also continuously strengthened its information notification and evaluation system via HRD-Net.

Public vocational training programmes: Public entities and central and local government operate vocational training facilities and implement training courses. MoEL plays the most important role in public vocational training. Polytechnics provide training courses aimed at acquiring a national technical qualification (NTQ). The eight nationwide Korcharm HRD Institutes (Korea Chamber of Commerce and Industries or KCCI) provide vocational training courses.

Vocational training programmes by service providers: They provide training in technical skills and NTQ licenses. Training needs for soft skills are met by private tutoring institutes (*hagwon*). The introduction of the ITA system has led to increasing participation of the tutoring institutes because for the ITA system to be successful, many more training providers and courses are needed to give full opportunity to ITA card holders and to ensure sound competition among providers for high quality. The scope of providers has been expanded over time to include tertiary institutions, employer associations, and lifelong learning institutes due to change of skills demand, coupled with enhanced linkage between universities and industries, increased involvement of employer associations, and government policy that encourages lifelong learning. There are 6 390 private vocational training providers and 35 public.

Source: Ministry of Employment and Labour (2013b), Yearbook of Employment and Labour Policy, http://www.moel.go.kr/english/main.jsp.

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Incentivising employers to develop skills

Although businesses often recruit workers based on qualifications, they are also interested in creative talent. Results of a survey conducted by the Federation of Korean Industries (2013) show that 70% of corporate human resources personnel who are interested in creative talent prefer those with new ideas (31%) or entrepreneurship (25%). Only 14% of companies agree that the current education system is suitable for fostering creative talent. The public education system, as well as employers and other stakeholders, should engage in the effective provision of skills development. Training barriers may occur when employers lack sufficient information or capacity to adequately to assess the benefits of training for their organisation, or if external providers are unavailable (Green, 2013).

Providing training collectively, either sector- or value chain-based, can be helpful for meeting the training needs of businesses. Collective provision by a group of employers with common interests can economise training costs if employers can avoid free-ride effects. Common initial training or infrastructure sharing can be an example. The collective provision of skills development can facilitate co-operative behaviours among employers, encourage employers to commit to transferable training, and promote the sharing and exchanging of information and know-how. This can also lead to career opportunities for employees (Hadjivassiliou et al., 2011; Box 11).

Box 11. Collective form of training provision in other countries

Ireland has formal inter-firm training collaboration among employers. Supply Network Shannon (SNS) is an industry-led initiative aimed at representing, promoting, developing and connecting companies in the wider Shannon Region of Ireland. In the 1990s, Shannon Development, a government owned regional development company, was becoming increasingly concerned about the low level of technical capability of the sub-supply base in the region, which was contributing to an over-reliance on low labour costs for competitive advantage in supplying multinational companies (MNCs). The sub-supply companies themselves were anxious to move up the value chain to circumvent the increased competition from low cost countries. Prompted by an international sub-supply fair in Limerick in 1997, Shannon Development published a Sub-Supply Directory for the region in 1998. This publication galvanised the listed companies into looking at themselves as a group and seeking opportunities to network together, particularly for the provision of integrated supply solutions to MNC customers.

Enterprise Ireland, the Government agency responsible for the development and growth of Irish enterprises in world markets, has also played a role in the creation and development of industry-industry networks. Though the Irish Photonics Association (IPA) is a grouping of both companies, researchers and other relevant organisations, Enterprise Ireland saw the association as potentially having a role in fostering inter-firm and industry-academia linkages. Enterprise Ireland's grant schemes fund collaborations between companies and between companies and third level institutions or research bodies. Applications to Enterprise Ireland's Research Technology and Innovation (RTI) competitive grants scheme that involve a company in collaboration with a partner (another company, third level institution or research body), receive a higher assessment rating than applications that are submitted by a company on its own. The RTI funding guidelines state that formal collaboration is encouraged; this is defined as occurring where a number of companies and/or research establishments undertake a project on the basis of shared cost, risk and intellectual property rights. International collaboration is also supported by RTI.

In **Hungary**, the PharmAgora Quality of Life Cluster was established in 2007 by 11 SMEs from the pharmacology and life science industries. The Cluster developed joint projects as they are all at different stages of the value chain of food science and drug development. As such, there are no direct competitors in the cluster, since the products and services they offer complement each other. Members, mostly SMEs, work together on a project by project basis, with joint teams being formed in order to deliver contracts.

Source: Department of Jobs, Enterprise and Innovation (2013), "Innovation Network", (The National Policy And Advisory Board For Enterprise, Trade, Science, Technology And Innovation, https://www.djei.ie/en/#.

Hadjivassiliou et al. (2011), *Impact of interfirm relationships – employment and working conditions*.

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Collective training provision between SMEs and large firms is receiving increasing attention as part of a win-win growth and employer-assistance vocational training programme that promotes skills development for SMEs. In consideration of SMEs' poor training facilities and equipment, lack of know-how, resources, and experience in vocational training, the National Human Resources Development Consortium (CHAMP) was introduced in 2001. The Consortium subsidises large companies, business associations, or universities that provide vocational training services, to organise a consortium with SMEs for mutual benefit. Large companies benefit as their subcontractors' productivity is increased by their skills being upgraded, which directly affects the company's productivity and competitiveness. The subsidy is managed by MoEL, HRD-Korea, and the Korea University of Technology and Education. The programme has expanded considerably, from KRW 17 billion (USD 15 million) in 2004 and attracting 30 organisers, to KRW 146 billion (USD 127 million) in 2013 attracting 169 organisers (Table 4). It has the potential to be a new hub of skills development at the industry sector level or regional level.

Table 4. Evolution of the National Human Resources Development Consortium (or CHAMP)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of organisers	30	47	57	69	83	96	102	134	158	169
Amount of subsidy (billion KRW)	17	40	45	74	70	78	74	123	139	146

Source: MoEL (2014), *Yearbook of Employment and Labour Policy.*

The collective provision of training is not limited to the training of employees only, but can also include training for apprentices. In Germany, for small firms that have no resources to train apprentices, collective provision of training covers general training for apprentices (Jang, 2012; Hoeckel and Schwartz, 2010). In general, German companies in the same sector contribute to the collective training fund for apprenticeships. Apprenticeship training is organised collectively through chambers of commerce.

In this regard, the role of social partners in skills development, including sectoral councils, is important. Unionised workplaces tend to undertake more training than non-union workplaces, particularly if they believe in the economic value of training and the wage premium experienced by previous participants in the training (Green, 2013: 85-103). In order to incetivise collective training and draw more investment and effort, it is necessary to closely monitor and provide feedback on outcomes and benefits. The role and potential of sector councils are considered huge, but they have not been successful in Korea. This is related to governance, engagement of social partners and policy co-ordination, which will be discussed further in Challenge 11.1.

At the same time as investing in employees' skills, employers, especially SMEs, may also benefit from measures to reduce the risks of skilled workers leaving. Skills leakages from SMEs to large companies are common: MoTIE estimates that 49% of SMEs reported skills leakages or poaching in 2013. Among companies with fewer than 30 employees, trained workers are more likely to shift to other companies than workers who have not participated in employer-assistance training (KLEA, 2009).

In an attempt to address this problem, the National Commission for Corporate Partnership (NCCP), a private organisation that has advised the government on business policy since 2010, will expand the Technical Escrow System, which aims to prevent technology leakage from SMEs to large conglomerates. The possibility of collaboration is being discussed, with large conglomerates or public institutions helping the research and development of the SMEs that have potential for developing new projects in which they are interested. The Centre of Technology Escrow, managed by the Foundation for Cooperation between Large Companies and SMEs and designated by SMBA, helps in this regard.

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The NCCP launched the Sub-commission on Skilled Worker Outflows Deliberation in July 2012, which aims to build social consensus regarding the outflows of skilled SME workers. The NCCP deliberates, mediates and arbitrates conflicts with respect to these outflows. It plays a pivotal role in promoting communication between the representatives of conglomerates and SMEs, and provides educational programmes for the observation of corporate partnership norms.

Summary and policy implications

Creative and entrepreneurial skills are key drivers of innovation, productivity, and economic growth. The current education system has a strong focus on academic studies, must be balanced with greater attention to fostering creative and entrepreneurial skills. Work-study programmes in schools and universities could be a way to teach students how to generate business ideas, raise funds and open a business. Creative and entrepreneurial skills that contribute to the launch of more businesses can be helpful in reaching the government's 70% employment rate goal.

Survey results show that most companies in Korea are looking for creative talents and those that have entrepreneurial skills. While the public education system can play a role in developing such skills, workplace learning and training organised by companies is also important. However, most companies are SMEs with limited resources and are less able to invest in training for their employees. There is also the concern that large companies will simply poach high skilled workers from SMEs once they have been trained. Public or private funds for SMEs to provide employee training programmes are limited. This could be addressed through sector or value-chain based training provided collectively by SMEs and/or large companies, so that the costs are shared.

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CHALLENGE 3. ENHANCING ADULT SKILLS THROUGH LIFELONG LEARNING AND EDUCATION

Education and training by employers has not been evenly provided among different segments of workers: while career development services for core workers have been strengthened, incentives have remained limited for marginalised workers. This partially reflects the impact of the seniority-based wage system, the high incidence of early retirement practices, and long working hours. Incentives to provide lifelong education have been influenced by the increased flexibility of the labour market, while incentives for in-firm training have decreased among certain groups of workers. In this context, Korea faces a challenge in re-evaluating the supply and demand of lifelong education and exploring how to stimulate lifelong education with different measures and tools.

In this environment, the following questions arise: 1) does the lifelong education system appropriately recognise adult skills? 2) Do lifelong education institutions provide labour-market relevant learning programmes or curricula for those adults and are the teachers and professors competent enough to develop the skills of these adults? And 3) can adults, who often prioritise education for their children rather than for themselves, manage the additional financial burden incurred by the costs of their own skills development? Can they afford the time necessary to combine learning and work (e.g. to re-enter university while working), particularly in the case of low-skilled workers?

Lifelong education institutions in Korea often provide adult literacy, civic and community education, culture, science, arts and vocational skills to the general public. The main providers are schools, colleges, universities, enterprises, local governments and NGOs. The government supports the programmes operated by these institutes and focuses on vulnerable population groups such as older people, low-income, women, and the low-educated. Returns on lifelong education have been regarded as poor due to the low employability of these groups. For the rest of the population, there are few incentives to participate in lifelong education programmes that are considered mostly irrelevant for their current or future jobs, despite evidence that these programmes generally enhance learning and improve behaviours.

The strong commitment to the introduction of the NCS points the way to an overall rearrangement of lifelong learning and education. Yet, challenges exist in consolidating the qualification system with connections to work in order to motivate adult participation in lifelong skills development, increasing the outreach capacity of lifelong education institutions with labour market relevance, and better co-ordination with vocational training programmes at the national and local levels.

3.1. Supporting lifelong education

The need to increase participation in lifelong learning and education

Korea shows marked differences in skills levels across cohort groups, as measured by the *Survey of Adult Skills* (OECD, 2013b). For example, while the youngest age cohort is amongst the highest performing in literacy proficiency, cohorts aged 45 and older are significantly below the average of countries participating in the survey (Figure 29). Further analysis of the skill-age profiles of adults suggests that the level of literacy proficiency drastically declines from 16 years old to roughly 30 years old in Korea, and after age 26, Koreans' literacy proficiency falls below the OECD average (Figure 30). Although similar patterns are found in Germany, the level of skills among those of prime working-age (25-54 year-olds) is slightly higher than in Korea, whereas older adults in Germany do much worse. Skills deterioration among young adults hints age effects indicate that lifelong learning will be especially important for most working-age adults if Korea is to maintain and enhance its international competitiveness.

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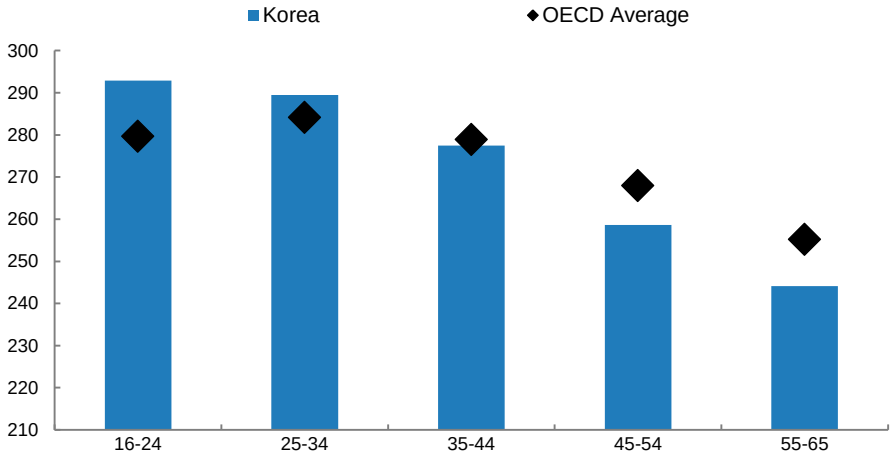
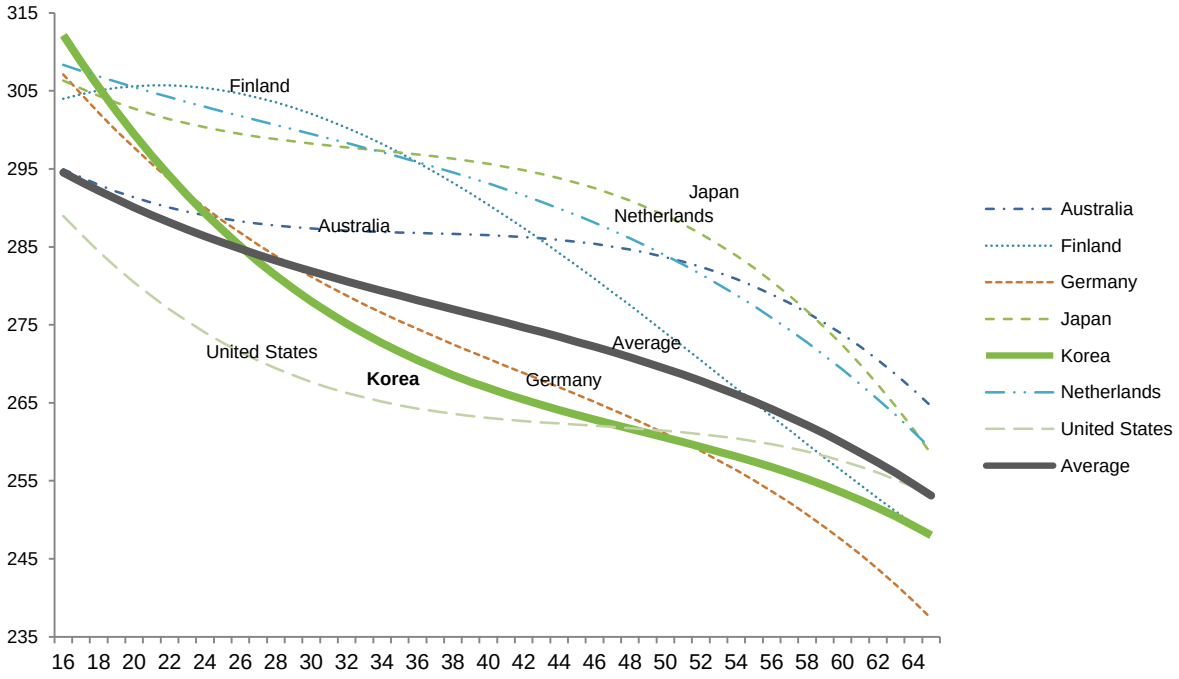
Figure 29. Mean literacy proficiency level by age group, 2012



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* http://dx.doi.org/10.1787/9789264204256-en.

Figure 30. Relationship between literacy proficiency and age, selected countries, 2012

Trend scores on the literacy scale, by age, adjusted for educational attainment and language background, foreign-born adults excluded



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Table A2.1; Figure 2.1 in pp. 61, http://dx.doi.org/10.1787/9789264204256-en.

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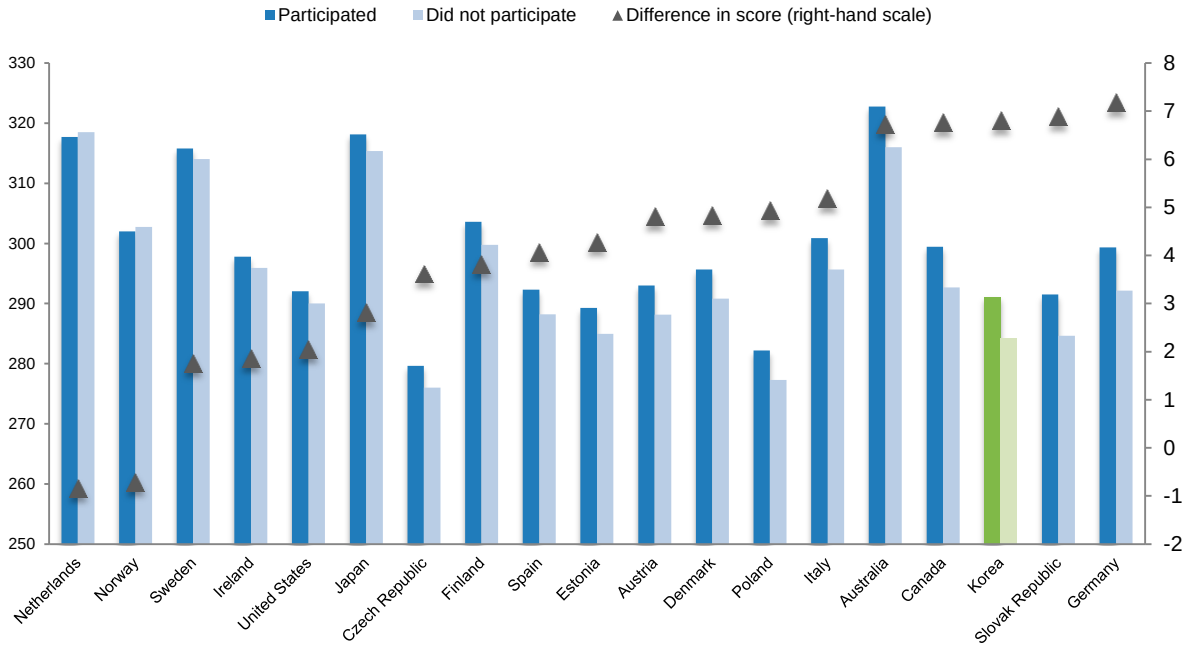
Although the overall level of skills and participation in adult education is comparatively low in Korea, the difference in literacy proficiency between adults who have participated and those who have not participated is significantly large in Korea (Figure 31). Participation in adult education and learning has a close relationship with literacy proficiency. In Korea, adults with low literacy proficiency have much lower participation rates in adult education and training than those with the highest skill levels (Figure 32). This suggests that an increase of participation in adult education and training could contribute to their up-skilling by preventing skills deterioration with ages, and adult education and training is particularly needed for the lower skilled. Participants at the national diagnostic workshop (Annex) expressed particular concern about the low participation of low-skilled and older workers in lifelong learning and education, also in relation to the skills gap (Challenge 3).

Figure 31. Literacy proficiency by participation in adult education and training, 2012



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Table B5.3 (L), http://dx.doi.org/10.1787/9789264204256-en.

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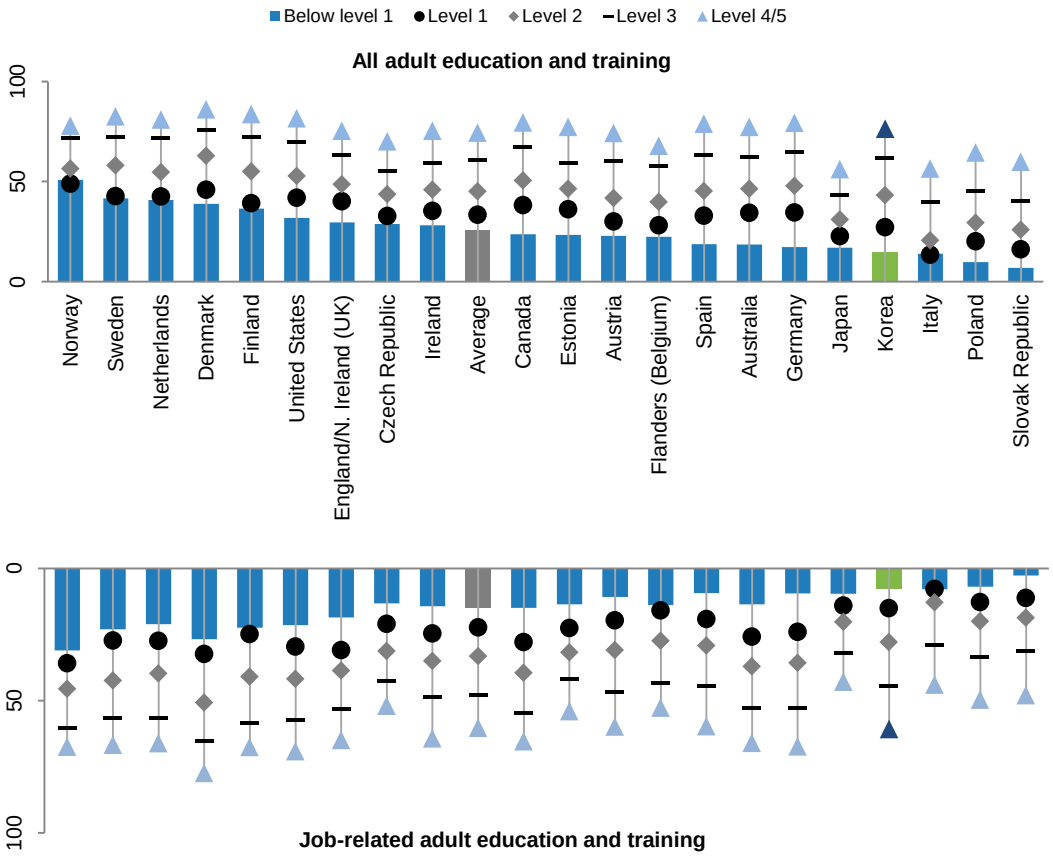
Figure 32. Participation rate in adult education by literacy levels, 2012



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Figure 5.7L, http://dx.doi.org/10.1787/9789264204256-en.

Increasing the capacity to attract adult students, build networks, and remain relevant

In recent years, Korea has taken measures to reduce the incidence of early retirement. The demand for lifelong learning programmes is likely to increase as these policies help to retain workers and provide stronger returns to investing in up-skilling by extending the years over which the investment can be recouped. To cope with the growing demand, education institutions, particularly tertiary institutions, will need to adjust. As many education institutions have mainly focused on initial education for youth, they will need to go through institutional reforms in order to effectively receive adults with labour market experience and provide them with appropriate further education. Labour market relevant lifelong courses and curriculum are still rare, and teachers and professors have little labour market experience compared to their adult students.

It is thus necessary to reconsider what mechanisms would be most effective for stimulating greater responsiveness of lifelong education providers, and for increasing the take-up of training among adults, especially lower-skilled workers. In particular, the learning barriers of under-represented groups, such as non-regular workers, workers in SMEs, women, youth, the elderly, low- educated, and the unemployed, need to be addressed.

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Provision of easy-to-find information about adult education opportunities is also necessary, particularly for lower-skilled individuals. Although easily searchable, up-to-date online information exists, some people cannot find it without personal guidance and counselling services to help them define their own training needs and identify appropriate programmes (OECD, 2013b). The limits of on-line information services was highlighted in the *Survey of Adult Skills* (OECD, 2013b), which showed that a high share of adults, particularly among older cohorts, have no computer experience or very limited capacity to use computers to find information. In this regard, networking among tertiary institutions, local community, and industry can improve the effectiveness and quality of lifelong education. Lifelong Learning Cities, a project aiming at establishing systems at local levels that offer quality lifelong learning opportunities for all, can set the scene for such networking.

Box 12. Approaches to adult education oriented towards target groups, by multiple actors

Germany - training grants for low-skilled and older employees and National Strategy for literacy and basic adult education: The Federal Employment Agency launched WeGebAU in 2006 in order to improve the employability of low-skilled and older employees, particularly those working in SMEs. The programme offers certified training outside companies and provides starting-up finances for further training. The company is obliged to ensure leaves of absence. Some 340 000 adults have participated in the programme since 2006 and 85 % of participating companies indicated the positive effects of training. In 2012, the Federal Ministry for Education and Culture, the *Bundesländer*, the public employment service (PES) and several stakeholders agreed on a common national strategy to reduce the number of functional illiterates and to improve adult skills. The initiative includes a nationwide TV and radio campaign on the importance of foundation skills; the expansion of course offers, in particular in cooperation with adult education centres and the public employment service; and the creation of networks and regional adult education coordinators. The initiative is financed by the federal government, the *Bundesländer* and some projects are co-financed by the European Social Fund and the PES.

Norway - the Basic Competence in Working Life Programme (BKA) for low-skilled employees: In 2006, the Norwegian government launched the BKA programme, which is now administered through the Norwegian Agency for Lifelong Learning (VOX). Funding comes from the Ministry of Education and Research. Any employer in Norway can apply for the full financing of training measures for reading, writing, mathematics and the use of ICT. Learning activities are often linked with job-related practices. The courses have to relate to the competence goals in the Framework for Basic Skills for Adults. The number of applicants for the programme has steadily increased and almost 700 enterprises have benefited from the grant. The total amount allocated to this programme has increased from NOK 14.5 million in 2006 to 105 million (EUR 14.8 million) in 2012.

Sweden - Adult Education Initiative: This initiative was implemented in all municipalities in 1997 and ran until 2002 when it became the basis for a municipal adult education and training reform. The programme focused on providing general basic skills at the upper secondary level. It was implemented by the municipalities and funded by both municipalities out of local tax revenues and a general government grant to municipalities. Participation in courses provided by the initiative was free of charge. Unemployed participants received supplementary "special education support", equivalent to unemployment insurance payments for a maximum of one year. Some studies found that young men participating in the initiative had better chances of returning to the labour market compared to those who did not take part in the programme.

The Netherlands - sectoral training funds: Many sectors established training funds in the Netherlands, which are based on collective labour agreements (CLA). The sectors developed organisations to implement the collective agreements and to administer the funds. All employers of a sector are obliged by the CLA to pay a certain percentage of their wage bill to the fund. The fund invests the contributions and reimburses employers for employee training and education investments.

Sources:
OECD (2014e), *OECD Skills Strategy Diagnostic Report: Austria*, http://skills.oecd.org/useskills/documents/OECD_Skills_Strategy_Diagnostic_Report_Austria.pdf.

OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Figure 5.7L, http://dx.doi.org/10.1787/9789264204256-en.

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3.2. Increasing the labour market relevance of lifelong learning and education

The traditional experience of a "lifelong occupation" or "lifelong job" is becoming less and less common. High levels of employment protection and labour market rigidity, derived from Korea's period of rapid industrialisation and economic growth, in combination with increasing market uncertainty and competition, has resulted in distorted phenomena such as labour market dualism and forced early retirement (OECD, 2012b; 2013d). With this change, the need for developing skills and increasing the employability of workers has grown, and to avoid serious skills mismatches, lifelong learning and education is becoming more important.

The current lifelong education system in Korea is not directly relevant to the labour market, which creates a challenge. The conceptual, legal, and practical gaps between lifelong education and VET contribute to this disconnect. Although the Lifelong Education Act, established in 1999, includes adult vocational education in principle, it tends to focus on literacy, complementary academic studies, culture and arts, and citizenship. Silos within major agents of lifelong education have also consolidated gaps. Lifelong education remains, therefore, not as an integrated component of the general education track, VET, or corporate training, but rather as a marginal component running short-cycled curriculums that are mostly irrelevant to labour market needs, or specific qualification mechanisms such as the Academic Credit Bank System (ACBS).

For these reasons, enhancing adult skills through lifelong learning and education in Korea requires an assessing the issues with a systemic approach. Key areas to assess are the labour market relevance of lifelong learning and education and the capacity of adult skills recognition for labour market incentives. Different adult education services, depending on the level of adult skills and skills needs, can reinforce the effectiveness of lifelong education.

Discovering and recognising adult skills

Recognising adult skills acquired through non-formal education or labour market experience is an important function of a lifelong learning and education system. However, in this regard the role of the current lifelong learning and education system in Korea is rather limited. Mechanisms of accrediting skills into qualifications such as the ACBS, Self-Study Degree Award System (SDAS), and Lifelong Learning Account System (LLAS) are useful (Box 13); however, the recognition of such qualifications by employers is still low. The lifelong education system, including both training and qualification functions, could greatly benefit from a national qualification system that better bridges qualifications, work (competencies or skills) and learning.

The NQF can play an important role in connecting lifelong learning outcomes to academic qualification, vocational qualification, or workplace experience (OECD, 2007b). Korea's existing national qualification system is still fragmented (Cho and Oh, 2013: 33). Most of the weaknesses in the NQF are related to weak links with the National Competency Standards, such as the weak connections between qualifications and competencies and an insufficient response to fast-changing labour market needs and labour market supply related to ageing, low birth rates and a greater overall level of education (Cho, 2012). As Korea is now at the NQF design stage, it is the ideal time to ensure that Korea's NQF should be fully integrated with the development and use of NCS (Challenge 1 and 8). At the same time, with increasing international labour mobility, Korea could benefit from a national qualification system that is compatible with the qualifications systems of other countries (Cho and Oh, 2013).

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Ultimately, the NQF should enhance the quantity and quality of learning opportunities, equity of access to learning, and the efficiency of the lifelong learning processes. The framework is particularly important in terms of consolidating the fragmented systems of lifelong education and learning and running them in more effective and connected ways with greater labour market relevance. Thus, the inefficiency derived from the lack of connectivity among the qualification recognition schemes particular to lifelong learning, and their lack of signals for working competencies and labour market relevance, can be partially tackled by the NQF (Cho and Oh, 2013). To ensure this, all relevant stakeholders, including learning and qualification providers, employers and labour unions, will need to be involved in developing the NQF.

It is essential to incorporate non-formal and informal learning over an employee's working life, both in Korea and outside of Korea, into qualification and certification. Regional Qualification Frameworks (RQF), such as ASEAN Qualification Reference Framework and European Qualifications Framework, can act as catalysts for regional labour mobility between countries within a certain region. RQF functions as a meta-QF that connects NQFs, as well as a catalyst for pushing the introduction and operation of the NQF of an individual country (Cho and Oh, 2013: 33). Korea has few foreign tertiary institutions and foreign students account for only 2% of tertiary students in Korea. There are 0.7 million foreign workers in Korea in 2011, accounting for less than 3% of the labour force, well below the OECD average of 10% (OECD, 2013d). However, as Korea's labour force is projected to decrease in 2017, the need to recruit more workers from abroad, whether foreign nationals or former Korean emigrants is likely to increase. Their qualifications and certifications have to be adequately recognised.

Box 13. Qualification mechanisms in the lifelong learning and education system in Korea

Academic Credit Bank System (ACBS): The ACBS allows individuals to accumulate credit from various institutions, not only in school but also outside of schools under the Act on Recognition of Credits, and to obtain a higher education degree at the bachelor or associate degree level.

Self-Study Degree Award System (SDAS) (or Bachelor's Degree Examination for Self-Education): SDAS provides opportunities to acquire degrees through self-instruction or self-study. At present, the Korea National Open University runs the Self-Study System. In order to acquire the degree, the candidate needs to pass four rounds of exams.

Lifelong Learning Account System (LLAS): LLAS is one of the core administrative tasks. Individuals have incentives of lifelong learning for employment or school advancement through credit recognition. They can open a learning account (www.all.go.kr/), manage cumulative learning history, and use it for linking education or qualification recognition or for utilising as employment information. The system also includes assistance for under-privileged groups.

Sources: Korea National Institute for Lifelong Education (2013), Korea National Institute for Lifelong Education Website, http://eng.nile.or.kr/eng/main_2012.jsp.

OECD (2007b), *Qualifications Systems: Bridges to Lifelong Learning, Education and Training Policy,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264013681-en.

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Box 14. Lifelong education and training, and second chances for qualification acquisition

In **Denmark** many adult vocational training courses give adults a formal right to credit transfer from a former vocational education and training programme. This may result in a reduced study programme. Together with credit transfer, the option of recognition of non-formal and informal learning (especially work-based) opens up flexible pathways for the unskilled worker towards a nationally recognised qualification as a skilled worker. Education programmes that are relevant to the participant depend not only on their educational background (level and vocational field), but also on their needs or aspirations for vocational progression as a supplement to the original educational background. Equally important are the more flexible possibilities at the basic education level of being able to use their credit and thus shorten study/training programmes in youth vocational education and training. That gives adults a "second chance" to acquire higher-level qualifications.

Australia's second chance learning programmes are community-based and run in Learning Information Network Centres (LINC) under a Community Knowledge Network. It aims to build skills development for increasing employability and offering formal education opportunities. The University of the Third Age (U3A) is a learning community in Australia with 230 participating groups, including schools for elderly. The groups are provided 8-10 weeks of education programmes for those who are over 50 years old, particularly the living-alone population. Broadband for Seniors, run by NEC Australia, Adult Learning Australia, U3A Online, established infrastructure to assist those over 50 to use computers and broadband services.

In **Portugal**, the "New Opportunities" programme was launched in 2005 to provide a second chance to individuals who left school early or were at risk of doing so, and to assist those in the labour force who want to acquire further qualifications. As a result of this initiative, graduation rates rose by more than 40 percentage points between 2008 and 2010. In 2010, more than 40% of the students concerned were older than 25 (OECD, 2013a).

In most OECD countries, qualification systems tend to focus on creating a second chance to obtain school qualifications or basic educational knowledge, skills and wider competences. Regarding qualification, second chance can be interpreted as "not just another chance for additional learning but also another chance for obtaining a qualification". In the case of the **United Kingdom**, "second chance" qualifications seemed to attract some benefits usually associated with initial education (OECD, 2007b).

Sources:
Denmark and UK from OECD (2007b), *Qualifications Systems: Bridges to Lifelong Learning, Education and Training Policy,* OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264013681-en.

Adult Learning Australia from NILE International Conference on Lifelong Learning (2009), "Trends and Challenges of Community-Based Lifelong Learning: Focusing on Lifelong Learning Cities", http://eng.nile.or.kr/eng/main_2012.jsp.

Portugal from OECD (2013a), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eag-2013-en.

Box 15. European Union (EU) quality assurance systems for adult learning

In most EU countries there is consensus that quality assurance systems should be developed for the adult learning sector, and especially the non-formal sector. Most countries are currently developing or revising their legislative framework for adult learning, putting more focus on quality assurance mechanisms. In the last few years, most countries produced white papers, communications, policy proposals and lifelong learning strategies in which they emphasise the importance of quality assurance. Nevertheless, the main challenge is to implement these strategies.

Objectives that quality assurance systems mainly focus on are setting minimum requirements, transparency, and accountability. The quality assurance systems in the European Union generally follow the same procedural steps including: application by the provider, including endorsement of adult learning principles; assessment and validation by the responsible body; and monitoring and follow-up activities both by the provider and the responsible body. Most quality assurance systems include self-evaluation procedures at the provider level. There is a diversity of responsible bodies, both public and private.

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Success factors for the implementation of quality assurance systems include: 1) The focus of the quality assurance system is on the learner/consumer; 2) The quality assurance system is transparent for all stakeholders; 3) The quality assurance system is organisationally strongly backed (the responsible authorising body possesses authority in the sector); 4) the quality assurance system has the commitment of management and the employees within the provider; 5) The quality assurance system should be affordable in relation to the volume of adult learning provision and the context it takes place; 6) The quality assurance system should be relevant for the given context or sufficiently broad to embed different form of adult learning provision; and 7) The development and acceptance of quality assurance systems takes a certain period of time.

The European Quality Assurance Reference Framework for VET (EQAVET) and the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) quality reference frameworks are applicable to the adult learning sector and acknowledge that it is less uniform in terms of objectives, organisation, target groups, and societal results (especially for the non-formal part of adult learning).

Source: Broek, S., & Buiskool, B.-J. (2013), *Developing the adult learning sector: Quality in the Adult Learning Sector* (Lot 1), Zoetermeer. European Commission (2013), European Qualifications Framework for Lifelong Learning, https://ec.europa.eu/ploteus/search/site?f%5B0%5D=im_field_entity_type%3A97.

Industry and employer engagement and investment in skills

The level of industry engagement in the process of education and training policy making, as well as its implementation, is lacking in Korea. For example, the engagement of employers and trade unions with the process of policy development and the provision of VET is very limited, and VET institutions have weak connections with companies. Sector councils were designed to represent the voice of employers on skills needs, but they are not effectively representing employers or trade unions (Kis and Park, 2012; Challenge 11). School-to-work transition and other issues of skills matching could be more streamlined in Korea if employers better fulfilled their essential role in skills development, activation and use.

Training can have a positive impact on various elements of a firm's innovation capacity if new technologies are assimilated and new skills are applied to improve products, production processes or management structures (OECD, 2010). Workplace learning, offering apprenticeships, co-operative study programmes and co-operation with universities can be good tools. The promotion of training can render unquantifiable benefits, such as enhancing employee satisfaction and motivation as well as firm reputation (OECD, 2014d).

Employer costs are associated with identifying the skills needs of employees, organising adequate training provision (internal or external) and foregone working hours of the employee receiving the training. Such training costs can be shared between employers, government (by subsidies or relevant services), unions, or individual employees, in varying proportions, either voluntary or mandatory. Other financial support mechanisms (such as tax breaks) are also sometimes used to incentivise training (Müller and Behringer, 2012).

3.3. Low participation in lifelong learning and education among under-represented groups

Low participation in lifelong education may leave women (Challenge 4), older workers (Challenge 6), and workers with non-regular contracts (Challenge 7), and particularly low-skilled adults and those in the low-income brackets, trapped in a vicious cycle. Women participate in training less than men in any age group, as shown in Figure 33, but when they participate, they participate longer hours than men for the 34-45 age group. Training participation rates for National Basic Livelihood Security Programme (BLSP) recipients aged 18-64 years with work capability are low, mainly due to family or health reasons, poor effectiveness, and limited access to all labour market programmes (e.g. limited participation is only possible for people eligible for employment insurance benefits).

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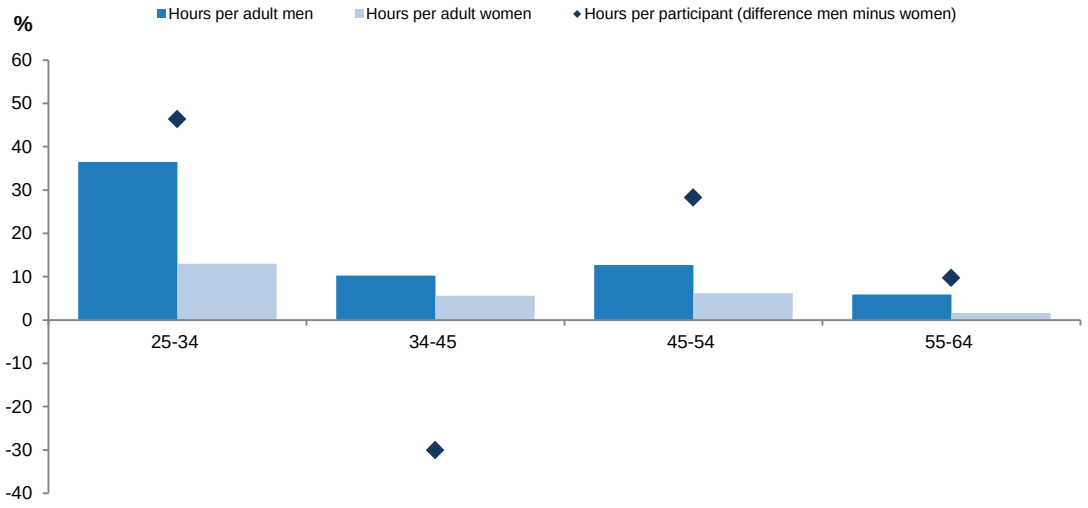
Increasing the participation of middle-aged and older workers in lifelong learning and education as a part of increasing re-employment and job creation will require Korea to address the barriers to their participation and provide incentives (OECD, 2013h; 2013d). Along these lines, a vocational skills enhancement programme for older workers began in 2011. In 2012, a restart programme for midcareer professionals, the New Workplace Adaptation Support for Workers Aged 50+, was launched to provide career auditing services and training in strategies for successfully obtaining re-employment. Workers aged 50 and over are given on-site training in SMEs over a three-month period to facilitate and support their job search and re-entry into work (OECD, 2012c). Such initiatives need to be expanded and continued (Challenge 6).

Figure 33. Hours in job-related non-formal learning by age and gender



Source: OECD (2012d), *Education at a Glance 2012: OECD Indicators*, http://dx.doi.org/10.1787/eag-2012-en.

Summary and policy implications

Lifelong learning and education are critical for adults with low skills. In comparison to other countries, Korea has a high skills gap between young and older workers. Encouragingly, the skills of young adults are well above the OECD average of countries participating in the *Survey of Adult Skills* (PIAAC). However, the skills of adults over 45 years are well below the average indicating the need for greater attention to this cohort. Despite adults with low-skills needing adult education and training the most, they are less likely to participate in it than those with the highest levels of skills.

Non-formal lifelong learning and education experiences need to be recognised. The National Qualification Framework plays an important role to validate such learning. This would encourage continuous learning and up-skilling initiated by the individual.

There are barriers to participate in lifelong learning and education. Groups with low training participation rates are non-regular workers, workers in SMEs, women, youth, elderly, low-qualified, and the unemployed. Without up-skilling opportunities they have few chances to secure quality employment long-term.

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NOTES

11. The skills level generally reflects the education qualification level (e.g. see figures 3.9-10 in OECD, 2013b).
12. Evaluation for tertiary schools is implemented by the schools associations such as the Korean Council for University Education (KCUE) and the Korean Council for College Education (KCCE). KCUE evaluates competency and accredit the competency of a university. Its duration is five years and currently 60 universities obtained accreditation. The KCUE has the authority to monitor the evaluation result.
13. Public and private returns are useful only in guiding optimal financing schemes for post-compulsory education, i.e. determining how to share costs and benefits between the government and the individual. The large discrepancies between private and public returns may indicate that there might be distorting tax schemes in effect or that education is being disproportionately subsidised (OECD, 2013a).
14. It started from a budget of KRW 10 billion and continues until 2017. The students receive full support for tuition fees and training allowance of KRW 2 million. They participate in over 40 hours of on-the-job training in the contracted SME and will be employed after graduation.

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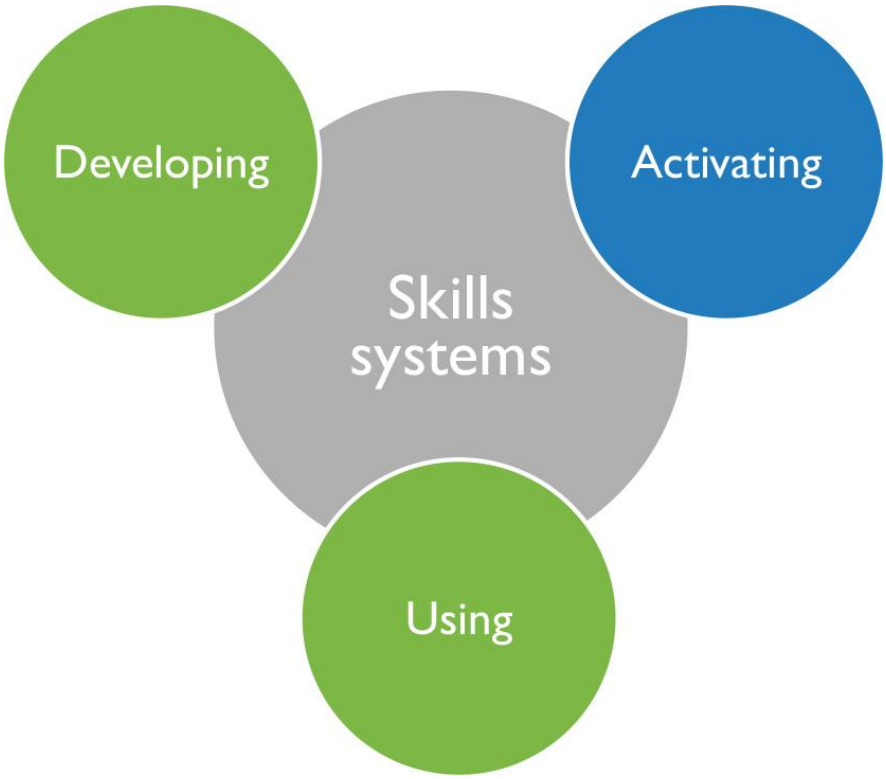
ACTIVATING SKILLS



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PILLAR TWO: ACTIVATING SKILLS

Korea has an employment rate close to the OECD average. However, most of its labour force consists of prime-age male workers, while women, youth and older workers are under-represented, face greater employment barriers and work under more difficult conditions.

The female labour force participation rate in Korea is moderately rising but still far below the OECD average. Despite the relatively high skill and tertiary attainment levels of women in Korea, female participation rates decline significantly after marriage and childbirth,. Women are more likely to work in low-level, part-time, and low-paying or informal jobs that require less intensive use of skills. The gender pay gap is one of the highest among OECD countries and fewer women reach managerial positions. To prevent women from leaving the labour market after marriage and childbirth, family-friendly policies should be monitored effectively and gender-awareness in the labour market needs to be further promoted. Such efforts may include encouraging the use of maternity and paternity leave, providing a flexible work schedule, and disseminating family-friendly management practices. In addition, work-family balance should be supported through the adequate provision of early childhood care and education.

Young people in Korea are less likely to participate in the labour force than their peers in other OECD countries. The share of youth neither in employment nor in education or training (NEET) is slightly above the OECD average. It is especially high for youth with tertiary level education. Korean youth change jobs frequently and have difficulties finding a job that matches their skills and level. A high share of youth works in non-regular and temporary part-time jobs. The transition rate from non-regular to regular jobs is one of the lowest in the OECD. Flexibility between vocational and general education tracks, as well as between school and work, could help young people to better align their career choices to labour market needs thereby raising their chances of finding employment. Given the current over-emphasis on academic studies and higher education, more quality information about the labour market outcomes of VET graduates and demand from employers could help raise the value of VET in society and encourage greater participation. General information about labour market and outcomes by fields of study and institutions combined with career guidance services tailored to the specific needs of youth could support them make informed education and career choices.

A relatively high share of older workers in Korea participates in the labour force and works under precarious conditions. Older workers in Korea tend to retire early and become displaced by prime-aged workers. The difference between official retirement age (60 years old for National Pension eligibility) and effective labour market exit age (about 70 years old) is highest in Korea among OECD countries. This is partly due to the large skills gap between young adults and older people and the comparatively higher costs for employers to retain older workers. Since retirement benefits are very low, a significant share of older workers continues working as self-employed or non-regular workers, mostly in the service sector with lower wages, more precarious working conditions and lower levels of productivity. Older workers are less likely to participate in training to develop their skills and face greater challenges to secure re-employment.

Through improvements in activating these under-represented groups, Korea could reach its employment rate goal of 70% and boost levels of productivity, improve individual well-being and promote further economic growth.

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Box 16. Roadmap to Achieve a 70% Employment Rate

The current Korean Government's "Roadmap to Achieve a 70% Employment Rate" is intended to reduce a number of employment barriers confronting women and youth. This multi-faceted plan includes measures to deregulate service industries, reduce long-hours working, create quality part-time jobs, reinforce activation for social security benefit recipients, support a smooth school-to-work transition (including via early employment experience and apprenticeships), and promote family-friendly employment practices. The roadmap is based on a tripartite agreement and the social partners will continue to play an active role in its implementation. The OECD welcomes this initiative as raising employment rates will generate important social and economic benefits, particularly in the context of population ageing.

Source: OECD (2013a), *OECD Employment Outlook 2013*, http://dx.doi.org/10.1787/empl_outlook-2013-en.

