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COMPETITION AND EFFICIENCY IN PUBLICLY FUNDED SERVICES

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TABLE OF CONTENTS

This article is part of a work programme on public expenditures set out by Atkinson and van den Noord (2001) and followed by special chapters in the OECD *Economic Surveys* of which Canada, the Czech Republic, Denmark, Germany, Greece, Hungary, Italy, Japan, Mexico, New Zealand, Norway, Poland, Sweden, Switzerland and the United Kingdom have been completed so far while others are under preparation. More generally, the paper is related to work by different OECD Directorates including OECD (1993, 1997 and 1998), Cave (2001) and Kristensen *et al.* (2002). The author is indebted to Nadim Ahmad, Paul Atkinson, John Bennett, Per Callesen, Jørgen Elmeskov, Michael Feiner, Simon Field, David Grubb, Isabelle Joumard, Paul van den Noord, Mark Pearson, Robert Price, Deborah Roseveare and other colleagues at the OECD for valuable comments and help accessing data. The opinions expressed in the article are those of the author and do not engage the OECD or its member countries. E-mail: *jens.lundsgaard@oecd.org*.

INTRODUCTION

Expenditure on services like public administration, law enforcement, defence, infrastructure, and the wider range of education, health care and social services like childcare and long-term care for elderly and disabled, jointly constitute one-fifth to one-third of GDP in OECD countries, and much of this is publicly funded based on general taxation or mandatory insurance contributions. Well beyond the classical examples of truly collective services such as defence, there are sound welfare-economic motives, including insurance market failures, credit constraints and human capital spillover to society at large, for ensuring the provision of services such as compulsory education by public funding. These motives, however, do not always necessitate provision via traditional public sector institutions. Changing the management system within the public sector or introducing competition and involving a broader range of suppliers may often improve service provision and cost efficiency.

The purpose of this article is to review to what extent and how OECD countries have opened the provision of different publicly funded services to competition. The picture that emerges is that OECD countries use quite different arrangements – there is no "one way" of providing publicly funded services – but the use of contracting-out and combinations of user choice models is growing. What arrangements are found appropriate depends heavily on service characteristics, and advancing the understanding of detailed regulatory issues is as important for competition in publicly funded services as it has been in network utilities.[1]

The article first sets out an analytical framework identifying the inherent incentive and efficiency issues associated with information asymmetries between government as a principal and the agents supplying publicly funded services. These issues may be addressed via performance-related funding, benchmarking, contracting-out and voucher schemes which allow users to choose among suppliers while maintaining public funding. The article also examines the empirical literature on competitive tendering and contracting of technical and support services and on user choice in different areas. Against this background, the arrangements applied by OECD countries in major service areas is reviewed, including education, childcare, long-term care for elderly and disabled, and employment service; it also reviews the use of contracting for technical and support functions, and for private finance of infrastructure investments. Core health care is left aside, as it involves a set of particular issues requiring an analysis of its own.

ALTERNATIVE WAYS OF PROVIDING PUBLICLY FUNDED SERVICES

Turning public funding into service provision involves a basic principal-agent relationship: How can government as a *principal* best organise service provision in order to align the incentives facing service-supplying *agents* to the objectives underlying public funding? In other words, what funding allocation formulas, rules on competition and user choice, ownership forms and management instruments are best equipped to:

i) transform broader policy goals into a clear demand for what services to supply (where, when, to whom) and operational objectives in day-to-day activities, and

ii) ensure that the actual economic incentives facing institutions and their employees reward work effort and management leading to improved service provision and cost efficiency?

The heart of the problem is that most publicly funded services are relatively complex and characterised by strong information asymmetries. Therefore, it is not feasible – or prohibitively costly – to give detailed instructions for service provision under all imaginable circumstances and to perfectly monitor compliance with such a complete contract or set of instructions. In practice, principals are forced to allow agents considerable flexibility, and to substitute for the inability to monitor activities in detail by optimising the incentives faced by agents – such as by funding based on observable outcomes and performance measures or via competition. The character of information asymmetries and the appropriate incentive mechanisms depend on service characteristics.

- Services used by individuals like education and care for children, elderly and disabled, are typically "soft" in the sense that service outcomes can be difficult to quantify. Service provision also has to respond to individual needs, and involve a unique interaction between the persons providing and using the service. The services to be provided can therefore only be specified in broad terms, and it is inherently hard to monitor activities and performance. Consequently, it is hard for the principal to know whether agents are operating efficiently. Allowing individual choice among alternative service suppliers may mitigate this problem by delegating part of the role as principal from government to users. Provided that users base their choice on criteria that are consistent with the objectives underlying public funding, it may create clearer demand signals. And to the extent that intangible service aspects and quality may be experienced, the competition to attract users entails incentives to improve service provision and cost efficiency.
- Services like defence, police and public administration can be particularly hard to describe and expose to economic incentives. This is notably so for defence

and some public administration functions like policy advice to governments, because although their purpose can be described in broad terms (like defending the country and maintaining security; preparing policy reforms and legislation), the observable measures of outcomes and performance are few, lack comparisons and contain considerable noise from circumstances outside the control of agents. Moreover, for functions like policing and judicial acts that require discretion and involve authority and legally binding decisions for individual citizens, too-strong economic incentives might compromise basic civil rights. But parts of these services may lend themselves more easily to specification and stronger economic incentives such as the preparation of a particular policy report or standardised administrative procedures.