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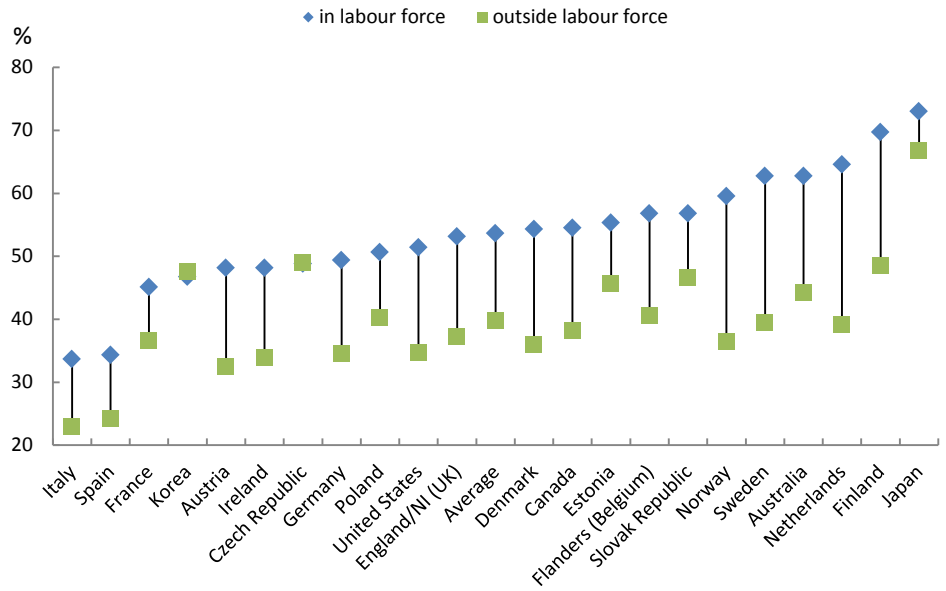
CHALLENGE 4. ACTIVATING WOMEN WHILE BALANCING WORK AND FAMILY LIFE

The government has set a goal of increasing the female employment rate to 61.9% by 2017, meaning an increase of 8.4% points during five years 2012-2017, as well as an increase in the available female labour pool. Female labour force participation rates are far from satisfactory and it remains very difficult for Korean women to combine family responsibilities with a career. This is reflected in the low participation of women (15-64) in the labour market (55%) and the highest gender pay gap (38%) among OECD countries.

Low female participation rates keep skills out of the labour market, as highlighted in the *Survey of Adult Skills* (OECD, 2013b), which shows that women outside the labour force have marginally higher proficiency levels for literacy than women participating in the labour force (Figure 34). This stands in sharp contrast to the pattern seen in most countries, where more highly skilled women are more likely to participate in the labour force. It also stands in contrast to Korean men who are more likely to participate in the labour force if they are more highly skilled. The female employment rate in Korea declines after marriage and after having children (OECD, 2013c). While female labour force participation in Korea has recently improved from 53.5% in 2002 to 57.0% in 2014, the female labour force participation rates by age groups exhibit that the difficulties in balancing family and work life for Korean women still exist. So called M-shape curves indicate that women in their 30s tend to withdraw from labour market due to marriage and child bearing and caring (Figure 35).

Figure 34. Share of women with literacy Levels 3, 4 or 5, 2012



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

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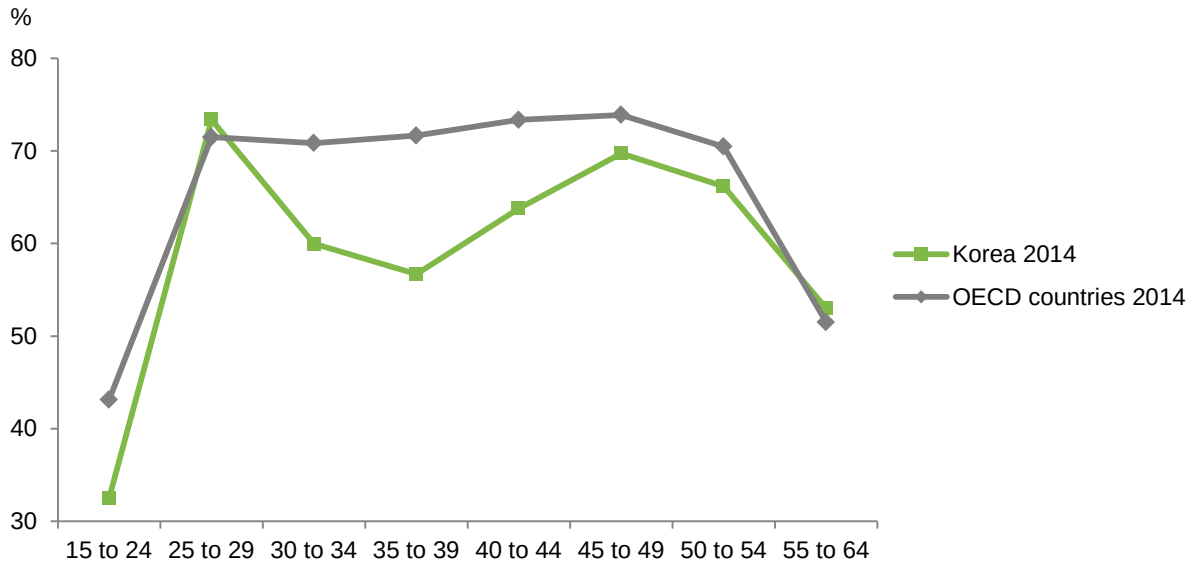
Figure 35. Female labour force participation rate (2014)



Source: OECD (2014f), OECD Labour Force Statistics Database, http://www.oecd.org/std/labour-stats/.

Korea's social expectations for women to be primary caretakers of the children, combined with the high gender pay gap and labour market dualism (Challenge 7) mean a significant loss in wages and career prospects for those women who temporarily leave the labour force: a "motherhood penalty". Although Korean women return to the labour market after their 40s, they tend to end up with non-regular jobs. This is due to disrupted skills development, obsolete skills, and lack of work experience. The skills level among the female population was thus lower than male adults in the *Survey of Adult Skills* (OECD, 2013b), which reflects the lower access to, opportunities for, and experience of job activities among women than men.

4.1. The gender gap in employment

The gender gap as a disincentive for women staying in work or re-entering the labour market

There are few incentives for women to continue to work or to re-enter the labour market in Korea.[15] The Korean Women Workers Association, during a fact-finding interview undertaken by the OECD research team, reported that in many cases women are threatened with job loss or discrimination due to their family responsibilities. In most cases, leaving the workplace is therefore not voluntary but derived from employment instability and the lack of a childcare system. The Association also reported cases of women being converted to non-regular workers or facing a 10% salary reduction in the event of marriage. Job quality for the female workforce is particularly low and along with the large gender pay gap, forms a significant part of the disincentive mechanism for female participation. Among workers with earnings below minimum wage, 62% are female. Among married women, 62% are non-regular workers. Compared to the earnings of a male regular worker, female regular workers earn 67% and female non-regular workers earn only 35%. These non-regular workers are less likely to benefit from parental leave rights, child benefits, or pension rights.

The gender gap in private net returns to education is particularly pronounced in Korea and is the largest among OECD countries, which reflects the combined effect of lower participation rates and lower wages. The gross earning benefits of a woman with upper secondary or post-secondary non-tertiary

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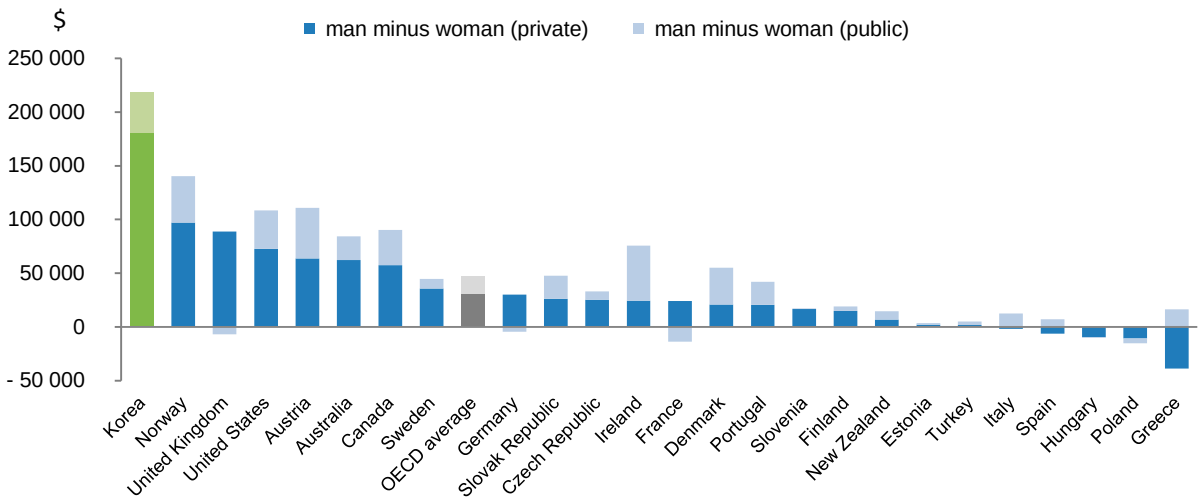
education were 28% that of a man with the same level of education attainment (USD 71 400 for a woman and USD 252 000 for a man) in 2009 (Figure 36).

Figure 36. Gender gap in private and public returns for a person attaining upper secondary or post-secondary non-tertiary education, 2009



Note: "upper-secondary or post-secondary non tertiary education" applies to a person with a high school diploma or with vocational training, ready to enter the workforce.

Source: OECD (2013d), *Education at a Glance 2013: OECD Indicators*, Tables A7.1a, A7.1b, A7.2a and A7.2b, http://dx.doi.org/10.1787/eag-2013-en.

Table 5. Share of self-employed and regular workers by gender in Korea, 2011

	Woman	Man	Total
Self-employed (million KRW)	2.4	4.0	-
Full-time regular worker who worked over a year (million KRW)	2.3	4.1	-
Share of persons who worked more than 10 years, %	31.7	68.3	100

Source: KOSIS (2012), *Household Finance and Welfare Survey 2012*, http://kosis.kr/eng/.

Table 6. Gender wage gap in Korea compared to the OECD level (%)

	Korea	OECD average
Labour force participation in 2012	Women: 55.2 Men: 77.7	Women: 62.3 Men: 79.7
All managerial positions being held by women (2007-2008)	10.0	29.0
Gender pay gap among full-time workers in 2011	38.9	15.8
Gender pay gap of female workers (40-44 years) in 2012	42.7	21.5
Gender pay gap of female workers (50-59 years) in 2012	48.5	21.2

Source: OECD (2013a), *OECD Employment Outlook 2013*, Table. C, http://dx.doi.org/10.1787/empl_outlook-2013-en.

See also Panel B in Figure 3 of this report.

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Women working in the informal sector are particularly vulnerable. Care labour, such as care workers, house managers, or care mothers, are mostly female and are not yet recognised in the Labour Standards Act in Korea, although the demand for these positions is increasing due to the ageing population. So-called "emotional labour or sentimental work" such as call centre workers, tele-marketers, or other service job workers that serve clients, also require attention. In 2013, the Ministry of Gender Equality and Family held a meeting to increase the awareness of the difficulties in this particular labour market segment, promote training needs to better respond to their difficulties and stresses, and build legal and corporate institutions to protect these workers. In August 2015, the "Proposals to Protect Emotional Labour" was submitted to the National Assembly. The Proposal includes various measures such as employers' obligation to protect emotional labour and to charge client's wrong-doings to the public authority, and employee's right of refusal to provide services to such clients (Hankookilbo, 2015).

Employment-side efforts, such as legal and institutional improvements to reduce career interruption for women workers, are important, but it is also necessary for institutions to promote gender equality in order to challenge established gender roles and related social norms. The Ministry of Gender Equality and Family could play an expanded and more visible role in this regard.

Engage inactive high-skilled women into the labour market and high-profile women into managerial positions

More Korean women enter university than Korean men. However, in 2012 only 64% of women with a tertiary education or greater were employed, compared to 90% of men with the same qualification (Statistics Korea, 2013a). This is hugely inefficient given the cost of tertiary education and the opportunity cost of non-working. There are 1.98 million women – 20% of whom are married – with a disrupted career. Among these, 56% are in their 30s (Statistics Korea, 2013b).

There are efforts underway to re-employ high-skilled women with disrupted careers. Professional co-operatives for scientists and engineers provide employment assistance for women with interrupted careers, as well as highly educated unemployed and older scientists and engineers. These co-operatives support start-up and employment entry and identify new occupations in the relevant sectors. In 2012 this initiative was proposed by Ministry of Science, ICT and Future Planning (MiSIP) and included in the national agenda (No. 16, 61, 65) as part of the creative economy, job creation, and welfare. From 2012, the Centre for Women in Science, Engineering and Technology[16] (WISET), supported by MiSIP, has been supporting women scientists with disrupted careers.

The Ministry of Gender Equality and Family (MoGEF) operates Women Re-employment Centres. These have been established in existing Women Human Resources Centres or Women's Halls in order to provide training and employment services for women. Efforts are underway to increase the number of participants. Since 2008, MoGEF has been collaborating with the Ministry of Employment and Labour (MoEL), local authorities, and large companies, to help activate women with disrupted careers. They invested KRW 14.3 billion (USD 13 million) to this programme in 2009. Women Re-employment Services in industrial complexes work to stimulate local women activation and alleviate small and medium-sized enterprise (SME) skills shortages. Thirty-five of these services were established by 2012, up from five in 2009.

The website of the Ministry of Strategy and Finance "ALI public information in One"[17] and Korea Institute of Public Finance (KIPF) reported that only 9% of executives (board members) in public institutions are women (KIPF, 2013). In comparison, the percentage of female executives in MoGEF is 29%, and in the Ministry of Health and Welfare 18%. Seventeen institutions, including Korea Film (40%), Korea Literature Translation Institute (33%), and Korea Youth Work Agency (30%) met the government's recommendation to have, at least 30% female staff. By contrast, there are no women executives in the Ministry of Strategy and Finance, the Defence Acquisition Program Administration, or

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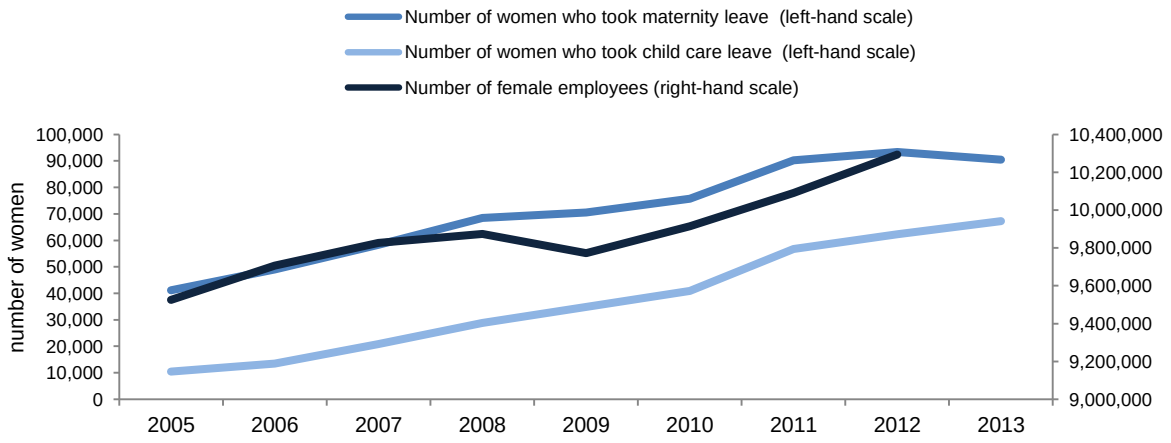
the National Emergency Management Agency. More promotion mechanisms are necessary to encourage public institutions to increase the share of women in senior positions.

4.2. The financial challenges of early childhood education and care

According to a Korean Statistical Information Service (KOSIS) survey in 2011, 47% of respondents over 15-years-old consider the burden of childcare as the biggest obstacle to female employment. The rate was 59% among respondents between 30 and 39-years-old, and among female respondents, it was 62%. For married women between 15 and 54-years-old, 20% stopped working due mostly to marriage (47%), pregnancy (24%), or the burden of child care (25%) in 2012 (Statistics Korea, 2013a). As already discussed in Challenge 1, Korean households suffer from a high share of private spending on early childhood education and care. A lack of childcare facilities impedes not only female employment but also women's participation in lifelong learning and skills development.

In response to these circumstances, the expansion of an early childhood education and care (ECEC) subsidy was provided as an attempt to increase both female participation in the labour market and fertility rates. In order to achieve these double objectives, ECEC needs to be accompanied by improved social policies aimed at employment conditions and social attitudes. Maternity leave was extended to 90 days in 2001 with costs paid by employment insurance, and around 90 000 female workers took advantage of this benefit in 2013 (KOSIS, 2013); this is indicative of significant progress since 2005 (Figure 37). However, it was reported that 756 female workers on maternity leave and 140 female workers on childcare leave were fired between 2009 and 2012 (Seoul newspaper, 2013). Among male workers, only 2.8% took childcare leave in 2012 (KEIS 2013).

Figure 37. Number of women who take maternity and child care leave



Source: KOSIS (2013), KOSIS website, http://kosis.kr/eng.

Affordable childcare could be partly assisted by raising tuition fee subsidies and improving the quality of private child care centres, which make up the majority of primary institutions in Korea. However, the recent increase and expansion of the ECEC subsidy faces difficulties due to an unclear division of funding responsibilities between local and national government. The origin of the problem is not a simple lack of funding, but a lack of policy consensus and procedural agreements. This subsidy raises a policy coherence issue, as funding for the subsidy at the national and local levels competes with other social welfare spending, such as pensions for seniors, disabled, as well as spending on medical support. For example, the Free Child Care Law (for 0-5 years-old) was passed in January 2013 without consensus from local authorities on how to secure funding (Challenge 12).

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4.3. Establishing a family-friendly human resource system

Inflexible working arrangements can make it difficult for people to combine professional responsibilities with care obligations at home. Korea would benefit from greater flexibility in working time and work schedules for women, as well as the take-up of paid parental leave for both parents. Parents of young children will need additional incentives so that the cost of childcare or after-school care will not undermine economic returns to work. Reducing the gender gap in working and employment conditions, including the wage level addressed above, will also encourage women to choose to work. In order to make such measures successful, the roots of women's inactivity, both financial and non-financial, need to be addressed, such as retirement arrangements, study, long-term sickness, looking after family, as well as corporate culture and human resource systems that are not female and family-friendly.

International practice suggests that the role of family policies is particularly important in boosting female labour participation (Box 17). On the one hand, Korea needs policies to encourage the resumption of work after becoming a parent, notably the provision of affordable, good quality ECEC services. On the other hand, there need to be policies that free women to work through providing services such as helpers for house chores or elderly care services. These should be accompanied by active labour market policies tailored for women, including employment services and maternity/parental leave benefits.

Box 17. Policies promoting both higher female labour market participation and fertility rates

A number of OECD countries have achieved higher than average rates of fertility and female employment as a result of good parental-leave arrangements and childcare policies.

- Promoting shared parental leave reduces barriers to female employment and fertility. In **Sweden** and **Iceland,** parental leave policies have been adapted to encourage shared rights and responsibilities in parenting.
- Ensuring quality in childcare settings helps parents to take them up and return to work when their children are young. **Australia, France, and the United Kingdom** have strict licensing and regulatory systems, and **Denmark, Norway and Sweden** have integrated systems of education and care, which facilitate standard setting and monitoring. To meet the demand for child care services, **Canada, the Netherlands**, and **the United Kingdom** rely on closely supervised private provision, as does **Australia**, where voucher payments for private provision are linked to quality standards.
- Providing for the care of older children. Out-of-school-hours care (OSHC) supports families by providing a variety of centre-based activities for school-aged children whilst their parents are at work. In **Denmark**, **Sweden, Hungary** and **Australia,** 50-70% of 6-11 year-olds benefit from OSHC. In **Denmark** and **Sweden,** low-cost OSHC is frequently provided in school facilities, including during school holidays.
- Encouraging family-friendly workplaces and policies. Family-friendly workplaces are encouraged in the **Nordic countries, Australia, Japan, New Zealand, the Netherland**s, and **the United Kingdom, by** using policies such as flexible working hours, part-time options for mothers returning to work, and incentives to provide workplace care facilities for the children of employees. Promoting the importance of family-friendly policies is central to the take-up by families, the business community and broader society. In **Finland**, every pregnant woman receives an information pack on the rights they will get once the child is born. Closer involvement of employers is also possible, as in **France**, where an "observatory" is used to disseminate information on best practices regarding the work-life balance for businesses.

Source: OECD (2011), *Doing Better for Families*, http://dx.doi.org/10.1787/9789264098732-en.

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Summary and policy implications

The female labour participation rate in Korea has improved in recent years, but it is still one of the lowest among OECD countries. While Korean men are more likely to participate in the labour force when they are more skilled, the opposite is the case for women. Women outside the labour force in Korea have marginally higher proficiency levels for literacy than women participating in the labour force. Female labour force participation rates decline in particular after marriage and childbirth. This is inefficient and costly for the individual, as well as for society, and has significant opportunity costs.

There are few incentives for women to continue to work or to re-enter the labour market. Women are more likely to work in low-level, part-time, and low-paying, or informal jobs that require less intensive use of skills. The gender pay gap is one of the highest among OECD countries. Fewer women reach managerial positions.

Family-friendly policies are needed to improve female employment. Although maternity and paternity leave exists, uptake is still very low. Working schedules are not sufficiently flexible and employers are not sufficiently implementing family-friendly management practices. The provision of and subsidies for adequate early childhood care and education may not be enough. Measures to address these barriers are essential in order for the Government to reach its target of increasing the female employment rate from 53.5% in 2012 to 61.9% by 2017.

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CHALLENGE 5. FACILITATING THE SCHOOL-TO-WORK TRANSITION FOR YOUTH

Korea ranks second only to Japan when comparing skills proficiency among youth (16-24 year-olds) as part of the *Survey of Adult Skills* (OECD, 2013b). However, labour participation among Korean youth is low compared to both the OECD average and to other age groups (Table 7). In particular, Korean male youth participate in the labour market at a rate less than half of the OECD average. To a large extent this reflects Korea's high entry rates to tertiary education, and also partly explains why Korea's youth unemployment rate (age 15-24) appears relatively low at 9% compared to the OECD average of 16% (OECD, 2013a).

Table 7. Labour force participation rates by selected age groups in 2013

	Korea, Men	OECD, Men	Korea, Women	OECD, Women
All age (15-64)	78.6	79.7	57.0	62.8
Youth (15-24)	24.6	51.1	32.5	43.1
Prime age (25-54)	90.7	91.2	64.8	72
Older population (55-64)	82.0	70	53.0	51.5

Source: OECD (2015b), *OECD Employment Outlook 2015,* Table C, http://dx.doi.org/10.1787/empl_outlook-2015-en.

The development of the labour market since 2000 has not been the same across age groups. While the employment rates of prime age adults (25-54) has remained stable among OECD countries and slightly improved in Korea, the youth employment rate has declined over the same time (Table 8). More evidence is needed to support this claim, but the decline seems to reflect a lack of experience among young workers set against an increasing demand for skilled labour. Successful cases where young people have been assisted in entering the labour market, such as highly developed apprenticeship systems in Germany or Switzerland, showing that activating young people is possible with strong political commitment and adequate programmes.

Table 8. Youth employment rate over time (%)

	2000	2007	2014
A. Korea youth (15-24)	29.4	25.7	25.8
B. OECD youth (15-24)	45.5	43.1	40.1
C. Korea prime age (25-54)	72.2	74.0	75.7
D. OECD prime age (25-54)	75.9	77.0	76
Difference of two groups (C-A), Korea	42.8	48.3	49.9
Difference of two groups (D-B), OECD	30.4	33.9	35.9

Source: OECD (2015b), *OECD Employment Outlook 2015*, Table B, http://dx.doi.org/10.1787/empl_outlook-2015-en.

The government has set a goal of raising the youth employment rate (age 15-29) from the current rate of 40.4% to 47.7% by 2017 (Figure 6). This is the second most ambitious goal after increasing female employment. However, a real concern is that the relative skills losses to which youth are exposed are significantly more pronounced today than in the past, given that their level of education is incredibly advanced compared to previous generations (Challenge 6). Such a risk reinforces the need for an effective skills strategy for Korea.

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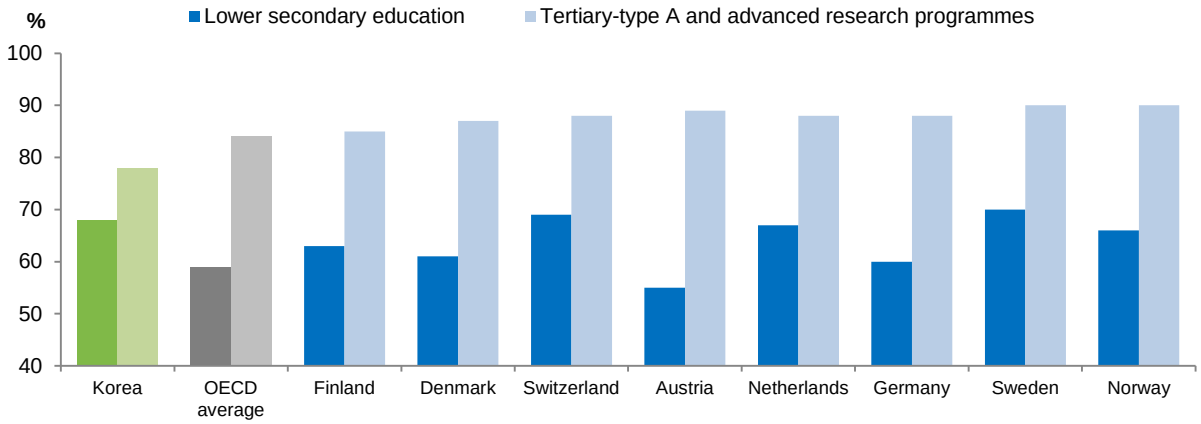
5.1. Improving labour market activation measures for increasing youth employment

Youth neither in employment nor in education or training

Taking the youth NEET population into consideration is important as they may be more likely to be involved in the informal economy where they are likely to not be taxed, appear in public records, or be included in any calculation of gross national product. More importantly, they have high risks of permanent exclusion from the labour market through marginalisation, loss of motivation, skills losses, and poverty. The longer they stay in the NEET category, the higher the loss of skills and opportunity to build further skills as well as earnings for individuals, and the higher the loss of human capital and tax revenues for the economy (OECD, 2013d).

In 2012, the average proportion of 15-29 year-olds classed as NEET across the OECD was 13%. Korea's NEET share of 15-29 year-olds was 18% in 2012 (Figure 14). Korea is unusual in that the share of NEET youth with tertiary education is high. Whereas the OECD average for the same level is lower than the total education level, Korea's NEET with tertiary education (24%) is much higher than for all education levels (15%). The share of NEET among Korean youth with an upper secondary education is about 23%, which is similar to youth with tertiary education. Furthermore, Korea ranks as one of the lowest in terms of the employment rates of labour force with more than a university degree (Figure 38). In Korea, 32% of adults at proficiency Level 4 or 5 do not participate in the labour force; for comparison, in Norway it is only about 9% (OECD, 2013b: 37). The labour market performance of Koreans with lower secondary education compared to peers in other OECD countries with the same level of education is relatively high. In contrast, Koreans with tertiary education have relatively lower labour market outcomes compared to tertiary graduates in other OECD countries. This indicates that either the quality of higher education is relatively low, or that there are insufficient jobs for highly qualified workers in Korea (Challenge 1 and Challenge 7).

Figure 38. Employment rates among 25-64 year-olds, by educational attainment, 2011



Source: OECD (2014e), *Education at a Glance 2013: OECD Indicators*, Chart A5.1, http://www.oecd.org/edu/Education-at-a-Glance-2014.pdf.

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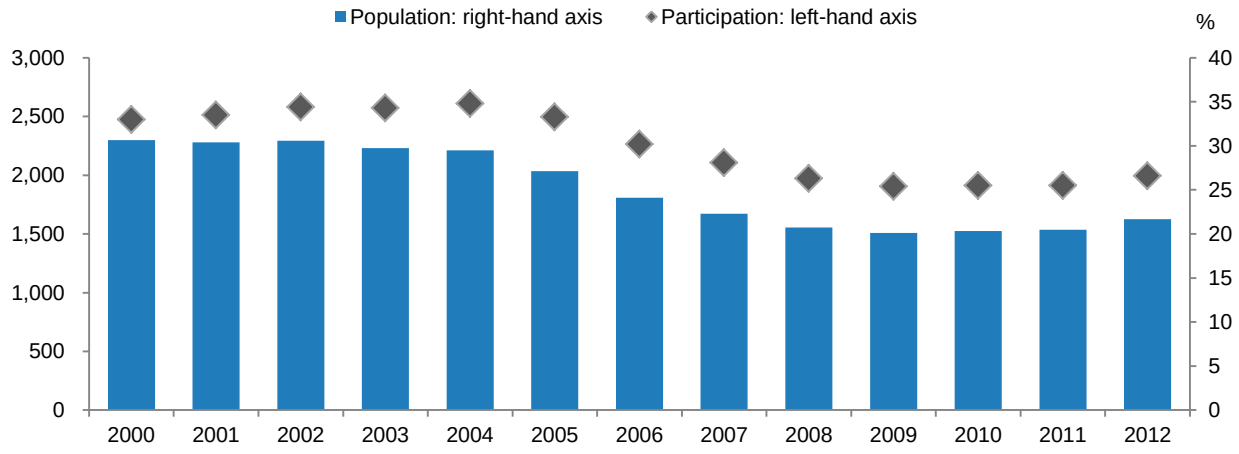
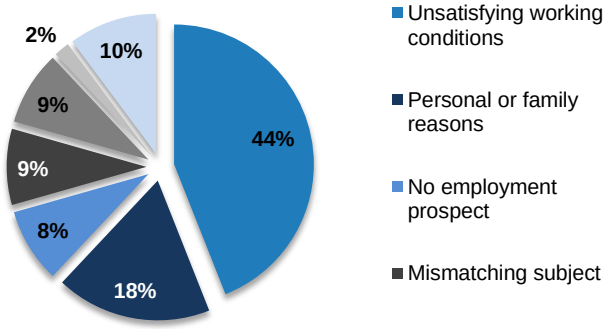
The labour market participation of youth in both absolute and relative terms has been decreasing over the past decade (Figure 39) while they are also increasingly hired in non-regular jobs. Youth want better jobs, as shown by the results of a survey indicating that more than 40% leave their first job due to unsatisfying working conditions (Figure 40). One contributing factor is a subject or field mismatch: according to the High School Graduates Occupational Mobility Survey (KEIS, 2013), more than half of graduates responded that subject knowledge learned at specialised vocational high-schools do not contribute to work competencies. This calls for increased availability and opportunities for youth to experience a variety of different jobs and workplaces, through for example, apprenticeships, internships, on-the-job training, or other initiatives. The Free Learning Semester, part of the lower secondary school reforms aimed at fostering more creativity and problem solving abilities with curricula free from examinations, is considered as a promising means of diversifying career trajectories, providing career education and guidance, and bringing creative solutions for inactive and over-qualified youth.

Figure 39. Labour market participation of youth (15-24 years-old), 2012



Source: Statistics Korea (2013c), Additional Survey for youth economically active population, http://kostat.go.kr.

Figure 40. Reasons for changing first job (15-29 years-old), 2012



Source: Statistics Korea (2013c), Additional Survey for youth economically active population, http://kostat.go.kr.

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In order to activate NEET youth, it is necessary to foster labour market activation measures, including through ensuring remedial education pathways (Box 18). Given the trend of increasingly complex school-to-work transition patterns, career pathways for young people need to be diversified from both labour demand and supply sides (Green, 2013: 109). Moving back and forth between vocational and general education tracks, between school and work, or promoting alternative paths and career services need to be promoted (Box 19). Moreover, employers need to provide better working conditions and change old behaviours and practices. In particular, active employer engagement is crucial (Challenge 5 and 8), not only with individual efforts by firms but also by collective and sectoral efforts, such as offering better working conditions to attract high-skilled, unemployed or inactive youth into those firms facing skills shortages.

However, pursuing a higher degree and qualification for the sake of employment and not based on actual skills needs should be avoided, which requires changing the requirements of the current labour market to be more competency-based (Challenge 1). To lead the change of labour market practices, the government started an NCS-based recruitment model for 30 public institutions in 2015, and plans to introduce it to other public institutions gradually (Ministry of Employment and Labour, 2015). Effective vocational and training (VET) programs and public employment services (PES) can promote re-employment, re-training services, and flexible career shifts in this regard. For individuals, career shifts can be a way of upskilling, fixing skills mismatches, or correcting a poor skills mix. They can be also a way of overcoming socio-economic constraints for individuals who have had no opportunities to reach their potential competencies. There is still a lack of infrastructure to facilitate productive shifts of educational and career paths, cultural tendencies towards long-term stable careers, and a lack of labour market flexibility and mobility.

In order to smooth school-to-work transitions, the integration of the National Competency Standards (NCS) through the application of learning modules should be ensured (Challenge 1). The Ministry of Education (MoE) has put effort into developing learning modules and integrating them into the general educational curricula, and the MoEL into the VET system. On the labour demand side, the quality of jobs for youth needs to be improved. The types of low quality jobs that most youth end up working in have lower wages and are non-regular, which delays their transition to a successful career path. Furthermore, rates of transition from temporary jobs to permanent jobs are the lowest in the OECD, so the chance to develop a career path is relatively slim (Challenge 7).

In consideration of these concerns, public institutions and local state companies are being encouraged to hire youth under the age of 34, with a quota of 3% of employees by 2016, based on the law stimulating youth employment ("Special Law on Stimulating Youth Employment"). The age limit was increased on 22 October 2013 from 15-29 to 15-34 years-old. This youth employment quota recommendation may relieve the problem of a lack of labour demand for youth in the short-term. Currently, the government plans to extend the effective date of this quota system supposed to be phased out by 2016 to 2018 ("Comprehensive Policy Measures to Relieve the Employment Cliff among the Youth").

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Box 18. Efforts to facilitate the school-to-work transition for youth in OECD countries

Switzerland's vocational and professional education and training system (VET/PET system): Switzerland's system is strongly employer and market driven, and is a successful partnership between Confederation, cantons, and professional organisations. School and work-based learning are well integrated. The system is well resourced and able to include up-to-date equipment. Its apprenticeship-based VET programmes pay for themselves, in the sense that benefits to most employers outweigh the costs. There is a broad spectrum of tertiary VET offerings. Flexible pathways have been introduced to allow for mobility and avoid the risk of dead-ends. Vocational teachers and trainers, examiners, and directors are well prepared. Quality control is ensured and national assessment procedures are in place. Career guidance and counselling is systematic and professional. However, the current demographic changes with shrinking cohort numbers may sharpen competition between academic and vocational education. Entry of international companies without a training tradition threatens the Swiss dual-track learning arrangements. Several equity concerns are confronting the VET system (Hoeckel, Field, and Grubb, 2009).

Norway's apprentice promotion: Norway does not have a tradition of apprenticeship, but recently developed an apprenticeship system successfully. The standard upper-secondary VET in Norway is two years in school followed by two years of apprenticeship in a company, although those who do not find an apprenticeship can stay on in school-based VET for a third year. In 2013, the Norway government launched a new initiative that aimed to increase the number of better quality apprenticeships and to recruit new companies as training establishments for apprentices.

Youth Guarantees schemes: Active labour market policies aim to ensure a smooth school-to-work transition and prevent long-term unemployment. In 1984, **Sweden** introduced the first genuine youth guarantee, followed by Norway in 1993 and Denmark and Finland in 1996. More recently, other countries have embarked on similar youth employment programmes, including **Austria, Germany, the Netherlands** and **Poland**. On 15 January 2014, 17 EU Member States submitted Youth Guarantee Implementation Plans (European Commission). Their differences mostly concern the types of measures, eligibility criteria, duration and compensation. Despite the limited evidence of its impact, Youth Guarantees, an evaluation of the **Swedish** youth guarantee, found that unemployed young participants aged 24 in 2008 were able to find a job faster than a control group of participants in other PES measures. In **Finland** statistical evidence has shown that the Finnish Youth Guarantee resulted in a reduction in unemployment through either direct employment assistance or further training leading to a job. In **Austria**, despite the high dropout rates experienced by young participants in the guarantee, about 58 and 63% of young people who participated in the apprenticeship in 2010 were integrated into the labour market after 3 and 12 months, respectively. The success of Youth Guarantees will depend upon the strength of underlying institutions (like the PES and the apprenticeship system) and co-ordination mechanisms between the various stakeholders. In countries where such institutions and mechanisms are not yet well-developed, the success of Youth Guarantees will be limited (OECD, 2014a; ILO, 2012a; Eurofound, 2012).

Many PES in the OECD are offering websites or web pages and other media campaigns particularly tailored for young people. Many aim to use modern media (e.g. SMS services or applications for smart phones) and "speak the language" of young people. In **Sweden** the PES has launched a Facebook account to represent the organisation at the national level and to reach out to young people. This initiative was launched in January 2011 with the aim of creating a forum for people to meet and discuss issues related to employment and job search. It is maintained by two PES experts who initiate discussions, answer questions, and mediate debates, but who are not supposed to engage in individual counselling (if requested they refer clients to their local PES). Postings typically pass on a links to news and information but can also be just a question to stimulate discussion (e.g. the most popular one so far has asked: "what is your dream profession?") (Scharle and Weber, 2011).

Sources:

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Scharle and Weber (2011) *Youth guarantees: PES approaches and measures for low-skilled young people*.

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Box 19. Efforts for diversified educational and career pathways in OECD countries

The Blueprint framework for career management skills: The Blueprint framework is a competency framework for the development of *career management skills* on a lifelong basis, implemented in the **United States**, **Canada** and **Australia**. The framework focuses on the role of schools in career education. It forms a useful and innovative means through which career theory, practice, and policy can be connected. It comprises core elements (learning areas, learning model and levels) and contextual elements (resources, community of practice, service delivery approach and policy connection), which have been variously labelled and developed differently across contexts (Hooley et al., 2013). Influenced by these national approaches, EU member states have been working on career management skills through the **European Lifelong Guidance Policy Network** (ELGPN, 2009). Skills Development Scotland (SDS), a national skills body supporting the people and businesses of **Scotland** to develop and apply their skills, developed the Career Management Skills Framework for Scotland (Sultana, 2012). The Learning and Skills Improvement Service developed the Blueprint for Careers for the **UK** context.

New Zealand - combined work and training guidance by Career Services: Career Services (CS) is the main provider of career information, including work and training, in New Zealand. CS provides services directly to individuals to help them make informed decisions. CS also develops guidance modules for schools. For example, The Creating Pathways and Building Lives programme assists schools in developing effective career advice consisting of wide-ranging information on career paths and training opportunities. The New Zealand Qualification Authority provides information about qualifications and diplomas and the quality of learning institutions. The New Zealand Register of Quality-Assured Qualifications provides a comprehensive list of all quality-assured qualifications in New Zealand. In addition, most tertiary education institutions conduct surveys of graduates to structure their programmes. The Department of Labour collects and analyses information on the skills needed in the labour market and about how the tertiary education system interacts with the labour market. Merging this information with information from other sources, the Tertiary Education Commission, which supervises the country's education system, produces annual "portraits" of tertiary education and training in New Zealand, including indicators of possible under- and over-supply (OECD, 2012a: 91).

Finland has a cross-sectoral and multi-professional co-operation and a flexible education system: Finland's career guidance system covers all parts of lifelong learning from ECEC to adult education. There are also targeted programmes for those who are out of the labour market and out of lifelong learning. The ministries of education and employment established a national steering group for guidance and counselling to strengthen the cross-sectoral and multi-professional cooperation between the key actors and stakeholders. In addition, the Finnish upper secondary education system gives students the choice and flexibility to transfer between academic and VET programmes, which are considered to be the students' right and, in most cases, students take courses in other tracks to meet their study plans (OECD, 2012b).

Germany – co-operation between schools and the public employment service: In Germany, the Federal Employment Office's career counsellors visit schools, run class talks, and provide small group guidance and short personal interviews in the penultimate year of compulsory schooling. Many of these counsellors have undertaken a specialised three-year course of study at the Federal College of Public Administration. School classes are taken to the Office's career information centres (BIZ) where they are familiarised with the centre's facilities. They can subsequently re-visit the centre and book longer career counselling interviews at the local employment office.

The United Kingdom - tackling high NEET levels through non-traditional and creative careers: In the United Kingdom, several social enterprises have been set up to help smooth the path into non-traditional and creative careers that can appear inaccessible to people with disadvantaged socio-economic backgrounds and who have little information on available opportunities, limited economic resources and few networks. Dalston Open Studios (DOS) is an initiative set-up in the Borough of Hackney in East London, an area suffering from particularly high NEET levels. DOS attempts to overcome these challenges through: 1) creating awareness among young people – both in and out of education – about the creative economy in Hackney, and informing them about possible pathways into creative careers; 2) fostering links between local schools, local business and community organisations; 3) helping young people develop the skills they need to launch them into creative careers; and 4) encouraging and facilitating small to medium creative industries to engage with local young people. DOS works with all schools in the Borough of Hackney and takes particular care to engage with schools with a higher percentage of students from the lowest 30% of the Income Deprivation Affecting Children Index (IDACI) and/or less than 25% success rates in A*-C GCSE (General Certificate of Secondary Education) examination results including English and Maths.

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Sources:

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5.2. Strengthening the links between industry and educational institutions

Employer engagement is becoming increasingly important for activating youth and ensuring the use and development of their skills. In this context, the role of education and training institutions, notably university and vocational education and training institutions is crucial in terms of attracting employers' engagement. The involvement of industry in education and training institutions can be accomplished through several mechanisms, such as university evaluation by industry, industry-university collaboration, or a work-study dual system. Success in activating youth requires concerted action by all stakeholders.

Industry and university collaboration

Industry-university collaboration is being promoted in Korea as a mechanism that can strengthen the links between education and training institutions and industry. Such collaboration is intended to facilitate the transition between university and the workplace by enhancing entrepreneurship and open innovation, such as technology transfers, tailored training, research and development, start-up support, infrastructure, and equipment support. In 2010, there were 148 industry-university collaboration programmes being run, with over 70% funded publicly and an average of 23 persons involved in each. In terms of funding composition: humanities and social studies make up 12% and science and technology 88% of total funding. Funding increases are also not proportionate as the school brand is related to the funding composition: the top 15 universities take 56% of the funding (NRF, 2013).

There are many forms of collaboration for fostering talent in order to help build a creative economy. For example, a curriculum tailored to a firm's needs, a contractual curriculum for skills supply, trusted education for employees, internship/apprenticeship opportunities for graduate students, career enhancement programmes, technical consulting, inviting industry experts as affiliated professors, and dispatching teaching staff into industry. Less than 10% of universities send their teaching staff to work in industry for collaborative purposes, whereas 85% of collaborating universities operate a start-up fostering centre to provide start-up support (consulting, funding assistance, start-up assistance). In 2010 an average of 23 firms benefited from such centres.

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The contractual curriculum is a specially accredited curriculum, based on a contract between the university (or college) and the enterprise. There are two types of contractual curricula: recruitment conditional, which targets prospective employees, and re-education, which targets incumbent employees. The curricula are flexible and reflect the enterprise's specific needs. In 2012, 124 universities and colleges maintained 426 contractual curricula (NRF, 2013).

An example of a university-industry collaboration programme is Leaders in Industry-university Cooperation (LINC). This programme was launched by the MoE in collaboration with the Ministry of Trade, Industry and Energy (MoTIE) in 2012 and consolidated existing projects with similar objectives. It combined: 1) fostering talent (MoE) embedded in the Leading Industry Development for the Wide Economic Region (MoTIE); 2) developing universities based on industry-university collaboration; and 3) cluster research projects. The objective of the programme is a restructuring of universities that are friendly to local industrial collaboration, avoiding fractional support for specific faculties and reducing redundant, existing support for similar areas. The programme promotes: employment of the high skilled, start-ups, advanced research, and skills supply for local industry by fostering talent both in the local university and local industry. This local focus means that tertiary institutions outside of the Seoul area are largely supported (Ministry of Education, 2013).

Another example of successful collaboration is the Korea Polytechnic University (KPU). KPU is a private four-year university established by MoTIE in 1994. It collaborates with over 3 300 family companies and has run university-industry collaboration since 2004. For teaching staff it has maximised the synergy between technical consulting, research and development assistance, employment assistance, and instruction. In particular, the university runs a Job Escalator System that provides gradual career services linked with workplace learning in industry, and consulting and training from the university, which results in a high employment rate for graduates.

Co-operation between industry and vocational schools

Meister high-schools have contributed to enhancing the status of the vocational career track, which has traditionally been seen as having a lower status than the academic track. Meister schools have achieved a 90% employment rate, of which 98% is full-time regular employment (Ministry of Education, 2013). The vocational track accounts for about 30% of upper-secondary schools (KEDI, 2013). In these schools, students positioned at the upper tier reportedly advance to Meister schools. One key success factor of the Meister schools is that they can adapt their curriculum to industry needs, which means that the quality level of education reaches a similar level to junior colleges.

Introducing a work-study dual system (Box 20) would improve co-operation between industry and vocational high-schools, junior colleges and even universities in Korea. Apprenticeship schemes can help with smooth school-to-work transitions, but should be based on robust social dialogue and public-private partnerships. Moreover, it is important to create wider partnerships for apprenticeships, such as education institutions and corporate and cultural partners, families and communities, and other learning environments that apprentices can connect with through a variety of networking arrangements, such as hybrid learning environments (see examples in OECD, 2013e). A cost sharing arrangement for apprenticeships among employers, public authorities, and apprentices needs to gain consensus among stakeholders, taking into account both private and social benefits. Quality apprenticeships should operate according to competence-based completion rather than time-based completion (OECD, 2012c).

For example, in Spain, employers receive a reduction in social security contributions if trainees are hired on permanent contracts. In Canada, the Apprenticeship Training Tax Credit is a refundable tax credit for companies and businesses employing apprentices in certain skilled trades during the first three years of an apprenticeship programme. In Germany, there is institutional support for SMEs such as low-interest rate loans for hiring apprentices, collective training provision for apprenticeships, and apprenticeship instruction tailored by duration and occupational or sectoral characteristics. There is also a well-established partnership between employers, chambers of commerce, and labour unions that

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participate in the dual system design and implementation such as training instruction and wage negotiation for apprentices (OECD, 2012c; ILO, 2012b).

Box 20. Korea's ambition for a work-study dual system

Korea's "work-study dual system", announced on 10 September 2013, is a work-based learning model based on Germany's apprenticeship system. It will be linked to the National Competency Standards. The work-study dual system will be implemented initially in Meister high-schools and then expanded to include senior students at specialised vocational high-schools and students at two-year junior colleges. High-school students and graduates or university students are also included. Equivalent qualification or degrees will be awarded by industry through the recognition of work-based learning.

The dual system will reach 10 000 companies and create 70 000 apprentice positions by 2017 through providing firms with: assistance for developing tailored VET programmes; training fee subsidies, and incentives linked to subsidies for small and medium size enterprises; and apprentices with scholarships and other incentives (e.g. related to military services). Protection for working conditions will be strengthened. For participating tertiary institutions there will be incentives linked to college specialisation projects or Leaders in Industry-university Co-operation (LINC). Companies will benefit from this dual system by reducing retraining costs and increasing labour productivity. The government has shown a commitment to draft a law to support the dual system in the workplace. In the long-term, Korea expects impacts in terms of reducing private spending on education and the overemphasis on academic degrees.

Source: Ministry of Employment and Labour (2013), Ministry of Labour and Employment Website, http://www.moel.go.kr/english/main.jsp.

National Human Resources Development (2013), Dual System, https://www.nhrd.net/board/view.do?dataSid=24054&boardId=BBS_0000004&menuCd=DOM_000000102003000000.

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5.3. Addressing and tackling demand-side barriers

Korea has the lowest average tenure rates among OECD countries both in total and youth population (Figure 41). This is related to the high proportion of non-regular jobs, particularly temporary part-time jobs, among Korean youth. "Job-hopping" – the practice of changing jobs frequently – during initial employment may be efficient if it is the outcome of a matching process whereby youth try out different alternatives before a more stable choice is made and if information asymmetries are high between employers and young jobseekers. However, frequent job changes, working initially out of field, and tenuous relationships to jobs provide little possibility for on-the-job training, which has adverse effects on development of skills. Job turnover also has a cost for firms, who incur fixed costs of searching for new workers and retraining each time a worker needs to be replaced.

Labour market regulations can affect youth disproportionately. Previous OECD reports for Korea have recommended strengthening and evaluating active labour market programmes for youth, including job centres, job-search training, and job-matching services (OECD, 2007; Kis and Park, 2012; OECD, 2013c). Expanding the role of private employment agencies is also important.

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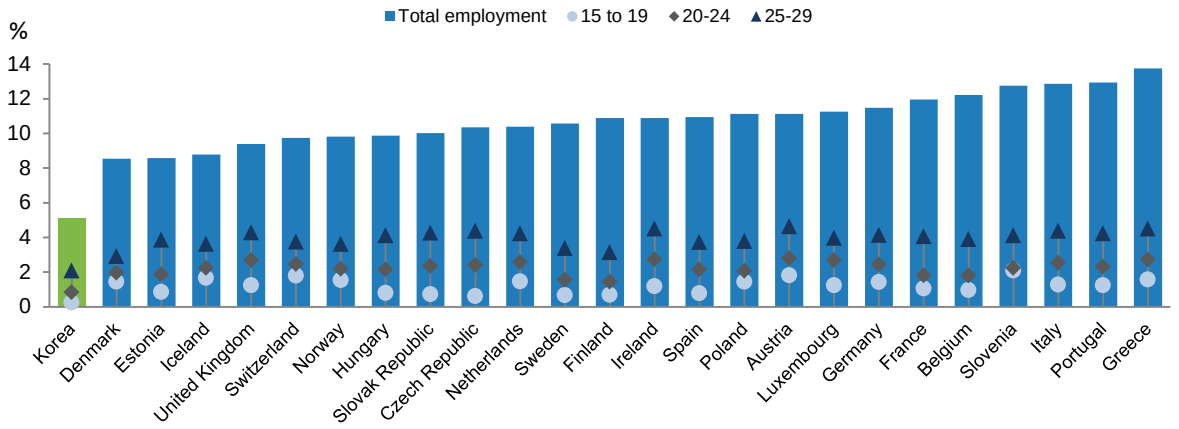
Figure 41. Average tenure rates in jobs among youth and total, by age group



Note: Average job tenure rates are a proxy for turnover rates, i.e. the number of workers who had to be replaced as a ratio to the total number of workers in a given period.