- For technical services like waste collection and road construction, the principal can have full knowledge about what works are needed, and the realisation of works and their quality is relatively easily observable. Therefore, the information asymmetry concerns only the difficulty for the principal to monitor the detailed operations of the agent while undertaking the work. Consequently, the principal-agent relationship can be resolved by strong economic incentives linked to the supply of specified services, such as the competition among for-profit private firms for a public procurement contract. Like with subcontracting in the private sector.

In the following, the main alternatives to traditionally organised public production are described with regard to their applicability, advantages and disadvantages, and main design issues.[2]

Internal contracts with government agencies, benchmarking and performance-related pay

Within the framework of government agencies serving fixed user constituencies, stipulating internal performance contracts may clarify what goals and outcomes should be achieved by government agencies and institutions. Simultaneously expanding the institutional autonomy on how to achieve these goals can improve performance by giving more room for innovation and by limiting political interference in the detailed operations of government agencies.

The inherent information asymmetry nevertheless remains between government and service suppliers, as to the true resources required to fulfil policy objectives. In fact, agencies may gain by concealing the true level of necessary costs in order to avoid funding being tightened in the future.

Benchmarking of activities and performance across agencies can improve performance assessment and go some way towards mimicking competition. For instance, comparing police departments in different districts can facilitate performance measurement by reducing the statistical noise from common changes such

as in crime rates. Making comparisons available may generate internal processes that help managers identify where their departments differ and could improve. Moreover, the career concerns of managers imply an economic incentive via promotions and future job opportunities even when performance measures are not linked to current pay – notably if benchmarking results are transparent and visible also to alternative employers.

More flexible individual pay involving bonuses and other performance-related elements or fixed-term employment contracts instead of permanent ones may give employees a share in the gains from improved efficiency and help transform incentives at agency level into improved operations. However, it is crucial to balance the reward across different aspects of work, and not to discourage teamwork and activities that produce better results in the longer run.

Competitive tendering and contracting

Service provision can be opened to competition by specifying and announcing service requirements, calling for tenders and contracting with the supplier submitting the most favourable bid for some fixed term. Penalty clauses for non-compliance can also be built into the contract. For this type of competition to be effective, services and quality must be carefully specified and the information made public so as to facilitate entry from potential new suppliers. Indeed, the distinguishing feature of competitive tendering, compared with intra-governmental contracts and grants earmarked for specific non-profit organisations, is the openness of market access, supported by a transparent procedure for selecting the contractor. In-house teams can be allowed to submit bids. However, this requires very transparent separation of units within government agencies to avoid cross-subsidisation, and rules on cost calculations and auditing to ensure a credible and neutral competitive tendering process.

Sub-contracting for support functions like cleaning, administrative functions, computer services, legal services, etc. may allow economies of scale and specialisation to be realised – reflecting better use of specialised equipment as well as better management of human resources within an organisation focused on the competencies needed for the particular support function. Sub-contracting can be to a publicly-owned entity exclusively, such as a public real estate holder or a public IT service supplier. However, support functions may often be easier to define and more marketable than final services. Therefore, sub-contracting via competitive tendering can expose these elements to competition, even if final services are delivered by a public monopoly.

Empirical studies document that appropriate use of competitive tendering and contracting can raise efficiency and thereby allow a constant quality of service to be provided at lower costs, especially for technical services like garbage collection and cleaning (see Box 1). Reduced employment plays some role in achieving economies,

Box 1. **Studies of competitive tendering and contracting for technical services**

The savings obtained through competitive tendering and contracting have been documented in a series of studies using large data samples and econometric techniques to test the significance of results. While covering a broad range of countries and time periods, these systematic quantitative studies typically cover only a limited range of technical services, in particular waste collection and cleaning (see Lundsgaard, 2002 for a listing of the results from these studies). Case studies are reviewed here, but can be useful for indicating best practices of how to implement contracting and competitive tendering (see OECD, 1997).

The estimated cost savings vary strongly across studies, with the majority showing positive savings and some concentration in the range of 10-30 per cent. Savings may also vary over time reflecting changes in market concentration and contractor interest (see Milne, 1997), as fewer bidders is found to imply higher price in procurement auctions, as would be expected (see Gomez-Lobo and Szymanski, 2001). There is some evidence that private contractors have underestimated the actual costs and submitted non-viable low bids in early tendering rounds, or conversely, prices can fall over time once the frictions sometimes caused by interest groups when contracting is introduced have dissipated (see Reimer, 1999). Cost savings from competitive tendering and contracting may stem from both the introduction of competition and the involvement of private ownership. The relative importance can be difficult to assess, as most studies do not clearly distinguish between different ways of choosing the supplier, *i.e.* whether or not a formal competitive tendering procedure was carried out prior to contracting. A cautious statement would be that competition seems to be a stronger driver of efficiency gains than private ownership, as concluded in the survey by Domberger and Jensen (1997) and by others.

Sceptics of competitive tendering have argued that cost savings may simply correspond to lower service quality. Indeed, cases occur where inappropriate contractual specification results in declining standards. The systematic empirical studies, however, find that *a given level and quality* of service can be provided at lower costs using competitive tendering. Domberger, Hall and Li (1995) find that tendered private school cleaning is significantly less expensive than non-tendered public school cleaning, while at the same time quality is rated equivalent or significantly better by an independent team of controllers examining the schools. Christoffersen, Paldam and Würtz (1999) are able to include the actual quality specifications used in school cleaning contracts as a control variable and still find cost savings of 24-29 per cent from contracting-out.