Source: OECD (2015a), *OECD Online Employment Database*, www.oecd.org/employment/database, (Accessed on 21 August 2015).

Improving career services and enhancing career management skills

Incorporating career education into general education is crucial for transitioning from school to work and activating skills. In this way, students can better relate the school curriculum to the reality and opportunities of the labour market, and they can learn how to make better career decisions (i.e. career management skills; see Hooley et al., 2013). Moreover, career guidance incorporated into schools can be more effective and in-depth in the career constructing and skills matching process (Kim, 2012), and provides better links to national and local career resources as well as counselling and placement services.

The MoE recruited 3 016 career counsellor between 2011 and 2012 and they continue to increase to 5,073 by 2014, covering 94.9% of middle and high-schools with a career counsellor. A "Weekly Dream Letter" is sent to parents, supported by KRIVET Career Development Centre (CDC), in order to enhance parent awareness about future occupations, diverse educational and career paths, and self-diagnostics. KRW 20.6 billion (USD 19 million) was invested in career education in 2012 and 670 000 middle-school students participated in occupation experience programmes. The CDC also runs Career-net, a system focused on providing career guidance, and occupational aptitude tests for primary and secondary education. The MoEL runs Work-net and HRD-net. Work-net provides occupational psychological tests by the Korean Employment Information Service (KEIS), career counselling, and employment information for youth and adults. HRD-net provides information on subsidised vocational training by skill and region as well as employment information for those who are in training. It would be beneficial to build closer links between these career services as well as the qualification examination information system (Challenge 8). This would also allow more collaboration between MoEL and MoE.

The Free Learning Semester (FLS) is an attempt to alleviate the overemphasis on academic studies (Challenge 1) and aid the school-to-work transition for youth. It is a part of the lower secondary school reforms aimed at fostering more creativity and problem solving abilities with curricula free from examinations. A middle school FLS pilot plan was introduced by MoE on 29 May 2013. For a semester, students explored their career paths through self-led activities under the school curriculum and without any paper exam. The FLS is intended to address academic stress, one-way lectures, and test-based assessments. Success of the implementation of the FLS will depend on the participation of parents and communities, a better use of resources and infrastructure, improved quality of instruction, limited

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availability of private tutoring growing during the FLS, increased effort to have the FLS impact the next stage of education (Lee, 2013).

Methods should be developed to improve access to career guidance services for all students, and provide high-quality information on the labour market requirements and outcomes of graduates by institution and field of study (i.e. High Fliers on The Graduate Market in the UK, which provides detailed research into the graduate recruitment market in the UK; see also Challenge 9.2).

Establishing a competency-based human resource system for youth

The labour market structure in Korea and its incentive system complies with social rules rather than competency or skills. There is a culture where the role of seniority and hierarchy is important and an environment where returns to education are low and quality assurance in the education system is weak (i.e. high dispersion in post-secondary graduate productivity). To shift away from this tendency, Korea needs to establish a competency-based human resource system for youth.

Across the recruitment, placement, evaluation, promotion, and career development process, there is a need to change to a skills-based mind-set; this will be a difficult and long-term change, but as part of the development and application of the NCS, such processes will be revised and improved accordingly. The Korea Electric Terminal (KET) from 2009 is a successful case in using the NCS in order to make human resource systems and management competency-based. HRD-Korea reported that worker participation in training increased as an equivalent competence at each level of career path was introduced.

Changes related to company recruitment have been also reported. Large conglomerates, as well as SMEs, are changing their conventional recruitment practices based on certain criteria, such as schools, school grades, and English scores, into more creative criteria, such as presentation skills or speaking ability. MoEL and MiSIP have undertaken efforts to change the conventional recruitment culture towards competency-based recruitment.[18]

A project to change the recruiting practices by MoEL is designed to support competency-based recruitment and provide consultations for companies through "competency assessment models", which consist of competency applications, competency tests, and competency interviews. Pilot models were designed and distributed to 30 companies (Box 21) and the competency-based Youth Employment Centre will provide mentoring services.

In order to facilitate the establishment of a competency-based human resource system in small and medium-sized enterprises, SME HRD Consulting, based on the NCS, was introduced by MoEL and HRD-Korea to reduce the cost of in-house skills analysis. An NCS working group, including industry and education experts, provides consulting services for competency-based recruitment, placement, and promotion, as well as human resources and career management systems suitable for each company. Sectoral or firm level institutions, such as K-Biz, Korean Chamber of Commerce and Industry (KCCI), and relevant sector councils act as a distribution channel for NCS application packages to associated firms. These firms can apply the NCS to their on-the-job-training or other types of in-house training, or be referred to relevant government-led training programmes (Challenge 1).

An important challenge in this regard is to transform the entire human resources corporate culture to encourage hiring, assessment, and promotion based on competency rather than criteria currently engrained in the labour market, such as school brand, academic cliques, blood ties, geographic origin, age, gender and appearance (Challenge 1). Seniority-based systems and labour market dualism encourage the persistence of these practices and hamper the development of a virtuous cycle of skills development, activation and use (OECD, 2012d; 2013c; Challenge 7). There are creative and innovative recruitment strategies designed to make the best match and attract skilled workers, even for SMEs. Some of these strategies may also reduce recruitment costs or employee turnover. Each firm or sector can learn from

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these examples and adjust their practices, such as different interview methods, self-selection, group interaction, social media networking, and relationship building.[19]

Box 21. Programme for competency-based hiring in Korea

In August 2013, the MoEL started disseminating core competency assessment models to 30 companies on a trial basis. These models enable companies to select workers on the basis of competencies instead of qualifications that not are relevant and/or necessary for the jobs to be performed. Under this pilot project, the assessment model for three job groups - production management, business support and teller services in financial and insurance businesses – and will be implemented in the 30 companies selected through public invitation.

The participating companies include 10 large companies, such as, Lotte, Hyundai Mobis, Daewoo Engineering & Construction, Woori Bank, CJ Foodville, SeAh Steel, Hanwha S&C, LS Networks, KT Skylife and SKC Solmics. NHN (Naver), Orion and Korea Cadastral Survey Corp. A public company will also join the project.

Each of the selected firms will be offered consulting services and interviewer training tailored to its circumstances. They will also be assisted in applying assessment models in their actual recruitment processes. In addition to the three models developed last year, models for another three job groups - marketing, application software and architecture engineering technology – have been developed in 2014 and the number of participating companies was increased to 200.

Source: OECD (2014c), *Employment and Skills Strategies in Korea*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264216563-en.

Summary and policy implications

Youth in Korea face difficulties in making a smooth transition from school to work. The share of youth neither in employment nor education is slightly above the OECD average. It is particularly high for youth with tertiary education. Korea has one of the lowest employment rates of tertiary educated adults, which indicates either a low quality tertiary education or insufficient jobs for highly qualified workers in Korea.

When youth find work, it is often under unfavourable working conditions. A large proportion of youth are working in non-regular and temporary jobs with low wages and low career prospects. The transition rate from non-regular to regular jobs is one of the lowest in the OECD.

Several issues need to be addressed to help youth in Korea. Flexibility between vocational and general education tracks, as well as between school and work, would help young people to better align their career choices to labour market needs and have better chances of finding employment. Quality information on the labour market and career counselling and services provided by the public employment services can guide youth in the transition from school to work. The longer it takes for youth to find a decent job, the more likely they are at risk of decreased motivation, skills atrophy and marginalisation in the labour market.

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CHALLENGE 6. ACTIVATING OLDER WORKERS WHILE IMPROVING THEIR SKILLS AND WELFARE

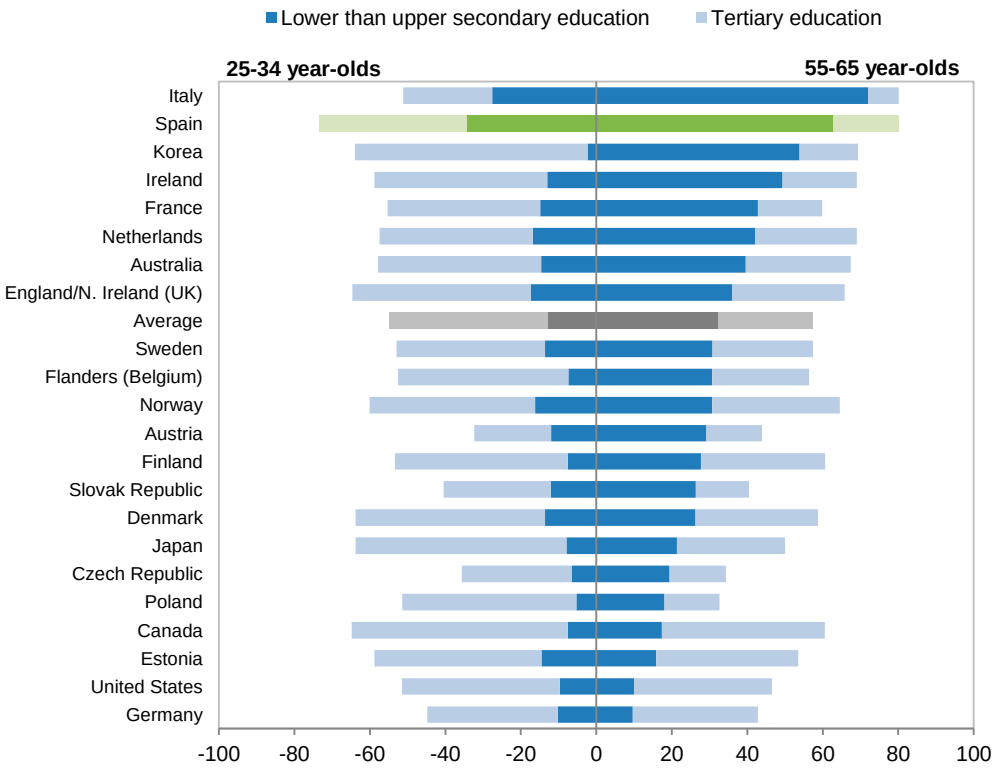
Korea is a rapidly ageing society with a shrinking labour force, which is of particular concern in light of Korea's already long working hours. Social welfare mechanisms for the elderly are underdeveloped and the elderly display the highest relative poverty rate (almost 50%) among OECD economies. As the results of the *Survey of Adult Skills* (OECD, 2013b) show there is a huge skills gap between youth and older people in Korea. Businesses are more reluctant to hire members of the older generation. The highest difference between the effective labour market exit age and the official retirement age is found in Korea: 11 years for men and 10 years for women (OECD, 2013f). After this early retirement, older people often work in the informal economy and their job quality quickly decreases. Improving their skills at the same time as the quality of their job and working conditions is an urgent issue for Korea.

6.1. Enhancing the level of skills among older workers

There is a huge generational gap in skills and participation in adult education

At 50 percentage points, Korea has the largest gap among OECD countries for tertiary and upper secondary education attainment rates between 25-34 year-olds and 55-64 year-olds. The gap for women is even larger (OECD, 2013d), as shown Figure 42. This gap is mainly derived from the vast increase and improvement in terms of education attainment among the younger population, but it shows that Korea needs to undertake more effort to enhance the level of education and training of older workers.

Figure 42. Population with tertiary education and less than upper secondary education



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

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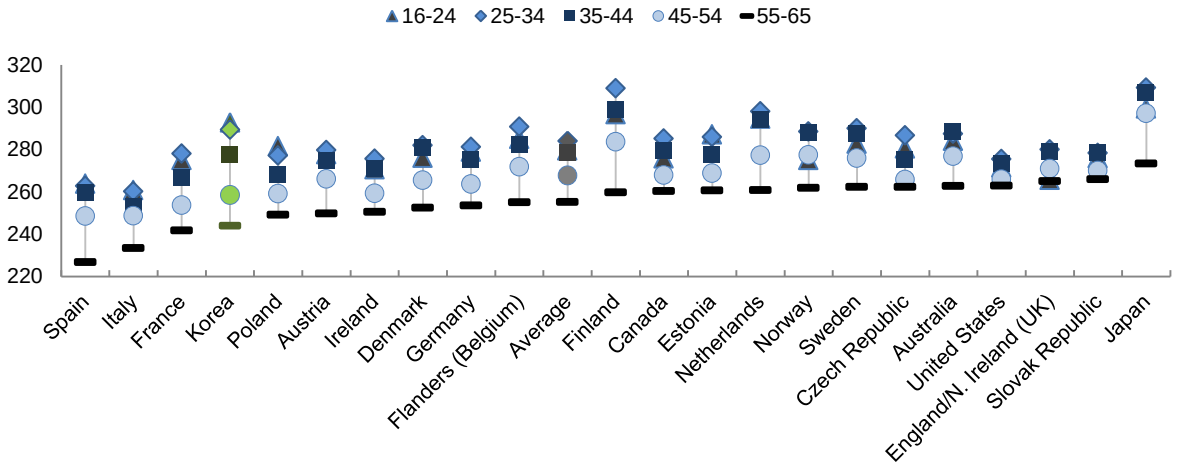
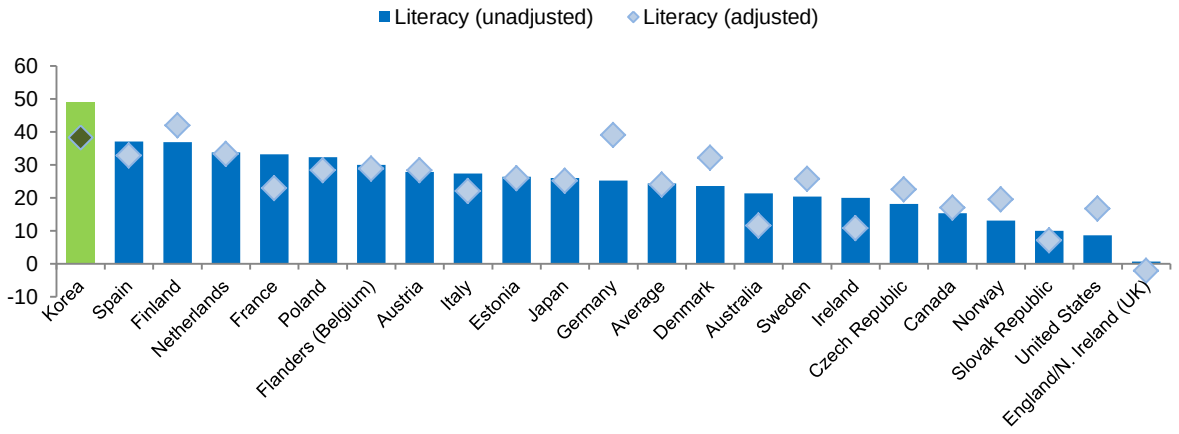
When comparing the skills proficiency of 55-65 year-olds, Korea is among the four lowest-performing countries in the OECD. When comparing older workers with youth performance, Korea shows the highest gap between these two groups as shown in Figure 43 (OECD, 2013b).

Figure 43. Literacy proficiency differences by age, 2012

A. Mean score on the literacy scale (Mean literacy proficiency, by 10-year age groups)



B. Age difference in literacy proficiency, 16-24 year-olds minus 55-65 year-olds
(Mean literacy score difference between the youngest and oldest adults)



Source: OECD (2013b), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

Older worker participation rates in training are low. Employee and jobseeker-assistance programmes avoid training older workers due to their lower employability and in order to increase their performance in evaluations. This means that the low participation rate is not necessarily voluntary, but due to structural reasons (Son, 2005). The low participation rate is also related to a seniority-based wage system and early retirement practices. This calls for increased support from businesses and the entire economy to activate and effectively use older workers by improving human resources management, wage and competency design, and workplace systems.

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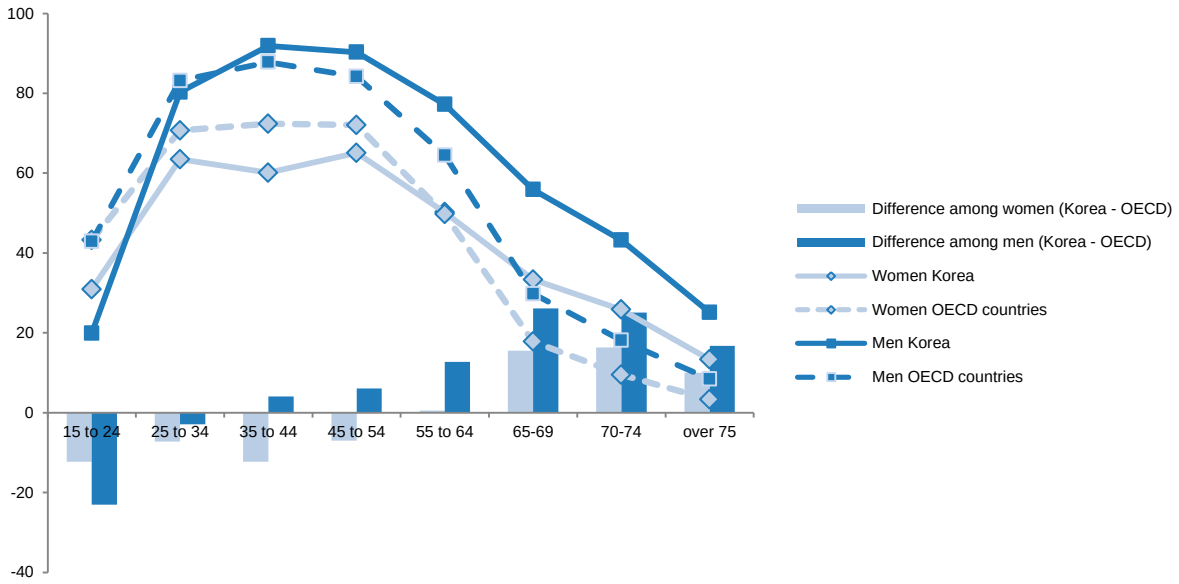
High labour market participation, yet low welfare status among older workers

Activating and using the skills of older workers could help alleviate the burdens of an ageing population, such as spending on old-age pensions, while generating higher tax revenues (Duval, 2003). This is particularly relevant in the Korean context of low levels of benefits from old-age pensions, a weak corporate pension system, and forced early retirement practices (OECD, 2012d; 2013c). Low incentives for early retirement are reflected in a comparatively higher labour participation rate among older workers, compared to the OECD average (Figure 44): one in two male adults aged between 65-69 years-old are still in the labour market.

Figure 44. Labour market participation among older workers is high in Korea, 2012



Source: OECD (2014f), OECD Labour Force Statistics Database, http://www.oecd.org/std/labour-stats/.

Over-65s receive 63% of their income from work and only 16% rely on public pensions (Figure 45). This is primarily due to the fact that the public earnings-related pension scheme was introduced in 1988, so retirees in the mid-2000s had few or no entitlements (OECD, 2013f). Corporate pension schemes (the Retirement Pension Plan) were introduced in 2005, yet only 9% of firms provided pension plans as of 2011 (the rate is 68% among large corporations). These plans cover 36% of employees (OECD, 2013c). Any workers that have worked for more than a year are eligible to receive either retirement pay or pension, however, only 45% of non-regular workers are eligible (Statistics Korea, 2013c).

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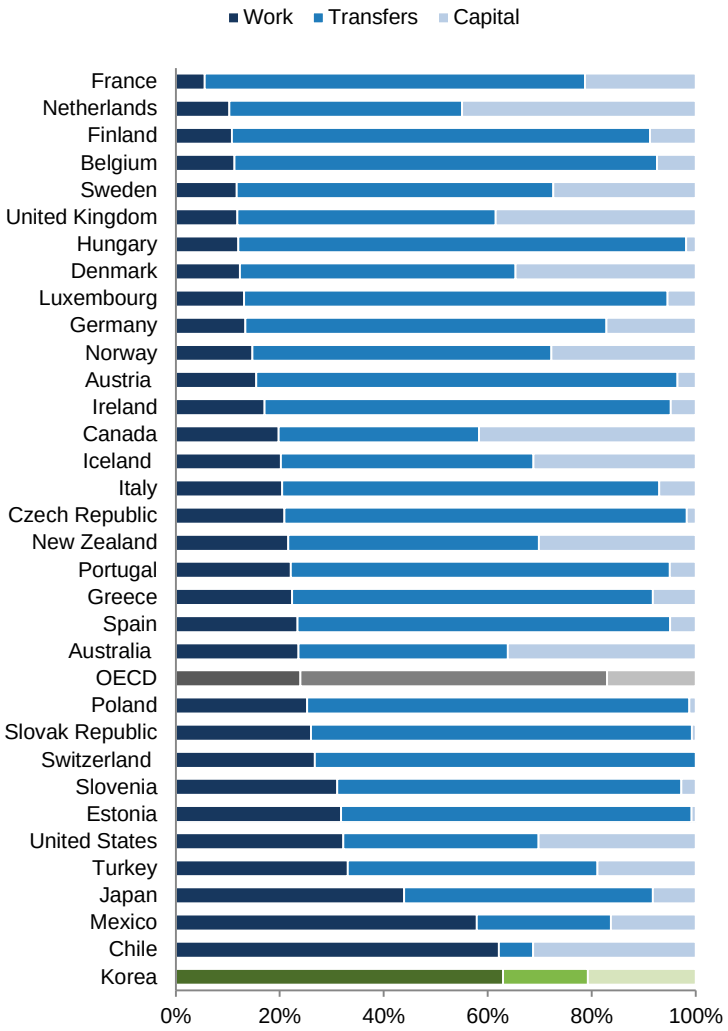
Figure 45. Sources of income for people over 65



Note: Income from work includes both earnings (employment income) and income from self-employment. Capital income includes private pensions as well as income from returns on non-pension savings.

Source: OECD (2013f), *Pensions at a Glance 2013: OECD and G20 Indicators*, http://dx.doi.org/10.1787/pension_glance-2013-en.

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Box 22. Korea's pension system

Korea's retirement benefit system includes a **retirement allowance** (introduced in 1961) and a **retirement pension plan** (i.e. company pension system, launched in 2005) mandated by the Employee Retirement Benefit Security Act (27 January 2005). The system is based on agreement between labour and employers. Korea extended the mandatory retirement benefit system to firms with five or fewer workers from December 2010 (about 1.5 million people). The corporate pension system, which is still weak and can be either a defined benefit or a defined contribution scheme, is currently available from age 55, provided that the individual has contributed for ten years or more.

The National pension system (NPS) is currently available from age 60, provided that the individual has contributed for ten years or more. A reduced, early pension can be drawn starting from age 55, yet there are disadvantages. When, starting from 2013, the normal pension age increased from 60 to 65, the early pension age increased from 55 to 60. The benefit is determined by three-year average earnings of all the insured, average of individual's earnings over the contribution periods, and the payment rate (5% increase every year) Under the current system, an income replacement rate of the pension benefits gradually declines to 40% by 2028. Some 70% of those aged 65 and over can get the means-tested "basic old-age pension" (BOAP, introduced in 2008) as part of the social welfare programme. About one-fifth of BOAP recipients also receive national pension benefits.

Note: There are also special occupational pension schemes and private pension. See sources.

Sources:

OECD (2013f), *Pensions at a Glance 2013: OECD and G20 Indicators*, http://dx.doi.org/10.1787/pension_glance-2013-en.

Ministry of Employment and Labour (2013), Ministry of Labour and Employment Website, http://www.moel.go.kr/english/main.jsp.

OECD (2014d), *OECD Economic Surveys: Korea 2014*, http://dx.doi.org/10.1787/eco_surveys-kor-2014-en.

6.2. Removing labour market practices that negatively affect the activation of older workers

There are several factors that lead to older workers in Korea withdrawing from the labour market or ending up in low-quality employment: the age of retirement, retirement policies, interaction between financial incentives to remain or withdraw, and company practices in human-resource management. There are also certain categories of workers that need to be paid particular attention among older workers: displaced workers, (forced early) retired workers, low-skilled workers, low-paid workers in small firms, and other working poor. Older workers are more likely to be displaced (i.e. experience permanent layoffs) and take a longer time to be re-employed than younger workers (OECD, 2013a).

Tackling practices of a seniority-based wage system, early retirement, and retirement allowance

Older workers (aged 55-64 years) have a higher incidence of displacement than prime-aged workers (OECD, 2013a). Due to early retirement, the wages of Korean workers tend to peak around age 50 and then decline quite sharply. Korea exhibited one of the highest rates of self-employment as a share of total employment (28%) in 2011, while the OECD level was 16% in 2010 (OECD, 2013g). This tendency increases by age (Figure 46): 32% of workers over 50-years-old are self-employed (OECD, 2013c) as they embark upon 'second careers'. However, more than one third of early retirees become unemployed in Korea (OECD, 2012d). In 2012 the average poverty rate for retired households in Korea was 45% compared to a much lower 15% across the OECD (OECD, 2013c).

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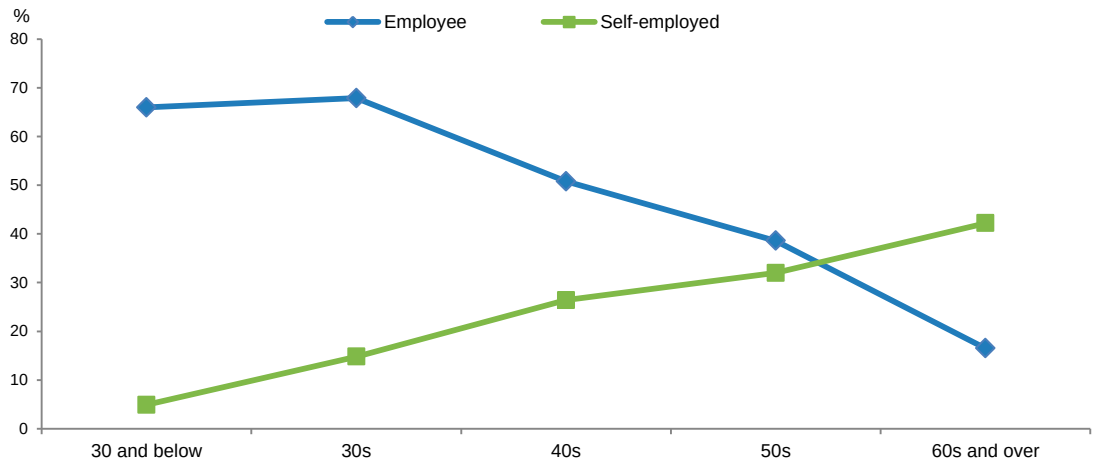
Figure 46. The share of self-employed increases by age in Korea, 2012



Source: KOSIS (2012), *Household Finance and Welfare Survey 2012*, http://kosis.kr/eng/.

For older workers, the strong linkage between seniority and compensation prevents the expansion of training and, more generally, the diffusion of a lifelong learning culture. The low take-up of training is further reinforced by the strong incidence of early retirement for career jobs. Nevertheless, the employment of older workers is growing more and more important in Korea, which has a rapidly ageing population with a low fertility rate. More flexible employment and wage systems that follow productivity, combined with an appropriate skills system, would increase the age at which older workers leave firms and increase their adaptability to change.

Korea would benefit from policy measures that strengthen incentives or remove disincentives for older workers who choose to continue to work while at the same time providing them with appropriate pension benefits for securing their welfare. In Korea, workers often retire in their early 50s, at a time when they benefit from retirement incomes or pensions at a level much lower than labour income (OECD, 2013c). This, combined with the fact that the elderly in Korea has the highest relative poverty rate among OECD countries, results in them being forced to continue working after retirement. Korea has one of the lowest incentives to leave the labour market (Figure 47 and Figure 48). Older workers in Korea mainly end up working for SMEs or become self-employed. The service sector has low barriers to entry but is saturated and competitive, thus often results in low productivity, as highlighted by workshop participants (Challenge 7; Annex).

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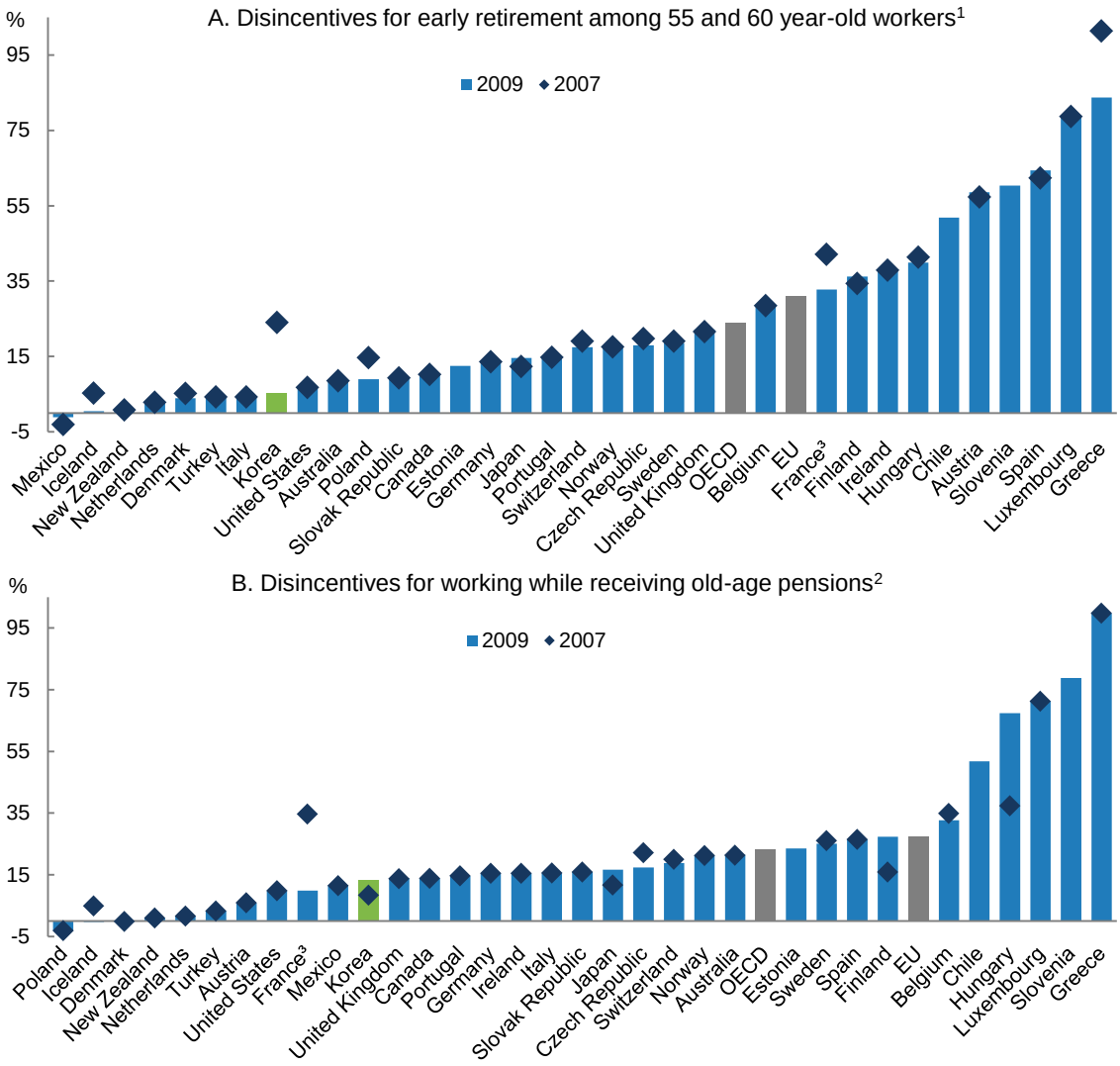
Figure 47. Implicit taxes on continued work at older ages (Percentage of average worker earnings)



Notes:

1. Average for 55 and 60 year-old workers of implicit tax on continued work for five more years in “early retirement route”, as defined in Duval (2003).

2. Implicit tax on continued work in regular old-age pension system, for 60-year-olds. The value for South Africa is equal to zero in 2009.

3. For France, year 2010.

Source: OECD (2013h), *Economic Policy Reforms 2013: Going for Growth*, Figure 4.5, http://dx.doi.org/10.1787/growth-2013-en.

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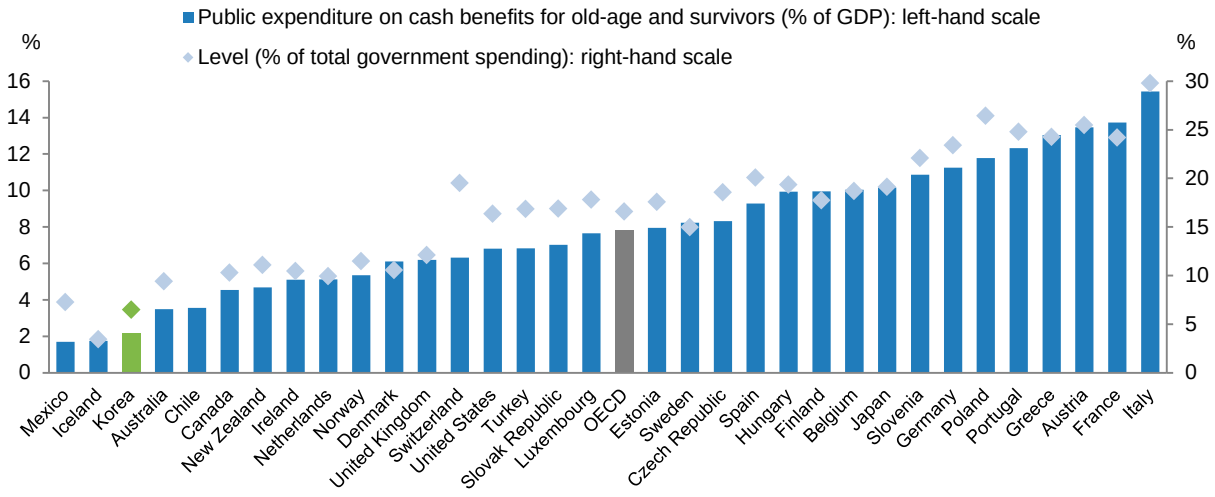
Figure 48. Public expenditure on old-age and survivors benefits, 2009



Source: OECD (2013f), *Pensions at a Glance 2013: OECD and G20 Indicators*, OECD Publishing, Paris, http://dx.doi.org/10.1787/pension_glance-2013-en.

In light of these concerns, in April 2013 Korea enacted a law that will phase in a minimum retirement age of 60, beginning with larger firms in 2016 and then being extended to companies with fewer than 300 workers in 2017. The OECD Employment Outlook 2013 reports that many other OECD countries are also taking measures to limit early retirement (OECD, 2013a). While it is sometimes argued that early retirement is necessary in order to open up employment opportunities for younger workers, new empirical analysis based on data across 25 OECD countries over the period 1997-2011 shows a positive relationship in the long run between the employment rates of older and young workers. However, this OECD analysis also highlights the importance of enacting structural reforms to boost employment prospects for both older and younger workers (OECD, 2013a).

The problem of early retirement cannot be solved by simply raising the statutory retirement age (OECD, 2013f). Obstacles to firms employing older workers are mostly related to skills, such as: "low adaptability to change (57%)", "lower work ability and capacity (45%)" or "high wages relative to productivity (43%)" (OECD, 2013c: 167). The vicious cycle of low level of skills or a lack of basic skills in Korea traps older workers in unemployment, non-employment, or precarious low-skilled jobs with obstructed routes to skills development and only opportunities for largely unrewarding work. After early retirement, many older workers tend to open a business in the service sector. For example, those over 60-years-old account for 39% of self-employed without any employees (KOSIS, 2012).

The absolute and relative numbers of older workers over 55-years-old have increased. Among older workers, 82% work in the service sector, 13% in the manufacturing sector, and 5% in the construction sector. However, among those over 65-years-old, more than half work in agriculture and fisheries. The proportion of older workers among full-time workers has increased to 9% in 2011 from below 5% in early 2000s (KOSIS, 2012), however the poverty rate among retired older workers was still high at 51% in 2011 and 45% in 2012 (OECD, 2013c). The poverty rate is 73% among older retired workers without any working family members in the household (33% for those with working family members), and up to 71% among older, retired, unmarried or widowed workers (43% for those who are married), according to the Household Finance and Welfare Survey (KOSIS, 2012). Low-skilled older workers are particularly vulnerable given their lack of ability to find work and hold on to their jobs.

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Displaced older workers lack opportunities for retraining or re-employment

Among older workers, displaced workers require particular attention (Challenge 7). These workers are likely to confront skills losses or skills obsolescence (qualities that become devalued through structural changes in the economy such as in the car industry by automation or outsourcing) (Green, 2013: 32; OECD, 2013i; Chapter 4 in OECD, 2013a).

For displaced workers, including non-regular workers facing non-renewal of contracts, it is vital to provide adequate income support, re-employment services, and a reliable social safety net to lower the costs to workers and society. This will avoid their transition into jobs with lower wages and poor working conditions. Korea plans to expand re-employment services for displaced older workers through: job centres specialising in retiring or retired employees, an Employment Academy for older workers, Talent Banks that help older workers who are not covered by services from job centres, and subsidies for encouraging the employment of displaced or unemployed older people who complete vocational education (Challenge 3, e.g. New Workplace Adaptation Support for Workers Aged 50+).

There are few mechanisms for a "second chance" in the formal education system in Korea. As seen above, the adult participation in lifelong education is low, especially among low-skilled workers (Challenge 3). Retired workers at all levels of skills require this second chance.

Box 23. Better information and better targeting for older workers in OECD countries

In the **Netherlands**, a national pension register, launched in 2011, gives Dutch citizens an online overview of his/her accrued pensions in pension funds, including from pension insurers. This provides better information on the costs and benefits of continuing work.

In **Australia**, an Age Discrimination Commissioner is advocating the rights of older workers and jobseekers; raising awareness about unlawful age discrimination; and promoting the benefits of employing older people, including among private recruitment firms. The Commissioner is working alongside the Australian Law Reform Commission to identify barriers to older workers participating in the workforce that could be addressed through Commonwealth laws. In addition, a Consultative Forum on Mature Age Participation was established to provide advice on removing barriers to employment for older workers, with a particular focus on addressing negative employer and community attitudes. The forum included representatives of seniors, employers/industry groups, unions, and other key stakeholders.

Luxembourg decided to reform its public employment service (PES), ADEM, in 2009 to make it more attentive to the needs of older workers. A pilot project "Fit4job 45+" was launched in 2010 to provide close, proactive supervision of people who had lost their jobs. It aimed to increase their employability by assessing their situation and then offered them tailor-made training in close collaboration with companies.

In **Belgium**, the federal government decided to extend the unemployed persons' supervision plan from a focus on persons under 50 to all unemployed persons under 55 and to all unemployed persons under 58 as of 1 January 2016. At the same time, the three regions will steadily widen their activation policy using various approaches: the Flemish region's PES (*Vdab*), the Brussels region's PES (*Actiris*), and the Walloon region's PES (*Forem*).

In **Estonia**, the PES introduced job clubs in 2009 to create a small community where jobseekers can share their views and the difficulties they face and learn how to network. Various interactive activities and role plays are pursued, which contribute to the development of the social skills of participants.

Poland introduced a comprehensive programme in 2008 to adjust PES work to the specific needs of older workers. PES staff received e-learning and specific counsellor training to improve their ability to respond to the needs of this client group.

In **Canada**, the Targeted Initiative for Older Workers (TIOW) was introduced in 2006 with a design building on the lessons learned from Older Workers Pilot Project Initiative (OWPPI), which ended in 2006. The earlier pilot found that approaches combining the following elements were particularly successful: individual work assessment, training, work experience and job search supports; hands on, relevant and practical training; flexible

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programming that can be tailored to an individual's needs; and projects that include community partnerships. It was also determined that employment outcomes were lowest for approaches that did not include: employment assistance or marketing of workers to employers; work placements involving 100% wage subsidy (no employer contribution); and stand-alone interventions such as employment assistance. The results of a 2010 evaluation of TIOW show signs of success in reintegrating unemployed older workers into the workforce, with 75% of participants surveyed having found employment during or following participation.

Sources:

OECD (2012e), *Thematic follow-up review of policies to improve labour market prospects for older workers – Australia,* http://www.oecd.org/els/emp/Older%20Workers%20Australia-MOD.pdf.

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Summary and policy implications

A relatively high share of older workers in Korea participates in the labour force. Many older workers are displaced by prime-aged workers and retire early. The difference between official retirement age and effective labour market exit age is highest in Korea. Since retirement benefits are low, many older workers continue working either as self-employed or non-regular workers, mostly in the service sector where they receive lower wages, work under more precarious conditions, and show lower levels of productivity.

There is a large skills gap between young adults and older people. Although this is mostly due to the increase of education attainment levels among younger generations, there is also low adult participation in lifelong education. Older workers who become displaced face substantial barriers when they seek re-employment or want to start a business in a different industry for which they don't have the necessary skills.

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NOTES

[15] See for example, Economist 8 March 2014; Korea ranks 27th out of 27 OECD countries in "the glass-ceiling index".

[16] Centre for Women in Science, Engineering and Technology, http://www.wiset.re.kr.

[17] Ministry of Strategy and Finance, www.alio.org.kr

[18] For example, SK, Hyundai Motors, Kia, SK, LG, CJ, Samsung, Posco, Lotte, Hanwah, Kogas, Kores; Joonang September 2, 2013, Business & Money section.

[19] See for example, "To Find Best Hires, Firms Become Creative: 'Speed Dating' Interviews and Personality Tests Help Winnow Deep Applicant Pools, Improve Matches", WSJ November 2009; "Creative hiring replaces yesterday's staid interview" in Houston Business Journal March 2011; Recruitment and Retention Strategies from the Government of Alberta, Canada 2003.

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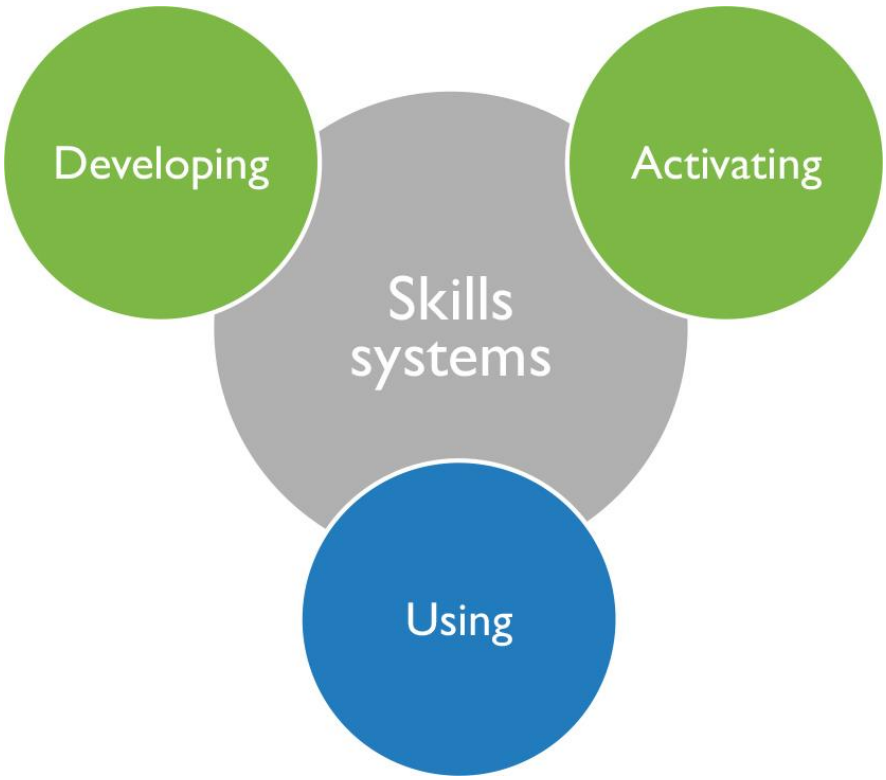
USING SKILLS EFFECTIVELY



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PILLAR THREE: USING SKILLS EFFECTIVELY

While investment in developing and activating skills are critical, policies also need to be in place to ensure that skills are used effectively at the workplace. When skills are not fully utilised they tend to atrophy and are a lost opportunity to increase productivity and innovation. This comes at a substantial cost for the individual and society.

Workers in Korea could make better use of their skills. Among OECD countries, Korean workers have one of the lowest levels of productivity and the second longest working hours. Productivity levels are particularly low in SMEs and the service sector, which employ most of workers. Due to high turnover rates and a low average length of job tenure, there are many non-regular workers with temporary contracts. Non-regular workers are employed under more precarious working conditions with low job security and low wages, which contribute to low levels of motivation and self-esteem. In such workplaces, many workers are not fully utilising their skills. Korea could benefit from focusing on creating a virtuous cycle to improve current workplaces and create new jobs that require a higher use of skills. A higher use of skills is critical for allowing individuals to maintain and further develop their skills and for employers to increase their productivity and overall competitiveness.

A significant share of workers in Korea has a skills mismatch between the skills they bring and the skills that are required at the workplace. Education qualifications do not adequately signal actual skill levels of workers. One in five workers has higher qualifications than the level required by his or her job. In Korea, having higher levels of skills or qualifications does not necessarily mean a higher likelihood of finding employment. In part, this may be due to the fact that education qualifications do not adequately signal the actual skill levels of workers. Skills acquired through non-formal and informal learning need to be recognised and validated in a transparent manner and used by employers and employees alike.

Information on labour supply and demand at the national and regional level is limited. Education and labour market information allows a broad range of actors to make choices that facilitate a better alignment between skills supply and demand. To this end, information on labour supply and demand both at the national and regional level needs to be readily available to all stakeholders in an integrated and sufficiently co-ordinated manner. Strengthening skills assessment and anticipation measures of short-term and long-term skills supply and demand would generate better information for effective monitoring, designing skills policies, as well as informing individuals' education and career choices. Greater availability and integration of skills information can help to ensure that Korea's skills system responds adequately rapidly to rapid technological and economic changes.

With a labour force projected to decline from 2017 onwards in Korea, the pressure to use the skills of its remaining labour force more effectively is mounting. It is critical for the country's future to leverage its significant investments in the development and activation of skills and ensure that those skills are better used in the workplace and lead to increased innovation and productivity.

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CHALLENGE 7. IMPROVING THE QUALITY OF CURRENT AND FUTURE JOBS

As Korea faces major demographic transitions it is confronting two main challenges: creating jobs that make use of existing yet inactive skills, and improving the quality of jobs that effectively use existing skills and activate the inactive population. To create more productive and rewarding jobs, companies should constantly invest in innovation. As they grow into higher value-added product and service markets, the level of skill requirements and the extent to which they use these skills tend to increase. Policy makers should support these companies by improving social capital, including business infrastructure, tax codes, and financial and non-financial support and incentives, to drive stronger economic growth and job creation (OECD, 2013a).

Korea has chosen to shape its own demand to tackle skills mismatches through an emphasis on the creative economy. This involves industrial policies that spur technology and innovation, job creation for high-skilled people, promotion of entrepreneurship, and fostering the growth of small and medium-sized enterprises (SMEs) and venture enterprises (Challenge 2). The globally decreasing trend of wage share (labour income share ratio), often attributed to advances in ICT (Karabarbounis and Neiman, 2013), has spurred controversy, as any regulation of this issue might lead to greater unemployment and labour market dualism, or to an even faster shift to automation or outsourcing. Finding a balance between accelerating technological advancement and rising productivity as part of a creative economy strategy, and maintaining an equivalent, appropriate and adequate labour income share, as well as job prospects, is a major challenge for Korea (Economist, 2013) in the context of labour market dualism.

Labour market dualism discourages labour market participation and is most pronounced in under-represented groups, particularly women. Estimates of the percentage of female workers employed as non-regular workers range from 41% (KOSIS, 2013a) to 54% (KEIS, 2013). "Flexicurity", an integrated strategy for enhancing flexibility and security in the labour market simultaneously, is an attractive concept for Korea, but the overall level of flexibility in Korea is low and the level of employment protection varies greatly between regular workers (high) and non-regular workers (very low) (Jones and Urasawa, 2013). Labour market dualism is a major cause of rising income inequality and relative poverty, and Korea is now the eighth highest among OECD countries. Given the large wage gap between regular and non-regular workers, more than a quarter of full-time workers in 2012 earned less than two-thirds of the median wage, the second highest share in the OECD. Overall earnings dispersion was the third highest (OECD, 2014a).

7.1. Drivers of employment growth: local labour markets, service sector, SMEs, and start-ups

The driver of employment growth and social cohesion in Korea is gradually being shifted away from large manufacturing firms to local labour markets, service sector, SMEs, and start-ups (OECD, 2014b). However, in order to succeed this transition requires an environment that makes the best use of Korea's affluent, highly skilled population and under-represented labour (Challenge 4,5, and 6), supported by policies that facilitate innovation, research and development, sector and business productivity, and human resource management. This will help to avoid skills leakages from SMEs and local markets to large conglomerates and major cities (Challenge 2).

At the same time, increasing job security together with flexibility and mobility remains a challenge. Most jobs in local markets and SMEs are considered (and often are) low quality and start-ups carry high risks. More than a quarter of employees have been in their jobs for fewer than six months, almost twice the rate of the OECD as a whole. Although most workers will move between jobs many times over the course of their working lives, this should not be due to job insecurity in terms of wages, working conditions, and career prospects, but rather from promising job prospects and careers paths.

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Tapping the skills potential of SMEs, service sectors and start-ups, and raising their productivity

SMEs make up 86% of employment (Table 9), which represents a massive opportunity for development, activation and use of about 13 million workers (KOSIS, 2013a). Most young workers start their career in SMEs. However, productivity in SMEs tends be hampered by barriers such as unfair subcontracting practices between large firms and SMEs, which wastes part of the human capital in these enterprises (OECD, 2007). Around one half of SMEs supply firms that are affiliated with conglomerates (*chaebol*) and the performance of small SMEs in Korea is particularly weak and has been deteriorating (OECD, 2014a).

Table 9. Share of firms and employees by firm size in Korea

Firms, %	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1-4	84.6	84.1	84.1	84.5	83.6	83.6	83.1	83.1	82.7	83.6	83.0	82.3
5-99	15.1	15.5	15.6	15.2	16.0	16.0	16.5	16.5	16.8	15.9	16.6	17.3
100-299	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
300 and over	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

Employees, %	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1-4	32.9	32.9	32.8	32.7	31.5	31.6	30.6	29.9	29.0	28.8	28.8	28.5
5-99	44.7	45.2	45.4	44.8	46.7	46.4	46.5	46.3	46.3	45.7	45.9	46.7
100-299	10.1	9.7	9.6	9.9	10.0	10.1	10.1	10.5	10.9	11.1	10.9	10.9
300 and over	12.3	12.3	12.2	12.6	11.9	12.4	12.8	13.4	13.7	14.5	14.4	13.9

Source: Statistics Korea (2013), National Business Survey 2013, http://kostat.go.kr/portal/korea/kor_nw/2/8/3/index.board; Ministry of Employment and Labour (2013), Ministry of Employment and Labour Website, http://www.moel.go.kr/english/main.jsp.

The service sector in Korea makes up almost 70% of employment while only being responsible for a third of the wealth. Most job gains between 2008 and 2011 in Korea were derived from services, as was the case in most other OECD countries (Figure 49). Among these countries, Korea's labour market performed the best after Germany: Germany's net gain of jobs was 816 000 and Korea's was 667 000. However, labour productivity in Korea's service sector was about 54% that of the manufacturing sector and 44% of the US service sector average in 2010. For comparison, OECD's service sector productivity relative to manufacturing is 85% on average (OECD, 2013b).

Job quality has greatly increased in manufacturing over the past decade, unlike in the service sector (Table 10). Most jobs were created in the service sector in the past decade, however this has not helped improve job quality and only 35% were decent jobs, as defined by Kang and Kim (2013) taking into consideration employment security, economic compensation and working conditions. The expansion of services jobs within the manufacturing sector, such as marketing, logistics, and design, as well as ICT and financial sectors, will help to close this quality gap (Kang and Kim, 2013).

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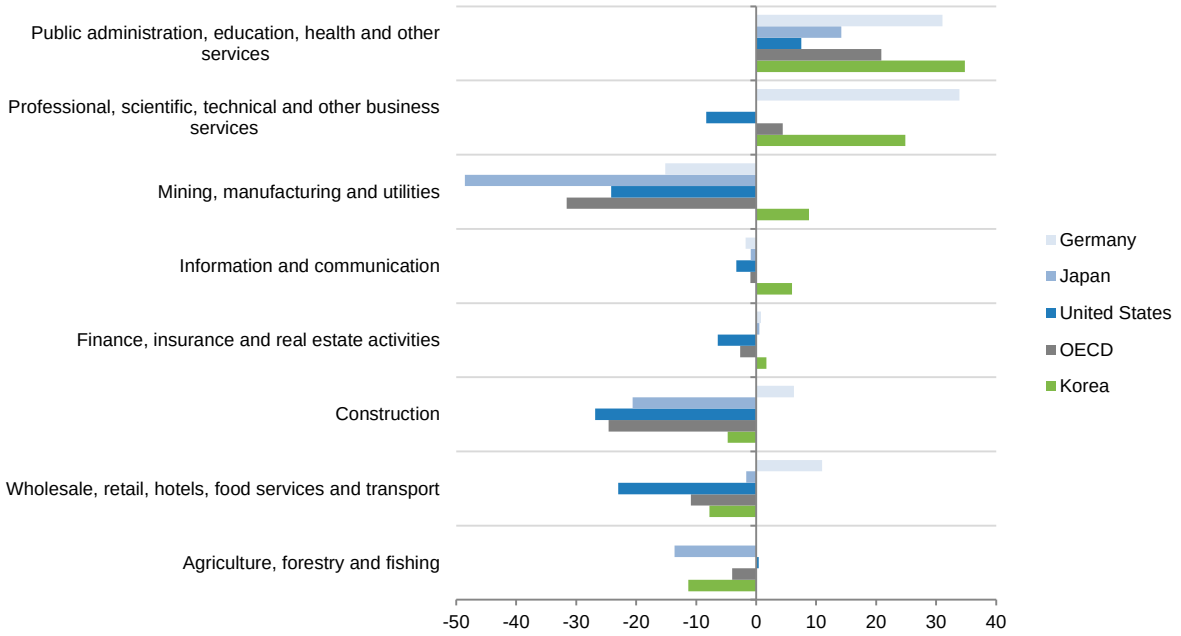
Figure 49. Where people lost and gained their jobs, 2008-11



Source: OECD (2013f), Science, Technology and Industry Scoreboard 2013, http://dx.doi.org/10.1787/sti_scoreboard-2013-en.

Table 10. Services versus manufacturing, Korea

	Manufacturing	Services
1. Share of production (nominal), 2012	31.1%	58.2%
2. Share of employment, 2012	22.2%	73.0%
3. Share of decent jobs in 2002	22.6%	27.6%
4. Share of decent jobs in 2012	34.8%	29.8%
5. Job creation between 2002-2012	0.53 million	3.56 million

Note: Author's calculation for 1, 2 with data from the Bank of Korea. The remaining 3, 4, and 5 come from Kang and Kim (2013).

Source; Bank of Korea (2013), Bank of Korea website, http://www.bok.or.kr/eng/engMain.action.

Kang and Kim (2013), *Report on Korea's employment from the decent job point of view*, (*좋은 일자리 관점에서 본 한국 고용의 현주소*), LG Economic Research Institute.

Given the degree to which SMEs and the service sector dominate the economy, boosting their productivity concurrently has the potential to positively affect Korea's economy and employment. However, among different sub-sectors in the service sector, those that offer more sophisticated, and potentially higher-value products and services, exhibit low productivity per worker. This includes professional services and professional science and technology services (Figure 50). In terms of firm size, smaller firms exhibit lower productivity in general, although the service sector is mostly served by SMEs (Figure 51).

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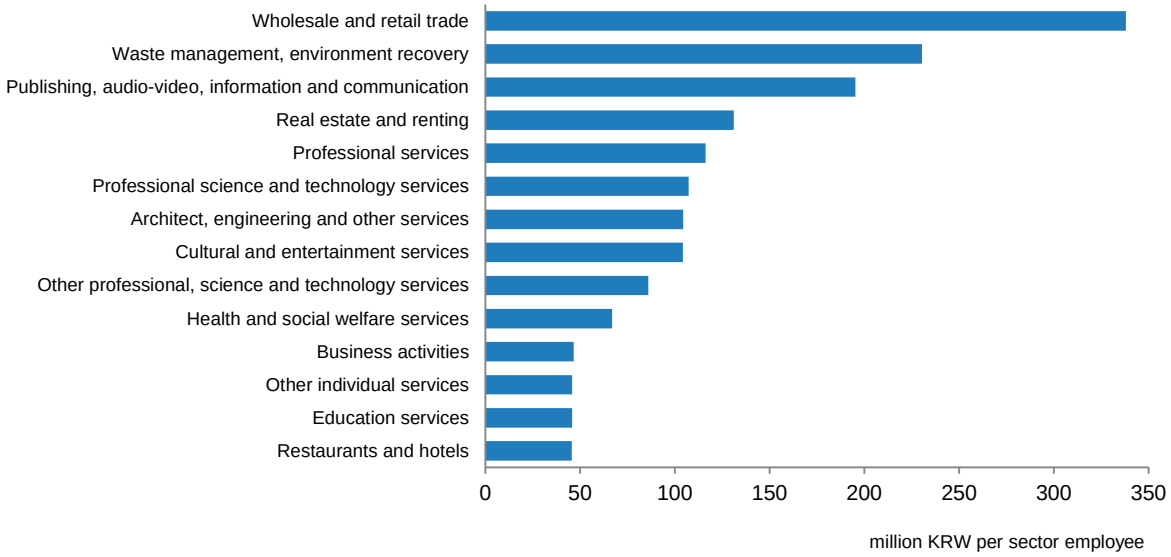
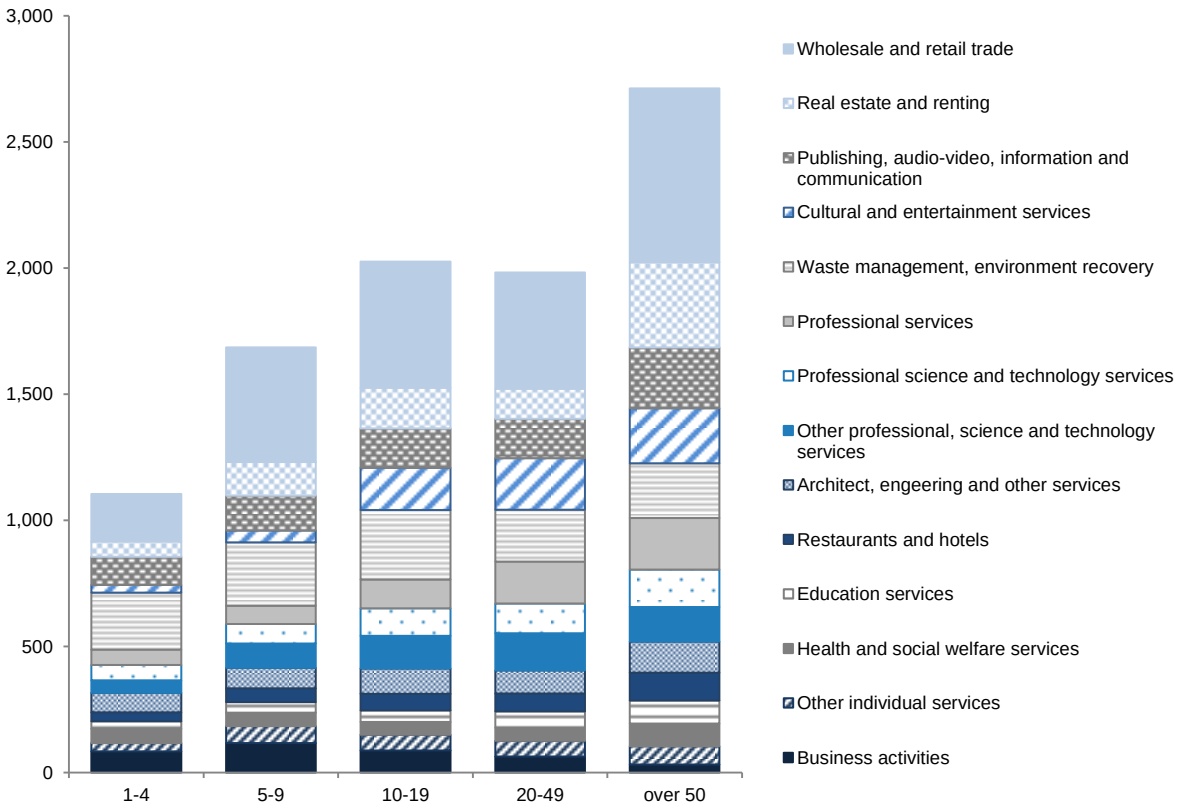
Figure 50. Services productivity by sub-sector (2011, million KRW per sector employee)



Source: KOSIS (2013b), Survey on services sector, professional science and technology service sector (9th revision), http://kosis.kr/eng/.

Figure 51. Services sub-sector productivity by firm size (2011, million KRW per sector employee)



Source: KOSIS (2013b), Survey on services sector, professional science and technology service sector (9th revision), http://kosis.kr/eng/.

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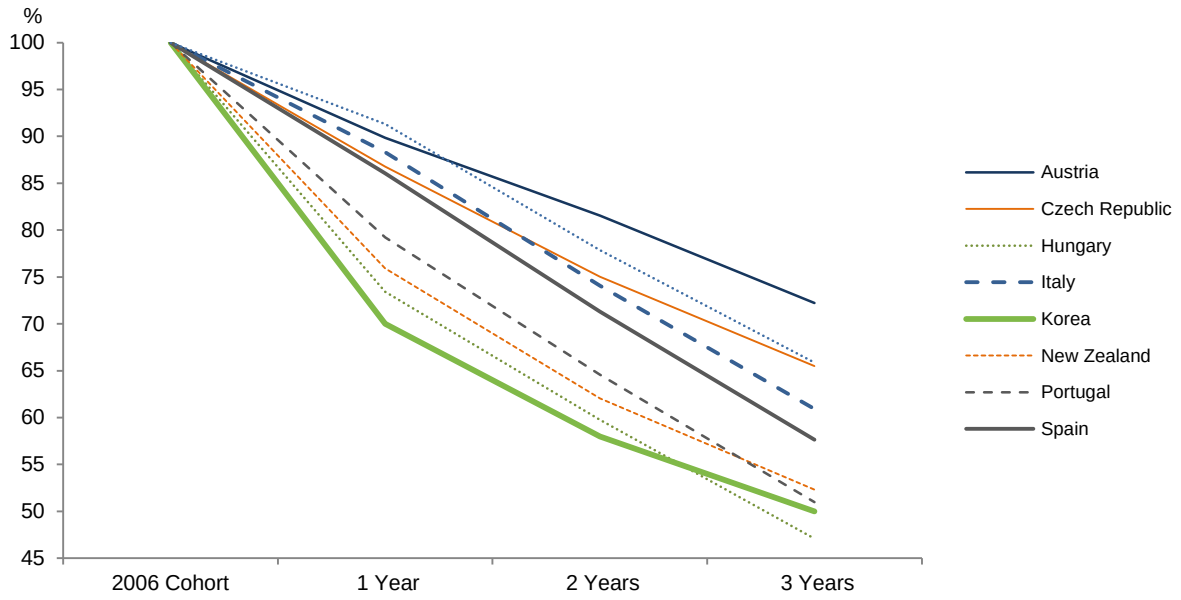
In the services sector, 98% of enterprises have fewer than 10 employees (OECD, 2013c: 44), however most support for SMEs has favoured manufacturing or high-tech. Support has been expanded by the Policy Direction for the Services Sector and the First Measure (4 July 2013),[20] into more services through revising SME classification standards and removing sectoral discrimination in tax exemptions (MiSIP, 2013). Moreover, service-focused polytechnics (e.g. health care sector) and Meister high-schools (e.g. software and ICT sectors) will be established to provide skilled workers to such sectors. This policy direction will promote service sector development for job creation and strengthen the middle-class.

Tackling obstacles to the growth of SME and start-ups

The number of those who are self-employed decreased in Korea between 2007 and 2012 (OECD, 2013c: 20)[21]. Korea had, on average, the highest employer enterprise birth rate (16%) in the total economy between 2005 and 2011. In 2008, they were the second highest after Mexico (21%). The rate has decreased by about 3% over the most recent period (OECD, 2013c: 45-50). In Korea the survival rate in manufacturing drops to 70% after one year and to 45% after four years, which is a comparatively dramatic drop (Figure 52). Notably, the service sector has higher birth and death rates, with a slightly lower survival rate than manufacturing.

Figure 52. Enterprise survival rates in manufacturing, %



Source: OECD (2013c) *Entrepreneurship at a Glance 2013*, Figure 3.21, http://dx.doi.org/10.1787/entrepreneur_aag-2013-en.

The government took steps to support existing SMEs through Measures for Win-Win Growth between Large Enterprises (LEs) and SMEs (September 29, 2010), which include protection measures for SME technology and damage mitigation from technology appropriation and takeover. SME-Only Area Policies select business areas that guarantee technological efficiencies, economies of scale and high job creation when run by SMEs. Evaluations in 2012 and 2013 (for the previous year) based on a win-win growth index reported that technical assistance and education and training assistance is adequate, but technology protection and human resource assistance is poor. The index for the past decade shows the disparity between SMEs and LEs (Figure 53), and the index in 2012 and 2013, which evaluates infrastructure, commitment, observance and assistance for win-win growth, shows that both seem to have improved. However, there is still room for improvement in achieving the policy goal of win-win growth

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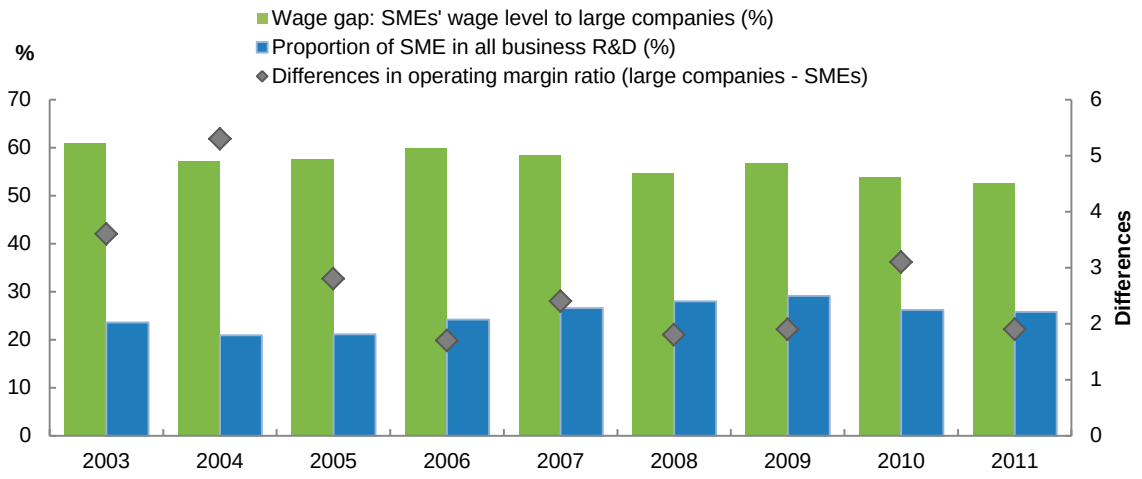
between SMEs and LEs, as indicators do not show the synergy of their collaboration but rather each other's respective and relative growth rates and financial efforts.

Figure 53. Difference between large enterprises and SMEs



Source: MoTIE (2013), Ministry of Trade, Industry & Energy Website, http://english.motie.go.kr/.

Despite revision in 2012 and 2013 by the National Commission for Corporate Partnership, the current evaluation criteria for win-win growth indicators do not reflect the particularity of business, and the scope of win-win growth still needs to actively encompass non-manufacturing businesses and secondary and tertiary allies. Evaluation criteria and methods also need to be revised regularly by actively collecting and monitoring stakeholder opinions and market information. These evaluation criteria can be used as a means of providing incentives and distributing best practices. The government could provide more guidelines to promote win-win collaboration and growth through better communication and exchange. Improvement efforts focus on increasing levels of SME protection and assistance, rather than empowering them to take an active role in strengthening their competencies. This is partly due to the low survival rates of SMEs, low added value productivity (30% of large enterprises), and harsh business environment, for example, 47% of enterprises reported violations of SME laws (Park, Seo, and Kim, 2012).

Although there is little research on win-win collaboration and growth in terms of skills, there is some evidence showing that SME and LE collaboration does contribute to win-win growth and is inevitable in the current environment of Korea where competition is within whole networks or clusters of firms rather than between firms. SMEs can reduce their transaction costs when large firms provide education and training or research facilities and technical experts; and large firms can gain the effects of education and training in SMEs through work within the value added chain in both financial and non-financial aspects (Park, Seo, and Kim, 2012). Interviewed institutions and stakeholders acknowledged the importance of collaboration between SMEs and large firms given their close relationship in the value chain system.

Collaboration efforts will help attract skills to SMEs and resolve their skills shortages. SMEs express concerns related to skills leakages and high turnover rates: 97% of SMEs experienced difficulty in recruiting youth and 73% of SMEs tended to lower requirements for recruitment in 2011 (Park, Seo, and Kim 2012). Reportedly, the major problem in education and training for SMEs by large enterprises is a lack of time. Given Korea's long working hours, workers are not motivated to attend training. Moreover, skills shortages in SMEs discourage participation in education and training (Park, Seo, and Kim, 2012). Therefore, in addition to technical support and training provision, there should be more assistance for compensating opportunity costs and hours for training participation so that workers can increase their productivity through upskilling. For example, the Subsidy for Professional Workforce Utilization in SMEs

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and Subsidy for Paid Training Leave and Replacement Hiring in SMEs can help SMEs to tackle skills shortages (Challenge 2 and 3).

Measures to Develop a Venture-Startup Funding Ecosystem, explored in Box 24, could help encourage start-ups and venture companies to grow further without taking on extreme risks. However, it is too early to evaluate and analyse these measures. The key question is how to support and strengthen their capabilities to grow and build a private-led venture-start-up ecosystem.

Box 24. Spotlight on Korea: Measures to Develop a Venture-Startup Funding Ecosystem

The Ministry of Strategy and Finance announced Measures to Develop a Venture-Startup Funding Ecosystem (May 15, 2013) that aims to improve the circulation of venture investment capital. These measures include: changing financing methods from a loan-based to investment-based structure; incentives for re-investment (e.g. tax benefits for angel investors); investment priority for youth start-ups (e.g. junior enrichment fund in the range of KRW 100 billion in 2013, Kakao Youth Startup Fund worth KRW 30 billion); introducing a crowd funding system; creating the KRW 500 billion Future Creation Fund and the KRW 2 trillion Growth Ladder Fund with public-private investment as well as the Intellectual Property Protection Fund; and introducing guarantees. The measures also mention a joint start-up platform programme to support the start-up process at the incubation stage and recovery support funds to be utilised from the Growth Ladder Fund (KRW 100 billion in 2017).

Ministry of Strategy and Finance (2013), Ministry of Strategy and Finance Website, http://english.mosf.go.kr/.

7.2. Improving the quality of existing jobs and skills

A practical concern facing the 70% employment goal is that increasing the quantity of employment or employment rates may harm the quality of jobs if changes in the labour market that promote the creation of high-quality jobs aren't undertaken. Labour market arrangements, including employment protection and flexible employment, can either facilitate or hinder the effective use of skills, depending on how they are implemented. Different target groups, such as youth, women, older workers, displaced workers, career changers, permanent workers and non-regular workers, have different interests and needs in terms of employment arrangements.

Job security: Non-regular, displaced and emerging dependent workers

Non-regular workers accounted for 34% of wage earners in 2011 (OECD, 2013b) and decreased to 33% in 2013. These high levels of non-regular workers are related to relatively high turnover rates (hiring and separation rates) and low average length of job tenure (5.1 years in 2011, 5.3 in 2012, and 5.6 in 2013) (Ministry of Employment and Labour, 2013). Temporary employment, which accounts for the majority of non-regular workers (Table 1), accounted for 24% of all employees in 2011, which was the third highest in the OECD and double the OECD average (Figure 54). In 2014, it was estimated at 21.7% (Ministry of Employment and Labour, 2013).

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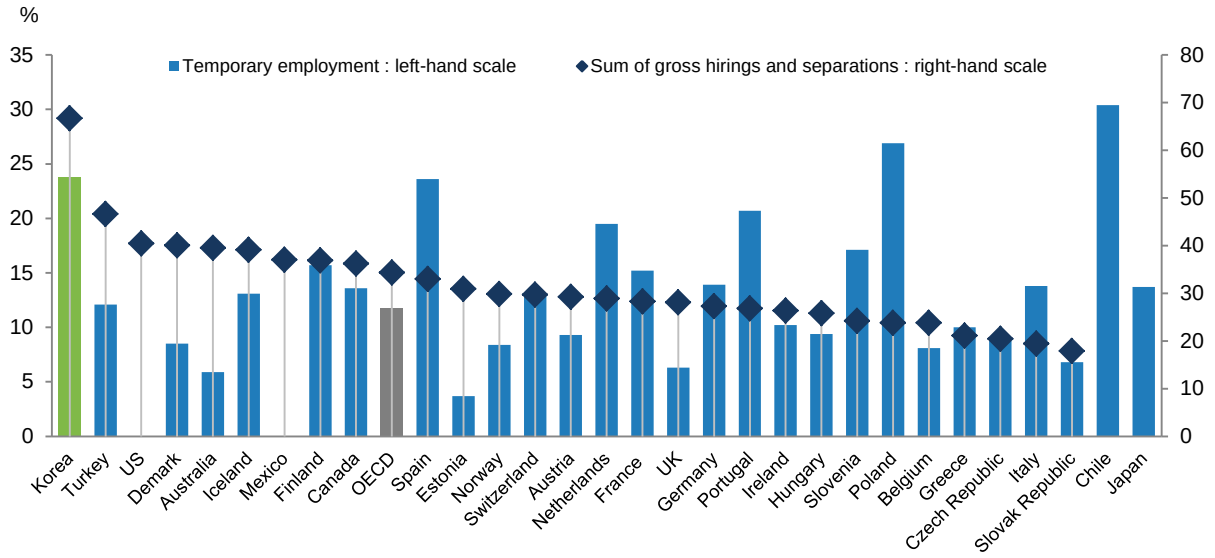
Figure 54. Temporary employment and sum of gross hirings and separations, 2012



Note: Temporary employment as a percentage of dependent employment; Sum of gross hirings and separations as a percentage of employment

Sources:

OECD (2015), *OECD Online Employment Database*, www.oecd.org/employment/database, (Accessed on 21 August 2015).

The practice of employing non-regular workers reflects business efforts to achieve employment flexibility and reduce wage costs. However, these workers often face difficulties in moving to regular jobs and making full use of the skills that they possess**.** As shown in Figure 55 among temporary workers in Korea, only 11% become permanent after one year, and 22% after three years. These levels are low compared to other OECD countries. According to a comparative analysis using the Korean Labour and Income Panel Study (KLIPS), the probability of transition into full-time permanent employment is much higher from unemployment than from temporary work, which is the opposite of other OECD countries (Förster, Chen and Llena-Nozal, 2012). The 2007 Labour Law prohibited "unreasonable discrimination", in terms of wages and working conditions between non-regular and regular workers who work in the same or similar jobs in the same firm, however, its effectiveness is in question and improvements are needed (Lee, 2012). This dual labour market has a huge impact on higher income inequality, low access to quality jobs, and low self-esteem and motivation. The costs of dualism and over-qualification or under-used skills are high.

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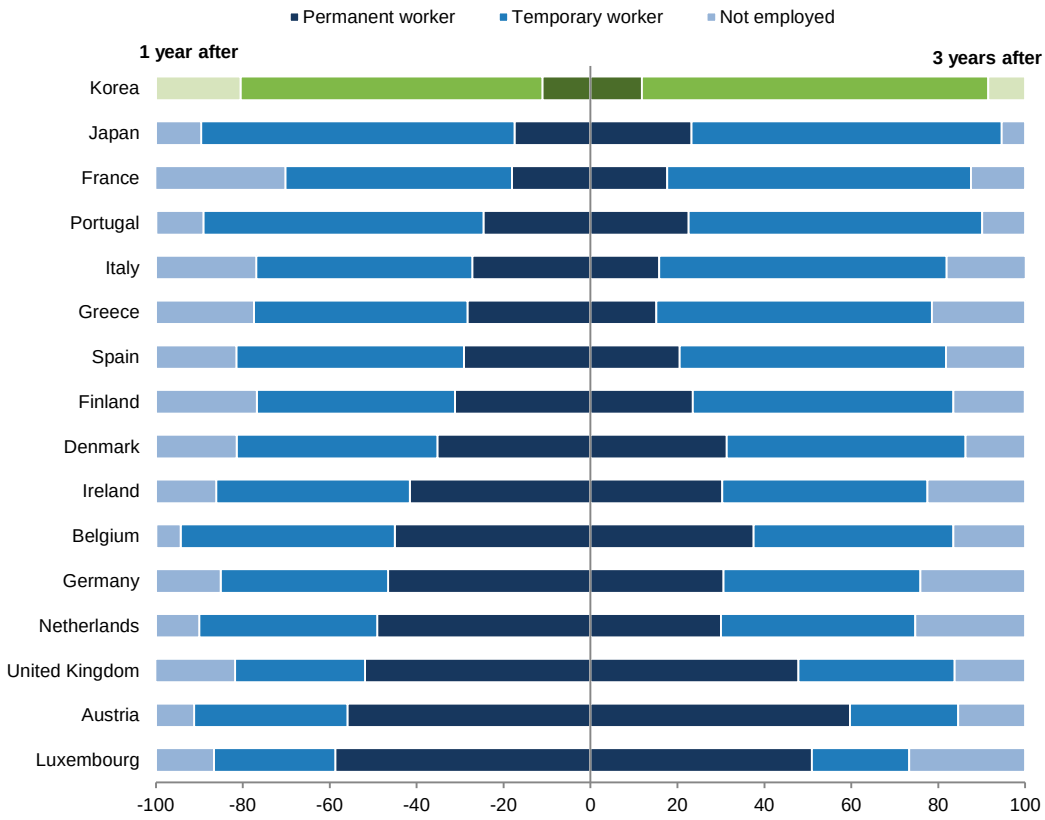
Figure 55. Transition probabilities from temporary to permanent employment



Source: OECD (2013b), *Strengthening Social Cohesion In Korea*, http://dx.doi.org/10.1787/9789264188945-en.

Non-regular workers earn about two-thirds as much as regular workers, although this varies based upon certain characteristics. They are also covered by social insurance and firm-based training at a lower rate than regular workers, and workers with tenure of less than one year are not entitled to a corporate pension. Older workers (60 years and older) account for 18% of non-regular workers, compared to 4% for regular workers. Groups with the highest incidence of non-regular workers include: workers with high-school qualification as their highest education (44%), workers in business and private/public services (48%), and SMEs (KLI, 2011; KOSIS, 2013c).

The large share of low-paid temporary workers (Figure 56) is a key factor in explaining why wage dispersion in Korea is one of the highest among OECD countries, and why the level of overall earnings dispersion is the third highest. More than a quarter of full-time workers in 2012 earned less than two-thirds of the median wage, the second-highest share among OECD countries (OECD, 2014a). This may also be due to decreasing wages in the services sector when compared to manufacturing, and a high share of temporary employment.

However, results from the *Survey of Adult Skills* (OECD, 2013a) indicate that proficiency levels in Korea are not very different between temporary and permanent workers, and access to training does not vary significantly between types of jobs. Nevertheless, there are large wage and working condition gaps between temporary and permanent workers. One reason for the wage gap may be that temporary workers use skills less at work than permanent workers, although the difference is only significant among 16-24 year-olds (Figure 57), which can be explained by their level of experience.

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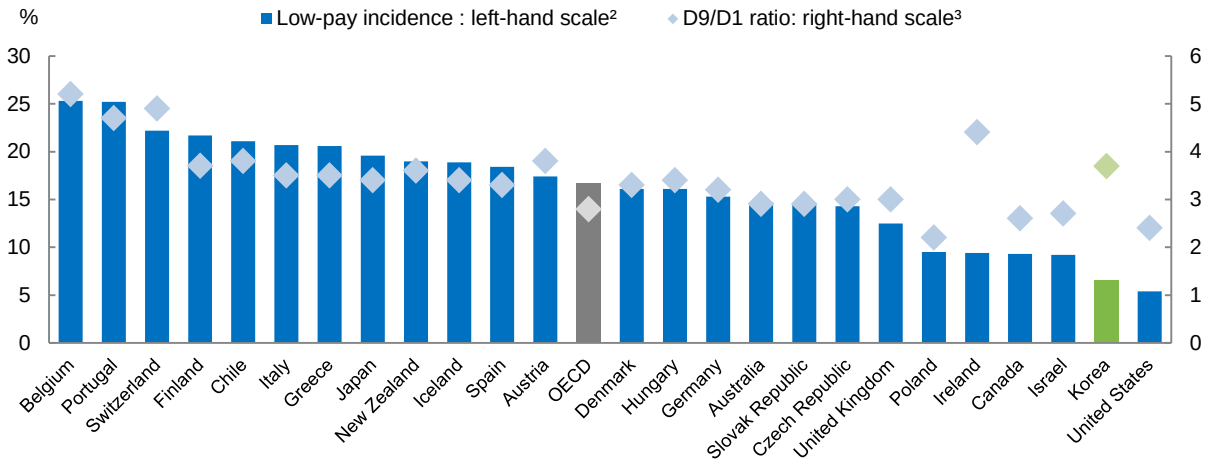
Figure 56. The incidence of low-paid work[a] and earnings dispersion[b]: in 2012 or latest year available[c]

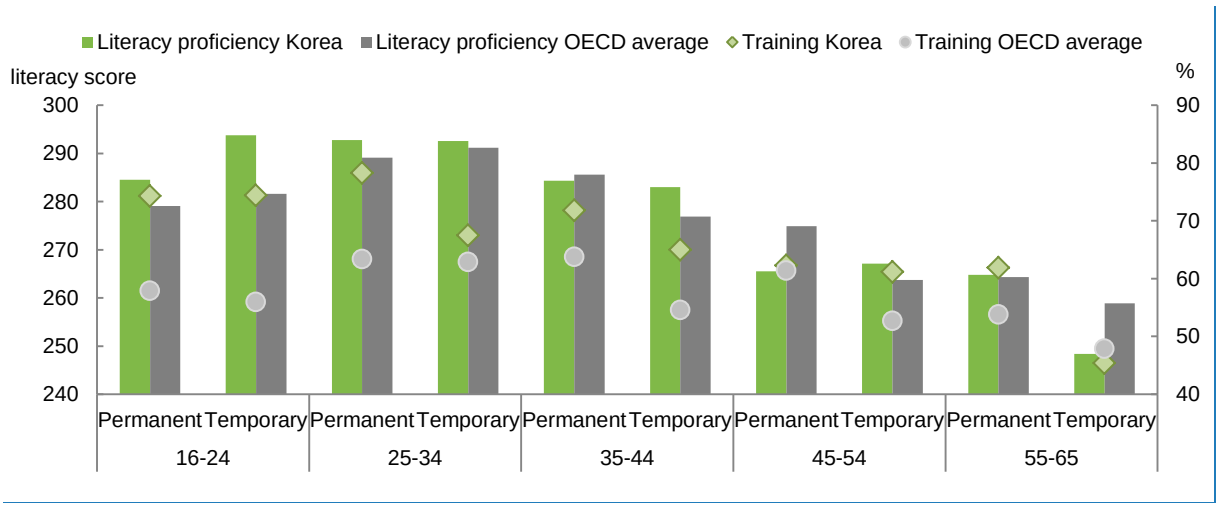


Notes:

a) The share of full-time workers earning less than two-thirds of median earnings, including bonuses.
b) The ratio of the 9th to the 1st decile for full-time workers.
c) Includes only those countries for which both indicators are available. Unweighted average of the countries shown above.

Source: OECD (2013g), *OECD Earnings Distribution Database*, http://www.oecd.org/social/income-distribution-database.htm.

Figure 57. Mean literacy proficiency level and proportion of people in training by type of contract and age group, 2012



Note: Training corresponds to individuals reporting to have had one or more learning activities during the last 12 months. As a result, the data do not provide information about the quality of training.

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en.

There is a large skills mismatch among young people (16-24 year-olds) (Figure 58), particularly for temporary workers. This mismatch generally falls below the OECD average for workers over 25-years-old.

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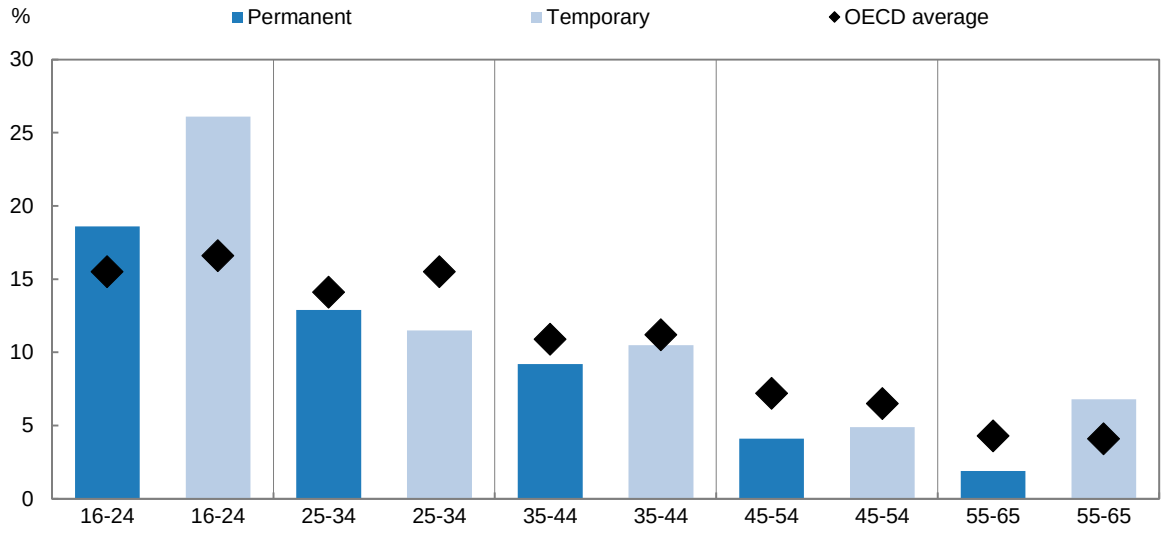
Figure 58. Proportion of people over-skilled by type of contract and age group



Note: For details, see Chapter 4 in the PIAAC Report and specifically, Table 4.3 "Glossary of key terms".

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264204256-en.

In 2012, less than half of non-regular worker were covered by the National Pension System, the National Health Insurance and the Employment Insurance System. Korea needs to increase social insurance coverage for non-regular workers by reinforcing labour inspection activities, including through improved co-operation between labour, social security and tax inspectorates. Korea also needs to improve the access of non-regular workers to active labour market programmes and increase equity-enhancing employment.

Employment protection for permanent workers should be relaxed (OECD, 2013b). Korea needs to closely monitor whether financial incentives are sufficient to induce employers to provide training for non-regular workers. In addition, efficient career guidance services and higher-quality information on training courses should be provided, such as through training subsidies directed at individuals rather than on their employers (i.e. Individual Training Account, Challenge 2).

The issue of displaced workers is particularly relevant to older workers who have skills that become obsolete due to rapidly changing industrial skills needs, market conditions and the subsequent changes in occupational shares (thus skills requirements). Analytical results on displaced workers have highlighted the importance of upskilling or re-skilling. In Korea displaced workers often move to occupations with different skills requirements, and if changes in skill sets are significant, the displacement may result in post-displacement wage losses (OECD, 2013d: 218).

In order to alleviate sizeable skill losses following displacement, assistance is necessary for re-employing into those occupations that can use the existing skills and provide skills development opportunities for upskilling. A slightly higher incidence of "professional downgrading" following displacement (decrease in required years of education of at least one year) was observed for displaced workers, and the magnitude in both downgrading and upgrading was comparatively higher in Korea than other countries (Figure 59). "Displaced workers who suffer professional downgrading experience significant losses in math, verbal, cognitive and interpersonal skills, modest gains in the use of craft skills, and significant increases in the use of physical skills", with country variations (OECD, 2013d: 221).

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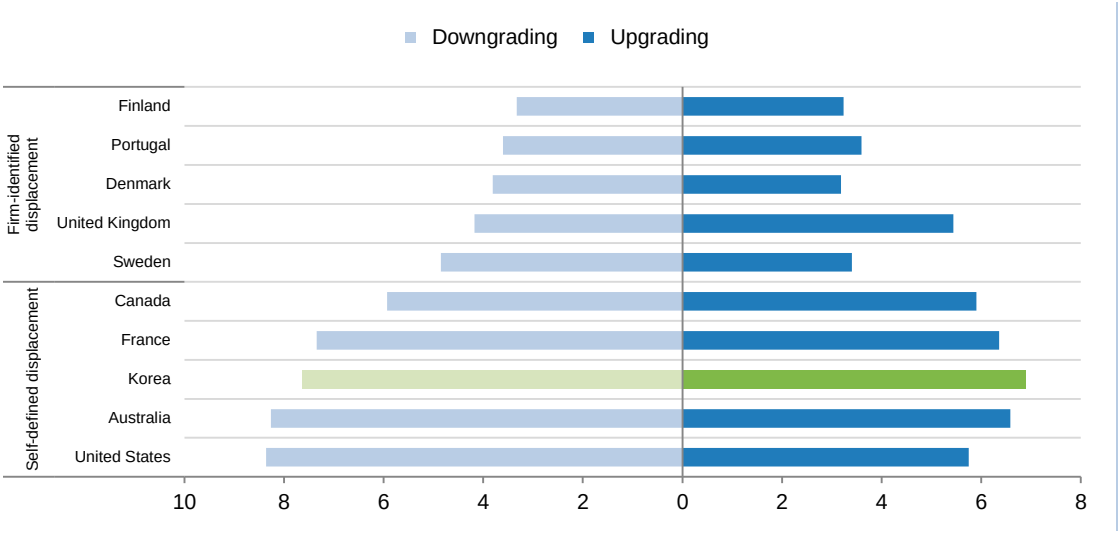
Figure 59. Incidence of professional upgrading and downgrading following displacement, 2000-10

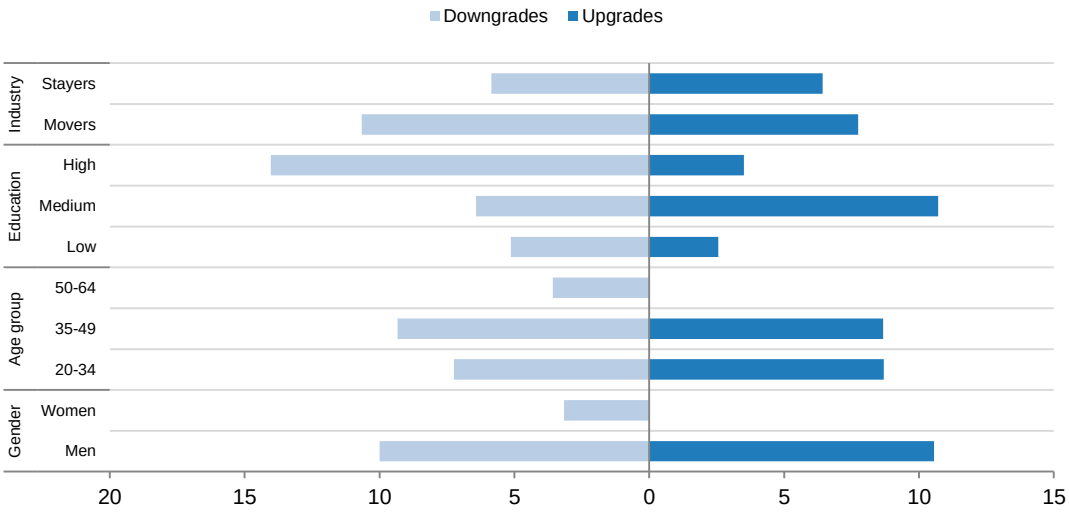


Note: Professional downgrading is defined as a skill switch (based on switch measure 2, see Box 4.3 in the Employment Outlook 2013) accompanied by a fall in required years of education of at least one year; professional upgrading is defined as a skill switch accompanied by an increase in required years of education of at least one year.

Source: OECD (2013d), *OECD Employment Outlook 2013*, Figure 4.14, http://dx.doi.org/10.1787/empl_outlook-2013-en.

In Korea, men are markedly more likely to experience changes in skills requirements than women. Those who changed industry or attained a higher education level experience a higher level of downgrade (Figure 60). In almost all cases, the incidence of non-standard types of work also increases after displacement. Self-employment is also relatively common after displacement, accounting for around 5-10% of re-employed workers across the OECD. These results suggest that in addition to providing lower earnings, post-displacement jobs tend to be "worse" than pre-displacement jobs, even if the job characteristics considered do not account for all aspects of job quality.

Figure 60. Skill switches by nature of the switch and socio-demographic characteristics, 2000-10



Source: OECD (2013d), *OECD Employment Outlook 2013*, Figure 4.16, http://dx.doi.org/10.1787/empl_outlook-2013-en.

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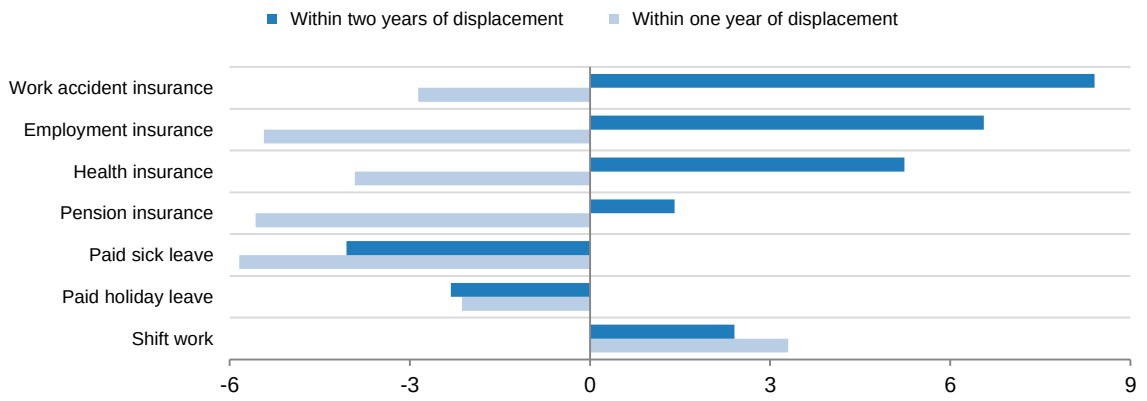
Displacement may have a negative impact on working arrangements, particularly as job benefits tend to accumulate with tenure. In Korea, the incidence of entitlement to paid holiday and sick leave is lower after displacement. Shift work is also more common after displacement. Workers in Korea have lower coverage by the major types of social insurance in the year after displacement than before, although the effect appears to be relatively short-lived. (Figure 61, OECD, 2013d: 213).

Figure 61. Changes in the incidence of selected working arrangements and job benefits after displacement



Note: Post-displacement incidence less pre-displacement incidence for displaced workers who are re-employed within one or two years (percentage points).

Source: OECD (2013d), *OECD Employment Outlook 2013*, Box 4.2, http://dx.doi.org/10.1787/empl_outlook-2013-en.

Job displacement can lead to wage losses as a result of the loss of industry-specific or occupation-specific skills, or skills depreciation during the unemployment or inactivity spells that often follow displacement. When displacements happen due to economic recessions that accompany industrial or occupational restructuring, there may be difficulty in finding a job that optimally uses existing skills. Such research is still very limited and more evidence is needed.

A 2010 survey by the Ministry of Employment and Labour suggests that all large Korean employers in the automobile and shipbuilding industries made use of in-house subcontracted workers, and the share of large employers using this form of employment was also high elsewhere in manufacturing, including steel and machinery (87%), chemical (69%) and electricity/electronic (60%) industries. The number of in-house subcontracted workers exceeded the number of workers directly employed by the primary-contracting companies in shipbuilding (OECD, 2013b). It is a complex task to detect and prevent the illicit use of in-house subcontracting, or to understand the risk of dismissal without protection for subcontracted workers. Nevertheless, the emerging issue of economically dependent self-employed workers is important to address. Such employment exists to avoid social security contributions and reduce labour costs. Better legal labour protection and improved working conditions and upskilling opportunities are necessary to address this challenge.