Some studies try to explain the origin of the observed savings. Reorganisation of work activities and production units matter, as Christoffersen, Paldam and Würtz (1999) find that private suppliers are better able to realise economies of scale in school cleaning. Moreover, private suppliers tend to substitute among inputs towards more capital, as found by Walsh (1991), but simply raising effort or productivity with a

Box 1. **Studies of competitive tendering and contracting for technical services** (*cont.*)

given input-combination may contribute more to savings as found by Cubbin, Domberger and Meadowcroft (1987). Consequently, reduced employment may contribute substantially to savings in cases of overstaffing, in line with the finding of Szymanski (1996) that local authorities with above average employment and wages in waste collection prior to competitive tendering gained the largest cost savings. Lower wages and less favourable work conditions do play a role, as found by Eskott and Whitfield (1995), as does a shift towards employing the least qualified personnel capable of doing the job (see Stevens, 1984). Finally, some savings may derive from cheaper procurement of non-labour inputs, as Ohlsson (1996) finds that public sector enterprises pay 10-15 per cent more than private firms for similar garbage trucks.

Few studies have specifically tried to assess the size of transaction costs. Walsh and Davis (1993) find that on average the costs for local authorities of preparing for competitive tendering of cleaning, waste collection, catering and maintenance of vehicles and grounds amount to 1.8 per cent of total contract value, and the Audit Commission (1995) finds that monitoring costs rarely exceed 3-4 per cent. Nelson (1997) finds that variation in transaction costs reflecting varying complexity of service needs can explain why some local governments choose a larger share of in-house production than others.

as private contractors have more flexibility and tend to substitute towards other inputs. And, depending on the initial level, reductions in wages or less favourable work conditions may also contribute to savings. If, however, avoiding changes in wages is considered a central policy goal, this can be specified as a contractual term.[3]

The openness of competitive tendering to new entrants makes it a stronger mechanism than benchmarking for revealing the true level of necessary costs. When benchmarking public agencies serving separate user constituencies, differences in performance can reflect either differences in productivity or local conditions for which the agency is not responsible. It can thus be difficult for outsiders to ascertain what the efficiency differences are, and consequently politically difficult to implement changes when faced with protests from interest groups. In a competitive tendering process, by contrast, bids relate to the same tasks under the same conditions, with entering contractors being ready to take over operations and continue service operations.

A drawback is that the efficiency gains from stronger performance incentives come with a transaction cost, associated with specifying contract terms, monitoring

compliance and eventually changing supplier. To avoid disputes with an external service supplier, notions such as "roughly the same standard as usual" must be translated into precise contractual terms. This can be both time consuming and costly, especially until public managers have gained experience and standardised specifications have evolved.

Where large-scale investment is needed, jointly contracting for the design, construction, maintenance and operation of facilities such as a highway may facilitate a life-cycle perspective on cost efficiency. The complexity and long-term character of these so-called public private partnerships (PPPs), however, creates a set of complications and reduces their effectiveness as monitoring instruments, as analysed in Lundsgaard (2002).

Vouchers and user choice among public and private service suppliers

Allowing users individually to choose among alternative suppliers is another way of opening service provision to competition. Choice can be restricted to public institutions with each one receiving funding as a function of the number of users, as in the case of some school choice programmes. Alternatively, users can be given a more explicit claim on public funding *via* a voucher allowing them to "spend" it only for a particular service, but with a wide range of potential suppliers – making markets open to entry. In practice, explicit voucher schemes with physical coupons are very rare, but OECD countries use a set of arrangements that function in a similar way, including per-user subsidies for private nursing homes, income-dependent benefits earmarked for the purchase of childcare in approved centres and tax credits for documented private school fees. All of these arrangements allow users to choose among different suppliers of publicly funded services. Equity of access and the resulting intensity of competition, however, depends on whether public funding per user is equalised across public and private suppliers.

There is less empirical evidence on the effects of user choice on efficiency, costs and other outcomes than for competitive tendering and contracting. Still, the available empirical material indicates that across the different service areas covered in this article, user choice raises attention to individual needs and creates incentives to improve efficiency for each supplier separately, provided that competition is effective. However, a number of effects interacting between suppliers affect the system's equilibrium and overall cost efficiency, and competition to attract users may raise the total level of demand, service provision and public expenditure. Consequently, whether in practice delegating the monitoring role to users via individual choice of supplier can improve service provision depends on how regulation controls these potential problems. The discussion below reviews these effects which are summarised in Table 1.

Table 1. **Potential effects of user choice**

	Compulsory education	Post-compulsory education	Child care	Long-term care for elderly and disabled	Employment services
User choice raises attention to individual needs and creates incentives to improve efficiency for each supplier separately …					
Raise attention to individual needs	+	+	+	+	+
Promote efficiency of each supplier separately	+	+	+	+	+
… provided that competition is effective, …					
Some users not being motivated or capable of assessing service offers even with access to published professional evaluations	?		?	–	–
Local monopolies	?			?	
… but a number of effects interacting between suppliers affect the system's equilibrium and overall cost efficiency …					
"Cream skimming"	?	?	?	?	–
Risk of undesirable sorting of users	–				
Reduced economies of scale from a larger number and variety of suppliers, and from lower capacity utilisation	–	–	–	–	–
Positive spill-over among suppliers from innovation	+	+	+	+	+
Higher wage costs as a result of weakened monopsony	–				
… and competition to attract users may raise the total level of demand, service provision and public expenditure					
Risk of excessive demand and service provision		–		–	–

Note: The potential effect listed in this table can of course only be roughly indicative: A "+" indicates a potential gain or a condition facilitating user choice. A "–" indicates a potential drawback or a condition making user choice less applicable. A "?" indicates less certain effects that may depend on specific local circumstances.
Source: OECD.