Improving labour market arrangements and workplace practices

Low productivity, long working hours, seniority and male-based workplaces and a dual labour market are some of the labour market practices that prevent the improvement of job quality and social cohesion in Korea. Korea's long working hours (2 163 hours, over 20% above the average, second only to Mexico in 2012 among OECD countries) have led to low labour productivity, with Korea placed as one of the lowest among OECD countries (Figure 62). Despite efforts to reduce long working hours, including a "father's month" off from work and parental leave with reduced pay, violations are still common. One

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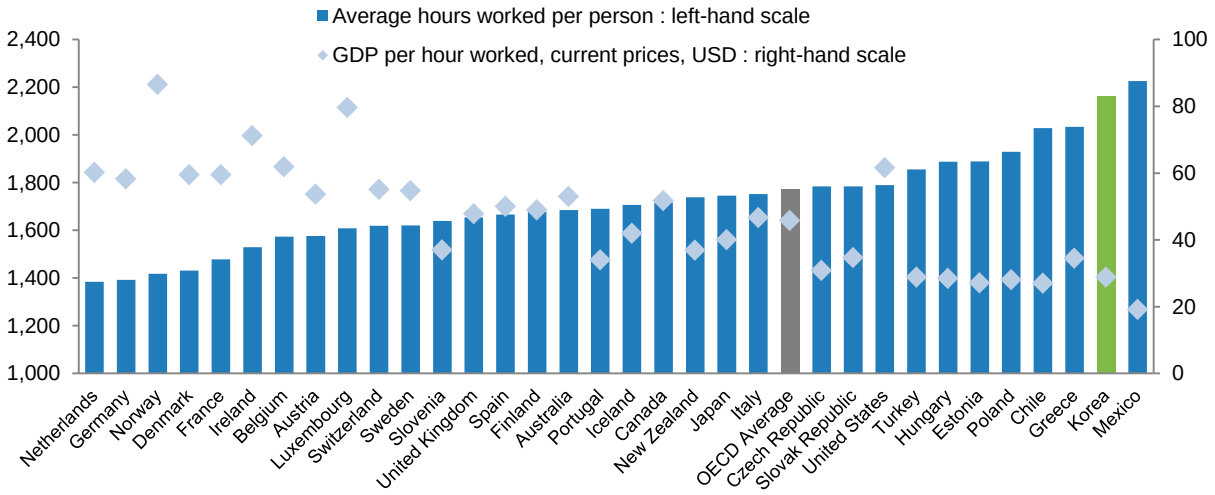
recent government inspection found that almost 87% of manufacturing workplaces broke the limit on overtime, and only 1 790 men took childcare leave (compared to 62 000 women). Changing this culture is difficult, given the worry of workers that "their absence will damage their career and their relationships with colleagues" (Economist, 2013).

Figure 62. Koreans work longer hours but with lower productivity than most OECD countries, 2012



Source: OECD (2013h), Productivity Statistics, http://www.oecd.org/std/productivity-stats/.

As explored in Challenge 4, the burden of child rearing interrupts a woman's professional life. Long working hours increase this burden, despite the promises of public childcare for 30% of children by 2017, childcare allowances or home care allowances.

7.3. Creating jobs relevant to an ageing population

Currently, one person aged over 65 years is supported in the economy by 17 workers aged 20-64, yet this will fall drastically to only 4.4 workers by 2020, and 1.6 workers by 2050 (Figure 63). Rapid population ageing combined with the increasing level of skills among Koreans will require appropriate employment opportunities. In order to attract and effectively use highly skilled young workers, employers must provide higher pay, better working conditions, and improved career prospects through innovation.

Higher-skilled jobs for high-skilled workers

The *Survey of Adult Skills* suggests that an economy with more people in high-skilled jobs generally has a more highly skilled workforce, which is reflected in a greater proficiency in literacy (OECD, 2013a). Korea has a low percentage of workers in professional jobs, yet its skills level is comparatively high. Compared to Canada, for example, Korea has a similar level of skills, but a far lower share of workers in professional jobs (Figure 64). This means that there is room for upskilling through creating high-skilled jobs and ensuring that skills are used in those jobs.

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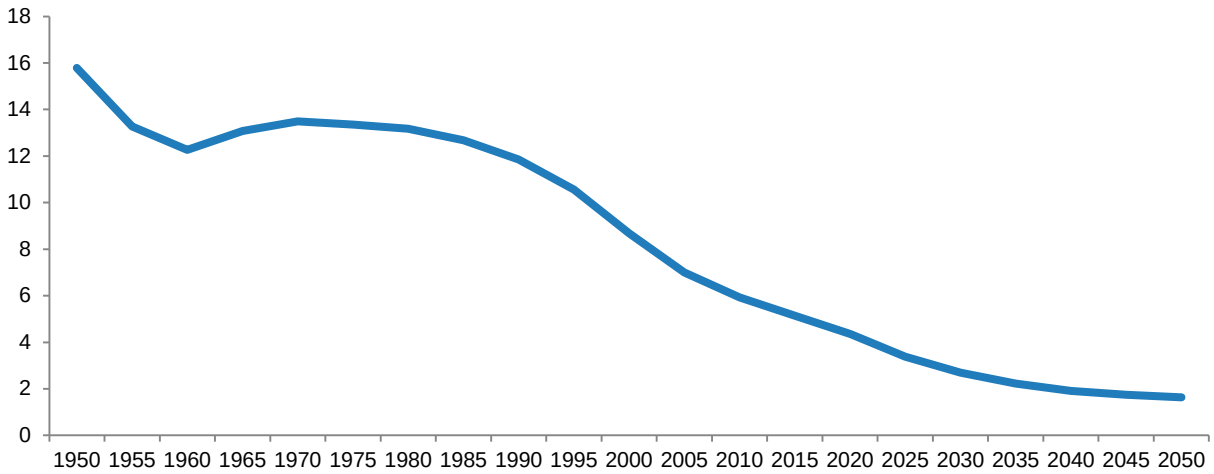
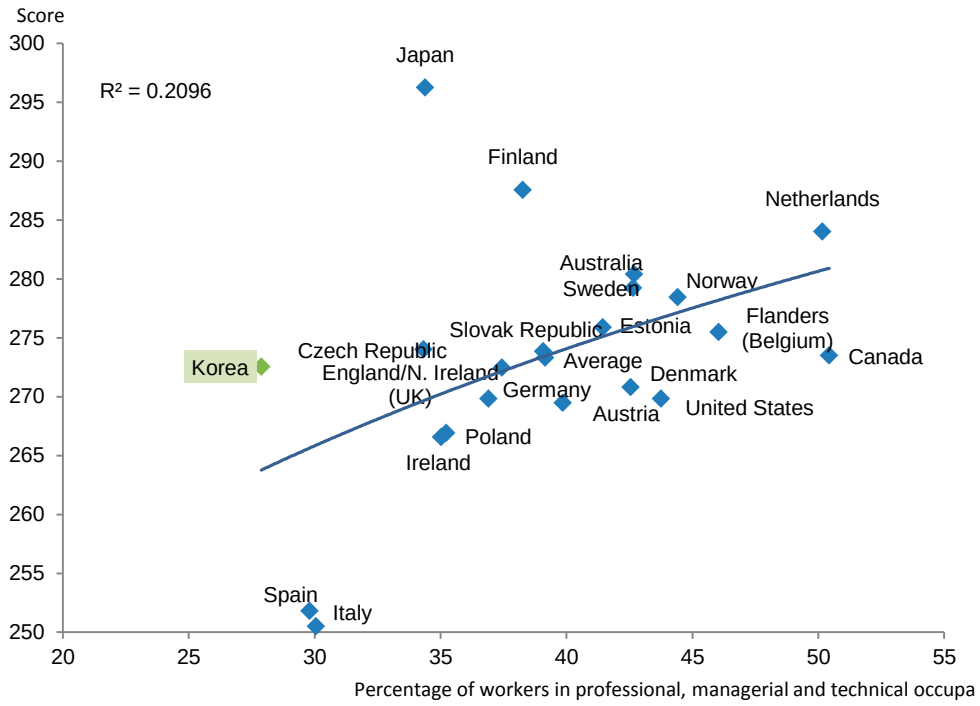
Figure 63. The number of workers available to support one elderly person in Korea is projected to drop steeply



Note: Old-age dependency ratio: ratio of population aged 65+ per 100 population 20-64
Source UN (2013), World Population Prospects: The 2012 Revision, DVD Edition.

Figure 64. Occupational structure at the country level, by average literacy proficiency, 2012



Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Figure 5.13 (L), http://dx.doi.org/10.1787/9789264204256-en.

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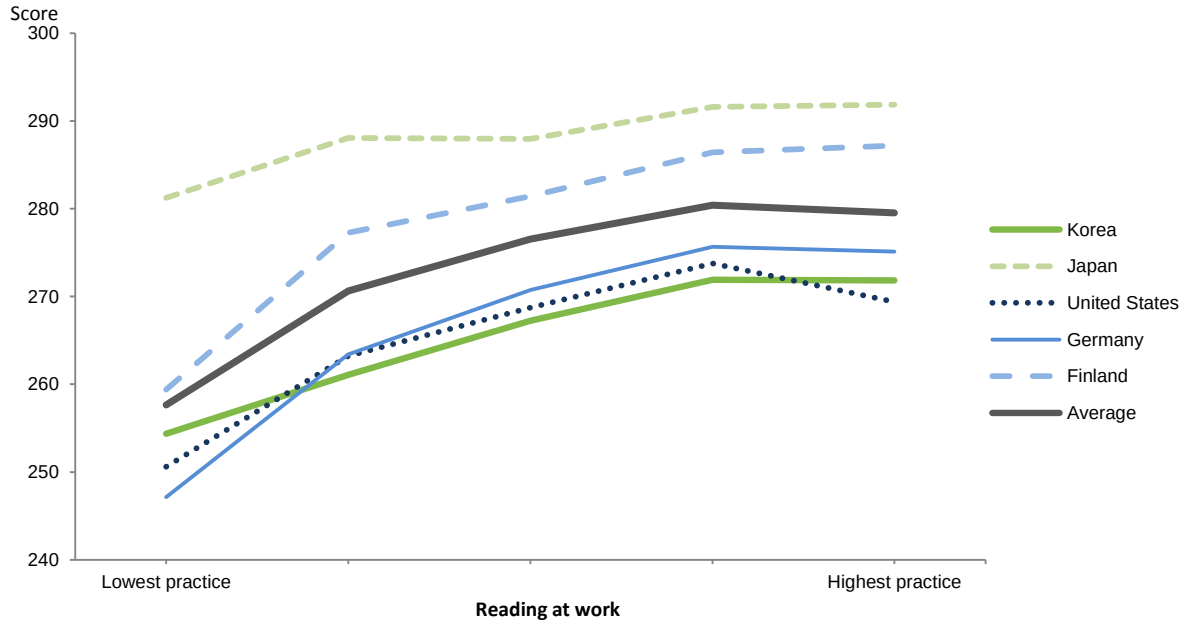
The *Survey of Adult Skills* shows a positive relationship between the extent of reading at work and average literacy proficiency in general, meaning that higher skilled adults practice skills more at work. Adults who engage more in reading at work tend to score at higher levels of literacy proficiency, although it is not possible to determine whether practices lead to the acquisition of skills or whether adults engage in these tasks because they already have greater proficiency. In Korea the literacy proficiency level of adults with higher engagement in reading at work is comparatively low (Figure 65). This trend is about the same in numeracy and problem solving.

Figure 65. Reading at work and literacy proficiency (30 to 65 year-olds), 2012



Note: Results are adjusted for educational attainment and immigrant and language background. The reference group for which the curves are drawn is adults who have attained upper secondary education, are native-born and whose first or second language learned as a child is the same as the language of the assessment. The curves reflect mean scores associated with each quintile of a reading at work index. No practice of reading is combined with the lowest quintile of practice, which generally reflects reading at work rarely or less than once a month, whereas highest practice reflects reading multiple types of texts daily or weekly.

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Figure 5.10, http://dx.doi.org/10.1787/9789264204256-en.

If few high-skilled jobs are available, people are less incentivised to build their skills, and even if incentivised, the competition for a limited number of high-skilled jobs will become more intense. Korea will need to focus on expanding the availability of high skilled jobs. As explored in Challenge 1, the effect of years of education and skills (literacy proficiency) on the likelihood of being employed is the lowest in Korea, although the effect on wages is high for years of education and average for skills (Figure 66).

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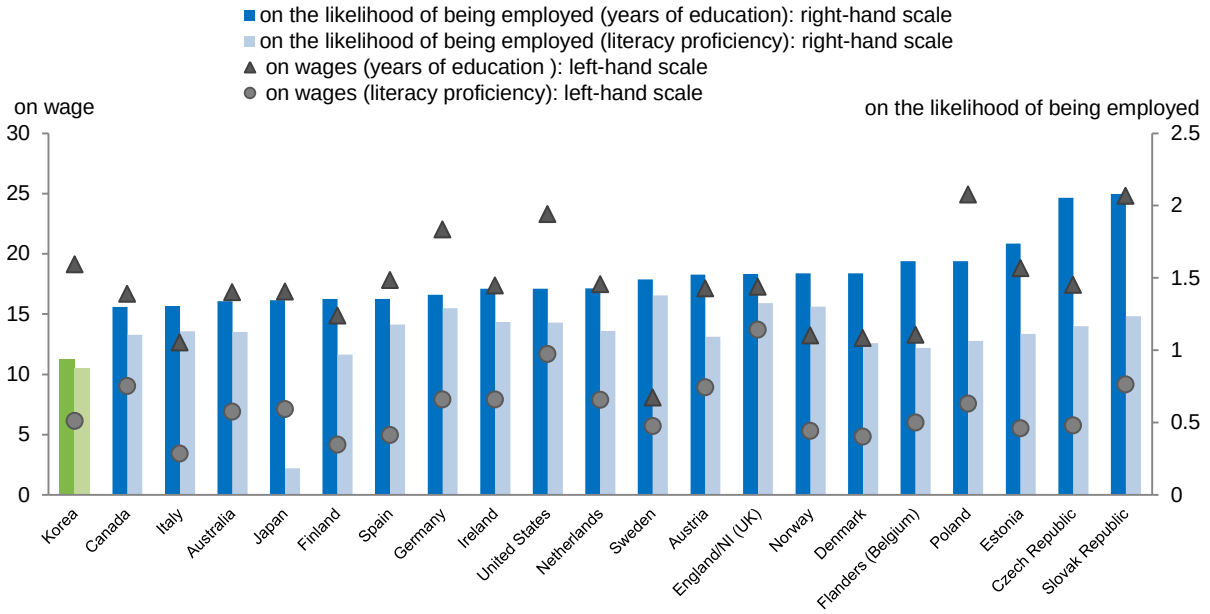
Figure 66. Effect of education and literacy proficiency on wages and the likelihood of being employed



Note: See Table A6.6 (L) and Table A6.7 (L) in OECD (2013a) for standard errors or statistical significance.
Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

In order to create high-skilled jobs, the Ministry of Trade, Industry and Energy (MoTIE) is running around 30 industry projects to attract high-skilled people who are involuntarily inactive or unemployed. MoTIE is trying to create quality part-time jobs and new sources of jobs that will survive long term. The tertiary education sector could also make a larger contribution to innovation and high-skilled job creation, as universities in Korea accounted for only 1% of research and development funding and performed 11% of research and development in 2008, the second lowest share among OECD countries, despite the fact that they account for three-quarters of PhDs (OECD, 2013b).

Part-time jobs in the context of the dual labour market

Part-time work, alongside job search and participation in active labour market programmes, is increasingly encouraged as part of a strategy to "activate" jobseekers back into work. Part-time work is becoming more important in OECD countries, particularly as some groups with traditionally low labour force participation – such as mothers, youth and older workers – take up work in greater numbers. Overall, part-time work promotes higher labour force participation and can be a viable alternative to inactivity for many, if appropriate incentives are in place. In order to maximise the overall benefits of part-time jobs, it is important to remove barriers to moving into full-time work and also consider long-term impacts for individuals and labour supply (OECD, 2010a).

Despite the utility and benefits of part-time jobs for boosting female employment, stakeholders have not yet fully agreed upon how to effectively implement such policies. In Korea, part time work has generally been classified as non-regular employment, which means lower hourly wages that makes it less attractive, particularly for highly-educated women. Part-time female employment in Korea is relatively low: 19% of Korean women worked part-time compared to the OECD average of 26% (OECD, 2013b). Firms believe it is more efficient to hire full-time, regular workers than to rely on part-time workers. It is therefore essential to create "high-quality" part-time employment that is classified as regular employment (OECD, 2014c).

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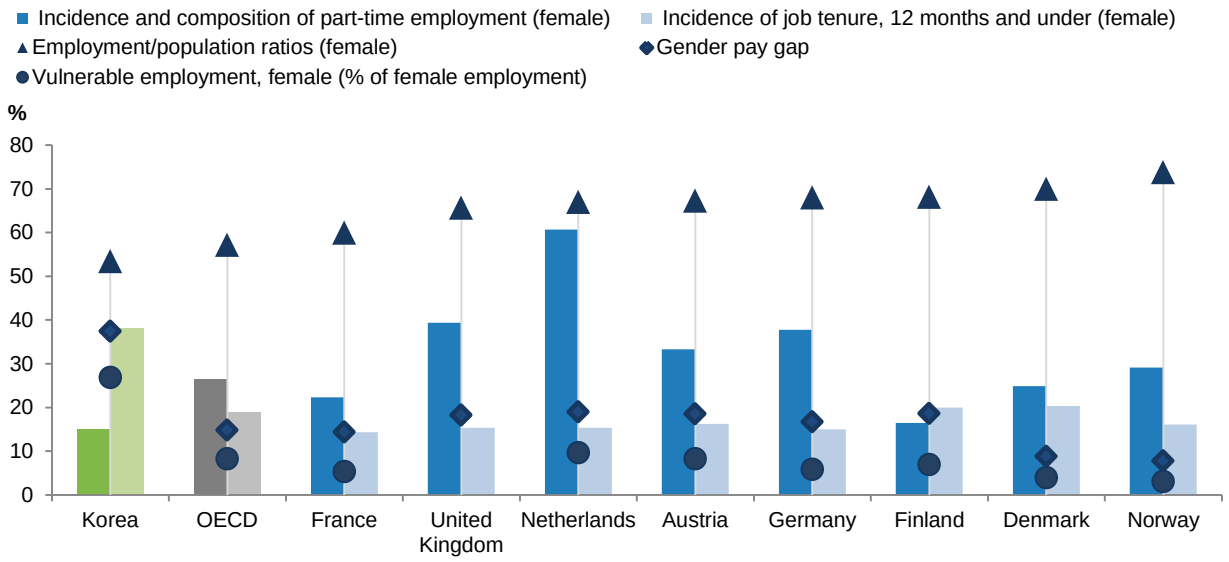
There are concerns that the creation of more part-time jobs may result in more workers in non-regular jobs, or jobs that may solidify traditional gender roles and aggravate labour market dualism: this may be the case unless the creation of more part-time jobs does more than simply aim to increase female employment rates (Korean Women Workers Association during bilateral interview with the OECD). The pay penalty associated with part-time employment in Korea was the second largest out of 28 OECD countries. Current workers do not want to see any negative impact of part-time job creation on their wages, despite welcoming reduced working hours. Firms worry that part-time employment would eventually cost more than full-time employment (Korea Employer's Federation during bilateral interview with the OECD).

In the Netherlands and the United Kingdom where there are high levels of female employment (70.6% compared to 60.4% among OECD countries on average), particularly in part-time jobs, working conditions improved at the same time as job creation. The gender pay gap is less than 20% and is rapidly decreasing in both countries (Figure 67). In Korea, there are not enough incentives for female workers to return to the labour market, even part-time, compared to other choices. Given that part-time jobs have generally lower hourly earnings, fewer training and promotion opportunities, and less job security (Thévenon, 2013; OECD, 2010a), special attention needs to be paid to job quality, including pay, flexible working hours, leave, skills and career development opportunities, childcare and other necessary support. Without these efforts, working part-time could reduce long-term career prospects, affect pension benefits of retirees and increase the risk of poverty in old age (OECD, 2010a; 2012a).

Figure 67. Korea needs to improve female employment and other related measures together



Note: All data from 2012 except for gender pay gap from 2011.

Sources:

OECD (2015), *OECD Online Employment Database*, www.oecd.org/employment/database, OECD, Paris, (Accessed on 21 August 2015).

OECD (2013d), *OECD Employment Outlook 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/empl_outlook-2013-en.

OECD (2012a), *Closing the Gender Gap: Act Now*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264179370-en.

World Bank (2013), World Bank Gender Statistics, http://data.worldbank.org/data-catalog/gender-statistics.

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Further discussions are needed to reach consensus on the issue of part-time jobs, with recognition that part-time job creation is a means but not the end to boosting female employment. Through efforts to create more quality part-time jobs, the balance between skills, wages, and working conditions across all types of work needs to be seriously considered. Understanding the reasons behind women involuntarily working part-time, such as having children and domestic responsibilities without much care support from other family members or society, also needs to be clearly addressed. There have been heated discussions about the 2013 Labour Standards Act's plans to gradually reduce maximum weekly working hours from 68 to 52 hours (40 hours per week plus 12 hours of overtime) from 2016. The resistance from business, particularly SMEs, needs to be carefully managed. The discussions of the Economic and Social Development Commission, taking place since 2012, needs to be broadened for wider impact and engagement with social partners.

Creating good part-time jobs is more challenging than creating good full-time jobs as they are often associated with low-skilled workers. As well as lower earnings, re-employed displaced workers are more likely to work in part-time or non-permanent jobs than prior to displacement, and also work shorter hours on average (OECD, 2013d; 2010a). Part-time job creation in Korea could provide more benefits when co-ordinated, combined or supplemented by other labour activation and use measures, depending on the client group. Also, it would be much easier to start creating part-time jobs in newly growing service sectors than in established sectors. Quality part-time job creation is not a simple task as it requires tackling existing social legacies and considering the social impact across family and the labour market.

Box 25. Spotlight on Korea: Part-time wages

On average, part-time workers earn much lower monthly wages than their standard worker counterparts in Korea, with median wages 33% of standard worker wages. However, because standard workers spend long hours at work (52 hours per week on average), the wage gap is reduced sharply when comparing hourly wages. Median hourly wages for part-timers are 87% of standard worker wages. Korean part-time workers differ greatly in their characteristics from their full-time counterparts: they are three times more likely to be low-skilled and twice as likely to be older (26% belong to the 50-64 age group). They are also more predominant in certain industries: construction, education, community and social services, and hotel and retail.

Once the different individual and work characteristics are controlled for, part-time workers in Korea receive a relatively high premium in terms of their hourly wage. Men appear to earn on average 27% higher wages (18% for women) than full-time permanent workers. The wage premium is sensitive to hours worked and appears to be driven in part by some part-timers working relatively low hours (10 hours per week on average). There is a correlation between low working hours for part-timers and high hourly wages as those on the top 10th percentile appear to work half the amount of hours as other part-timers. In addition, the top 10th percentile for part-timers is particularly concentrated in high-skilled occupations and in the education sector. Once such cases and full-timers working an excessive number of hours are excluded, the wage premium is halved: 18% for men and 6% for women. Reporting problems in the number of hours as well as the treatment of overtime and its compensation may also partly explain the remaining wage premium.

Source: Förster, Chen, and Llena-Nozal (2012), *Jobs, Wages and Inequality.*

Box 26. Activation requirements and supplementary measures related to part-time work

In **Australia** and the **United Kingdom**, parents with childcare responsibilities can claim full unemployment benefits while being available only for part-time work. In Australia, when working part-time the benefit claim can be maintained at a reduced rate (depending on earnings) without further activity requirements. By contrast, in the United Kingdom for work of less than 16 hours per week, job-search and related requirements are maintained, and for work of 16 or more hours, an in-work tax credit, without job-search requirements, is often payable instead, although this will change with the introduction of the Universal Credit.

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In **Switzerland**, when workers with full requirements take up part-time work, and continue to receive unemployment benefits under the "intermittent pay" scheme, the requirements are relaxed. Although these workers must continue their search for better-paid work, they have Public Employment Service (PES) counselling interviews every two months rather than monthly, and they are allowed up to two months to give notice to their part-time employer, whereas wholly unemployed workers must be available to start a job immediately.

In the **Netherlands**, part-time employment has been growing fast due to support from collective actors and attention paid to the quality of part-time work. Consequently, working part-time is often seen as a preferred choice for combining work and caring activities. Success factors include: equal treatment laws, the penetration of part-time jobs into higher occupational levels, and regulations facilitating the reversibility between full-time and part-time work. In the Netherlands, women engage in part-time work because of caring reasons and firms are responsive to workers' requests for reduced working hours. Higher-skilled women are more likely to be in a part-time job voluntarily (Horemans, 2012). The number of women in management functions is limited: only 28% of staff with a supervisory role is female, and less than 5% of women are board-members of listed companies. Moreover, shorter careers, fewer working hours and lower earnings also contribute to relatively low pensions for women. The average pension payment to women is about half of what is paid to men. This "pension gap" is among the largest in the OECD.

Many countries have introduced regulations designed to improve the quality of part-time jobs. Equal treatment laws, which require part-time workers to receive the same pay and conditions as comparable full-time workers, are designed to improve job quality. However, there has been little evaluation of the success of these laws in achieving their aims. Evaluating the impact of equal treatment laws on the quality of part-time jobs is complicated by policy endogeneity: countries where part-time work is of particularly bad quality may be more likely to enact equal treatment laws to improve the quality. Alternatively, in countries where part-time workers are paid less and have fewer benefits than full-time workers, employers may lobby governments to prevent the introduction of relevant laws. However, the European Directive on Part-time Work in 1997 provides an exogenous policy change in those countries required to implement the directive.

Sources:

OECD (2013d), *OECD Employment Outlook 2013*, http://dx.doi.org/10.1787/empl_outlook-2013-en.

Horemans (2012), *Understanding Women's Reasons for Working Part-time: A Multi-country Study*.

OECD (2012a), *Closing the Gender Gap: Act Now*, http://dx.doi.org/10.1787/9789264179370-en.

OECD (2010b), *OECD Employment Outlook 2010: Moving beyond the Jobs Crisis*, http://dx.doi.org/10.1787/empl_outlook-2010-en.

Summary and policy implications

Workers in Korea could make better use of their skills. Among OECD countries, they have one of the lowest levels of productivity and second longest working hours. Productivity levels are particularly low in SMEs and in the service sector, which employ most of the workers.

Non-regular workers working under more precarious working conditions are not fully using their skills. Due to high turnover rates and a low average length of job tenure, there are many non-regular workers with temporary contracts. Non-regular workers are employed with low job security and low wages, which contribute to low levels of motivation.

Greater efforts are needed to improve current workplaces or create new jobs that require a higher use of skills. Making effective and intensive use of existing skills in the workplace is critical for the individual to maintain and further develop those skills, as well as for the employer to increase productivity and overall competitiveness.

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CHALLENGE 8. REDUCING SKILLS MISMATCHES BY MAKING SKILLS VISIBLE AND USING SKILLS EFFECTIVELY

Skills are only valuable if they are visible and can be appropriately matched to job requirements. Unfortunately in Korea, having a higher level of skill or qualification does not necessarily lead to getting a job. Results from the *Survey of Adult Skills* (OECD, 2013a) show a higher level of literacy among the unemployed than the employed in Korea. This is compounded by education and qualification systems that do not adequately advertise what skills come with what qualifications, leading to challenges in putting those skills to effective use.

Types of skills mismatches include: 1) short term mismatches derived from job search processes that take too long and discourage jobseekers; 2) long term mismatches derived from unbalanced supply and demand or poor forecasting (both in terms of quantity and quality); and 3) mismatches derived from under-utilised skills, over-skilling or under-skilling, such as when workers take up lower skill level jobs or lower wage jobs. Short-term mismatching can be easily remedied through additional training or improved recruitment tactics and information dissemination. By contrast, long-term mismatching takes time to address as the skills supply needs to be built up through a certain level of education and training, and skills demand requires time and resources through the creation of appropriate jobs.

In terms of information-processing skills at work, Koreans use reading, writing and ICT slightly more than the OECD average, but numeracy and problem solving less than the average (Figure 68). In particular, problem solving skills are not being used effectively. For generic skills at work, task discretion, learning, influencing, co-operative, self-organising, and dexterity were all lower than the OECD average (Figure 69). These results imply that skills mismatches are derived from under-used skills as well as under-skilling.

There is a risk that more proficient workers use their skills at work less intensively and that unused skills become obsolete. This is usually the result of a significant mismatch between skills and how they are used at work. It is particularly the case among certain socio-demographic groups, for example, under-use of qualifications is common among youth, women and those employed in small establishments, in part-time jobs or on fixed-term contracts. This has a significant impact on their wages, even after adjusting for proficiency, and on workers' productivity (OECD, 2013a).

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Figure 68. Use of information-processing skills at work, 2012

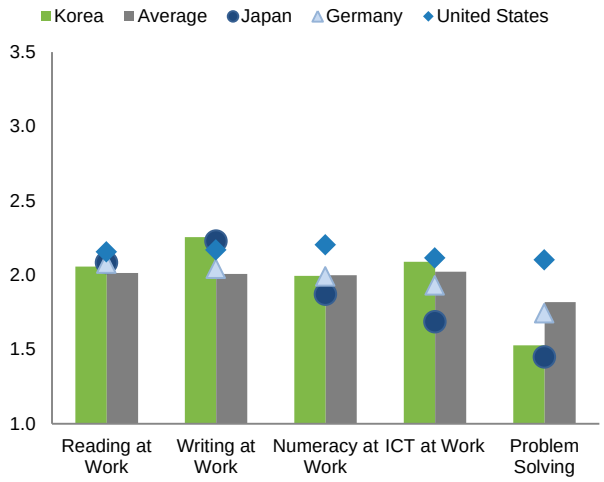
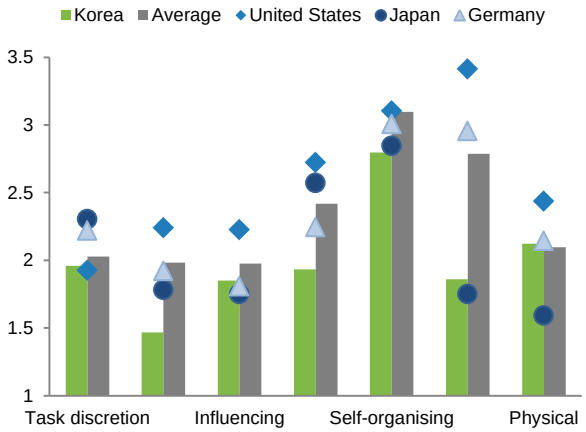


Figure 69. Use of generic skills, 2012



Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, http://dx.doi.org/10.1787/9789264204256-en.

8.1. Reinforcing the recognition of skills and qualifications

Skills are acquired not only formally, but also through non-formal and informal learning throughout life. The challenge is how to make skills acquired through non-formal and informal learning visible, given employer reliance on qualifications when hiring. Lifelong learning schemes provide opportunities to make latent or less transparent skills visible by awarding qualifications or certificates for equivalent skills acquired through prior learning. Even though the number of people using these schemes has increased, their utility still remains low as most Koreans pursue degrees based on premium university name value. In this context, mainstreaming the National Competency Standards (NCS) (Challenge 1) and implementing a competency-based human resource system (Challenge 5) is important to make skills visible and match them to appropriate jobs.

Skills are acquired through emerging education institutions as well as conventional and well-known institutions. A challenge lies in how to strengthen emerging institutions that are not yet well recognised by employers and skills suppliers. Current efforts, such as measures to assist local universities (announced on 3 November 2013), will help to reinforce the recognition of skills and qualifications that are developed outside of Seoul, where all main education institutions are. Strengthening emerging institutions will tackle an over-reliance on certain qualifications and a narrow concentration of skills; it could also address the difficulty facing those who did not enjoy the same access to a prestigious education as others.

Providing recognition and certification of competencies could facilitate and encourage adult learners to undertake continued education and training. It could not only reduce the time, actual costs and opportunity costs needed to obtain a certain qualification, but also ensure better working conditions by playing a large role in wage negotiations. Transparent standards that are embedded in a framework of national qualifications and reliable assessment procedures would be important instruments in this context (OECD, 2013a).

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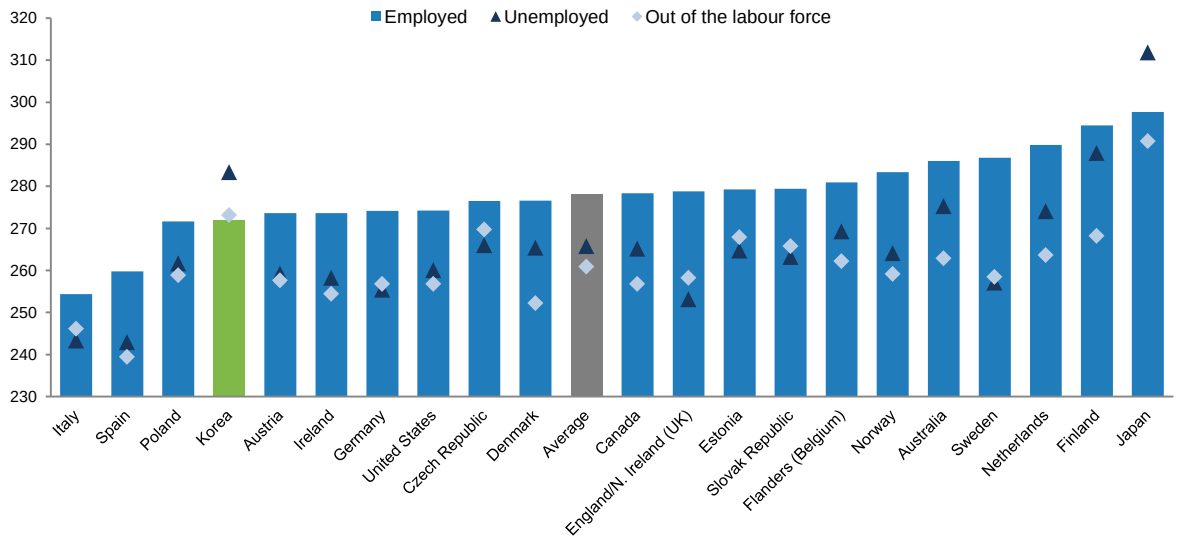
Unused or underutilised skills of unemployed, inactive population, and women

Korea is limiting the full use of available skills assets by failing to integrate skilled workers into the labour market. In the *Survey of Adult Skills*, unemployed participants scored higher in literacy proficiency than the employed or inactive population (Figure 70). Among the 23 countries who took part in the survey, Korea and Japan were the only ones that have higher literacy scores among the unemployed than employed population. The mean literacy score for employed people in Korea is among the lowest in OECD countries whereas for the unemployed or those who are out of the labour force it is among the highest.

In contrast to the OECD average, higher levels of skills lead to lower rather than higher levels of employment rates in Korea (Figure 71). This could be because some people may have high skills in literacy, numeracy and problem solving but not have specific vocational skills relevant to work, job searching and recruitment. They may also simply lack access to good information (Box 27). The unused skilled are largely Korean women. Korean men outside of the labour force scored lower in literacy proficiency while Korean women outside of labour force scored slightly higher. This may indicate Korea's lack of a smooth transition from the education system to the labour market, whereby the education qualification does not adequately signal the actual skills levels (Challenge 1 and 5).

Figure 70. Mean literacy score, by labour force status, 2012



Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, Figure 6.2 (L), http://dx.doi.org/10.1787/9789264204256-en.

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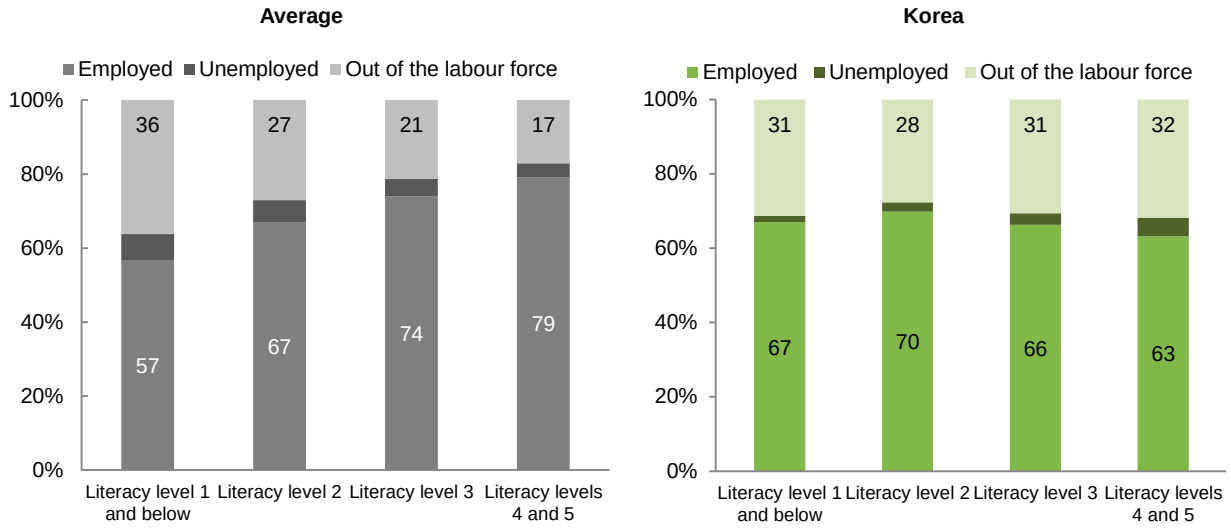
Figure 71. Employment status, by proficiency level in literacy, 2012
Percentage of adults in each labour market status



Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, Figure 6.3, http://dx.doi.org/10.1787/9789264204256-en.

Box 27. Disseminating information on opportunities

The United States Department of Labor has developed two online portals: My Skills, My Future and My Next Move. My Skills My Future allows workers to register their previous job information with the aim of finding an appropriate job that is currently available. Users can also search the job database for job training seminars and local job opportunities. My Next Move allows users to search for jobs by occupation, by industry and by using the "O*NET Interest Profiler", which matches an individual's interests with suitable occupations through the user's response to around 60 questions. Users can search for jobs in three categories: careers with a "bright outlook" in growing industries, jobs that are part of the "green" economy, and occupations that have a Registered Apprenticeship programme. Each occupation that a user selects has an easy-to-read, one-page profile, including information about what knowledge, skills and abilities are needed; the occupation's outlook; the level of education required; technologies used within the occupation; and a list of similar jobs. In addition, each occupation page includes direct links to local salary information, training opportunities and relevant job openings.

Source: OECD (2012b), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies*, http://dx.doi.org/10.1787/9789264177338-en.

As shown in the *Survey of Adult Skills*, women exhibit such a low level of skills because, on average, men use literacy and numeracy skills at work more frequently than women. The use of problem solving skills at work explains about half of the gender gap in wages, which is among the highest across the OECD (Figure 72). However, this relationship is not so apparent once a number of other factors are taken into account, namely proficiency in literacy and numeracy skills, educational qualifications, occupation, and industry. The gender pay gap is rooted not simply because men appear to be slightly more proficient, but also because they have more chances to use their skills through better employment conditions such as full-time jobs, higher skilled work, higher positions, or certain occupations or industries that require intensive use of skills (OECD, 2013a: 40). The distribution of workers across occupations is

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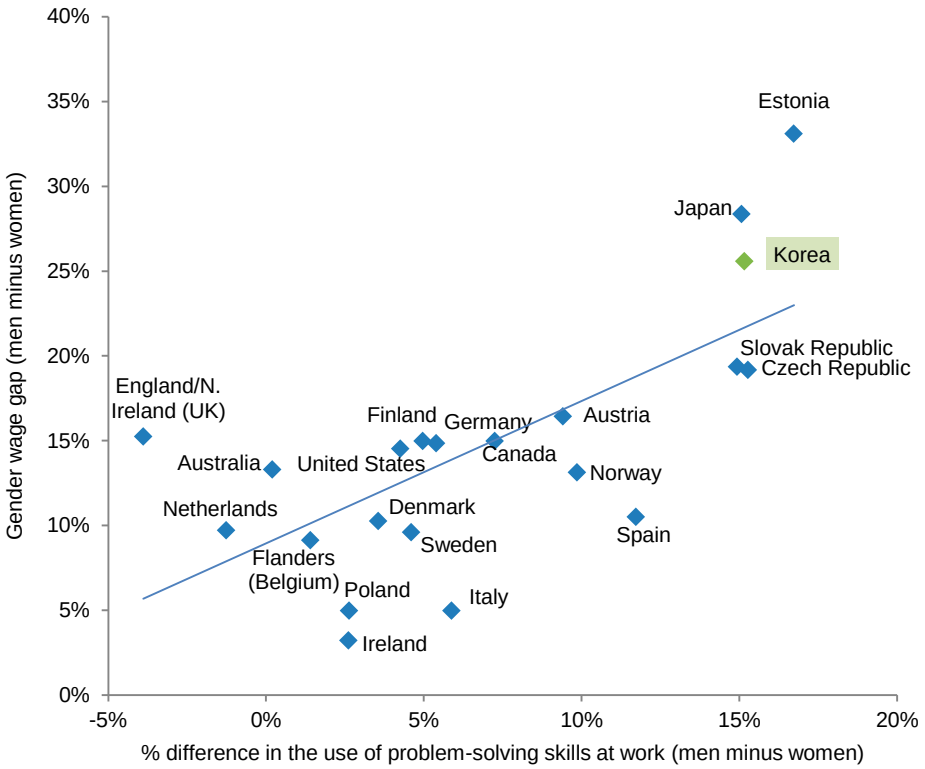
found to be the single most important factor shaping the distribution of skills use (OECD, 2013a: 142). Given that Korean women are restricted from working in certain occupations and industries, the gender differences in skills can be largely attributed to this restriction and consequent degree of skills use.

Figure 72. Correlation between gender gap in wages and in the use of problem-solving skills at work, 2012



Notes: The gender gap in wages is computed as the percentage difference between men's and women's average hourly wages, including bonuses. The wage distribution was trimmed to eliminate the 1st and 99th percentiles. Line is the best linear prediction. The sample includes only full-time employees.

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Figure 0.6, http://dx.doi.org/10.1787/9789264204256-en.

Skills mismatches at work

The incidence of over-qualification in Korea is significant: 21% of workers have higher qualifications than the level required by their jobs. The *Survey of Adult Skills* shows that qualification mismatches have a stronger impact on wages than mismatches in skills proficiency (Figure 73). In Korea, the overqualified earn 18% less than well-matched workers with the same qualification. The incidence of being under-skilled was not as pronounced as being over-skilled, however, the incidence of under-qualification still accounts for 11%, compared to the OECD average of 13% (OECD 2013a).

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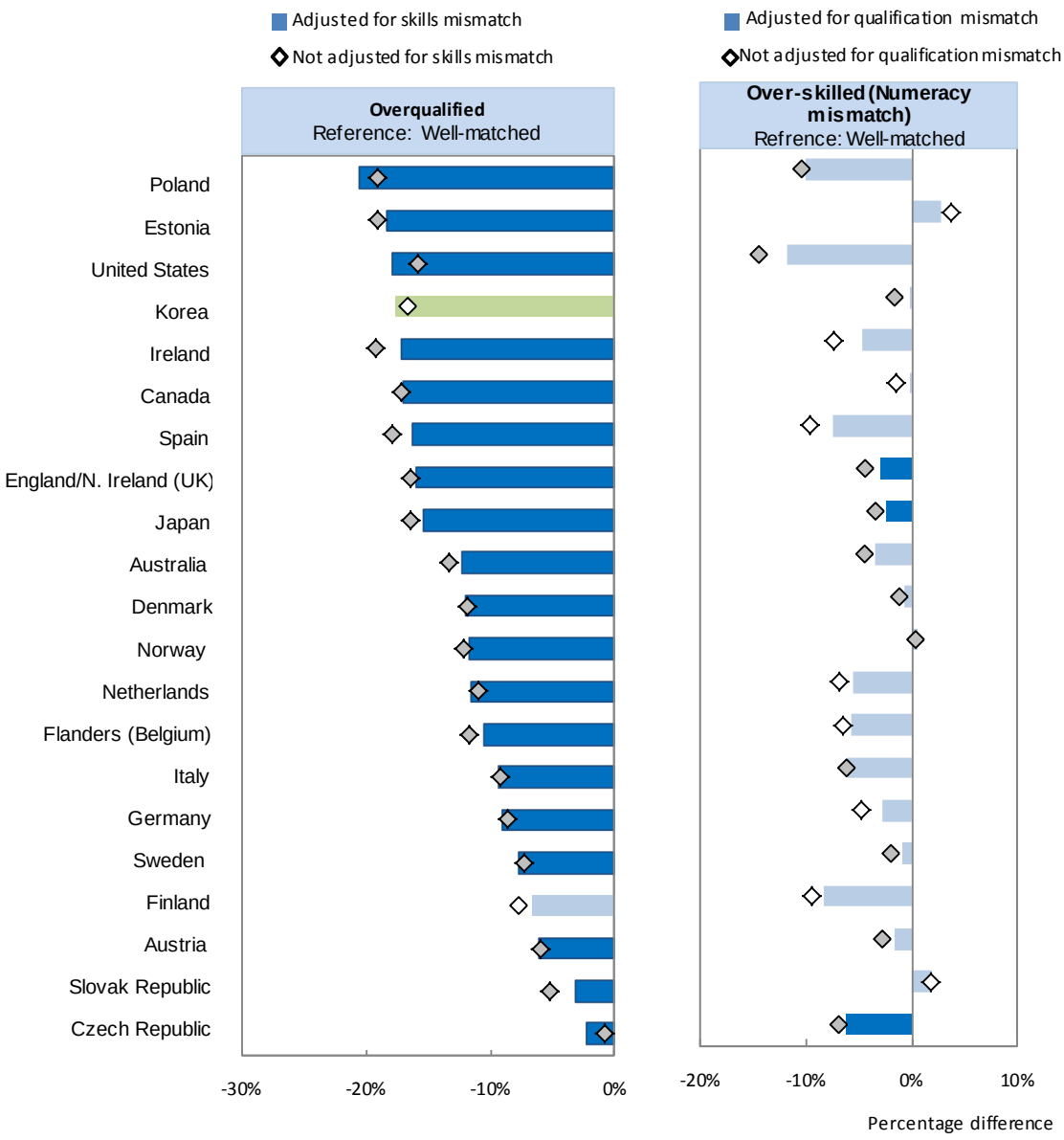
Figure 73. Effect of over-qualification and over-skilling on wages, 2012

Percentage difference[a] in wages[b] between over-qualified[c] and well-matched employees (adjusted for skills mismatch)



Notes:

a. The sample includes only employees. Statistically (at the 10% level) significant values are shown in darker tones.
b. Hourly wages. The wage distribution was trimmed to eliminate the 1st and 99th percentiles.
c. Over-qualification is defined relative to the qualification needed to get the job, as reported by the respondents.

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* Tables A4.32a, A4.32b and A4.32c, http://dx.doi.org/10.1787/9789264204256-en.

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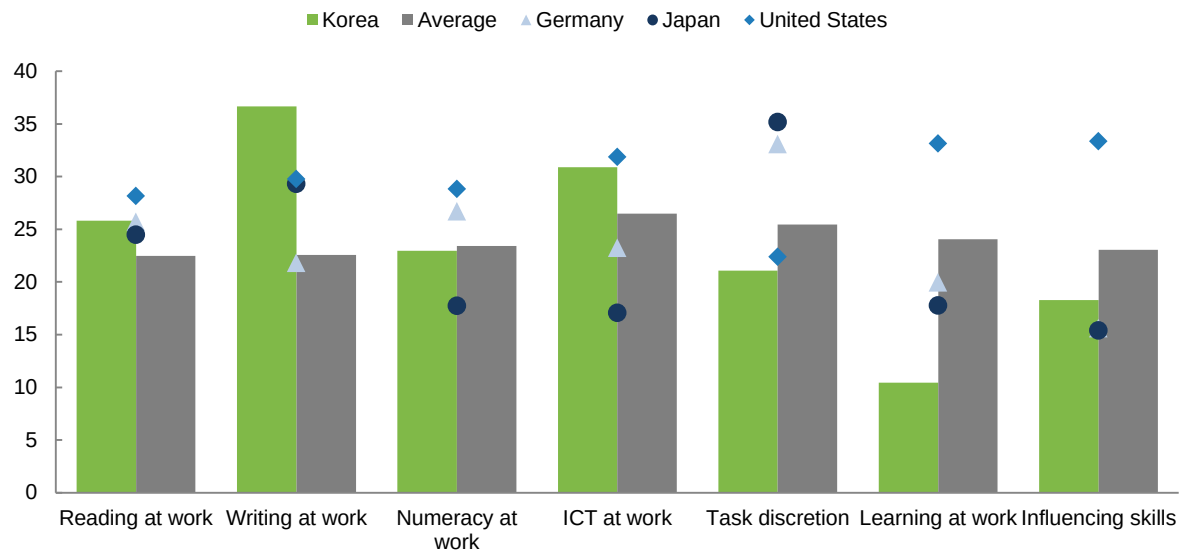
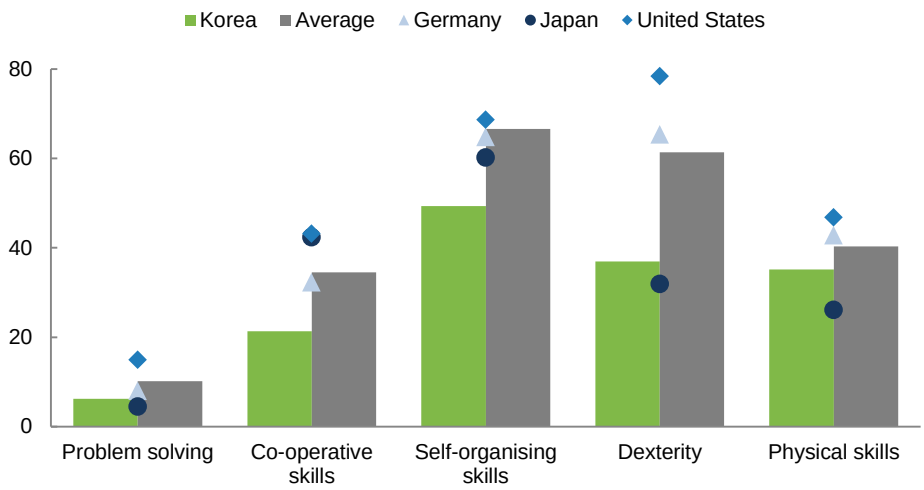
The share of workers using skills such as task discretion, learning at work, and influencing skills is lower than the average of countries participating in the Survey of Adult Skills (Figure 74, Panel A). Moreover the share of workers in the top 25% of the distribution of the use of skills at work is much lower than the average in most of skills (Figure 74, Panel B).