User choice raises attention to individual needs and creates incentives to improve efficiency for each supplier separately…

Learning outcomes are typically found to improve when schools are exposed to competition, management is more attentive to cost efficiency, teachers work more diligently with more intensive learning processes and parents get more involved. In childcare and long-term care there are few empirical studies, but still evidence that user choice increases flexibility and that suppliers do respond to the economic incentives from funding mechanisms. While there are no fully consistent differences in the relative cost-efficiency between public, non-profit and for-profit service suppliers, informal care like family-based childcare is found to be cheaper than formal services (Box 2). In combination with per-user funding, user choice may also promote a more flexible reallocation of capacity towards areas with growing demand.

… provided that competition is effective,…

The effectiveness of competition hinges on the capability and interest of users to evaluate services and choose the best, and on the degree of market power which suppliers can exercise. Firstly, even if many users are *capable of making a choice* among alternative suppliers – listening to the experience of others and drawing on published professional evaluations – some users are not. A frail elderly person with no relatives may have difficulties comparing offers from different residential institutions and may be unable to guard her/his own interests. Some procedures for approving suppliers may therefore be needed to ensure a minimum level of quality for all users. Ultimately, if many users are passive, and do not evaluate offers from different suppliers, competition is only effective if ensured through the process of approving suppliers. This is important in the provision of employment services, as some job-seekers receiving assistance may lack motivation. Secondly, *local monopolies* can be strong for example in compulsory education in rural areas because of transportation costs, and shifting from one school to another generally entails considerable sunk costs, impeding competition even if parents make an active and informed choice of school. This calls for both regulation of charges paid by users and procedures for approving service suppliers. Alternatively, where services and quality can be assessed by professionals, competitive tendering and contracting with one supplier for a defined geographical area may entail more effective competition than the alternative of user choice.

… but a number of effects interacting between suppliers affect the system's equilibrium and overall cost efficiency…

If users are very different, some requiring more resources than others, and this is not reflected in differential funding rates, problems of *"cream skimming"* may

arise with suppliers trying to select "easy" users and avoid "difficult" ones such as very frail elderly needing extra care in nursing homes. Suppliers may advertise and shape their activities in order to segment the market in ways that do not support the economies of specialisation and increased attention to differing individual needs that are considered a major benefit from individual choice. Or suppliers may devote excessive resources to screening and interviewing potential users. While rational from each supplier's perspective, engaging excessively in such activities is wasteful from an overall economic perspective. Conversely, offering premium services to users, for whom the public funding exceeds the costs of standard services, does not imply an efficiency loss but merely a transfer.

Avoiding cream skimming requires cautious attention and regulation. Having not just one per-user funding rate but several rates depending on individual characteristics can remove the incentive for cream skimming, provided that the relevant user characteristics are not subtle aspects such as personal attitude that may be observable to the supplier when encountering users, but insufficiently verifiable to be included in a funding formula. Alternatively, rules such as preventing suppliers from rejecting potential users can limit cream skimming even if the incentive remains. In practice, also human and moral concerns by suppliers, be they public, non-profit institutions or private firms, work to counterbalance cream skimming.

In compulsory education, *undesirable sorting of users* requires particular attention so that is does not become a serious problem. Because there are direct positive spillovers among students motivating and learning from each other within peers, the potential problem of cream skimming is amplified as schools selecting better motivated and qualified students become more attractive from the perspective of parents wanting their children to be in a fertile learning environment (Box 2). Preventing these dynamics from creating a socially undesirable sorting of users, may require stronger regulation than the basic form of cream skimming.

With users being allowed to choose individually among suppliers it can be harder to exploit *economies of scale*. In the absence of entry barriers, suppliers are likely to have more spare capacity than, for example, public schools based on strict zoning where capacity needs are easily predictable and class size and organisation can easily be planned. Notice, that a similar problem does not exist when contracting for the operation of a public facility.

Having a diversity of competing suppliers is likely to produce more *innovation* both in terms of service content, processes and work organisation, creating a positive spillover, as others learn from innovative suppliers.

For specialised professions, *competition to attract qualified personnel may drive up wages* for a given level of employment. Where the public sector is the sole employer of particular professions – such as teachers – it may have sufficient market power to

depress wages (Box 2). This monopsony position is weakened if new independent suppliers are allowed to establish and grow within a voucher system, but not because of user choice per se, as it is also weakened by flexible individual pay in public institutions serving fixed user constituencies. But the break-up of market power is more pronounced when suppliers are exposed to stronger economic incentives from competition to attract users and possibly for-profit ownership. However, attention to recruitment may result in a better allocation of the work force and clearer individual performance incentives raising labour productivity, and the question is then how far this can match the higher wage costs associated with a given employment.[4]

Apart from making vouchers available, government can have an important role to play in facilitating adjustment of capacity. Vouchers can be considered a demand-side instrument in the sense that instead of organising the supply of services directly, government subsidises demand, letting the individual receiving the voucher establish the contractual relation with a supplier. Still, accompanying policy initiatives on the supply side can be essential to ensure that changes in the volume of voucher subsidies results in changes in capacity and services supplied rather than changes in price. Supply side initiatives should address entry and exit barriers such as in construction of housing in the case of rent vouchers.[5] Consequently, voucher schemes may be introduced gradually to facilitate establishment and expansion of suppliers.