Figure 74. Use of skills at work

A. % of workers using the skills shown everyday



B. % of workers in the top 25% of the distribution of the use of skills at work



Note: The average is for 22 countries in figure 4.3

Source: OECD (2013a), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, Table A4.3, http://dx.doi.org/10.1787/9789264204256-en.

The 2013 National Skills Outlook (Kim et al, 2013) shows skills mismatches at work by sector and years of work experience (Figure 75). It shows that more experienced workers find their skills become obsolete and face new skills requirements, which is less the case for workers with 6-8 years of experience. Retraining needs increase by years of work experience, but retraining provisions do not match needs.

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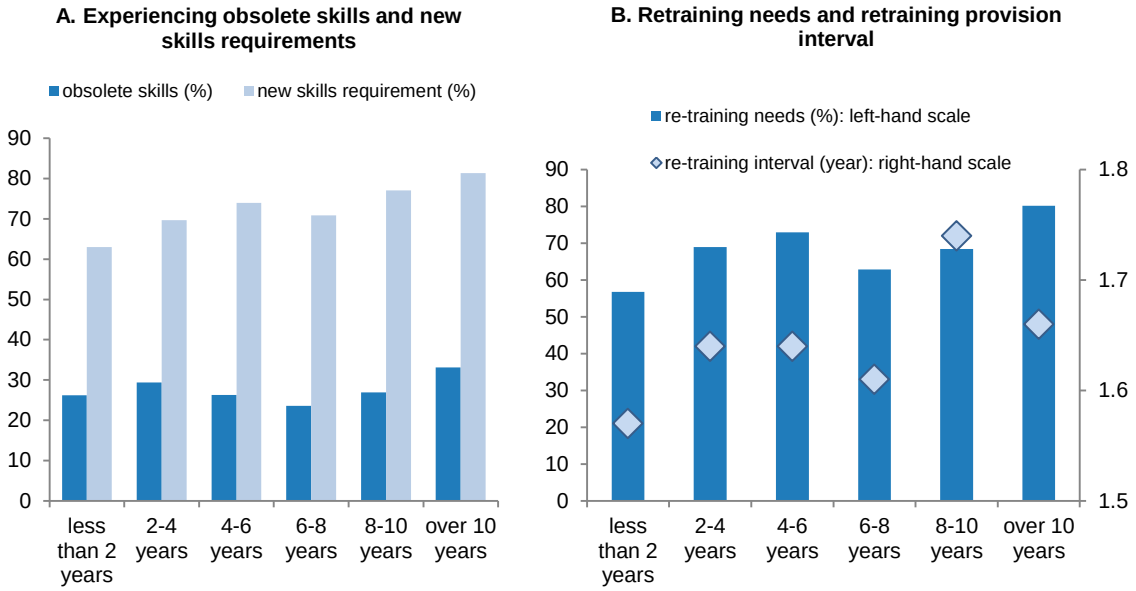
Figure 75. Experiencing obsolete skills and new skills requirements by years of work experience



Source: Kim, H-M. et al. (2013), 2013 National Skills Outlook., KRIVET, http://eng.krivet.re.kr/.

Mainstreaming the National Competency Standards and introducing the qualification framework

The NCS and the National Qualification Framework (NQF) are important tools that have the potential to shift Korea towards a competency-based skills system. The effective implementation of the development and application of the NCS and NQF requires a wide range of changes from government, business, and education towards a competency-based human resource system (Challenge 1).

A well-established skills-based system will alleviate biased skills recognition. The NQF is helpful in alleviating the stigma effect on vocational education and training (VET) by making VET and the general curriculum equivalent. The NQF enables registering the NCS and qualification by level within a framework while controlling quality. The NQF, with connections to the NCS, will contribute to a better recognition and evaluation of the competences acquired from VET and non-formal education, and will help to improve quality-control for higher education qualification (Cho and Oh, 2013: 33).

For this purpose, the Ministry of Employment and Labour (MoEL) plans to revise training standards and qualification examination criteria based on the NCS (2014-2017). For example, subjects or grade systems related to the National Technical qualification (NTQ) system will be restructured. As part of this restructuring, a course-completion-based qualification (CCBQ) system for 15 mechanical fields and plan to introduce additional 15 CCBQs in 2016, aiming to create a dynamic link between VET and qualification systems centred on competences in the field. The Ministry of Education (MoE) will collaborate with MoEL by selecting pilot schools for running this CCBQ system (e.g. teachers college).

As the NCS is a guidance tool for self-assessment or policy development rather than an assessment process, it cannot be an instrument for signalling, screening, or filtering the level of skills according to labour market needs. Data from the *Survey of Adult Skills* can provide the results of personal skills assessment in the absence of the overall skills assessment system, but Korea may need to develop its own assessment system in order to identify what skills are available, at which level, and in what proportion. This could be based on sample surveys at the national level in relation to specific industrial needs and levels related to the NCS.

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The development and use of the NCS will be particularly helpful for youth, students, non-regular workers and unemployed people with unused competencies. The standards, if well linked with skills assessment tools and qualification system, can be an effective labour market signal. As the NCS describe the required skills or job specifications for successful work performance (knowledge, techniques, and attitude), skills can be built on these standards relevant to labour market needs. Skills mismatches are expected to be reduced if the NCS are properly used in education and training institutions. Re-training after hiring will also be effectively reduced.

However, the weak engagement of social partners may undermine the successful development and use of the NCS. Not only education, but also industry and labour will need to use the NCS in developing lifelong career paths with its workers and in managing hiring and promotion. Currently, labour unions are not particularly interested in the NCS, given the firmly ingrained seniority-based wage system and the non-competency-based incentive system. Employer associations are also not interested in the NCS unless they are given a strong incentive to recruit, train and assess workers based on these standards. Therefore, challenges remains in how to tackle negative labour market practices as well as the overall restructuring of the qualification system (e.g. to reduce redundancy in NTQ/NQF qualifications managed by various ministries or ordinances) and enhance the status and utility of national qualifications to the extent that qualification holders who exhibit skills required by the labour market and who are useful at work receive preferential benefits.

A qualifications system is an important screening device for employers and a signalling device for employees. However it needs to be relevant and responsive to the needs of industries, publicly credible to assure the quality of skills, and closely interconnected with the skills development system, particularly vocational training. Currently, Korea's qualification system does not fully respond to economic and technological changes or subsequent demand for new skills, cognitive skills, or blended skills. The government has periodically reformed the system by reorganising and creating new qualifications, notably in the service sector, or introducing private qualification systems.

From the wider perspective of skills development, more comprehensive and dynamic aspects must be considered beyond the traditional paradigm of technical skills. To meet job requirements, skills other than technical skills certified by national qualifications system should be adequately evaluated, for example cognitive skills, learning ability or related knowledge. This multi-dimensional approach to skills requires the integration of skills obtained via education and vocational training.

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Box 28. Spotlight on Korea: Internet-based employment information services

Q-net, operated by HRD-Korea since 2001, is a qualification examination information system. It provides access to information regarding vocational qualifications and offers test applicants a convenient portal for qualification services.

Work-net, established in 1998 and run by the Ministry of Employment and Labour (MoEL), is a central information system (occupational and labour market information) that provides online information and services to jobseekers as well as employers. Jobseekers can receive information on vacancies as well as training opportunities, register with the PES online and, if needed, get offline service visiting job centres. It also offers online tests on job attitudes and vocational interests. The Work-net provides customised information for youth, women and older workers.

Job-net, launched in 2006, aims to be a "hub" for jobseekers providing vacancy information from all public and private employment agencies (such as "Job Korea"). Visitors can also link up to individual service providers for further detailed information.

HRD-net, operated by MoEL, provides information on subsidised vocational training by skill and region. Customers can also get online counselling on the range of programmes and apply directly for a specific scheme. HRD-Net also offers information on courses, evaluation results, and information regarding eligibility and support.

Career net, run by the Korea Research Institute for Vocational Education and Training (KRIVET) Career Development Centre and the Ministry of Education, provides career related research (occupational information, occupational index), career counselling and advice for diverse organisations that work with career guidance (career counselling, education, information) and career development from government to job centres.

Note: See OECD/European Commission (2004) for the definition of career guidance and relevant terms. It provides useful advice on and tools for improving career guidance for young people and adults and building a lifelong guidance system. Career Guidance and Public Policy: Bridging the Gap (OECD, 2004)

Sources:

OECD/The European Commission (2004), *Career Guidance: A Handbook for Policy Makers*, http://dx.doi.org/10.1787/9789264015210-en.

OECD (2004), *Career Guidance and Public Policy: Bridging the Gap*, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264105669-en.

8.2. Matching skills to changing labour market needs

In the contemporary labour market, skills needs at work are very demanding and rapidly changing, meaning that workers are obliged to develop their skills while using them at the same time. In Korea, 44% of workers reported the introduction of new processes or technologies in their current workplace that affected their work during the previous three years, and 38% reported substantial restructuring or reorganisation. Across skills levels, such changes seem to be present across the country. Korea's labour market changes are relatively demanding compared to the average of 27 European countries, at 40% and 31% respectively (Eurofund, 2010). Combined with the below-average level of skills and low level of adult training participation in Korea, particularly among the low-skilled, skills development and use could be better harmonised.

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Box 29. Transition of industry and its skills implications

When the closure of a shipyard in southern **Denmark**, *Lindoe*, resulted in 8 000 lost jobs, offshore renewable energy was identified as a sector with minimum retraining needs. The shipyard changed the existing competencies of its employees through retraining programmes at public training centres and the *Lindoe* Offshore Renewable Centre (LORC). This response was possible through well-planned industrial policies that considered skills implications, with the collaboration of local, regional and national policy makers, as well as industry. LORC provided training and identified skills needs in the new sector. Local municipal authorities took formal responsibility for identifying skills needs in relation to the employees through public employment services and then retraining them. The Centre informs the public authorities as well as the VET system.

A similar story is found in the **UK**'s Harland & Wolff Heavy Industries. This shipbuilding company had to cut 2 400 jobs and diversified into offshore oil and gas markets. The company used existing skills and experience in its new businesses. Although the restructuring process and the diversification strategy have led to a reduction in the workforce, a company-wide training programme helped workers with their reskilling and upskilling. In order to avoid skills gaps, the company funded training courses to recognise and certify the skills and use them through a channel from the trade union, which acted as an employment agency with a pool of temporary workers.

Source: Strietska-Ilina, O. et al. (2011), *Skills for Green Jobs: A Global View*.

Workers in low-technology sectors and those performing low-skilled tasks need to be adaptable as they are at a higher risk of losing their jobs through routine tasks being increasingly performed by machines. Workers in medium or high-technology sectors also need be prepared to transfer their skills into emerging sectors or companies. Skills need to be updated regularly to meet the needs of a dynamic economy (OECD, 2013a).

The restructuring of the *Ssangyong* motor company in 2009 shows that a lack of second chances for displaced workers, or preparatory mechanisms, can cause difficulties both in terms of training and careers. If one sector or firm collapses, the workers who were trained and skilled in that sector are rarely re-trained and transferred to other occupations or sectors. This is particularly the case in Korea, where work is strongly based on firm rather than sector or occupation.

In order to prepare for such changes in the future, policy mechanisms will be necessary to effectively manage displaced labour. Collaboration with labour unions will be required for employees to be better prepared in advance for the event of large-scale displacement. In addition to existing mechanisms, such as the unemployment subsidy, agreements between labour unions and employers, as well as procedural mechanisms to help achieve consensus, will be required to design necessary institutional mechanisms such as re-employment services and income support. For example, an advanced preparatory mechanism could be instituted within the employment insurance system to reduce lay-off costs. To implement such a mechanism will require strengthening social dialogue and commitment.

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Summary and policy implications

A significant share of workers in Korea has a skills mismatch between the skills they bring and the skills that are required at the workplace. Education qualifications do not adequately signal the actual skill levels of workers. One in five workers has higher qualifications than the level required by his or her job. Skills acquired through non-formal and informal learning also need to be recognised.

In Korea having a higher level of skills or qualifications does not necessarily mean a higher likelihood of finding employment. For example, in a foundational skill like literacy, as measured by the *Survey of Adult Skills*, the unemployed have higher levels than the employed. When employed, women also use their skills less intensely than men. This reflects the worse working conditions of women with a higher incidence of non-regular work, lower skilled jobs, lower positions and more employment in certain occupations and industries that require a less intense use of skills.

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CHALLENGE 9. IDENTIFYING AND ANTICIPATING SKILLS NEEDS TO MAKE EFFECTIVE USE OF SKILLS

Building an effective, responsive, and resilient skills system requires quality skills information. Skills mismatches can be reduced by identifying and anticipating skills needs as early as possible. Such information is important for developing, activating and using skills. Activation instruments will not effectively match skills and jobs if there is a lack of information and knowledge sharing between labour supply and demand. Education and training will be wasted or lacking if such information and knowledge do not feedback into the skills development system. Nevertheless, identifying and anticipating skills needs from skills users, such as industry and the labour market, is becoming more and more difficult as the Korean economy advances as a technology leader (Choi and Song, 2013). This difficulty feeds into the difficulties in skills development, activation, and use.

Identifying and anticipating skills demand can alleviate skills mismatches derived from a lack of quality information, knowledge sharing, and transparency. In order to capture the skills needs in the rapidly changing labour market, the methods and coverage of identification and anticipation should adjust to the labour market accordingly. This also means that more local-based and timely identification and forecast systems are necessary (Challenge 12).

Skills audits, occupational skill profiles, and skills forecast at the firm, local and national levels can provide early warning signals of skills imbalances, and inform skills providers and employers as well as policy makers for planning and decision-making. Challenges in skills anticipation include understanding newly emerging skills, and turning occupational projections into qualification demand projections, i.e. the smooth relation and transition between job and occupations, skills supply and demand, and qualification and training needs. Sectoral councils, if they function effectively, can be a key player in identifying new emerging skills and training needs in a specific sector (Challenge 11).

9.1. Establishing an effective system for the identification and monitoring of skills

There is no comprehensive identification system for skills and training needs in Korea. Forecasts on labour supply and demand at the national level provide projections but with limited information. There are skills surveys at the national and regional levels (Box 30) and since 2003, sector councils monitor skills needs in corresponding sectors, however this activity is limited.

Current instruments to identify and anticipate skills supply and demand

Forthcoming OECD work shows that Korea has well developed analytical tools to assess current skills needs and to anticipate future skills imbalances. Quantitative labour market analyses are carried out through employers and workers surveys as well as through sector studies. Other qualitative methods are also used to develop skills needs assessments and forecasts exercises. The results of these exercises feed into education policy through, among others, the update of occupational standards or the development of apprenticeship and on-the-job programmes aimed at making skills and education more relevant to the needs of the labour market.

Despite the establishment of inter-ministerial meetings and of a Job Policy Council to enhance the dialogue between the national government and regional actors, the effectiveness of the 'skills anticipating' tools is hindered by difficulties in agreeing on a coherent policy response to skills challenges across stakeholders. As in most other countries, the instruments that identify and forecast skills demand and supply in Korea are fragmented. While labour force survey data and statistics and related sources are available, they are not co-ordinated in a way that matches skills demand and supply, nor is relevant information distributed to where it is needed. Except for regular surveys, skills data are developed to cope

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with specific circumstances at specific times. Panel data on the supply side of skills have representation issues, such as data on graduates that provide information only on new jobseekers. They are, however, useful in identifying the main features of the labour supply of skills, particularly dynamic aspects of the skills matching process.

An integrated and systematic framework could make effective use of skills through more strategic skills development, activation and use, while also redesigning the existing sources of skills identification. Instead of creating a new survey or research project, a more sophisticated modification and co-ordination of the current data sources may contribute to effective assessment and anticipation. Currently, instruments to identify the current and future skills supply and demand, and monitor core skills needs, include Korea's National Employment Outlook (NEO) co-ordinated by the MoEL and undertaken by the Korea Employment Information Service (KEIS), employment insurance, qualification systems, individual contacts, and the National Skills Outlook (Box 30). Such diagnoses involve many different stakeholders and institutions in providing and using information across the economy, industry, education, and the labour market, and require a wide range of data on population, economic growth, labour market, education and industries, and policies. These instruments should be continuously improved to maximise their synergetic effect.

While national and macro identification is necessary, individual and micro identification is also important for each market player. In particular, the development of the NCS provides detail at each skills and occupation level, however, skills needs identification is broad, so it is difficult to connect those data. Some pilot database systems have been proposed but have not yet been put into practice (Kim et al., 2013).

Box 30. Spotlight on Korea and the EU:
Instruments to identify and monitor current and future skills supply and demand

- National Employment Outlook (or Long-Term Labour Supply and Demand Forecasts) by Korea Employment Information Service (KEIS) identifies and anticipates long-term skills mismatches at the macro level.
- National Skills Outlook by Korea Research Institute for Vocational Education and Training (KRIVET) anticipates skills mismatch at the sector level to make hard adjustment (e.g. structural reform, legislation) at the national level, as well as provide important guidance to various stakeholders such as students, parents, enterprises and providers of education and training service. It includes both employer survey (using Basic National Business Survey) and employee survey. It aims to build a skills projection model.
- National Competency Standards.
- Ministry of Employment and Labour (MoEL) conducts a survey on skills needs trends, Vocational training survey, and Labour Force Survey in Establishments by Occupations. The number of qualifications can also be an index of labour supply. KEIS, a subordinate agency of the Ministry of Employment and Labour, operates Worknet DB and conducts Graduates Occupational Mobility Survey (high school graduates and college graduates).
- Employment insurance covers almost all establishments and employees including various types of non-regular workers (although the actual coverage has considerable missing data), unemployed beneficiaries and vocational training providers.
- Survey on Regional Workforce and Vocational Training Need, Survey on Vocational Training Participants' Career Mobility, and Survey on Vocational Training in Enterprises (e.g. budget, training contents, use of government support).
- Korean Education and Employment Panel (KEEP) by KRIVET for school-to-work transition consists of middle-school cohort, general high-school cohort and vocational high-school cohort. Dynamic changes of samples in each cohort can be identified over time.
- Surveys by student, enterprises and participants in training, training providers, or public authorities to make soft adjustment (e.g. curricula modification, adjustment of courses or quota through the vocational training standard at the national level or public employment services at the regional level; or adjustment at individual level)
- Skills Survey in Natural Sciences And Engineering (2006-2012) and Industrial Skills Needs Survey (2004-2013) by Korea Institute of Science and Technology Evaluation and Planning.
- Survey on industrial skills supply and demand (Ministry of Trade, Industry and Energy).

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- Survey on SMEs: Statistical survey report on SME technology and Survey on SME skills by occupation, region and others (Small and Medium Business Administration), Survey report on SME technology and technical skills (Korea Small Business Institute).
- Korean Statistical Information Service: Survey on economically active population (Labour Force Survey), Basic National Business Survey.
- Korea Labour Institute (KLI) conducts Labour and Income Panel Study (KLIPS): a longitudinal survey which is conducted annually and consists of the labour market/income activities of 5 000 households and 13 000 individuals residing in urban areas.
- Various surveys on skills supply and demand through public employment services.
- Korean Educational Development Institute: Employment statistics of higher education graduates surveys employees (health insurance subscribers, employee by higher education institutions, employee abroad), education, military, the unable to be employed.

Efforts for early identification of skills needs in the European Union

Most European surveys on skills focus on skills mismatches and gaps by measuring over and under-skilling, or over and under-qualification, through panel or cross-section data. Some use household surveys, matched employer-employee data or mail questionnaires. Examples include:

- Cedefop skills: 2010 Supply and demand in Europe Medium-term forecast up to 2020.
- European Social Survey (2002-2012, biennial).
- Skills and Employment Survey (SES 1986-2012)
- European working conditions survey (1996, 2000, 2005, 2010).
- The UK Commission for Employment and Skills (UKCES): Employer Skills Survey.
- Workplace Employment Relations Study (UK 1980-2011).
- Confederation of British Industry's Education and Skills Survey (2000-2013).

Use of skills information from supply and demand sides: identification of education and training needs

Skills demand and supply information is important both for supply and demand sides, as such information can feed into the identification of education and training needs. It can be used by schools, universities and colleges, and other education and training providers, as well as by students and parents, jobseekers, employees, and employers. For skills development, such information can be used for curriculum reform or enrolment quota adjustment. Firms and employers can use the information to build strategic business plans, and students, parents, graduates, teachers, and workers can make better choices. Policy makers such as the MoE and MoEL can use it to develop better, more informed policy.

Current surveys on vocational training by MoEL do not fully assess the quality aspect of skills mismatches and gaps between industry needs and worker skills. Surveys do not provide information on the quality of training or curriculum and should be redesigned to include questions on the quality of training courses. They could be also linked to university and college evaluation.

Political responses to data that indicate anticipated skills and expected outcomes are important. Discussions should go beyond data interpretation and policy design towards policy implementation and impact. For example, low employment rates of university graduates led to education reforms that made studies more relevant to labour market needs. Due to low employer engagement in skills development, sector councils were established, but their implementation and impact was minimal. Given Korea's history, the traditional four classes of society (scholars, farmers, artisans and tradesmen) and a lack of social partner engagement in skills, the results of data are difficult to embed directly into systems or institutions that may have been successful in other countries.

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Box 31. Credible, accessible and relevant sources of career and labour market information

In order to provide adequate and quality career and labour market information (LMI), the **UK** Commission for Employment and Skills has developed an online data portal. "LMI for All", which aims to bring together existing LMI sources. Open access, but without compromising quality or confidentiality, "LMI for All" includes guidance for developers about what the different data sources mean and how they can be used.

Sweden's "Occupational Compass" (*Yrkeskompassen*), the Swedish public employment service, provides information to guide student career choice in an easily accessible format online. A number of national websites provide information and guidance for youth and adults. The portal (Utbildningsinfo.se) includes search tools for educational paths and providers, mainly in upper secondary school and municipal adult education. It also provides information about possible vocational outcomes, the situation on the labour market in the area, funding and other materials of importance when choosing a study path. The portal also provides information on the current labour market situation in about 200 professions as well as forecasts of future prospects over 1, 5 and 10 year periods and includes one year forecasts at the regional level.

Similarly in **Spain,** Barcelona Activa's "Porta22" web portal seeks to "foster the transformation of Barcelona through entrepreneurship, business growth, innovation, human capital, professional opportunities and quality employment". As part of this process, the agency aims to improve the skills demand and supply match in the city. Porta22 is a web portal that contains tools for all types of users who want help defining and putting into practice their own professional paths, as well as for professional guidance counsellors. It is divided into three mains sections (Person, Tools and the Market) and provides functions that allow users to explore the local labour market and learn more about job opportunities. One of its tools is a bank of almost a thousand professional profile descriptions that gives information on all aspects of a given career, and profile descriptions are linked to a job offer search engine. A professional interest test allows users to identify their work interests and match their own profile with job profiles. The key skills dictionary allows users to better understand the importance of key competencies in the current labour market.

Sources: UKCES (2013), UK Commission for Employment and Skills Website, https://www.gov.uk/government/organisations/uk-commission-for-employment-and-skills.

Arbetsförmedlingen (2013), Arbetsförmedlingen Website, http://www.arbetsformedlingen.se.

Clark, G., Huxley, J., & Mountford , D. (2010), *Organising Local Economic Development: The Role of Development Agencies and Companies*, Local Economic and Employment Development (LEED), http://dx.doi.org/10.1787/9789264083530-en.

OECD (2014d), *OECD Skills Strategy Diagnostic Report: Norway*, http://skills.oecd.org/developskills/documents/OECD_Skills_Strategy_Diagnostic_Report_Norway.pdf.

9.2. Using skills anticipation data and analysis

One of the best ways to encourage upskilling and investment in skills is to show the benefits of better skills. For example, governments can provide better information about economic benefits, including wages net of taxes, employment and productivity; and non-economic benefits, including self-esteem and increased social interaction, of adult learning (OECD, 2013a).

Identifying and anticipating skills is useful for addressing the gap between labour market needs and skills supply through education. For example, in Korea there is currently a lack of jobs for youth (Challenge 5 and 7) and the education system is not adequately supporting youth to hone skills relevant to labour market needs (Challenge 1 and 3). The labour market and the education system both need good information about skills supply and demand. Between these two forces, individuals make choices on their education and career path based on what skills they will acquire. Therefore, anticipation of both short-term and long-term trends of demand for skills is essential for the decision making of individuals. However, in Korea there has been fragmented identification, anticipation and feedback on skills demand and supply. This lack of signalling skills needs is a critical challenge and the knowledge gap needs to be reduced in order to achieve Korea's 70% employment goal.

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In the private education and training sector, feedback is used to attract more participants, although their preference may be biased. In contrast, the public sector considers balance or optimal equilibrium in the labour market. Public vocational training is intended to address skills shortages, particularly in sectors that are important to the national economy but not popular among jobseekers, and to build skills in the sectors that are expected to be crucial in the future but have insufficient current supply and demand.

The current weak and inefficient feedback system that links skills identification and practical use of information on skills is still mainly based on the centrally governed system. Even though the government has initiated bodies that bring together experts and stakeholders, including enterprises, trade unions and Non-Governmental Organisations (NGOs), few instruments are active and successful. Sector councils and regional governance concerned with the skills system need to engage primary stakeholders in order to deal with industry-specific or region-specific problems.

In order to feasibly make an impact, Korea needs to facilitate more participation of experts and stakeholders across different levels, and systematically interweave three important skills processes: development, activation, and use. An independent body could overlook all aspects of the skills system. Its main tasks could be to set up a well-designed framework for skills assessment and anticipation processes, upgrade various data sources, prepare policy recommendations based upon the assessment and anticipation results, and continuously monitor the entire process. For this purpose, participants should involve the government (including the MoE and MoEL), experts and major stakeholders such as the public and private research institutes in charge of important statistical surveys, analytical research and maintenance of administrative data. Another important task of the body could be close interaction with industrial and regional governance entities, such as sector councils.

Establishing local skills monitoring systems

In order to make practical use of skills, anticipation data and estimates should be as up-to-date as possible. The best way to do this is through a local skills monitoring system. Korea is still in the initial stages of building a skills system that encompasses monitoring, matching, and co-ordinating between jobseekers, employees, employers, and other stakeholders, specifically at the local level. There are international examples that may be helpful for Korea (Challenge 12).

For example, in Michigan, the United States, the Workforce Intelligence Network (WIN) provides information combined with data from the state's labour market information and special surveys. This information is incorporated into strategic plans and operational decisions. The local Workforce Investment Board contracts out employment services and uses this information to complete a "Region Top Jobs" report, which includes the availability of current and projected opportunities by occupation, with the number of openings, and the rates of pay. Each county publishes real-time quarterly workforce indicators that include top jobs in demand by sector, wages and education requirements. These allow for better "real time" decisions regarding skill gaps. WIN connects with various organisations and associations and is leading important initiatives to better align the skills system with skills needs. WIN also convenes the skilled trades taskforce, which addresses employer skills needs through ongoing dialogue between the skills system and employers looking for skilled trades people. Depending on the sector, WIN is often directly involved with company-led training initiatives (WIN, 2013; OECD, 2014e).

In order to have more concrete information about the labour and skills demands of local employers, and eventually enhance the effectiveness of skills training programmes and other active labour market policies, it is necessary to establish a regional labour market monitoring system. In Denmark, for example, about 80% of the curriculum in short-cycle post-secondary vocational programmes is defined at the national level to ensure a common core skill set, while 20% is defined locally to respond to local employer needs. Employers and trade unions are actively involved at both levels. Regular dialogue with local industry representatives is important to ensure that provision is relevant to local labour market needs (Kis and Park, 2012).

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9.3. Linking skills use to economic development

Effective skills use will translate into better economic and social outcomes, including boosting economic development, as well as send a positive signal for developing skills and making them available to the labour market. Using skills at work is closely linked to labour productivity. Strategies that link skills and broader economic development can help countries move towards greater skills-driven prosperity (OECD, 2013a).

The economic returns from upskilling are a key driver of individual and societal decisions to invest in higher levels of skills development, activation, and use. Skills policies, including education, labour, social, tax, economic, and industry, need to tackle the inefficiency of under or over-investment in skills in instances of externalities, information asymmetries, individual myopia, market frictions or market failures; and encourage the right mix of skills investment, either independently or in concert with other non-tax-policy approaches.

Workers with under-used skills at work are likely to earn less than similarly skilled workers who are well-matched to their jobs. For example, the top 25% of best-paid Japanese and Korean workers who score at Level 2 in literacy earn more than the median hourly wage of those who score at Level 4 or 5. Skills shortages from under-skilling and under-supply of skills will affect productivity and slow the rate at which more efficient technologies and approaches to work are adopted. Such shortages can be originated from a lack of information and transparency, field-of-study mismatches, geographical constraints, or mobility costs (OECD, 2013a).

Inequality in skills is associated with inequality in income

As the redistributive effect of the tax and benefit system is low in Korea (Figure 76) – the second lowest across OECD countries – these systems currently do not have a positive effect on rising income inequality in Korea (Figure 2). 77% of non-regular workers involuntarily accept jobs to obtain immediate income, which can result in skills mismatches and loss of further upskilling opportunities or potential higher earnings. A more supportive tax and benefit system could help these workers to avoid trade-offs between skills development and immediate income.

The results of the *Survey of Adult Skills* shows that higher levels of inequality in skills are associated with greater inequality in the distribution of income, whatever the causal nature of this relationship. If large proportions of adults have low reading and numeracy skills, introducing and disseminating productivity-improving technologies and work-organisation practices can be hampered, which will stall improvements in living standards. A certain level of skills is necessary to make rational choices in a very complex and sophisticated technology-based society such as Korea. If Korea wants to support the growth of its middle-income class it will be necessary to boost overall skills levels and to link these skills into overall economic development. Highly literate adults (Level 4/5 in literacy) tend to report higher wages, higher levels of political efficacy, high levels of trust and a higher likelihood of being employed among OECD countries (OECD, 2013a). This trend is similar in Korea, but the effect is much less given that the level of skills in Korea is below the average.

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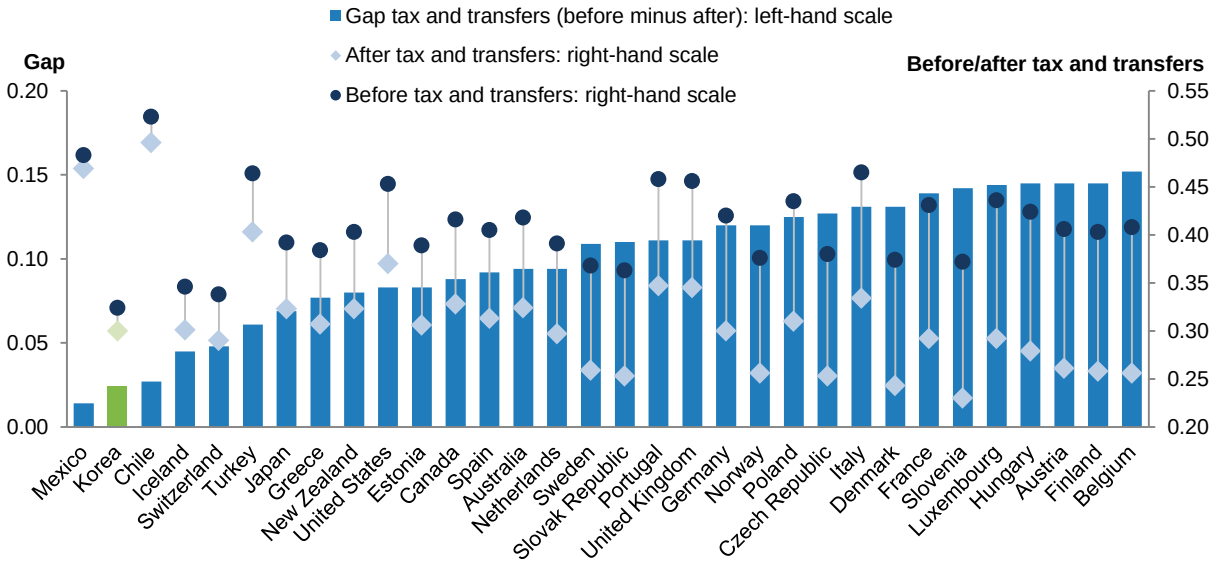
Figure 76. Tax and benefit systems have a sizeable redistributive impact in OECD countries



Note: Income inequality is measured by the Gini coefficient based on equivalised household disposable income; Working-age population: 18-65.

Source: OECD (2013d), *Economic Policy Reforms 2013: Going for Growth*, Figure 2.3, http://dx.doi.org/10.1787/growth-2013-en.

Summary and policy implications

Education and labour market information allows a broad range of actors to make choices that facilitate a better alignment between skills supply and demand. Students can use information on skills to make education and career choices. Job seekers can use information on current job opportunities and projected job shortages to inform job search and training choices. Firms and employers require such information to plan and manage their human resources effectively. Policy makers need this information to improve the provision of education, training and active labour market policies.

Information on labour supply and demand at the national and regional level is limited. The different existing instruments used to gather such data may not be sufficiently co-ordinated to allow effective monitoring and inform skills policies, as well as individuals' education and career choices. Greater availability and integration of skills information can help to ensure that Korea's skills system responds adequately to the technological and economic changes.

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NOTES

20. This includes 1) Establishing services sector infrastructure and tackling barriers (Ministry of Strategy and Finance), Boosting content sector (Ministry of Science, ICT and Future Planning (MiSIP), Ministry of Culture, Sports, and Tourism), 2 information protection services development (MiSIP).

21. Such data needs a cautious interpretation together with other indicators such as enterprise death rate, birth rate and survival rate by sector, size, and employment status (OECD, 2013c).

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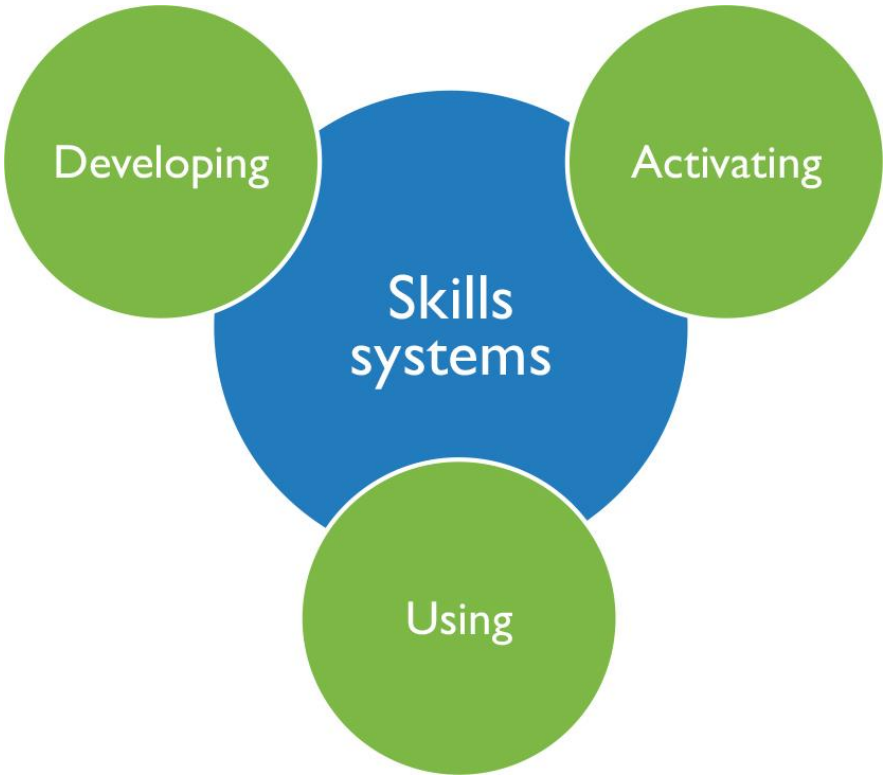
STRENGTHENING THE SKILLS SYSTEM



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INTRODUCTION TO STRENGTHENING THE SKILLS SYSTEM

An effective skills system needs to be supported by enabling conditions, including: coherence and inter-linkages of skills policies, engagement of the relevant ministries and stakeholders, and co-ordination across levels of government.

Ensuring coherence and inter-linkages of skill policies is critical as skills issues cover a broad range of sectors. For example, increasing female participation in the labour market requires co-ordinating a range of policies such as parental leave regulations, flexible working time arrangements, provision of adequate childhood care services, and reducing the gender payment gap. These different policies need to be coherent and linked to one another in order to have optimal impact with minimal duplication and inefficiencies.

Collaboration across different ministries and with stakeholders is necessary for skills policies to be implemented effectively. When relevant actors have a shared sense of responsibility and ownership they are more likely to agree on how to address skills challenges together. Different mechanisms can facilitate such collaboration. For example, sector councils in Korea convene industrial associations, employers' associations, and research and training institutes to identify training needs, skill shortages and mismatches. However, some key stakeholders, such as labour unions, are missing. Different ministries with competing roles run the sector councils. There is little coordination across them and a lack of evaluation regarding their effectiveness. Compared to other OECD countries, Koreans have less trust in their government. This is partly due to the discontinuation of policies and the cancellation of political promises. This makes effective collaboration even more challenging.

Since skills challenges vary across Korea, national and local governments have to collaborate to ensure that local skills needs are being met. Local governments differ in their tax-raising capacity, which leads to wide disparities in terms of available resources for public services. Some local governments are better equipped to address skills challenges than others. While the share of financial support from national government to the local government budget has decreased, the local government has to spend increasingly more on social welfare programmes. This has led to budget deficits and conflicts between national and local governments in areas such as the provision of early childhood and care services. More needs to be done to improve information on the supply and demand of local skills and to engage local stakeholders in addressing the local skills challenges together.

Given the vast array of factors that impact the skills system, and the wide distribution of responsibilities, these enabling conditions are critical for an effective skills system. They increase the ability of the system to adapt quickly and adequately to changing skills needs, as technological advances, globalisation, and population ageing, among other factors, alter the structure and skills requirements of current and future jobs.

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CHALLENGE 10. PROMOTING POLICY COHERENCE AND INTER-LINKAGES

The skills system, through designing and implementing effective skills strategies, needs to forecast and readily respond to structural and cyclical challenges in both the short and long terms. The economy can experience rising unemployment or acute skills shortages at any time. If the skills system is resilient to such events, there will be little concern regarding social cohesion and people's welfare in any economic circumstance, and skills will potentially drive economies. The fundamental challenge for Korea in building a strong and resilient skills system is how to effectively co-ordinate inter-linkages among existing challenges and ensure that well thought out policy coherence addresses these challenges. There is the need for policy coherence in a broad range of policy fields, including: education, labour and employment, industry, social welfare, public finance, and science and technology. Policy makers need to identify trade-offs and duplication among these diverse fields to avoid inefficiency and resource leakages (OECD, 2013a).

Box 32. Spotlight on Korea: Four major policy goals and 140 administrative tasks

The current administration has committed to tackling socio-economic problems and has suggested four major policy goals and 140 administrative tasks, which are categorised into 14 categories under the four administrative priorities, finalised on 28 May 2013: 1) economic revitalisation, 2) happiness of the people, 3) cultural renaissance and 4) laying the foundation for peaceful reunification.

From a skills perspective, these goals and tasks need to accompany a transformation of Korea's skills system. Based upon this new dynamic, this report can contribute to building an effective skills system.

10.1. Policy coherence and inter-linkages: Can the National Competency Standards shift Korea's skills system to be competency-based?

Systemic challenges – i.e. the lack of policy coherence and inter-linkages – facing Korea's skills system cannot be improved by changing or developing individual instruments such as the National Competency System (NCS), pension reform, providing child care allowance or part-time job creation for women. Korea needs to broaden its view on skills.

For example, the NCS can be a useful tool for encouraging a shift towards a competency-based society, but it is only one tool within the whole system. Developing and implementing the NCS cannot deliver the expected impact on a system level without proper analysis and system level understanding. The focus should, therefore, be on the system as a whole rather than on one single instrument. Korea's skills system has historically worked with a single key mechanism or instrument operating the entire system. Although fast and efficient, this approach cannot address the overarching and systemic challenges and transform the way the increasingly complex system operates.

The top-down and single-focused approach that Korea often undertakes is likely to ignore the engagement of relevant stakeholders and miss opportunities to build social cohesion and influence broader changes and improvements. The whole-of-government and whole-of-society approach may take longer, and can be seen as inefficient, but bringing together relevant stakeholders allows for discussions of systemic issues, sharing of different views and can help different actors to understand the bigger picture of society's shared challenges. Consensus made in such a process is valuable and legitimate, and more efficient in the long term.

Participants from the diagnostic workshop (Annex) expressed a realisation of how broad and complex skills issues are and how closely they are connected to each other. Skills systems are often imagined as focused on individual needs and interests, when in reality they are more complex. Different

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parts of society will need to communicate in order to understand how they fit into the skills system. Knowledge and information gaps can be bridged through a collective process of discussion and decision-making.

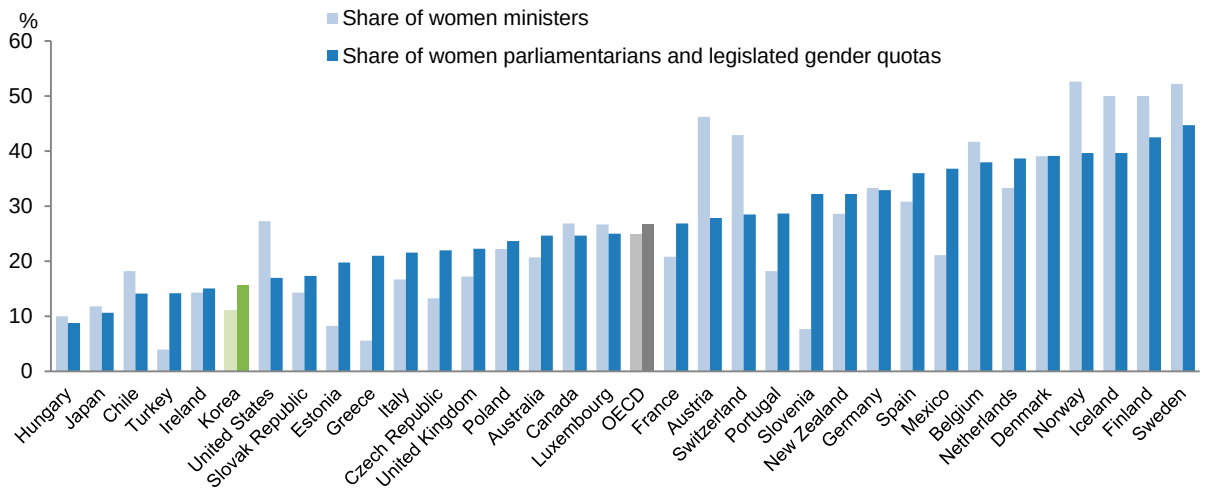
10.2. Increasing female labour market participation through improving work and family policies and culture

In order to boost female labour market participation and employment, the entire system related to female labour and employment, family and social affairs needs to be better co-ordinated. To make impactful changes, culture and mind-sets, both at work and at home, need to accept change. Policies, practices and culture should go hand in hand in this matter over a long period of time.

As mentioned under Challenges 4 and 7, there are complex inter-linkages between working hours, working schedules, childcare, parental leave, and female employment. Efforts should continue until stakeholders, including employers, change their behaviour and perception on parental leave, flexible working time arrangements, and family and female-friendly working environments. Changing the gender balance at home and the workplace is a difficult and long-term goal. A comprehensive mix of coherent polices must be combined with efforts towards cultural change.

Policy measures such as parental leave aimed at increasing female labour market participation are conducive to other labour policy goals, such as activating youth and older workers and reducing excessive working hours. Low levels of top and middle management positions in the national government occupied by women (Figure 77) show a lack of leading by example (OECD, 2011). Female employment in the government sector should grow to be in line with the policy to boost female employment in the labour market. Such policy coherence, consistency and synergy could be better emphasised. When such linkages among policies are constructively considered, achieving multiple goals with the least effort and cost can be possible, although the process may remain challenging.

Figure 77. Share of women in government, 2012



Note: Data refer to share of women parliamentarians recorded as of 31 October 2012. Percentages represent the number of women parliamentarians as a share of total filled seats. Data represent women appointed ministers as of January 1, 2012. The total includes Deputy Prime Ministers and Ministers. Prime Ministers/Heads of Government were also included when they held ministerial portfolios. Vice-Presidents and heads of governmental or public agencies have not been included.

Source: OECD (2013b), *Government at a Glance 2013*, Figure 6.9 and 6.10, http://dx.doi.org/10.1787/gov_glance-2013-en.

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10.3 Co-ordination and collaboration between education, employment, and industrial policies

The contrasting results between exceptionally high performance and enrolment in initial education, and low performance in skills and labour market outcomes, reflects the poor co-ordination and collaboration between education, employment, and industrial policies. Effective co-ordination and collaboration of policies in terms of vocational education, higher education, job creation and school-to-work transition is critically important.

Korea aims to move away from a heavy reliance on initial education towards fostering skills-oriented, lifelong learning and education. Achieving this goal will not be possible without relaxing the premium placed on higher education degrees and providing high-quality lifelong opportunities for skills development. Changes in a broad range of policy fields, and the concerted engagement of governments, employers, employees, parents and students, and training providers, are required. Moreover, individuals with poor skills will require particular attention from education, labour, and industrial policies as they are unlikely to engage in education and training on their own initiative, tend to receive less employer-sponsored training, and often end up in unproductive sectors and jobs (OECD, 2013a).

There are industrial complex development projects spread out across different ministries, including: The Ministry of Trade, Energy and Industry's (MoTIE) Industrial Complex Environment Design Project (such as hotels, cultural and welfare centres); the Ministry of Land, Infrastructure, and Transport's (MoLIT) Revamping Decrepit Industrial Complex project; and the Ministry of Education's (MoE) Industrial Complex Campus project. These projects would benefit from policy co-ordination and coherence. Local authorities, local companies and local educational institutions can help in this regard.

Policy coherence and co-ordination within ministries is also important. For example, issues of early child education and care, initial education, vocational education and training, higher education, as well as the NCS and qualification systems, are often dealt with as separate issues, even though they are closely inter-linked. To encourage coherence and co-ordination there need to be detailed implementation plans and clear collaboration, both within and among ministries.

In an attempt to efficiently and effectively achieve these new goals, the MoE has introduced the "issue card system". This voluntary system is used to consider key policy issues from the demand side and field point of view, rather than only the policy providers' view. For example, issue cards for the NCS and learning module development contain a policy goal, plan, tools and timeframe, as well as relevant stakeholder contact information. In this way, transaction costs and negotiating efforts between stakeholders can be reduced. The most selected tasks are discussed and implemented.

Box 33. Mechanisms for national cross-sectoral co-ordination in OECD countries

Co-ordinating structures such as inter-ministerial committees and commissions. This is one of the simplest systems for horizontal governance as it is based on the existing government structure.

Fully-fledged ministries with broad responsibilities and powers that encompass traditionally separate sectors. Some positive implications of the concentration of different responsibilities within the same authority include: a more open and coherent view, the concentration of skills and the possibility for a more integrated approach.

Strategic planning and programming, including agreements, frameworks and instruments. The formulation and implementation of national policy programmes can provide the impetus and framework for greater central co-ordination and is widely used across OECD countries. Long-term strategic documents, focusing on the co-ordination of diverse issues and interests across sectors as well as between levels of government, often incorporate monitoring, feedback and revision mechanisms.

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Special units or agencies that provide planning and advisory support to facilitate policy coherence across sectors at the central level. High-level "special units" have been created in several countries to ensure consistency among sectors. The closer such units or co-ordinators are to a chief executive, the greater the incentives are for co-operation across sectoral ministries.

Combining financing and/or creating a consistent and comprehensive budget. The budgeting system is also a powerful tool for more integrated policy making. Integrating financial tools and programmes can contribute to improve transparency, synergy across sectors and facilitate accountability and performance monitoring.

Source: Adapted from OECD (2010a), *Regional Development Policies in OECD Countries*, http://dx.doi.org/10.1787/9789264087255-en.

Summary and policy implications

Coherence and inter-linkages of skills policies are critical as skills issues cover a broad range of sectors. Skills policies are relevant for a variety of sectors, including: education, employment, industry, social welfare, public finance and science and technology. Policy makers need to identify how these different policies can complement one another in order to avoid inconsistencies, inefficiencies and duplication of efforts. Only then will the skills policies have optimal impact.

Examples of where such coherence is particularly necessary include the development and introduction of the National Competency Standards and the increase of female employment rate. In order for the National Competency Standards to work, it not only needs to be applied by schools, universities and training centres through a revised curriculum based upon those standards, but also used by employers in their recruitment, employment, wage-setting, placement and promotion systems. Unless all actors implement this initiative in a coherent manner, it won't be effective. Similarly, increasing female participation in the labour market requires co-ordinating a whole range of policies, such as parental leave regulations, flexible working time arrangements, provision of adequate childhood care services, and reducing the gender payment gap.

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CHALLENGE 11. STRENGTHENING WHOLE-OF-GOVERNMENT AND WHOLE-OF-SOCIETY APPROACH TO ADDRESS SKILLS

Building an effective skills system at both national and local levels requires a whole-of-government approach across all relevant government portfolios, together with the active and concerted engagement and collective efforts of all stakeholders: employers, unions, education providers and civil society. In designing and implementing skills policies, Korea needs to address the tough political questions of who pays for what, when and how; who will be the winners and losers; and how to equitably compensate the losers. This process requires more than co-ordinating different sectors of public administration and aligning different levels of government: a broad range of non-governmental actors, including employers, professional and industry associations and chambers of commerce, trade unions, education and training institutions and individuals must also be involved (OECD, 2013a).

The challenge for Korea is to ensure effective inter-ministerial and inter-stakeholder collaboration while ensuring shared responsibility and ownership. Korea's dynamic character and fast-decision making processes helped it to achieve rapid economic growth and social development and are useful when quick reactions are necessary. However, there are also occasions when a policy measure needs time to prove its effectiveness, notably in the case of skills policies. Korea needs to encourage and co-ordinate the collaboration of actors and institutions who can influence the skills system.

11.1. A whole-of-government approach and commitment

Building a creative economy requires, among other things: efforts to change corporate culture and to promote entrepreneurship and creative skills for new jobs and skills (Challenge 2); efforts to enhance adult skills through lifelong education (Challenge 3); and a shift towards a competency-based assessment and hiring environment (Challenge 4, 5 and 6). These initiatives have to be examined in the context of the overarching policy objective of the government to transform Korea into a "creative economy", characterised by the presence of more highly productive services (rather than low-skilled service activities), new business start-ups and small firms (rather than large manufacturing), and local innovation (thus softening the current strong dependence on the adaptation of global technologies).

Tackling certain challenges will invite resistance from stakeholders that benefit from the status quo. For example, tackling the overemphasis on higher education (Challenge 1) will invite resistance from stakeholders among higher education institutions, particularly teachers and graduates. Korea will need to manage this challenge while co-ordinating a nationwide discussion among stakeholders that leads to a consensus or alternative plans.

Social and skills outcomes resulting from different performances in different segments of society

The *Better Life Index* (OECD, 2013c) shows how Korea's low performance in different parts of society can have negative outcomes on skills development, activation and use. For example, Korea has the longest commute time among OECD countries[22] and comparatively low life satisfaction, which can both affect work productivity. High civic skills that make society strong and inclusive (ICCS, 2009) and the average level of trust in others can affect the policy decision-making process. In Korea, the gap between social network support and educational attainment is among the highest in OECD countries (Figure 78).

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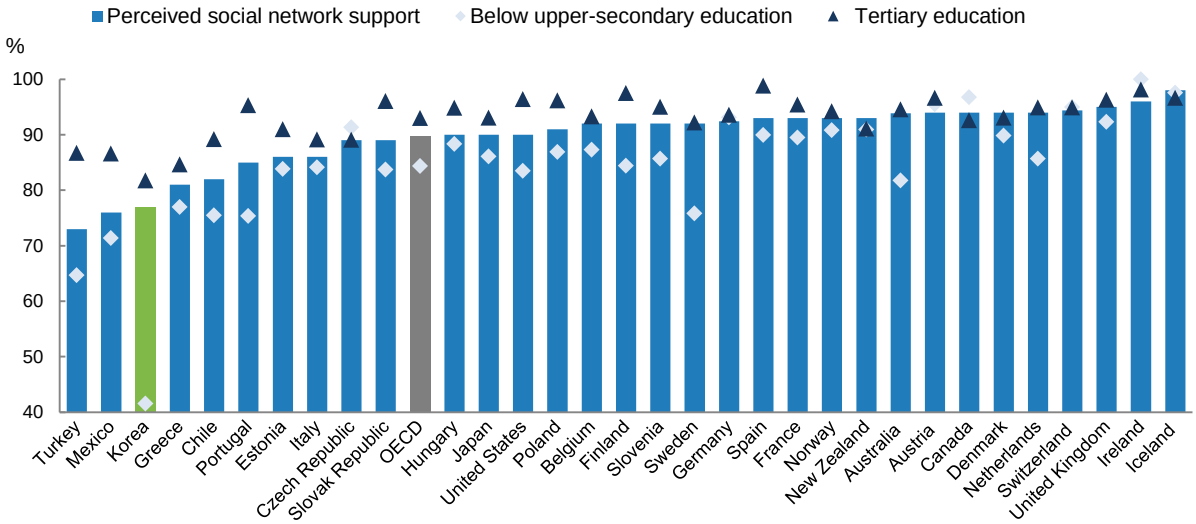
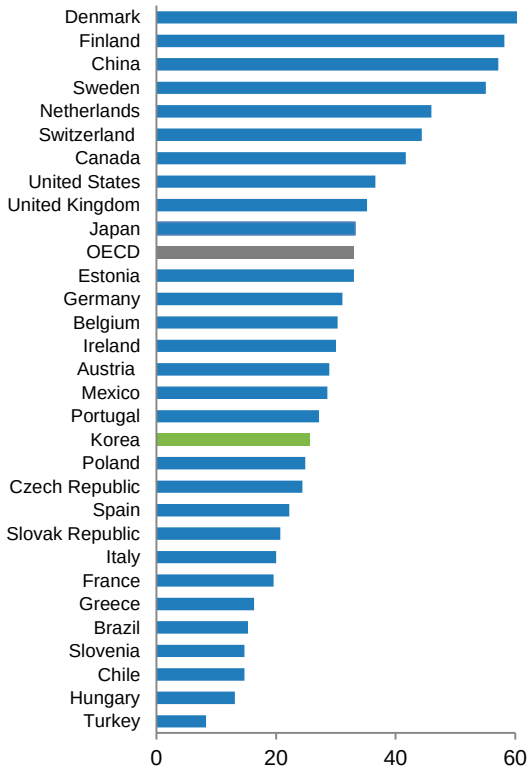
Figure 78. Social network support and trust

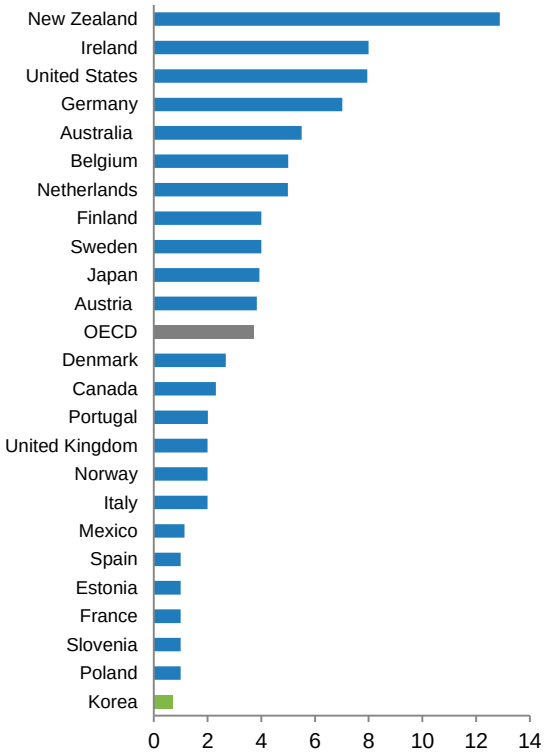
A. Social network support by educational attainment,
Percentage of people who have relatives or friends they can count on for help in times of need, 2010 or latest available year



B. Trust in others,
Percentage of people saying they most people can be trusted, 2009 or latest available year



C. Time spent volunteering,
Minutes per day, latest available year



Source: OECD (2013c), *How's Life? 2013: Measuring Well-being*, http://dx.doi.org/10.1787/9789264201392-en.

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Governance and co-ordination of skills actors: example of sector councils

The autonomy of Korea's ministries is significant and prevents effective co-ordination, coherence, and consistency on the implementation of skills strategies. The weak operation of sector councils illustrates this well.

Sector councils consist of industrial associations, representative businesses, and relevant research and training institutions. They encourage consultation between skills demand and supply sides in each sector in order to meet industrial needs and feed those needs into education and training providers. Their roles consist of regularly identifying and analysing sectoral skills and training needs, as well as skills shortages and mismatches, and transmitting this information into the national skills needs identification system.

Sector councils have played an insufficient role in skills matching mainly due to the limited participation of certain stakeholders. Unlike in other OECD economies, sector councils in Korea are mainly run by the government. Currently in Korea, firms recruit, train and use workers internally based on their individual needs rather than addressing the skills and training needs collectively by sector or occupation. Labour unions have no interest either in collective efforts in skills recognition, use and development as they have other priorities to address, such as wages and working conditions.

By 2013, 17 sector councils were being run under the MoTIE, with occasional collaboration undertaken with the MoE and the Ministry of Employment and Labour (MoEL). Recently, a sector council in the software sector was established in co-ordination with MoTIE and the Ministry of Science, ICT and Future Planning (MiSIP). Despite these developments, little research has been done on evaluating the place of sector councils in the labour market and suggesting new ways to activate their role and build their capacity. MoTIE has limited policy intervention tools in terms of human resources development, i.e. skills identification, development and matching, as it focuses mainly on high-skilled industrial-technical workers and limited industrial skills needs.

When established, sector councils operated separately from existing skills development, qualification and occupation standards. The initiatives of sector councils for MoE and MoEL could be seen as competing with the standards' respective roles in Korea's skills system and those implementing the standards were not actively engaged. More recently it has been acknowledged that sector councils have the potential to channel "demand side voices" and can enable the decentralisation of the skills system. For example, MoEL saw the potential of sector councils as a delivery mechanism for vocational education and training (VET) and as a distribution channel of NCS application packages to associated firms. MoE and MoEL have encouraged and supported sector councils through the work-study dual system and the local-industry tailored skills development system.

However, in the context of the currently centralised skills system, the role of sector councils remains limited. To strengthen the role and maximise the potential of sector councils, Korea's skills system requires a comprehensive vision for decentralising the skills system and VET policies. In addition, concerned ministries will need to assist sector councils with capacity building and encourage the participation of labour unions. MoTIE is reportedly planning to restructure sector councils to operate on a more regional basis, including funding and operational mechanisms. This would seem to link or combine two different statutory and nominal institutions: sector councils and regional human resources development councils. This could result in links between locally specialised industries and local skills policies while strengthening the local skills system, including skills identification and matches. In addition, if business associations could run their sector councils as independent organisations that lead skills development, activation and use based upon their relevance to industry, competition may grow into collaboration.

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The current organisation of sector councils means that social partners are not able to actively engage in aspects such as the position of industrial or labour representatives, or the funding composition. In order to benefit from social partner engagement in reducing skills mismatches, it is necessary to understand their interests and to ensure that different institutions – MoTIE, MoEL, MoE and recently MiSIP – engage, take ownership for, and strength the role of social partners.

There are tensions relating to skills development, activation and use between ministries (political power games or budgetary competition), government and stakeholders (centralised to localised), and individuals and institutions (formal education and qualification versus individual learning outcomes). Providing incentive mechanisms is not enough to ease tensions, all relevant stakeholders should discuss, collaborate and build consensus wherever relevant. If Korea does not break through the communication barriers facing stakeholders' ability to participate in discussions around skills challenges, stakeholders will lose faith in their battle against the problems that prevent skills development, activation and effective use.

Box 34. Fostering joined-up public service delivery

In **Australia**, an international leader in innovative service delivery, the most important example of horizontal integration for innovative service delivery is the Centrelink agency. Centrelink aims to provide a one-stop shop where all central government social services and benefits are horizontally integrated. The agency delivers payment services on behalf of the Ministry of Human Services and the Ministry of Families, Housing, Community Services and Indigenous Affairs, as well as 20 other agencies and ministries. Centrelink has an integrated ICT database that contains all the relevant information regarding a citizen's potential payment needs. The payment services include: old-age pensions, family support, unemployment benefits for young people, study loans and disability pensions. Centrelink recently took over the passport service. The case-handling staff, based either in the headquarters or in the 15 regional offices, are organised according to programme, and programme staff also have counterparts in the line departments that Centrelink serves. Regarding the relationship between the agency and the line ministry, Centrelink officials have suggested that they should be involved early in the policy development process by participating in departmental working groups in order to assess the implementation requirements that new initiatives will entail.

In **Denmark**, the emphasis has been on using ICT to make interaction with the government "seamless". A citizen portal is in the process of being set up that will enable a broad array of public sector organisations – central and local – to use a common interface with citizens. Horizontal integration is also pursued across government through enhanced ICT standard setting by the Ministry of Finance, which will allow easy communication between all government units (central and local). The use of common e-government components across the public sector or within selected domains is of great utility, not only to ensure increased efficiency (with large savings in some cases) but also to establish a more integrated public sector.

Source: OECD (2013d), *Value for Money in Government: Norway 2013*, Value for Money in Government, http://dx.doi.org/10.1787/9789264201927-en.

Improving trust in government for better skills strategy implementation

Despite the shift towards greater effective transparency, Korea has not translated this into higher levels of trust expressed by citizens on how various institutions function. More than 60% of Koreans think that corruption is widespread throughout the government and only about 30% of Koreans express high trust in the government (Figure 79). This lack of trust also exists in terms of the judicial system and the media (Figure 80).

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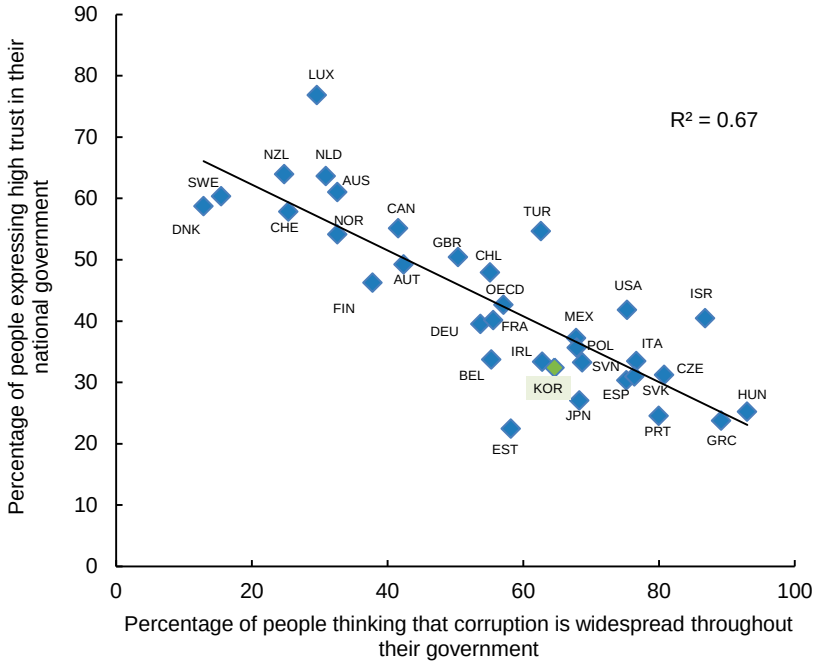
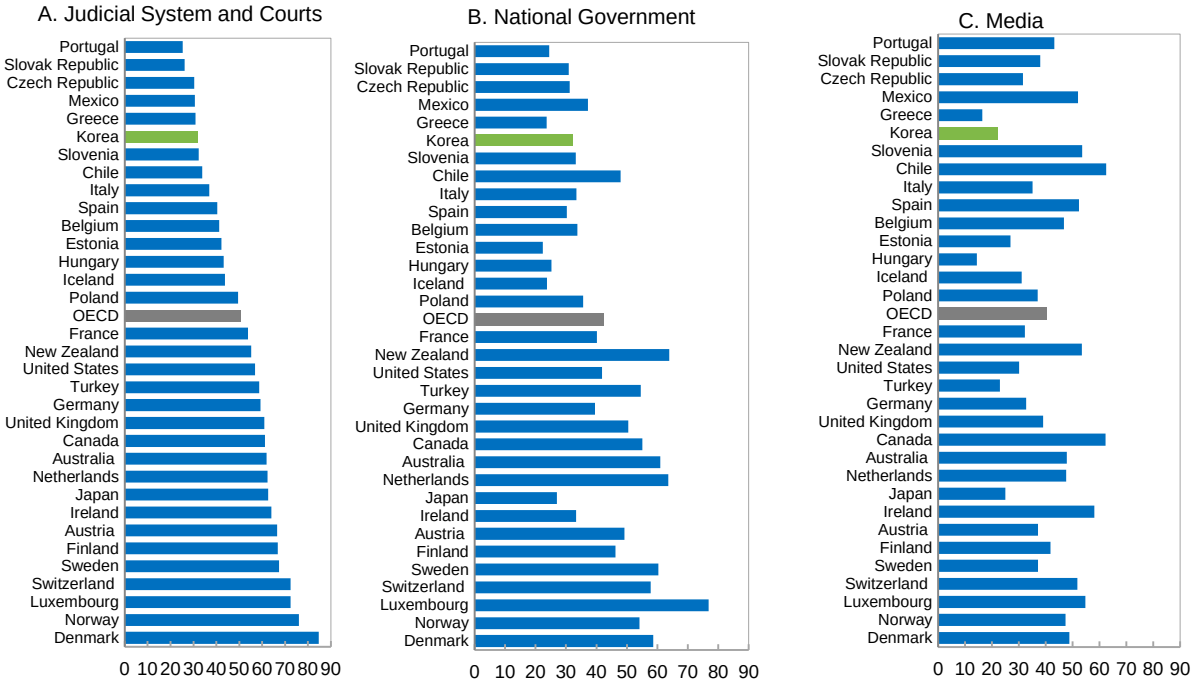
Figure 79. Correlation between trust in institutions and perceived corruption in government, 2010 or latest available year



Source: OECD (2011b), How's Life? Measuring Well-being, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

Figure 80. Trust in institutions, % of respondents reporting high levels of trust in institutions, 2010



Source: OECD (2011b), How's Life? Measuring Well-being, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264121164-en.

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The discontinuation of policies and cancellation of political promises can discourage trust in government. For example, the previous government claimed to support green growth and promised to create 950 000 new jobs by 2030 (ILO, 2011), but that promise has not been fully continued by the current administration, which carries the banner of creative economy. Although it may be politically inevitable to shift a government's direction, such discontinuation of policies and efforts should be avoided, especially regarding skills strategies that require long-term investment.

The process of communication, consultation and engagement allows for public participation of stakeholders in the regulation making process as well as in the revision of regulations. Such processes can help governments understand the needs of citizens and other stakeholders and improve trust in government. It can also help governments collect more information and resources, increase compliance, and reduce uninformed opposition. It may enhance transparency and accountability as interested parties gain access to detailed information on potential effects of regulation (OECD, 2012a).

Korea's measures for normalisation of public institutions (11, December 2013) could help alleviate citizen distrust in government. As part of increasing information transparency and public management efficiency, the measures will provide information on nepotism in government and cases of excessive use of benefits for public servants, such as inappropriate use of leave or allowance (retirement, education, health care or other welfare).

During OECD Ministerial Council Meetings in 2014 and 2015, trust was recognised as a crucial enabler for policy success in creating jobs and promoting equity. In many countries, trust in government and institutions has deteriorated during the economic crisis. Transparency, responsibility and accountability are critical for restoring trust and need to be promoted by countries like Korea (OECD, 2014g).

11.2. Bringing together institutions and stakeholders

Increasing participation of social partners and other stakeholders

A surprising finding from the OECD fact-finding interviews and national diagnostic workshop (see Annex) was the missing participation of labour unions in skills forums such as sector councils. Participation of employers, trade unions, experts and other stakeholders in the identification and forecasting of skills needs is necessary to co-ordinate the different interests underpinning the skills system. The role of regional governance and sector councils needs to be effectively increased for more appropriate and responsive skills needs identification. Due to a weak culture of partnership among industry, education and training providers, labour unions, and government; the impact and role of sector councils in offering comprehensive and concrete information on skills needs are limited (ILO, 2011). However, there are mechanisms and instruments that can encourage social dialogue. Sectoral councils still have a role to play, although perhaps in a different way, in identifying new emerging skills and training needs in a specific sector. However they will require more active participation from trade unions.

In order to increase the coherence and co-ordination of skills policies that are expected to deal with more complex issues, the government requires consensus and support from stakeholders. These stakeholders need to be informed and provided a chance for engagement. The government should constantly identify and tackle the barriers to bringing together different actors and social partners in the skills system.

Employers, including small to large firms and start-ups, are encouraged to hire more employees. Changes in the labour market arrangements and hiring practices in Korea need to be more readily accessible to the inactive and unemployed. This cannot be done by employers alone, but would require the collaboration with labour unions, students, parents, teachers, and education institutions. The National

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Commission for Corporate Partnership (NCCP) also states their hope to "lead the efforts for corporate partnership through intensive communication and implementation of the spirit of social consensus".

Some specific examples highlight the need for stakeholders and ministries to take collective and social responsibility:

Korea has the highest youth unemployment rate among OECD countries. The unemployment of Korean youth, particularly youth neither in employment nor in education or training (NEET), is more serious than it appears as there are few second chances and strong stigma effects. Tackling this challenge requires increased awareness from employers, parents, teachers, students, and education and training providers, including lifelong education. These stakeholders must take responsibility and ownership of the challenge along with education and labour policy makers (Challenge 5).

In order to address the shortcomings of vocational education, the work-study dual programme is being revamped at the secondary and tertiary education levels (Challenge 5). Problems identified include poor working and employment conditions, a lack of institutional protection for students in the workplace, low regard for vocational education in Korea, and age-based hierarchy in the workplace. An additional issue is the subsidy programme that awards funds based on the employment rate of graduates. This has the effect of encouraging schools to place students regardless of the quality of the workplace or job.

Although Korea is trying to accomplish this revamp through strengthened legal protection, working conditions and industrial safety, there have been disagreements on some points. The MoEL favours a system that strengthens vocational training through employers awarding students a junior college or university degree equivalent upon completing their work experience. This will have the positive effect of ensuring that vocational education more closely matches industry needs, while also ensuring that graduates receive a degree. The MoE argues that this will undermine the junior college system and instead favours maintaining the current system but addressing the overall quality of vocational education in terms of placements and curriculum and adding a national technical qualification upon completion of the training in the workplace. Implementation of some of these changes is already underway (Challenge 1, 2 and 5).

To supplement the Vocational High-School Advancement Plan (2010-2015), local employment service centres were established in the education bureaus of 16 cities and provinces, in co-operation with local public employment services, local job centres, Korean Chamber of Commerce and Industry (KCCI), and Small and Medium Business Administration (SMBA). Criticism of this plan remains due to unsatisfactory employment outcomes of graduates from specialised vocational high-schools, and the ambiguous status and vision of the evaluation for basic vocational skills (Challenge 1 and 5).

Box 35. International review on financing and investing skills

Levy system: Employer contributions through levy systems are the most widespread mechanism used to induce employer co-investment in training. Levy systems have been adopted by Governments in Belgium, Cyprus[1 2], Denmark, France, Greece, Hungary, Ireland (e.g. Ireland Skillnets Training Network Programme), Italy, Korea, Malaysia, the Netherlands, Quebec (Canada), Singapore and Spain. Such levies may be based on compulsory or voluntary contributions and may be applied universally or on a sector-by-sector or regional basis.

Direct subsidy: Governments in Australia (e.g. Australia Apprenticeship Incentive Programme), Denmark, Finland and Germany provide direct funding to employers in the form of grant payments or training vouchers. Such funding may also be channelled through training funds, such as the Employer Ownership Pilot in England.

Tax expenditures: Governments in Austria, Canada, France, Iowa (USA), Italy, Luxembourg, Malta, the Netherlands (e.g. Payment Reduction for Education), Norway, South Africa, and Spain provide indirect funding to employers in the form of tax allowances, credits, exemptions and reductions. Such relief may be channelled through the social security or corporate income tax systems.

Sources:

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Marsden, J., ICF GHK, & Dickinson, P. (2013), *International Evidence Review on Co-funding for Training, Department for Business, Innovation and Skills (BIS)*, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/210881/bis-13-1014-international-evidence-review-on-co-funding-for-training.pdf.

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Froy, F., & Giguère, S. (2010), "Putting in Place Jobs that Last: A Guide to Rebuilding Quality Employment at Local Level", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2010/13, http://dx.doi.org/10.1787/5km7jf7qtk9p-en.

Torres, C. (2012), "Taxes and Investment in Skills", *OECD Taxation Working Papers*, No. 13, http://dx.doi.org/10.1787/5k92sn0qv5mp-en.

Notes:

1. Note by Turkey:
The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

2. Note by all the European Union Member States of the OECD and the European Union:
The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Summary and policy implications

Collaboration across different ministries and with stakeholders is necessary for skills policies to be implemented effectively. When relevant actors have a shared sense of responsibility and ownership they are more likely to agree on how to address the skills challenges together.

Different mechanisms can facilitate collaboration. For example, sector councils in Korea convene industrial associations, employer associations, and research and training institutes to identify training needs, skill shortages and mismatches. However, some key stakeholders, such as labour unions, are missing. Sector councils are run by different ministries with competing roles. There is little coordination across them and a lack of evaluation regarding their effectiveness. Unless the sector councils are improved or other effective mechanisms are introduced, it will remain difficult to facilitate collaboration among the wide range of stakeholders who often have different and at times opposing interests and needs.

Continuity of skills policies is particularly important as certain skills policies, such as in education, can take a long time to show results. The discontinuation of policies and cancellation of political promises in Korea have contributed to a low level of trust in government compared to other OECD countries. This makes effective collaboration even more challenging.

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CHALLENGE 12. IMPROVING THE COORDINATION AND COLLABORATION ACROSS LEVELS OF GOVERNMENT TO IMPROVE SKILLS OUTCOMES

Policy coherence, inter-linkages, and a whole-of-government and whole-of-society approach are required to co-ordinate national and local concerns and strengthen collaboration. Promoting closer co-operation between local governments and local educational authorities, as well as partnerships between national and local governments, is important to help address the different challenges facing various regions and flexibly implement tailored policies. Considering local variations in skills supply and demand, using local skills and sources, including public employment services and local training authorities, and addressing different local needs and local stakeholders, are key for building effective local skills strategies (OECD, 2012b).

Korea has made efforts to decentralise management of the skills system and employment policies, such as a local job creation programme (Box 36) that provides funding to local municipalities and employment centres to design their own initiatives (OECD, 2014a). However, policy silos impede the effective co-ordination of government interventions at the local level. Employment offices, economic development agencies and local training institutions often work separately from each other, following different policy objectives and working on different time scales. Policy integration is difficult at the local level as duplication is frequent, leading to wasted public resources. Local governments may have an overview of policy interventions at the community level, but they may not have authority over the local bodies to make change (OECD, 2010a). Well-established local skills systems can be responsive and flexible to changing labour market needs. However they may struggle in the context of weak local governance, a lack of capacity, and no partnerships with national government and local bodies and actors.

Box 36. Spotlight on Korea: Local-based Job Creation Programme

The local-based job creation support programme was created to help local NGOs, academic institutions, worker and employer organisations, and local governments conduct research on their local labour markets and develop creative job creation projects. In 2012, under the local-based job creation support programme, the government selected 276 local projects through an open bidding process and provided them with funding of KRW 31 billion (USD 29 million). Among the selected projects, specialised projects accounted for the biggest portion with 241 projects, followed by 12 "packaged projects", 8 research projects and 15 forum projects. Furthermore, with a view to strengthening the connection with "the local job creation strategy notice system", the government began in 2012 to provide financial support to local governments with good records in relation to the system. An additional KRW 3.2 billion was granted to 36 local governments to finance their local-based job creation projects.

Sources:

Ministry of Employment and Labour (2012), *2012 Employment and Labour Policy in Korea*, http://www.moel.go.kr/english/data/130111_2012_Employment%20and%20Labor%20Policy.pdf;

OECD (2014a), *Employment and Skills Strategies in Korea*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264216563-en.

12.1. Co-ordination and collaboration between national and local authorities

Co-ordinating policy and funding arrangements between national and local authorities

Economic disparities constitute the single biggest factor behind unequal access to public services across a country. They translate into differences in tax-raising capacity, which makes it difficult for some jurisdictions to provide adequate service levels. Disparities differ considerably across countries, but Korea shows a comparatively wide disparity. However, this indicator needs to be considered along with the cost of public services as the composition of the population, as well as the geography, is not the same from

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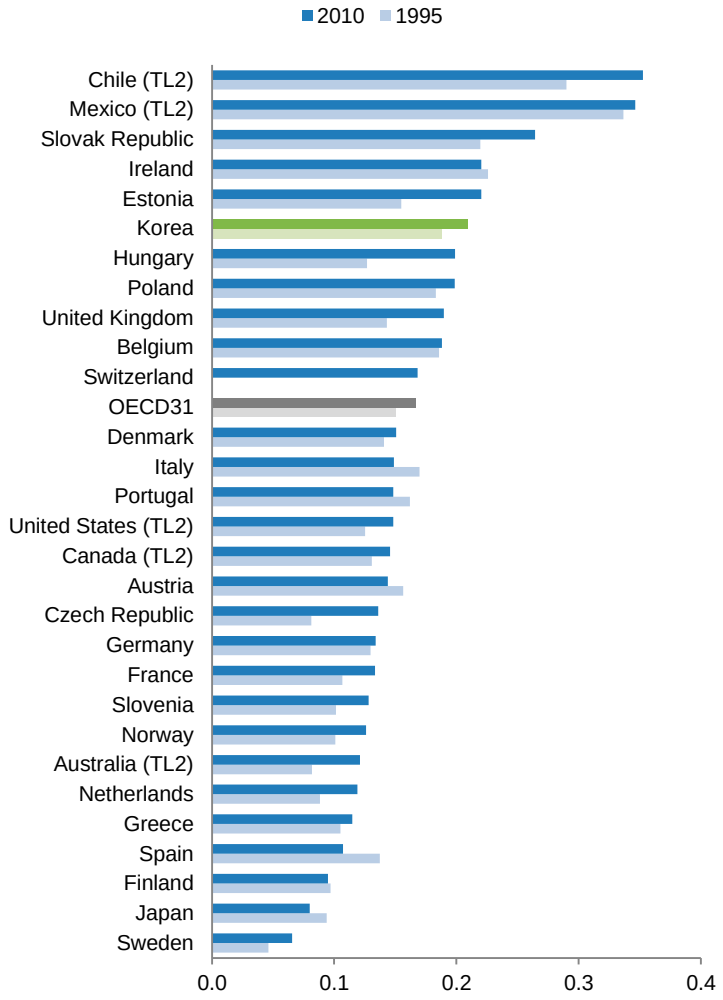
one jurisdiction to another, and the cost of public services targeted at special groups (e.g. children, elderly, ill, disabled, the unemployed) may be higher (OECD, 2013e).

Figure 81. Korea's regional GDP disparity is comparatively high

Sub-central GDP per capita dispersion, Gini coefficients



Note: TL2 indicates Territorial Level 2

Source: OECD (2013f), *OECD Regions at a Glance 2013*, http://dx.doi.org/10.1787/reg_glance-2013-en.

Information on economic disparities may alert or call for a change of policy. Public spending on education and training, and related tax codes, can provide direction to people in terms of where and what to study, where to aim for in their career, and where to work, through providing subsidies, grants, scholarships, research funding or other incentives. The relevant stakeholders such as the national government, local governments, households and individuals need to collaborate with one another to bring about lasting change. If there is no such co-ordination and collaboration, there may be miscommunication, or they may receive incorrect signals for skills and labour market choices.

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For example, Korea's "Policy direction for services sector and the first measure" was released on 4 July 2013 to boost service sector job creation and growth. This includes establishing services sector infrastructure and removing obstacles for the growth of the service sector. However, there are some measures that local authorities are not satisfied with as they reduce local taxes or place a burden on local authorities without additional financial support. Policy coherence between service sector activation and general tax policy needs to be considered (Ministry of Strategy and Finance, 2013a). In the broader picture, possible conflicts between job creation policies and policies aimed at boosting local economies need to be well co-ordinated.

Similarly, the implementation of early childhood education and care policy is facing difficulty due to a lack of agreement from local governments tasked with the responsibility of providing funds, as previously mentioned in Challenge 4. For example, the Seoul city government announced a KRW 20 billion (USD 18 million) local government bond to cover the funding gap for free child care received from the central government. Local governments received 20% (raised from 15% in 2006), which is low compared to other standard support distributions of 50-80% for other major welfare projects (Table 11). As the coverage of support has increased from covering only the lower income level to all income levels, this support has turned out to be vastly insufficient (outstanding needs amount to more than KRW 1 trillion or USD 930 million per year) and leaves room for inefficiency. This has led to a conflict between local and central government and a bumpy implementation of the free child care policy. Central government needs to justify shifting responsibility given the current level of budgetary burden facing local governments.

The Association of Korean Governors has identified the tendency of the national government to gradually move the financial burden of legally designed support to local governments: the proportion of the support budget of central government to local governments has decreased from 68% to 60% between 2007 and 2013, while local social welfare spending increased from 15% to 22%. Many experts, including the Korea Institute of Child Care and Education (KICCE), claim there is a need to raise the proportion of the national budget for the child care service's initial year of implementation, or until the child care service capacity gaps between local governments are resolved. However, central government faces an extreme budget deficit (Park, 2013; KICCE, 2013).

Table 11. Legally assigned national budget on the major welfare projects, 2013

Project	Seoul (%)	Other local government (%)
Support for the lowest income level citizens	50	80
Basic pension for seniors	69	76
Pension for the disabled	50	70
Activity support for the disabled	50	70
Monthly medical support for the lowest income level	50	80
Self-support labour	50	80
Child care tuition	20	50
Child care allowance for homecare	20	50

Source: KICCE (2013), Korea Institute of Child Care and Education, https://www.kicce.re.kr/eng/notification/01.jsp?mode=view&idx=8090&startPage=70&listNo=306&code=englishnew01&search_item=&search_order=&order_list=10&list_scale=10&view_level=0.

The financial burden of the skills system needs to be shared between national and local levels, taking into consideration different local financial capacities and independence and different needs in a way that supports local economies and labour markets. A lack of policy flexibility at the local levels, such as education, training, employment, industry, tax, and public finance, undermine the effective implementation of skills strategies.

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Box 37. Example of co-ordinating and collaborating between the national and local levels

In Germany, Perspektive 50 Plus (Employment pact for older workers), launched in 2005, aims to: integrate the long term unemployed over 50 into the labour market; to initiate and launch innovative projects and strategies at the regional level; to develop a supportive regional network; and to raise awareness of active ageing among employers. The programme is based on co-operation between job centres and regional partners, such as enterprises, employers' chambers and associations, municipal and educational institutions, trade unions, churches and charitable organisations. Measures include counselling, training, integration subsidies, and coaching for better self-images. Coaching is also available after return to the labour market. In 2011, around 200 000 older persons got involved in the programme, out of which 70 000 found employment. One third was employed using integration subsidies.

Source: OECD (2006), *Germany "Perspective 50 Plus" – Employment pacts for older workers in the regions*, http://www.oecd.org/employment/leed/37729545.pdf.

Strengthening local authorities and economies to use local skills

Balanced development between regions and local areas requires locally tailored policies and is imperative for using skills effectively. Considering how Korea suffers from long hours of travel to work, mostly to dense urban areas, the administrative scope of a region or a local area can be redefined by its labour market. In this regard, an attempt to identify functional labour market areas and employment zones based on commuting statistics and regional employment statistics, such as in Sweden (Carlsson et al., 1993), New Zealand (NZ Department of Labour 2001), or the United States (U.S. Department of Labour, 2013), could provide useful policy insights. These policies have lagged behind due to a lack of local data on skills supply and demand, plus other relevant data.

Identification of skills flows between regions is important for skills matching. Labour supply and demand data can point to overall availability but do not indicate where those skills are available and how to achieve supply and demand balance. Data and information exists from each region but there is no co-ordinated approach. Monitoring of skills flows between regions cannot be done by a local authority alone, but requires collaboration and co-ordination between national and local authorities.

Figure 82 shows the local skills equilibrium for Korea. It highlights how a mismatch between the supply and demand of skills in the local labour market can create inefficiencies. While *Gyeonggi-do* falls in the high skills equilibrium quadrant, meaning that demand for high skilled workers is met by an equal supply of high skilled workers, *Busan* falls in the skills surplus quadrant, showing that the supply of skills is higher than demand. When mapped against 2010 unemployment rates, it is notable that places with values higher than the national average are in the right part of the chart. This means that even if there is a skills equilibrium among those workers who are highly skilled, high levels of unemployment could exist for the less qualified. The skills surplus in *Busan* and *Daegu* increased between 2000 and 2010, and over a similar period (2002-2010), there was a 2% per annum youth outflow from *Busan* and 1.5% from *Daegu* (Figure 83). It may be that youth left the region to search for more job opportunities in the context of a skills surplus. Estimates of labour supply and demand for individual regions are available, but labour and skills flow is difficult to track. Efforts at tracking this type of data would be beneficial for helping to bring all regions into high skills equilibrium.

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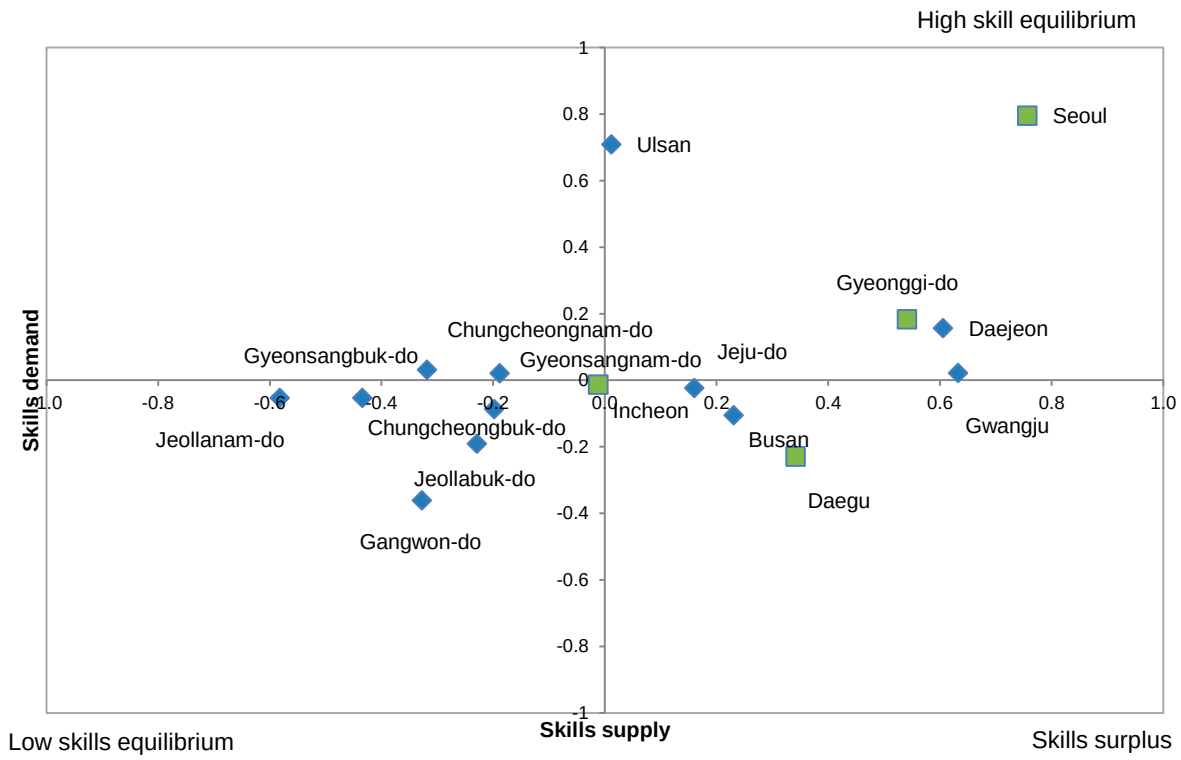
Figure 82. Local skills equilibrium

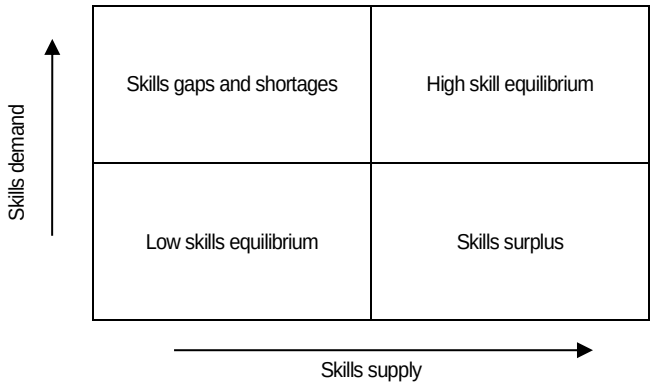


Source:
OECD (2014h), Employment and Skills Strategies in Korea, OECD Reviews on Local Job Creation, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264216563-en.

Box 38. Balancing skills supply and demand at the local level

Research by the OECD LEED Programme has highlighted how a mismatch between supply and demand can build up at the local level, which creates inefficiencies in the local labour market as the skills being deployed are not effectively utilised by employers. A statistical tool has been developed to understand the balance between skills supply and demand within local labour markets.

Understanding the relationship between skills supply and demand



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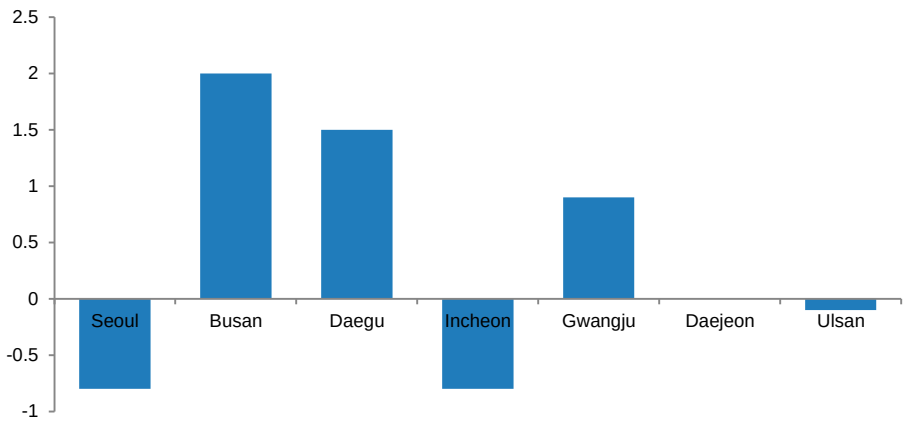
Looking at the figure above, in the top-left corner (skills gaps and shortages), demand for high skills is met by a supply of low skills, a situation that results in reported skills gaps and shortages. In the top-right corner, demand for high skills is met by an equal supply of high skills, resulting in a high skill equilibrium. This is the most desired destination of all high performing local economies. In the bottom-left corner, the demand for low skills is met by a supply of low skills, resulting in a low skill equilibrium. Lastly, in the bottom-right corner, demand for low skills is met by a supply of high skills, resulting in an economy where high skills are available but are not utilised. This leads to the outward migration of talent, underemployment, skill under-utilisation, and attrition of human capital, all of which signal missed opportunities for creating prosperity.

Source: Froy, F., Giguère, S., & Meghnagi, M. (2012), "Skills for Competitiveness: A Synthesis Report", OECD Local Economic and Employment Development (LEED) Working Papers, 2012/09, http://dx.doi.org/10.1787/5k98xwskmvr6-en.

Figure 83. Net flow of youth (15-29) by region (%)



Note: average of 2002-2010
Source: Bank of Korea (2013), *Regional Economic Report 2013*, http://www.bok.or.kr/.

A shift of responsibility is underway from national to local in terms of skills development, activation and use. The Ministry of Employment and Labour is attempting to build a regionally based VET system, however there is no information system sufficient to consolidate the needs of employers at the local level and information is based mostly on individual and fragmented research. Weak collaboration between public employment services (PES), agencies and local authorities is also a challenge, partly due to frequent shifts of personnel and a lack of organisational memory, a point that was also confirmed by participants at the diagnostic workshop (Annex). Moreover, a legal system to establish a regionally based VET system and data collection system is not yet ready. In this regard, it will be necessary to identify which institutions or institutionalised systems (e.g. university, local authority, private research company) are appropriate for implementing the regional system while building a constructive relationship with the national government.

In the United Kingdom and Germany, public employment services have a strong role in collecting local labour and skills information and feeding it to the central government or individuals through outreach programmes. In Korea, despite local employers, PESs and local level employment services being the key players to connect skills development and employment creation to local economic development, they are not well connected and information is not well shared among them. The national government, despite its increasingly flexible arrangements for local governments, still has ultimate power as it controls the funding. Korea may need to redesign the overall funding system in order to efficiently facilitate a regionally based VET and labour market monitoring system.

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Box 39. Spotlight on Korea: Public employment services

As of 2013, Korea's public employment services include 81 job centres under the Regional Employment and Labour Office in 12 regions across the country. Since the mid-1990s, the demands placed on PESs have increased in terms of managing unemployment benefits (since July 1996), labour market information provision, labour market adjustment programmes (since the 1997 financial crisis), career counselling, employment support, employment insurance and vocational training.

Municipalities and local governments are also active providers of employment services through their Job Information Centres. While the network of local government employment services is more extensive than the job centres, few resources are devoted to these services by each local government. Nevertheless, local governments play an important role in activating recipients of Basic Livelihood Security. Local governments are also responsible for choosing which recipients will take part in the Successful Employment Programme, which is run by the Ministry of Employment and Labour (MoEL). This suggests that good co-ordination between MoEL job centres and local governments will be crucial going forward. To assist this co-operation, MoEL has hired 100 job counsellors to work with local governments and help them to identify appropriate participants.

Source: Ministry of Employment and Labour (2013), Ministry of Employment and Labour website, http://www.moel.go.kr/english/main.jsp.

OECD (2013g), *Strengthening Social Cohesion In Korea*, http://dx.doi.org/10.1787/9789264188945-en.

A good example of local and regional collaboration is the local job fair. Regional Employment and Labour Offices, regional SMBA, local job centres, or other sectoral local offices, hold job fairs at the local level. The MoEL has been supporting job fairs since 2008 through Regional Employment and Labour offices and private employment agencies, NGOs, sectoral skill councils or employer associations can apply for opening a fair. *Busan* recently commissioned and supported a series of job fairs, with a particular focus on part-time jobs for youth, women and older workers. Similar job fairs have also been held in Seoul since 2008. Regional SMBAs such as *Daegu* and *Kyongbuk*, *Daejeon* and *Chungnam*, *Kyunggi*, and *Kyungnam* supported job fairs for specialised high-school graduates in 2012 and 2013. *Gwangju* and *Cheonnam* SMBA also held job fairs in 2012. *Incheon* megalopolitan city, *Incheon* SMBA, and *Incheon* megalopolitan City Business Support Centre held job fairs in the field of production and manufacturing sectors in 2011. Local Tourism Offices, established by the Korea Tourism Organisation and local authorities, also decided to boost the tourism industry in Korea and hold job fairs. Seoul Regional EL office and MoEL held IT and medical job fairs together with the district office, Korea Trade Association and Seoul SMBA. *Chungnam* Job Centre held job fairs for local venture companies in 2012 and 2013. For the first time there was a job fair for discharged soldiers in their twenties to fifties. It was held within a military camp and run by *Kyunggi* SMBA and *Paju* city.

Despite the successful initiative of these job fairs, there is still criticism that employment resulting from job fairs is often only short term and non-regular. Monitoring is necessary after the event and should be accompanied by follow-up employment assistance. Moreover, it is important to note that local economy and employment development, as well as the success of engagement by different stakeholders at the local level, can affect the success of central plans.

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Box 40. Norway's education reform for better local-national co-ordination

The "Knowledge Promotion" reform was launched in 2006 with the dual objectives of decentralising decision-making and responsibilities in the education sector and ensuring a baseline for national competence standards. The reform places more emphasis on basic skills and allows for local discretion within a nationally determined framework.