... and competition to attract users may raise the total level of demand, service provision and public expenditure

Allowing users to choose among suppliers may increase supply efficiency, but may also reinforce the upward pressure on demand resulting from public funding. An improved and more diverse service supply, with more aggressive marketing, could mean that competition increases the number of service users, increasing budget pressures.[6] In areas like compulsory education this would not apply since service coverage is at 100 per cent, but it could have a strong effect on post-compulsory education and long-term care for elderly. In the latter case this would call for clear procedures for individual need assessment by a separate agency to determine eligibility before users and suppliers interact. Also, fixing the public subsidy per user (at a level reflecting their individual characteristics) as in voucher schemes while allowing users to top-up with additional payments can be a way of cutting off excess demand, since users carry the full marginal costs. For services such as home care for elderly, this can work well, but for services with tendencies to local natural monopoly, there is a trade-off between letting users carry the marginal costs in order to balance excess demand and fixing prices paid by users in order to avoid monopoly pricing. If supplier-induced demand is deemed to be strong, governments may have recourse to capacity controls, including the number

of service licences and restrictions on the training of professionals.[7] Capacity constraints creating excess demand, however, weaken the effect of user choice, as suppliers do not need to compete by offering improved service in order to attract users. Strong economic incentives like embodied in for-profit ownership may be harmful under such circumstances, and ultimately the alternative of contracted suppliers serving fixed user constituencies may therefore be preferable.

Effects of ownership

What range of suppliers to involve – notably whether to involve private firms or only non-profit and/or public institutions – is not a simple issue. By involving privately owned firms as suppliers, government essentially delegates part of its role of principal to the owners and management of the firm as their scope for taking out a profit creates a strong incentive to monitor and reorganise operations towards increased cost efficiency. On the other hand, if competition is limited, the strong economic incentives stemming from the profit motive could lead to rent extraction, and if important service aspects are hard to observe or experience for users, the profit motive could be counterproductive by diverting attention away from such aspects. In practice, however, concerns about reputation may mitigate or even mute such counterproductive incentives. When entering a market for publicly funded services, firms may incur considerable sunk costs since several years of learning are often required before becoming profitable. Firms can only recoup this investment by continuing operations and maintaining a reputation for high quality, and avoiding neglect of weak users leading to negative press stories can therefore be a key element of business strategy for a profit optimising firm. Moreover, the weight of reputation concerns can be increased by publishing quality evaluations or facilitating exchange of information among users, and by requiring recurrent approval by authorities based on these evaluations. Similarly, allowing firms to operate several service facilities, such as a chain of childcare facilities, magnifies the loss of reputation from poor quality in one facility.

Alternatively, involving only non-profit institutions can in a similar way shift the balance of short and long run incentives. That is so since in non-profit institutions surplus can be enjoyed by management and employees only as less workload, nice working conditions and to some extent maybe higher salaries. Enjoying these benefits requires continued operations. Being prevented from extracting surplus as profit also works as a commitment making non-profit institutions more attractive for employees with an altruistic motive. The other side of the coin, is that management of non-profit institutions have only limited incentives to implement unpopular decisions even if it could improve services and attract more users. Incentives to implement such decisions are strong however, if facing falling revenues and having to lay off staff. Relying on non-profit institutions instead of private firms as service suppliers is, therefore, advantageous where competition is limited, reputation effects cannot work well *and*

Box 2. **Studies of user choice and competition in primary and secondary education, childcare and long-term care**

School choice in primary and secondary education

The effects of school choice are complex and difficult to assess because learning depends not only on what schools provide, but just as much on the motivation and support parents provide their children and on the interaction of peers as students learn from each other. Therefore, giving parents an option of choosing a school outside their neighbourhood may affect learning outcomes not only through the changed incentives faced by schools, but also because students from different backgrounds are grouped differently in schools.

Across OECD countries, students in private schools typically achieve better results than students at public schools, as shown by the PISA study (OECD, 2001b) based on standardised tests of reading literacy among 15-year-olds. This is so, notably for private schools funded by tuition fees, but for a number of OECD countries the difference is significant also for private schools funded by government subsidies. In parallel, however, students in private schools on average come from more advantaged socio-economic background, notably in private schools funded by tuition fees. And empirical studies give mixed answers as to whether the better achievements at private schools are simply explained by the differences in student intake or whether indeed similar groups of students learn more in private schools. Studies include Gamoran (1996), Goldhaber (1996), Evans and Schwab (1995) and Neal (1997) analysing test scores and high school graduation rates for the United States, and Greene et al. (1999), Rouse (1998) and Witte (2000) being able to compare students winning private school voucher with a control group of students applying for but not winning vouchers and therefore in public schools, supposedly having the same degree of motivation and support from home.

Another type of studies find that public schools improve when exposed to competition. Hoxby (2000a) finds that in American cities with many separate public school districts implying mutual competition for residents, students in public schools achieve better test scores, complete more post compulsory education and earn more at age 32, while average school expenditure is lower. Dee (1998) finds that students in public schools are less likely to drop out in areas of the United States where the share of private schools is high, after controlling for socio-economic factors influencing drop out rates. And a number of American studies find that public school test scores improve where exposed to competition from private schools, as summarised by Teske and Schneider (2001). Similarly for Sweden, Bergström and Sandström (2001) concludes that students in public schools achieve better overall examination results and better results in the standardised math test in areas where public schools are exposed to competition from a large fraction of private schools. The empirical literature also sheds light on the mechanisms through which competition among schools may be a source of improved learning outcomes:

- T*he operational freedom of non-government schools and competition may provide incentives to improve school performance*. Based on a questionnaire among managers of Danish

Box 2. **Studies of user choice and competition in primary and secondary education, childcare and long-term care** (*cont.*)

- upper secondary schools providing professional skills and teacher training colleges, the Ministry of Education (1998) finds that the change from state institutions to independent trusts and the introduction of funding per student has made the management style more professional and business-like, put focus on users and made the internal allocation of resources more responsive to needs. Likewise, the PISA study (OECD, 2001b) finds that 15-year-olds on average perform better in countries where schools have autonomy in areas like budget allocations within the school and where schools and teachers have at least some responsibility for deciding which courses are offered and for determining course content. Finally, school choice is found by Rapp (2000) to make teachers work more diligently.
- *Parents are forced to get more involved in the learning process of their children when having to choose school.* Based on interviews in New York and New Jersey, Schneider *et al.* (1997) conclude that parents of children attending public schools in districts allowing choice engage in more school-related discussion in the local community, are more likely to trust teachers, and are more involved in parent-teacher associations and voluntary activities. Similar results have been found by a set of studies summarised by Teske and Schneider (2001).
- *Schools exposed to competition have more intensive learning processes and maintain a more disciplined environment.* Hoxby (1999) finds that parental choice among public school districts enhances the share of students taking advanced courses during their upper secondary programmes and the average time spend on homework, and makes public schools maintain a more disciplined environment. All of these factors are found by the PISA study to contribute to student achievements (OECD, 2001b).

Conversely, the public employer may lose the monopsony power in the labour market for teachers, and Vedder and Hall (2000) find that salaries for teachers in public schools are higher in school districts where public schools are exposed to competition from private schools.

School choice may affect the composition of student peers at different schools, but in ways that are very different depending the design of funding mechanisms and other regulation. In public school systems based on assignment of students to the school nearest to their home, students are in reality sorted across schools according to the ethnic and socio-economic characteristics of different neighbourhoods. And parents who can afford it have the option of school choice through their choice of residence. The outcome of extending the range of school choice options by introducing explicit programmes may be an expansion of existing gaps between successful and unsuccessful schools. Such a tendency is found by Ladd and Fiske (2001) for urban areas in New Zealand, but even in 2000, ten years after the introduction of choice among public schools in New Zealand, the variation in reading literacy of 15-year-olds between schools, as measured by the PISA study is among the lowest in OECD countries and by far the most variation

Box 2. **Studies of user choice and competition in primary and secondary education, childcare and long-term care** (*cont.*)

is within schools as pointed out by Rae (2002). In some dimensions students groups may become less segregated, and private schools in the United States are on average more racially and ethnically integrated than public schools, as observed by Greene (1998). Often, school choice results in sorting of students by parental involvement and motivation, as Teske and Schneider (2001) conclude. The available empirical studies do not warrant a conclusion that school choice necessarily entails sorting of students, as such tendencies may be balanced by developing appropriate regulatory and funding arrangements – but indeed, the need for carefully designed programmes is underscored. Also, it is difficult to ascertain empirically whether sorting and larger variation in learning outcomes entail an efficiency loss in terms of lower average outcomes or possibly a gain such as by better matching of course contents with student abilities. Hoxby (2000b) finds that an exogenous change of 1 unit in peers' reading scores raises a student's own score by 0.15-0.4 units but with little evidence that peer effects are generally non-linear. This implies that changes in composition of students across schools can have relatively strong effects on the distribution of learning outcomes but is likely to be neutral in terms of efficiency. On the other hand, Schleicher (2002) finds some indication from the PISA-study that OECD countries with less variation between schools in the reading literacy score for 15-year-olds and countries in which family background impacts little on student performance, tend to achieve a higher average score. But in any case, social preferences may be strong: either against sorting and inequalities in learning outcomes or against imposing negative peer-effects on individual students by preventing parents from choosing another school.

User choice and competition in childcare and long-term care

There are too few studies of childcare and long-term care to fully disentangle generic effects from exposure to competition, individual choice, funding mechanisms, ownership and various entry and operational regulations. However, two tentative conclusions are that individual user choice increases flexibility and attention to user needs, and that incentives from funding mechanisms matter more than ownership for cost efficiency.

Studying the US military's employer-sponsored childcare, Zellman and Gates (2002) find no cost difference between childcare centres operated by the Department of Defence versus by outside contractors, but family-based childcare is found to have considerably lower costs.

For long-term care Bengtsson and Rønnov (1996) show that combinations of contracting and user choice have been instrumental in achieving a more flexible system and to some extent lower costs in the Netherlands and Sweden. Focusing on home care, Tilly *et al.* (2000) find that giving elderly and disabled the option of employing a person as carer themselves increased satisfaction as users had more influence on their daily life. For nursing homes in Switzerland, Crivelli *et al.* (2002) find

Box 2. **Studies of user choice and competition in primary and secondary education, childcare and long-term care** (*cont.*)

some variation in cost efficiency with many nursing homes operating at a sub-optimal small scale, but the study finds no systematic explanation for these differences from ownership type, whether private for-profit, non-profit or public.

Experience from nursing homes in the United States shows how entry regulation and funding mechanisms affect competition and cream skimming. In order to contain public costs under the Medicaid programme, most states adopted a certificate-of-need regulation constraining capacity expansions in all nursing homes whether accommodating publicly or privately funded residents. Consequently, waiting lists became common, and as private residents were willing to pay more than the Medicate rate, publicly funded applicants could have difficulties getting access – notably if very frail and resource demanding. Empirical studies, however, also find that this cream skimming has been forestalled and performance improved by funding mechanisms reflecting individual health characteristics and rewarding desirable outcomes, as summarised by Norton (2000).

where there is little to gain from continuous restructuring. Eventually, allowing public institutions, non-profit institution and private firms to all offer services in competition creates a platform for a natural selection process, determining the appropriate form of ownership. And involving some private firms as suppliers may make competition more dynamic, as they are more likely than public agencies and private non-profit institutions to seek an aggressive expansion of their activities.