The reform covers both compulsory schooling and upper secondary education and aims to strengthen individually adapted learning through new curricula with clearly defined competence goals. Subject curricula were developed to leave room for local priorities and adapted education, under the assumption that local curricula development would occur. The emphasis on goals and quality assessment represents an attempt to introduce robust performance and results management mechanisms into the education sector. However, the goals remain far from prescriptive.

While early in the reform period the majority of school-owners were content with their new autonomy to make independent decisions, by the time an independent evaluation was performed in 2011 (see Aasen et al., 2012) only a minority felt the same way. Evaluations of the Knowledge Promotion reform by the Nordic Institute for Studies on Innovation, Research and Education (NIFU) and University of Oslo, at the request of the Directorate of Education and Training at the Norwegian Ministry of Education, have concluded that the result of the reform has largely been to increase the steering power of the national political and administrative authorities, leaving the lower administrative levels to implement nationally determined policy.

Source: Aasen et al. (2012), *Kunnskapsløftet som styringsreform - et løft eller et løfte?* NIFU.

Boarini, R. (2009), "Making the most of Norwegian Schools", *OECD Economics Department Working Papers*, No. 661, http://dx.doi.org/10.1787/227333554837.

Box 41. Locally-based collaborative governance structures

Workforce Investment Boards in the United States: In the United States, Local Workforce Investment Boards (LWIBs), responsible for providing employment and training services within a specific geographic area, have played a strong role in creating more integrated strategies to address employment and skills within broader local economic development strategies. There are over 600 LWIBs across the United States at the state and local level, and they are strongly business-led. Each Local Workforce Investment Area is governed by an LWIB. The LWIBs administer Workforce Investment Act services as designated by the Governor and within the regulations of the federal statute and U.S. Department of Labour guidelines. There are also designated seats for representatives from labour unions and local educational institutions, with economic development officials sitting on the boards in many states. LWIBs are typically an extension of a local government unit and can include more than one government entity. They are not agencies of the federal or state governments, and the staff is not comprised of federal or state employees.

Local Workforce Planning Boards in Ontario, Canada: There are 25 workforce planning areas in communities across Ontario. These boards conduct localised research and engage organisations and community partners in local labour market projects. Each board is as individual as the community it serves, and each addresses labour market issues in its own way. All have a mission to identify workforce issues that are characteristic of the local community and to provide collaborative solutions by engaging stakeholders and working with partners. The Ministry of Training Colleges and Universities sets a broad direction for the boards through annual operating and reporting requirements, but leaves the way in which that direction is addressed specifically to the boards. Funding for each board is small, around CDN 250 000 annually, which allows for an executive director, researcher and administrative help. Other resources are volunteered within the community or are part of individual project funding from either the federal or provincial governments.

Each board publishes detailed reports about its labour market projects, activities and partnerships. The boards champion local workforce development solutions for their communities and help to strategically align the actions of all local stakeholders in the community. In a recent report on reforming Ontario public services, a recommendation was made that the role of the boards should be expanded to provide a greater emphasis on engaging employers and promoting workplace training.

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Local employment co-ordinators in vulnerable areas in Australia: Australia's Keep Australia Working strategy has made the co-ordination of employment policies at the local level a priority. One of the measures includes the identification of Priority Employment Areas - areas most vulnerable to expected downturn and future unemployment - to ensure that these areas receive their appropriate share of additional funding and support. In each Priority Employment Area, Local Employment Coordinators (LECs) were appointed and advisory committees were established comprising local stakeholders from employment, vocational education and training, as well as economic development backgrounds. LECs assist in driving local responses to local labour market problem areas. The LEC is an agent of the federal government and their main role is to identify skills/labour needs or shortages of the area and structural barriers, and match skills needs with employment, education and training opportunities. The LEC also identifies projects that may be funded through allocated federal funding - the Flexible Funding Pool – and organises a Jobs and Skills Expo that brings together employers, employment service providers, labour and recruitment agencies, and registered training providers.

Sources:

OECD (2014b), *Employment and Skills Strategies in Australia*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264207899-en.

OECD (2013h), "Local Job Creation: How Employment and Training Agencies Can Help, United States", *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/10, http://dx.doi.org/10.1787/5k44zcpz25vg-en.

OECD (2014c), *Employment and Skills Strategies in the United States*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264209398-en.

OECD (2014d), *Employment and Skills Strategies in Canada*, OECD Reviews on Local Job Creation, http://dx.doi.org/10.1787/9789264209374-en.

Co-ordinating SME and start-up support

SMEs and start-ups cannot need to engage in partnerships with local authorities and other local agencies, such as local providers of training, as well as central support to improve their situation (OECD, 2013i).

Box 42. Streamlining multiple national and local programmes for SMEs

Incheon megalopolitan city and *Incheon* civil society established a social bank in July 2012 to support a start-up for financially disadvantaged people. This was the first local attempt to assist basic start-up training and business assistance. Such new initiatives are welcome, but too many poorly co-ordinated programmes can result in duplication and waste, in part by allowing firms to receive multiple benefits from the government. In 2013, 14 central government ministries ran 203 programmes, while the 16 provincial governments and 130 SME-related organisations administered another 1 101 programmes (Ministry of Strategy and Finance, 2013b; OECD, 2014e). Given that the supply of programmes is already diverse and numerous, consideration should be given to whether some degree of streamlining could be beneficial (OECD 2014f).

Source: OECD (2014f), *Industry and Technology Policies in Korea*, http://dx.doi.org/10.1787/9789264213227-en.

12.2. Building capacity and encouraging partnerships among local actors

There have been initiatives to strengthen local capacity and partnerships in terms of skills and employment, such as the Local Employment Councils, and Local Employment Assistance and Policy Meetings launched in 2006 (OECD, 2014a), but there have been a lack of key elements, including: a co-ordination system, a mid- to long-term plan, incentives for the participation of local actors, and a research basis for locally tailored policies. Due to these weaknesses, Basic Plans for Local Employment Policy have been established in different localities since 2009. These plans aim to establish local employment infrastructure including statistics, information, and evaluation systems, and strengthen the governance of

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Local Employment Councils and co-operation between local authorities and local job centres. Despite these plans, however, there has not been much concrete progress.

In Korea there are local disparities regarding labour market structure and practices (Lee and Nam, 2006) and the efficiencies of vocational training for unemployed (Oh et al., 2008). Centrally implemented labour policies impede their impact and effectiveness at the local level. The Evaluation and Basic Plan for Employment and Human Resource Development pointed out the duplication and inefficiency of local unit projects in many local authorities (Kim, Ham and Nam, 2009).

Improved horizontal co-ordination would allow for the establishment of more effective programmes and tools to support the development of a healthy labour market that has a good provision of skills. These skills would be absorbed by the business sector and create local wealth and economic development. Public sector leadership is essential to ensure these partnerships.

Local stakeholders could benefit from collaboration with one another, as they share direct interests and exhibit different competencies. However, a lack of clarity regarding the roles and responsibilities of different stakeholders can limit co-operation. Public employment services, colleges, universities, local training providers and institutions, trade unions, employers, employer associations, co-operatives, and non-government and voluntary organisations could be engaged in local partnerships with defined responsibilities. Evidence is needed in order to create targeted policies. For example, the distribution of older workers, elderly population, and fertility rates (related to childcare) are often different across regions.

Box 43. Collaboration among local stakeholders

Australia's Monash University campus at Gippsland (called the Gippsland Education Precinct) is a multi-sectoral institution formed by a partnership between Monash University, Kurnai College, Apprenticeship Group Australia (formerly Gippsland Group Training), GippsTAFE (vocational education institution) and Latrobe City. It aims to improve access equity and education and employment opportunities through integrated learning pathways from Year 11 to Technical and Further Education (TAFE) diploma, university degree or PhD, with partnerships with business, industry and all levels of government. By co-locating four education providers on a single site, the precinct helps widen access by enabling easier transition to apprenticeships, TAFE or university. As part of an AUD 20 million project, the Precinct offers state-of-the-art facilities in all areas including IT, science, art, library, sport & recreation and technology. Students can use Monash facilities including laboratories, computers, the student union and staff. Educational programmes are being developed in consultation with local industry to help improve employability in the region.

Local employment initiatives for low-skilled youth in the Netherlands: The Port of Rotterdam Authority, the Shipping and Transport College and DAAD (regional employers' service desk) have joined forces to create The New Inflow into New Jobs Harbour Project. In place since 2008, the project aims to help young people without any qualifications into a regular job. The city of Rotterdam's port employs approximately 90 000 people with a workforce profile of mainly male, white and older workers. Due to economic growth and an ageing workforce in the port, demand for new personnel is rising and employers are willing to invest in the project as they foresee a significant problem in recruiting young people in coming years. In the course of this 40-week programme, the selected candidates work four days a week with an employer, and spend one day a week attending the Shipping and Transport College. The programme includes continuous learning and dual programmes, and supports exchange with the main institutional bodies. The skills learned are transferable, particularly soft skills such as showing up on time, and having respect for colleagues. Upon completion, candidates are offered a contract for at least 12 months. The project has resulted in over almost 500 young people being employed in the Rotterdam port in 2010 and 2011.

In **Austria**, co-operation with schools, especially with lower secondary schools, has always been a cornerstone of the public employment service (PES)'s youth-related activities. PES local offices invite school classes into one of the 64 career information centres (*BerufsInfoZentren* – BIZ). Good preparation by the schools themselves is a crucial part of the success of these visits. Preparatory work is done by specially trained teachers who closely co-operate with PES counsellors working in the BIZ. The visits include a presentation of PES services for young people, including an emphasis on the importance of starting to think about career choices early on.

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Sources:

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Summary and policy implications

Since skills challenges vary across Korea, national and local governments have to collaborate to ensure that local skills needs are being met. In many cases, more than one level of government has responsibility for the same policy area. Generally, this entails the national government being responsible for developing the policies while the local government is responsible for their delivery. Co-ordination is needed to ensure that delivery is consistent with design.

Local governments differ in their tax-raising capacity, which leads to wide disparities in terms of available resources for policies affecting the skills system. Some local governments are better equipped to address skills challenges than others. While the share of financial support from national government to the local government budget has decreased, local government has to spend an increasing amount on social welfare programmes. This has led to budget deficits and conflicts between national and local governments in areas such as the provision of early childhood and care services. More needs to be done to improve information on local skills supply and demand and to engage local stakeholders in addressing skills challenges at the local level.

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NOTE

[22] See Commuting time better life index (OECD, 2013o), Figure 6.3.

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NEXT STEPS

This diagnostic report marks an important milestone in the OECD-Korea collaborative project on an "Effective Skills Strategy" and encapsulates the key findings of the OECD Skills Strategy diagnostic phase, which was conducted in 2013-2014. The report has highlighted the breadth of the skills challenges ahead. Effective and integrated policy responses will need to weave together measures from diverse fields, such as education and training, employment, economy, tax, local economic development, research and innovation.

As Korea strives to achieve its 70% employment rate goal by 2017, it must seek to get the right skills in the hands of the right people, including women, youth, older workers, and other vulnerable groups. The labour market must also evolve in response to skills challenges and move to a competency-based skills system. This will mean fostering innovation and investing more in start-ups and small and medium-sized enterprises. It will also mean encouraging work-study programmes and apprenticeships. Non-regular workers will need to be supported by improving job quality and increasing their coverage by the social insurance system.

None of this will be easy. However, sustained efforts by the relevant government ministries, and a commitment to co-ordinating and improving the skills system in Korea, will result in a move from discussion to implementation and ultimately lead to an even stronger collaboration with stakeholders and an inclusive economy powered by more skilled workers.

Korea can build upon the insights gained from the diagnostic phase to generate options for concrete actions to meet the country's future skills needs and to improve the match between supply and demand. The next stage will be an active learning phase in 2015-2016. This will seek to practically apply the OECD Skills Strategy as a tool to help maximise Korea's skills potential.

This is an endeavour that goes well beyond the capacity of government alone and will require the active contribution of many stakeholders at the national and local level, including employers, trade unions, students and teachers. Above all, it will require the shared commitment of government ministries and social partners in Korea to build a responsive and resilient skills system that boosts productivity, competitiveness, and social cohesion, and delivers high standards of living for all.

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ANNEX. NATIONAL DIAGNOSTIC WORKSHOP HIGHLIGHTS (07/11/2013)

BACKGROUND

Skills matter: they transform lives and drive economies

Skills have become the key drivers of individual well-being and economic success in the 21st century. Without proper investment in skills, people languish on the margins of society, technological progress does not translate into growth, and countries can no longer compete in an increasingly knowledge-based society. A strategic approach to designing and implementing more effective skills policies requires whole-of-government collaboration as well as co-operation and dialogue among key stakeholders, from education institutions and researchers to employers and trade unions.

What is the OECD Skills Strategy?

The OECD Skills Strategy provides a framework for countries to analyse their skills systems and to apply a whole-of-government approach to find better ways to ***develop***, ***activate,*** and ***use*** skills to boost employment and growth while promoting social cohesion. The project is designed to be cross-sectoral, involving a wide range of ministries and benefiting from the engagement of a range of relevant stakeholders.

What is the goal of this project?

The main goal for this joint project between the OECD and the Korean government is to provide a strategic assessment of the national skills system in Korea. The results will help build an effective skills system that is able to meet Korea's current and future skill needs through harnessing the potential of the whole society and improving the match between supply and demand for skills.

Why is the Diagnostic Workshop being held?

A fact-finding mission was conducted on 27-29 August 2013 with officials from government ministries, stakeholders and experts to help define the challenges in Korea's skills system. The diagnostic workshop built upon preliminary analysis of the challenges. The workshop involved structured small group discussions and a series of exercises, the results of which are reported here and have helped define the focus of the project.

While the results reflect only the views of the participants and are not representative of wider Korean opinion, the results nevertheless provided the OECD team and the Koreans themselves with interesting insights.

Who participated in the Diagnostic Workshop?

The workshop was conducted on 7 November 2013 with 28 participants from ministries, government agencies, university, labour unions (youth and women included), employer association, regional institutes, research institutes, educational institutes (see list of participants at end of annex). They expressed that they were motivated although the participation from the government side was still more limited than expected. They are all co-producers of knowledge that is used for these highlights as well as the final report.

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What happens next?

The OECD will draw upon the results of the workshop, as well as comparative data from the OECD *Survey of Adult Skills*, when drafting a diagnostic report on Korea's skills system.

Timeline	
27-29 August 2013	Fact-finding mission
8 October 2013	OECD Survey of Adult Skills
6 November 2013	Global Human Resource Forum, presentation on Survey of Adult Skills and Skills Strategy
7 November 2013	National Dialogue Workshop
28 February 2014	Finalising report
5 November 2015	Launching report

12 challenges for Korea's skills system

Developing skills

1. Tackling the overemphasis on academic studies and higher education
2. Fostering entrepreneurship and skills for a creative economy
3. Enhancing adult skills through lifelong learning and education

Activating skills

4. Activating women while balancing work and life
5. Facilitating the school-to-work transition for youth
6. Activating older workers while improving their skills and welfare

Strengthening the skills system

10. Addressing the overarching and systemic challenges of policy coherence and inter-linkages
11. Strengthening whole-of-government and whole-of-society approach to address skills
12. Improving the coordination and collaboration across levels of government to improve skills outcomes

Using skills effectively

7. Improving the quality of current and future jobs
8. Reducing skills mismatches by making skills visible and using skills effectively
9. Identifying and anticipating skills needs to make effective use of skills

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Mirror exercise: What are the challenges facing Korea's skills system?

Lack of linkages between education and labour market

Education is often irrelevant to the needs of labour supply and demand side. Major reason is that education is general, liberal arts-based, and academic-oriented whereas **vocational education is still weak**, particularly primary and secondary education, and not well regarded. Curriculum for teacher training excludes vocational education element. However, businesses want more work-related, workplace-based, and vocational education.

Discrepancy b/w skills needs and skills use due to low regards for certain skills & occupations

Education produces and supplies skills to work in large enterprises whereas the labour market requires skills to work in SMEs. However, the labour market recruits and promotes skills based on academic attainment despite specific skills needs. Skills mismatches are derived from a high regard for certain educational attainment, occupations or employment types. Such perception feeds back into education that emphasises educational and academic attainment rather than skills outcomes, and thus leads to excessive over-qualification.

Side effects of "leveling-off education"

Such education system results in encouraging private tutoring and lack of tailored and creative education and differentiated and creative skills.

Skills development provision, incentives and rewards

The different levels of work functions, skills, and competencies are not well defined. Thus there is lack of education and training for employees that are relevant to each work function (*i.e.* job-specific skills development) and that are differentiated depending on the competency level. In such labour market, reward and incentives for skills development is lacking.

Lack of relevant information by government

Information on what skills to develop or what skills are to be used and being activated is scarce. There is lack of information system linking education-training-employment.

Lack of public employment services infrastructure.

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Mirror exercise: What are the challenges facing Korea's skills system? (continued)

Effect of dualism/ polarization on up-skilling opportunity

There is lack of quality employment in the labour market due to labour market rigidity such as a high level of permanent employee protection (discrimination between core and non-core jobs) and seniority-based wage system. SME workers or non-regular workers have lack of opportunity for education and training compared to workers in large companies and regular workers.

Lack of skills development opportunities related to welfare for vulnerable groups.

Low competency of university education

Korean universities rank 42 out of 50 world universities according to Institute for Management Development. Although university collaborates with industry, the collaboration is government-centered and thus has difficulty in rapidly responding to industrial needs. Universities have lack of labour market relevance, focusing heavily on specific areas rather than diverse areas.

Lack of capacity of local governments

Lack of role played by local authorities, and lack of their capacity in designing and implementing local and sectoral policies

Lack of structural and systemic approach

There is lack of long-term and systemic approaches to skills system and lack of innovative approaches. Lack of collaboration and social partnership between private and public sectors. Lack of participation and partnership of local and sectoral stakeholders. Mismatch between education, qualification and labour market needs.

Skills mismatches and shortages

SMEs experience skills shortages in quantity and large companies experience skills mismatches quality. In contrast, youth experience difficulty in school-to-work transition. Lack of systemic skills matching system, skills mismatch will lead to low productivity.

Absence of a national level of HRD system

Absence of a national level of HRD system that coordinates skills policies, while skills system (skills development or education curriculum) is government or content provider-based. Skills system is largely controlled by national government whereas local governments have lack of capacity to design, implement and facilitate skills development, activation and use, in addition to the lack of collaboration between local and national governments.

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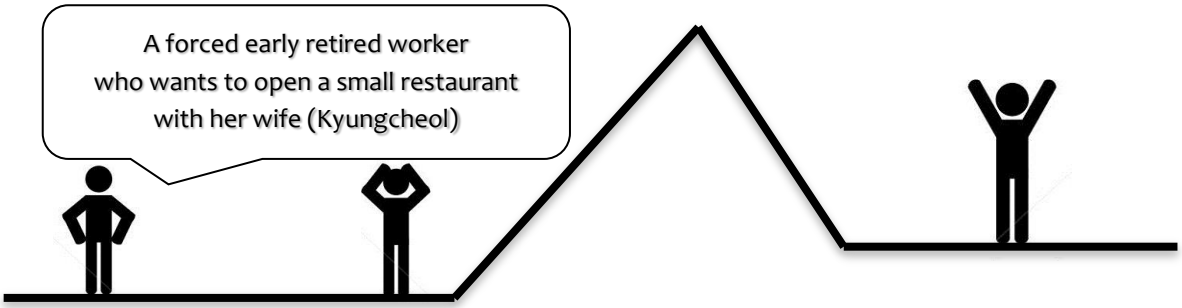
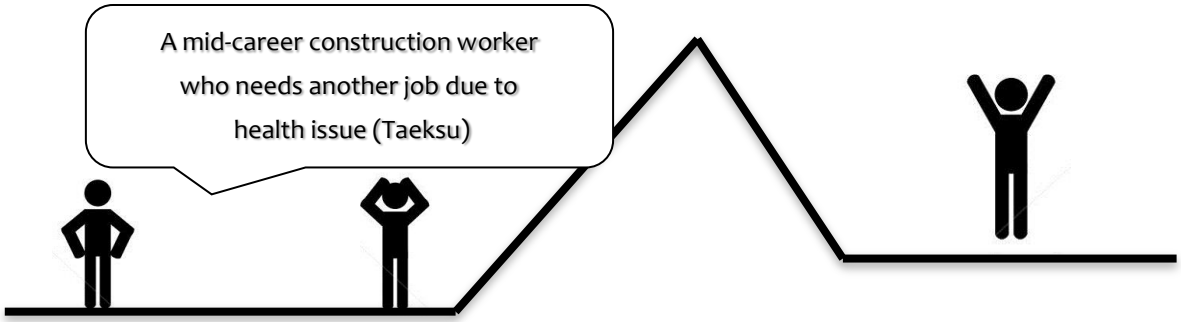
Skills Obstacle Course exercise



Obstacles	Actions taken to date	Main implementation obstacles
▪ Maintaining standard of living, supporting family economically. ▪ Little retirement allowance; eligible for unemployment benefits but insufficient. ▪ Lack of skills or no clear information on his skills, thus low employability. ▪ Absence of lifelong education assistance. ▪ Lack of access to useful information and consulting, or a system to assist with a start-up or change in occupation.	▪ He can benefit from a career transition programme, or consulting and education for start-up. The career transition programme is available up to the extended retirement age. ▪ His wife can participate in education programme for cooking qualification. ▪ He can request unemployment benefits.	▪ They need start-up consulting or relevant information, which is not readily available for them. ▪ Cooking qualification and the restaurant sector is oversaturated. ▪ For an SME worker, there is no sufficient job shift programme assistance; even so, the job is likely to be non-regular work such as security guard or parking assistant. ▪ Companies do not easily help forced retired workers to receive unemployment benefits



Obstacles	Actions taken to date	Main implementation obstacles
▪ Almost impossible for a mid-career construction worker with secondary degree to shift to an officer worker, given the low regard of construction work and his level of skills (redefining the goal relevant to the situation).	▪ Consulting and assistance is necessary for providing the right information on labour market and occupation given his career and skills. ▪ Strengthening linkages between qualification and education attainment through establishing NQF.	▪ Insufficient public consulting services. ▪ Skills and qualification gap between construction and office work. ▪ Lack of qualification system or social rewards on physical work and skills such as construction work.

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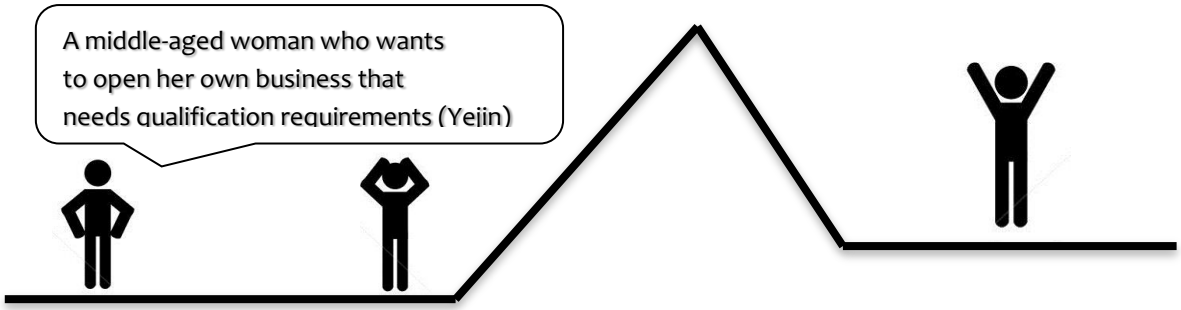
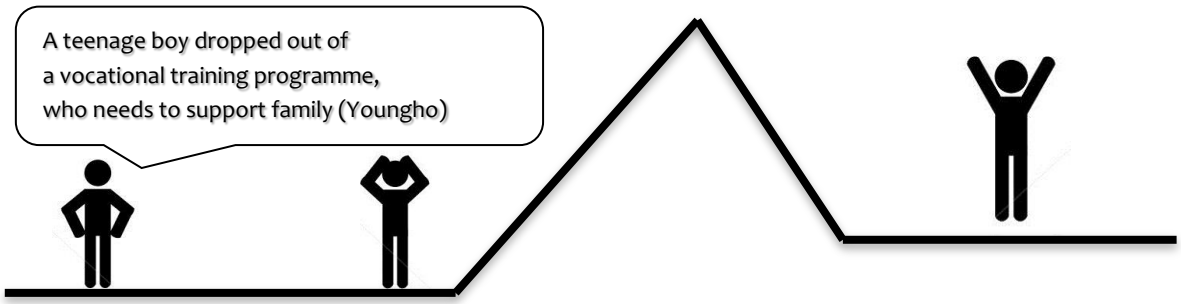
Skills Obstacle Course exercise



Obstacles	Actions taken to date	Main implementation obstacles
▪ Lack of information on qualification requirements. ▪ Lack of information for right or rational decision making given individual's career and aptitude.	▪ Vocational training, start-up training, or career consulting is necessary for providing information on how to obtain qualification and earn adequate skills.	▪ Time (absence from work) and cost assistance (training subsidy).



Obstacles	Actions taken to date	Main implementation obstacles
▪ High possibility of falling into non-regular work, and impossible to combine income earning activities and education/training. ▪ No counselling assistance is available privately or publicly; Lack of information access to study programmes. ▪ Gap between current situation and future desire.	▪ Necessity to provide local counselling centre services. ▪ Programme assisting marginal youth in public agencies, including Employment Academy Programme.	▪ Basic welfare system may disincentivise willingness to work. ▪ Absence of a comprehensive (well-co-ordinated) system between welfare, education and employment. ▪ Lack of sufficient services provision of local counselling centre (e.g. short period of counselling). ▪ Lack of funding for Employment Academy Programme.

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Pillar exercise: Developing skills

Challenge 1. Tackling the overemphasis on academic studies and higher education

Why is this challenge important for Korea?

- The importance of a transition towards a competency based society.
- Many stakeholders are involved in this challenge.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Parents and their zeal for children's educational attainment for social satisfaction by social comparison.
- Teachers and schools are oriented in academic and higher education (centred in university admission exam).
- Businesses recruit workers based on academic and higher educational attainment. Society values educational attainment (vicious cycle).

What are the main obstacles to tackling this challenge?

- Lack of competency evaluation indicators or system.
- Socio-cultural perception (traditionally and conventionally fixed).
- Lack of consideration for disadvantaged groups.
- Lack of trust and transparency in the evaluation process of public education institutions.
- Information asymmetry on skills and lack of diversified career paths.

Challenge 2. Fostering entrepreneurship and skills for a creative economy

Why is this challenge important for Korea?

- Low growth trap at the level of GDP USD 20 000 per capita.
- Decent job creation is necessary for youth.
- The foundational cause of the current skills mismatches.
- This challenge is reflected in the global economic paradigm shift.
- The striking contrast between high PISA performance and low employment performance.
- New and positive environment for the second chance.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Continuing efforts for skills development among university and business.
- Education/industry collaboration for demand based skills development.
- Skills policies to increase productivity among technical workers through upskilling.
- Ministry of Trade, Industry and Energy, Small and Medium Business Administration, and Ministry of Future.

What are the main obstacles to tackling this challenge?

- More foundational approach is needed for fostering creative talent: institutional and cultural approaches such as innovative mechanisms to address non-recognition of failure, labour market dualism.
- Establishing market mechanisms for fostering high-skilled talent.
- Comprehensive support infrastructure for promoting SME's skills development.

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Challenge 3. Enhancing adult skills through lifelong learning and education

Why is this challenge important for Korea?

- Lifelong education can improve job security and job transition as it can smooth the process of hiring, separation and rehiring, and alleviate skills mismatches.
- Lifelong education supplements the current education system and thus it can be more flexible, rapidly respond to the changing labour market needs, and provide the second chance for women and low-skilled workers.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Universities, colleges, polytechnics as lifelong education institutions, private lifelong education providers.
- Government agencies, and monitoring and auditing institutions.
- Individuals and businesses.

What are the main obstacles to tackling this challenge?

- Lack of institutional capacity and professionalism (or specialities).
- Lack of co-ordination among government agencies.

Pillar exercise: Activating skills

Challenge 4. Activating women while balancing work and family life

Why is this challenge important for Korea?

- Important given the declining size of Korea's labour force and long working hours.
- Gender inequality is still widespread in Korea. Labour demand structure, jobs, environment at workplaces should be changed into more women friendly.
- Early childhood education and care policies are not yet well settled yet, and they need to be adequately linked with women employment and increasing fertility rates.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Ministries of Education (lack of public kindergartens), Health and Welfare, Gender Equality and Family, Employment and Labour, as they are involved in establishing public early childhood education and care systems.

What are the main obstacles to tackling this challenge?

- Lack of co-ordination/ collaboration between mentioned ministries.
- The curricula of early childhood education and care systems are inconsistent and poorly connected with the education system.
- Low-quality jobs for women

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Challenge 6. Activating older workers while improving their skills and welfare

Why is this challenge important for Korea?

- Given the high poverty rate among older people in Korea, employment is necessary as a part of the social welfare mechanism.
- Average age of formal retirement from main career is 53.7, but actual retirement from subsidiary work is 70; after formal retirement, job quality decreases.
- Important to maintain the increasing older labour force while providing social security; by the demographic structure, it is a huge loss if not using the older segment.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Ministries of Employment and Labour, Health and Welfare, local public employment services.
- Business in terms of hiring and promoting (HR).
- Economic and Social Development Commission (for building a consensus on the older workers issue).
- Unions of older workers, cooperatives of the retired, youth group.

What are the main obstacles to tackling this challenge?

- Rigidity of the primary labour market (decent and permanent job market), low likelihood to create decent jobs.
- Excessive seniority (230 for Korea, 110 for the US, 210 for Japan) unlikely to be changed.
- Barriers to change the corporate HR system management despite the extension of retirement age.

Challenge 6. Activating older workers while improving their skills and welfare

Why is this challenge important for Korea?

- The challenge is everyone's future. Life of older workers is far from decent in general. Not only employment but also quality activities for life should be activated and promoted.
- The definition of older workers to be clarified for better policy and mind-set.
- Extended retirement age should be accompanied with the development of competency standards and the identification of occupations that are relevant to the older workers.

Who are the actors and stakeholders?
Why are they important for this challenge?

- Companies: without upskilling older workers it is difficult to maintain or increase productivity.
- Forced retirement of older workers in spite of them retaining useful skills or having the ability to reskill.
- Local authorities: creating jobs for older workers to enhance their self-esteem through providing them with opportunity to contribute to the society and economy.

What are the main obstacles to tackling this challenge?

- Lack of balance between ensuring job security and developing skills (i.e. enhancing the level of skills does not secure job).
- Lack of incentives for linking education and training with qualification for companies.
- Assistance from both national and local governments; they should collaborate on this challenge.

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Pillar exercise: Using skills effectively

Challenge 7. Improving the quality of current and future jobs

Why is this challenge important for Korea?

- High share of temporary workers and low quality part-time jobs.
- Wage disparity between large companies and SMEs.
- Related to quality self-employment creation and the service sector that became more high-value added.
- Low job share of large companies in Korea (12%) compared to Sweden (50%).

- Low job security, especially for non-regular workers.
- Korea needs to create jobs that are adequate for the future job needs; limitation of skills identification and forecast based on the current industry composition and structure.
- Korea needs to create decent jobs, as job dualism or polarisation becomes intense between large enterprises and SMEs, or wage inequality among different levels of educational attainment.
- The coexistence of unemployment for labour supply side and skills shortage for demand side.

- Improvement of job quality: there is high demand for quality jobs but a lack of supply.
- Older workers and vulnerable groups take up low quality jobs.

Who are the actors and stakeholders? Why are they important for this challenge?

- Large companies, SMEs.
- Ministry of Trade, Industry and Energy, and Small and Medium Business Administration: supporting firms.
- MoEL to manage minimum wages as well as temporary, dispatched workers, disguised contract workers.
- Ministry of Future: using retired scientists and supporting SME growth through mentoring system.

- SME, large enterprises, and local authorities in terms of skills-based recruiting and promoting system.
- Government and research institutions need to identify and forecast future skills needs (labour and supply), and foster assistance mechanisms for SMEs.

- Government has a role to co-ordinate and harmonise policies and stakeholders, and to protect jobs with low regard and productivity such as the service sector.
- SMEs have a role to invest in business, technology and skills, and improve working conditions. However their burden and risk should be shared by the society, for example, through corporate partnership. In this regard, large companies, employer association and government (both national and local) are important stakeholders that can assist employment and improve job quality.

What are the main obstacles to tackling this challenge?

- Skills or competency-based job restructuring is necessary.
- Need for building a consensus when creating jobs (co-ordinating different interests).
- Careful implementation for excessive public job creation.
- Barriers that prevent the activation of ventures. Excessive rigidity of the primary labour market.

- Lack of accurate identification and forecast of future skills needs (different and fragmented results among different research institutions). Lack of consideration for the welfare (including skills, NQF/NCS-based job) of non-regular workers when increasing the number of jobs, for example, part-time job creation could be a temporary solution for only increasing employment rates.
- Lack of collaboration between national and local governments and between local authorities and local employment agencies.
- Skills policies should be designed and implemented from a long term and future perspective.

- Perception of non-regular workers by employers is an obstacle (as a tool of reducing business costs). The lack or non-existence of opportunity for non-regular jobs to be transferred into regular, secure, and quality job; as a result there is excessive competition for quality and regular jobs among youth.

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Enabling conditions exercise: What does the policy map look like?

Challenge 1. Tackling the overemphasis on academic studies and higher education

Policy that affects this challenge

- NCS/NQF
- Employment first before continuing higher education
- Employee Performance evaluation
- Launching the pending special law on normalisation of public education
- Vocational core competency evaluation

MoE, MoEL, MoSF, MoSPA, Training and lifelong education institutions, *hagwon*

institutions and stakeholders, directly responsible

National Assembly, businesses, public institutions, media, local authorities

institutions and stakeholders, indirectly responsible

Non-policy factor that affects this challenge

- Improving recognition for a shift from academic study attainment based to competency based society
- Improving the quality and operation of Free Learning Semester, in terms of curriculum and content
- Fostering "round person" rather than person with high exam scores

MoE, MoEL, businesses, Job world

institutions and stakeholders, directly responsible

Association of parents, local communities, households, religious communities

institutions and stakeholders having an interest

Institutions and stakeholders

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Enabling conditions exercise: What does the policy map look like?

Challenge 2. Fostering entrepreneurship and creative skills for building a creative economy

Policy that affects this challenge

- **Institutional support** for SME; financial assistance for activating ventures
- **Creative education** in primary and secondary education, and university's creative and hybrid education program (MoE); "Infinite Imagination Classrooms", career assistance system for talent in science & technology, creative & hybrid talent, SW Meister
- **Lack of entrepreneurship education and vocational education**; establishing assistance system or investment in employment- oriented private education and training
- **Expanding educational excellence** while reducing levelling-off education; specialised education and training tailored by the level of skills and skills needs

Non-policy factor that affects this challenge

- **Dependence on private education** by education stakeholders (government officials, teachers' association, teachers' education and training institutions that monopolise education supply as their means of living or power
- **Monitoring system for implementation of creative education** (*e.g.* experts council)
- **Lack of competition among prime university** (high name values)
- **Unitary perception on success**, which is mostly imposed by society rather than pursued by an individual
- **Vertical and hierarchical culture** that prevents liberal activities, constructive discussion, creative ideas and application, and diversity.

institutions and stakeholders, directly responsible	institutions and stakeholders, indirectly responsible	institutions and stakeholders having an interest

Institutions and stakeholders

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Enabling conditions exercise: What does the policy map look like?

Challenge 3. Enhancing adult skills through lifelong learning and education

Policy that affects this challenge

- Reducing working hours de jure
- Establishing and applying NQF in order to connect (lifelong) learning outcomes, education qualification, and job
- Baro-one system employment services that connects Worknet (there was no institution for individual career management that refer to competencies)

Non-policy factor that affects this challenge

- Reducing working hours de facto
- Changing seniority-based wage system
- Academic attainment-based recruiting and promoting system (it needs to be changed into competency, skills and career-based recruiting and promoting system)
- Restructuring information system; constant and frequent update of employment information

Businesses, government (MoE), and workers Ministry of Education, and Ministry of Employment and Labour Government and workers

Core workers and businesses, KRIVET Employment centres (and employment information) and labour unions (need to participate in and contribute more to the challenge)

Leisure service industry, Family and workers, Sectoral business associations or sectoral councils, lifelong education institutions, and Businesses in terms of recruiting

institutions and stakeholders, directly responsible

institutions and stakeholders, indirectly responsible

institutions and stakeholders having an interest

Institutions and stakeholders

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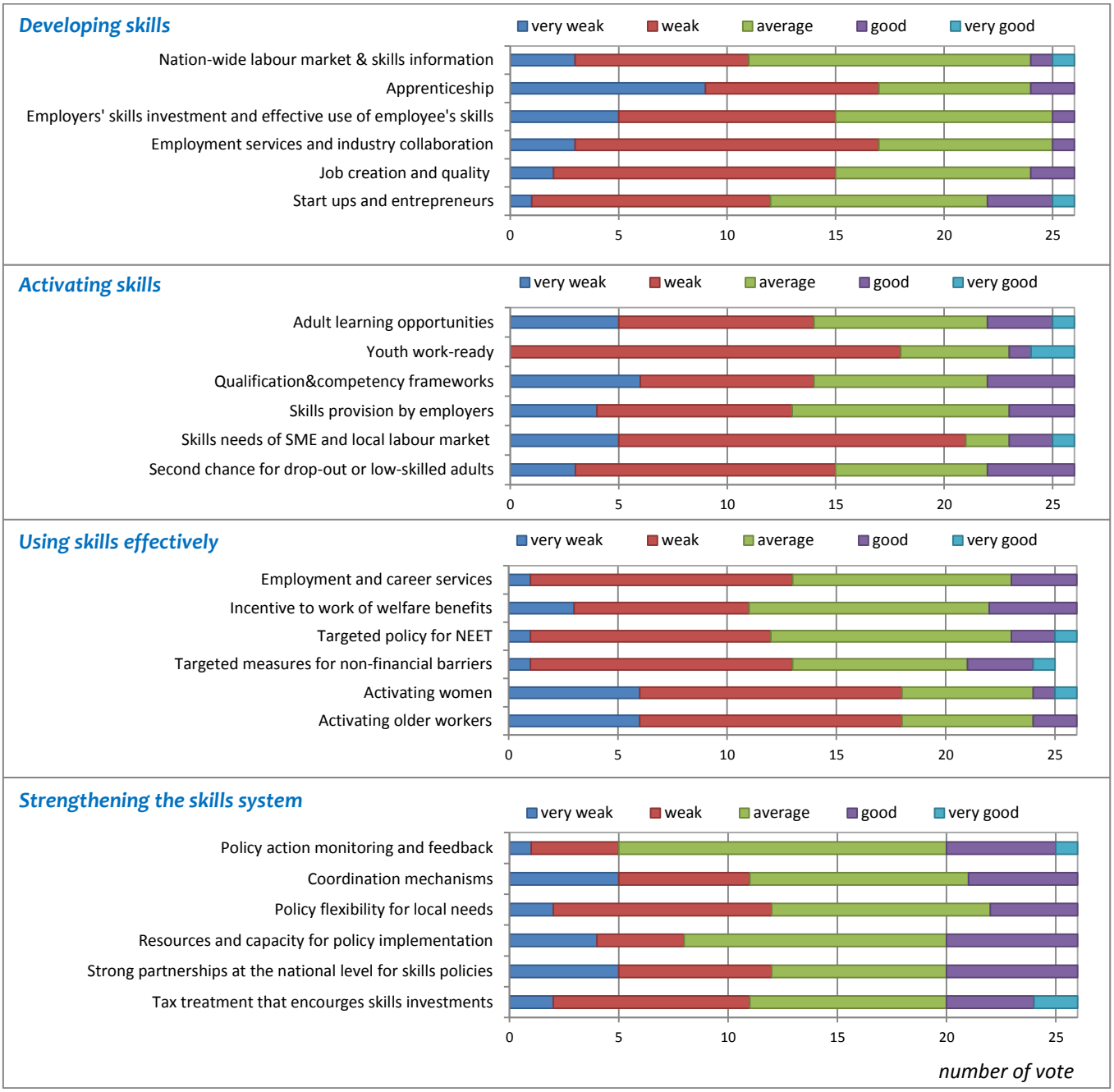
Participants' diagnosis of Korea's skills challenges: diagnostic toolkit exercise



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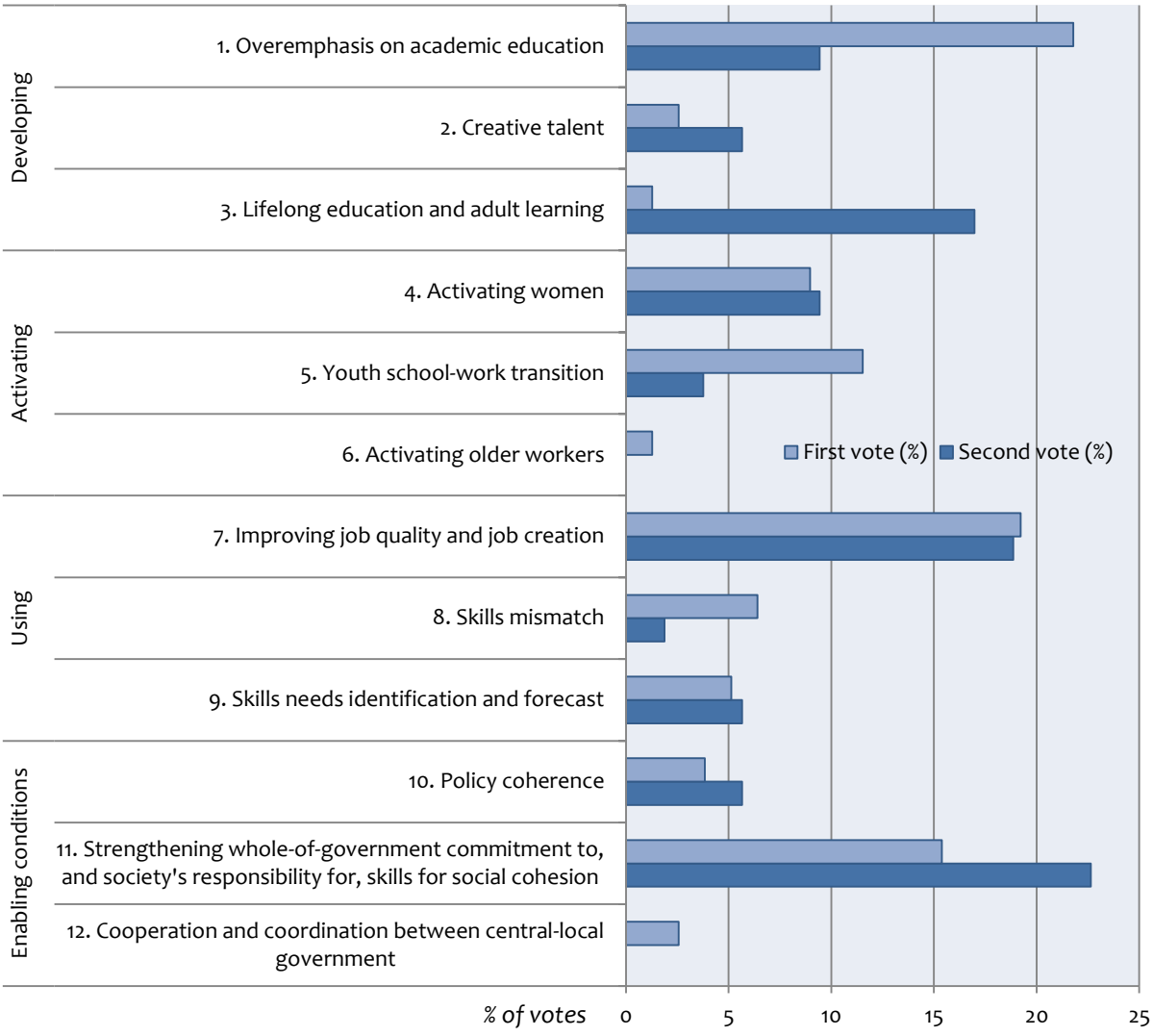
Participants' diagnosis of Korea's skills challenges: voting exercises



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Reflection from participants

1. What have I learned? Do I now think differently about the skills challenges facing Korea?

- Comprehensiveness of skills issues: New understanding on the comprehensiveness of skills issues.
- Related to Challenge 2, the awareness on creative talent and vocational education or the level of existing content/curriculum among teachers, particularly in initial education, is low. Reconciliation among idealism and reality is important.
- The importance of lifelong learning as well as its policies.
- The overemphasis on higher education and academic studies is a tough issue. In order to tackle it, socio-cultural factors also need to be considered in addition to educational factors. That overemphasis is rather a phenomenon than a problem of education; decent job creation can improve the situation.
- Workshop process, techniques, and materials: The workshop dealt well with the challenges and policies that I have usually considered problematic. The discussion process was interesting; participating in the workshop itself was a good learning opportunity. The discussion was useful for individual participant. The workshop was unique and provided a good chance to share common thoughts and different views. The OECD presentation was interesting as it approached skills from both demand and supply, and policy level, which is beyond the individual level. Meaningful and valuable are participation, brainstorming, mutual learning and shared understanding related to the challenges.
- Participation of stakeholders and policy makers: High interest on the subjects, diverse perspectives among participation, but also limitation. The necessity of consensus among stakeholders for national skills development in designing good policies. I realised many factors to consider in the policy decision making process. It was useful and practical to discuss problematic challenges and policies with various field experts. New understanding on the importance of stakeholder co-operation.
- Labour demand side: It was very useful to assess the overall skills system in terms of developing, activating, and using skills in the economy. Skills is often discussed in terms of labour supply side, it was good to approach skills formation and use from the demand side as well. Skills issues in the labour market are multi-layered and multi-angled issue.

2. Have my views changed, based on what I've learned here?

- Strengthening skills is important for both national and local levels, public and private sectors. Different approaches by generation and income class are necessary.
- Participation of stakeholders is pre-requisite for government's policy development.
- New understanding on that the employment experts expect high on the HRD functions of lifelong education.
- My views have not changed much, but I learned various perspectives.
- The importance of whole-of-government approach, inter-ministerial collaboration and linkages.
- Reasoning on skills policies at the workshop can be useful for Korea's future policy research.
- Participation of different stakeholders is the key factor in skills system. The connection between the creation of decent work and skills.
- Agree upon OECD's diagnosis.
- Collective discussion among participants was useful.

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3. What am I going to do now? What would I do differently than before?

- Building governance between national and local authorities.
- Comparative analysis including Korea.
- Various efforts to move forward competency-based society, not educational qualification-based.
- Forecasting skills needs corresponding with job creation.
- Concrete effort for strengthening skills potential and intervening relevant issues.
- Propose more inter-ministerial and collaborative research for the issue of education and employment.
- More research on such methodology that was used at the workshop: policy designing and implementation, and drawing conclusion or building a consensus through participation of different stakeholders.
- Necessary to seek policy needs for decent job creation, and to research at the national level skills needs and skills strategy from labour demand side. Strengthen research linkages between education-labour market-economy-industry.
- Try to gather and share more diverse perspectives and opinions.
- Labour union as core of stakeholder approach: It is necessary to implement policies that reflect the skills needs of labour, particularly non-regular workers who are most needed skills.
- I was strongly convinced that the role of university and college should be changed.

Mirror Exercise

Pillar exercise

Skills Obstacle Course exercise

Enabling conditions exercise

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List of participants

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Korea Employment Information Service
Korea Institute for Educational Policy
Korea Labor Institute
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Ministry of Education
Ministry of Employment and Labor
Ministry of Science, ICT and Future Planning
Ministry of Trade, Industry and Energy
National Institute for Lifelong Education
Small and Medium Business Administration
Korea Association of Secondary Vocational Education
Korean Contingent Workers' Center
Korea Employers Federation
Korea Federation of Small and Medium Business
Korea Legal Aid Corporation
Korea Technology and Information Promotion
Sookmyung Women's University
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Youth Community Union

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OECD Skills Strategy

Diagnostic Report Korea

Better skills policies help build economic resilience, boost employment and reinforce social cohesion. The OECD Skills Strategy provides countries with a framework to analyse their skills strengths and challenges. Each OECD Skills Strategy diagnostic report reflects a set of skills challenges identified by broad stakeholder engagement and OECD comparative evidence while offering concrete examples of how other countries have tackled similar skills challenges.

These reports tackle questions such as: How can countries maximise their skills potential? How can they improve their performance in developing relevant skills, activating skills supply and using skills effectively? What is the benefit of a whole-of-government approach to skills? How can governments build stronger partnerships with employers, trade unions, teachers and students to deliver better skills outcomes? OECD Skills Strategy diagnostic reports provide new insights into these questions and help identify the core components of successful skills strategies.

This report is part of the OECD's ongoing work on building effective national and local skills strategies.

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- www.pisa.oecd.org for the Programme for International Student Assessment (PISA) data
- skills.oecd.org for OECD work on skills

Further reading

OECD (2012), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies,* OECD Publishing.

OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills,* OECD Publishing.

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BETTER POLICIES FOR BETTER LIVES