PATTERNS OF SERVICE PROVISION IN OECD COUNTRIES

Countries vary considerably with respect to *how* they provide services, and the different patterns of service provision are reviewed in this section. There is a general lack of internationally comparable data for publicly funded services. A notable difficulty is that competition is complex to measure, and this article therefore relies on data for the share of public *versus* private institutions, funding flows and descriptions of allowances, voucher schemes, etc. Focusing on publicly funded services, the section reviews education, childcare, long-term care for elderly and disabled, employment service, outsourcing of support functions and contracting, including public private partnerships with private finance of investments.

Education

In most OECD countries, the majority of education institutions are public, but typically the share of private institutions increases with the level of education and the degree of orientation towards specific professional skills. Among the private institutions, some can be classified as government-dependent in the sense that more than half of their costs are covered by public funding, while others are financially independent as they rely mostly on funding from tuition fees and other private sources. In broad terms, government-dependent private institutions are mainly found in Europe, while independent private institutions are found to a large extent in Japan and Korea and to some extent in North America (Figure 1). Direct and indirect public spending on educational institutions varies across OECD countries in the range 3-7 per cent of GDP.

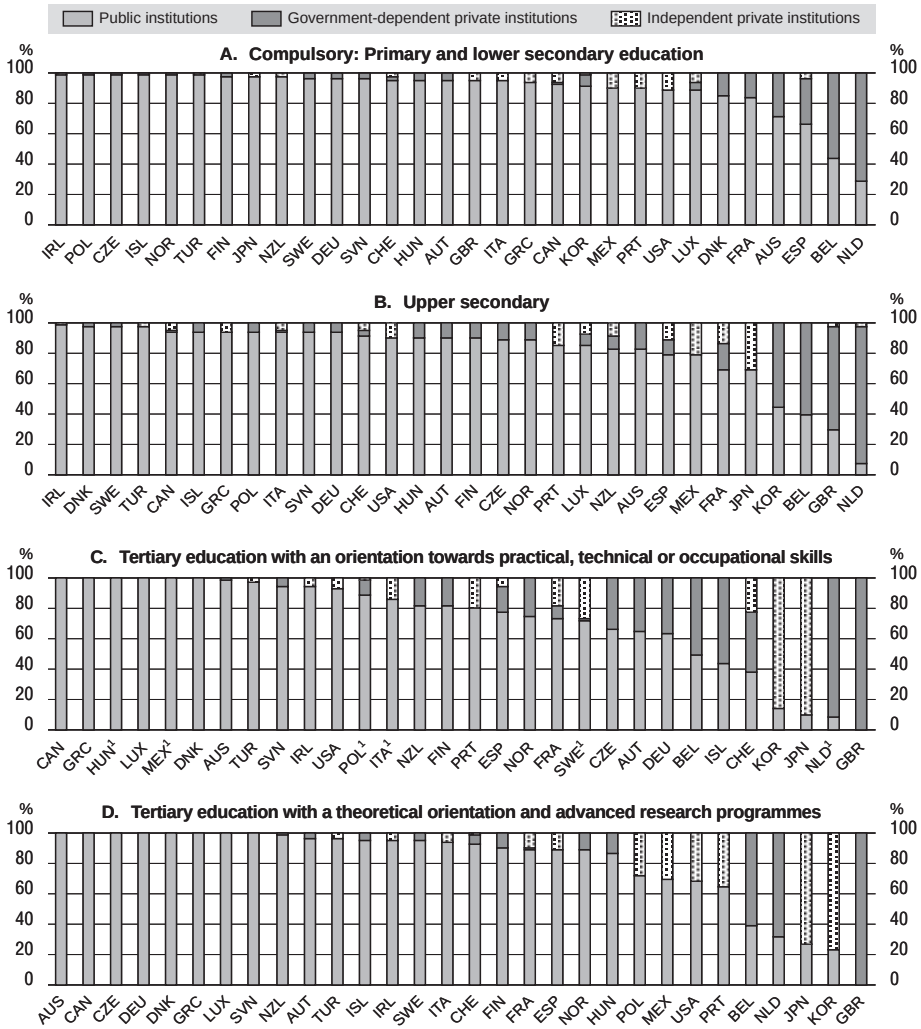
Compulsory education

For cultural and historical reasons, many countries have traditionally offered parents a choice between public schools and private schools receiving partial public funding – resembling a voucher scheme.[8] The level of public funding for private schools ranges from nothing in the United States, through little or moderate financial support in the United Kingdom, Italy, Greece and Portugal, to substantial grants in Norway, Finland, Sweden, Germany, Austria, Denmark, France, Australia, Spain, Belgium and the Netherlands. In the latter group of six countries, private schools accommodate more than one out of seven enrolled in compulsory education (see Figure 1, panel A). These arrangements imply some competition between schools, but having evolved in response to other concerns, they are often designed in ways that limit the resulting competition. First, where the public funding which users can take along when choosing a private school is less than that provided to public schools, there is not a level playing field. Second, as a precondition for receiving public funding, governments have often required private schools to have similar facilities and apply similar student-teacher ratios, staffing rules and management systems as the public school sector. Applying such input controls limits operational flexibility and reduces the potential gains from competition.

Recent reforms aimed more clearly at introducing competition by allowing parents a choice among public schools have taken place in a number of countries, although in practice competition is limited by capacity constraints and lack of mobility across school districts. In the United States, private school vouchers have been introduced to expand choices for low-income families and expose public schools to competition, but so far only on a limited scale. In Sweden, competition has been strengthened, partly by ensuring that private schools have the same level of public funding as public schools and partly by allowing a broader range of schools to be established, including some operated by private firms (Box 3). These different

Figure 1. **Public and private education institutions, 2000**

Share of students enrolled



Note: Education institutions are classified as either public or private according to whether a public agency or a private entity has the ultimate power to make decisions concerning the institution's affairs. Private education institutions include self-contained non-profit institutions, institutions controlled by churches and trade unions, and institutions run as private business firms. A private education institution is classified to be government-dependent if more than 50 per cent of its core funding is received from government.

1. In Hungary, Mexico, Poland, Italy, Sweden and the Netherlands this category accounts for less than five per cent of total enrolment in tertiary education, and the relative share of public and private should therefore be interpreted with caution.

Source: OECD Education Database 2002.

Box 3. School choice in the United States, the Netherlands and Sweden

Although attending the local public school is by far the most common pattern in the **United States**, a range of new choice programmes have been introduced in primary and secondary education over recent decades. *Magnet schools* are ethnically and socially-integrated schools, attracting students from different neighbourhoods by offering distinctive, improved education programmes based on above-average public funding. With 3 per cent of total school enrolment, magnet schools represent the most common form of public school choice. Allowing parents an *inter-district* choice among public schools is growing more common but still involves less than 1 per cent of students. *Charter schools* are publicly funded non-government entities recruiting students from a wide catchment area and currently cater for 1-2 per cent of total enrolment. *Vouchers* represent a subsidy to low-income families paying part of the tuition fees at private schools. In total only 0.2 per cent of students receive school vouchers, and the majority of these vouchers is funded from private sources. *Tax credits for private schooling* operate in a similar fashion and cover 0.1 per cent of students. Consequently, unsubsidised *private schools charging tuition* still represent the main form of school choice not associated with change of residence, as for half a century private tuition charging schools have covered a stable share of around 11 per cent of primary and secondary school enrolment. Most private schools have a religious affiliation and as a national average, expenditures per pupil amount to only half of those in public schools. Finally, the number of children *schooled at home* has grown rapidly to a current level estimated at 1-3 per cent.

The **Netherlands** has a well-established and extensive system of public and private schools, ensuring equal terms of funding, examinations, etc. Since 1917 the Dutch constitution has guaranteed financial equality between public and private schools. Groups of parents that want to found a school according to their own vision (religious, pedagogical, etc.) can do so and receive public funding. Schools are subject to extensive controls on salaries, capital investment, etc. covering both public and private schools, and to avoid a hierarchy of prestigious to poor schools, tuition fees are prohibited. Students from very disadvantaged background elicit 90 per cent more funding than others. The terms of examination are the same across schools, but the schools are left with much freedom in terms of course materials and how to teach. Private schools are typically organised as non-profit foundations with a high degree of self-selection of new board members, and no primary schools are run by private firms. National umbrella organisations of Catholic and Protestant schools respectively exist, but function mainly as lobby organisations while not having authority over the individual schools. In 2000, 68 per cent of students in primary education attended a non-government school, the vast majority being Catholic and Protestant schools, which have a religious origin, but today mainly distinguish themselves by a reputation for offering educational quality.

Despite having virtually no tradition for private schools, **Sweden** in 1992 introduced a Dutch-style funding system in compulsory education (primary and lower

Box 3. **School choice in the United States, the Netherlands and Sweden** (*cont.*)

secondary level) leading to a rapid expansion of private schools and improved performance in public schools in areas where competition is pronounced. Private schools (*fristående grundskolor*) are now guaranteed public funding on the same basis as municipal schools in the same area, but are not allowed to charge tuition fees. Equally, the funding to public schools respond automatically to changes in attendance. Choice among public schools across municipalities is allowed, but limited in practice as students living nearby are given preference. And no private school can reject students from within the municipality. The share of students attending private schools has grown from 1 per cent in 1992 to 4 per cent in 2000/1. Unlike elsewhere, schools with a religious affiliation represent only 15 per cent of private schools. The majority of private schools, 60 per cent, either consider themselves as non-specialised or adhere to certain pedagogical ideas. The remaining 25 per cent put emphasis on special topics like arts, teach in other languages or have specific ethnic orientation. Much of the growth since 1992 reflects students moving into private schools competing with public schools on offering a non-specialised programme. Schools organised like private limited companies play an important role in this process and have grown from nothing to a share of 34 per cent of the private schools, the remaining part being organised as teacher – or parent – co-operatives, associations and non-profit foundations. In upper secondary education (*gymnasieskolor*) parallel reforms have been implemented, with the share of students attending private schools growing from below 1 per cent to 3 per cent in five years.

Sources: Peterson (2001), Dijkstra (2001), Bergström and Sandström (2001) and national sources.

models have very different implications for the extent of student sorting across schools. Tuition-funded schools are more accessible for students from advantaged socio-economic backgrounds. Letting low-income families apply for a limited number of vouchers to attend such private schools may even reinforce this difference in learning outcomes, as it is likely to shift the more motivated students out of public schools, deteriorating the peer-learning effect there.[9] By contrast, the models applied in the Netherlands and Sweden include a series of safeguards against cream skimming, sorting and unequal learning opportunities. This includes prohibition of tuition fees, extra funding for students from very disadvantaged background in the Netherlands, and preventing private schools from rejecting students

from within the municipality in Sweden. Letting parents choose among schools is likely to reveal existing problems in schools via falling enrolment. In such situations, by having clear procedures for intervention, authorities can prevent students with less attentive parents from being left behind in poorly performing schools. Finally, the American Magnet Schools use choice directly as an engine to achieve more integration.

Contracting with private firms for the operation of public schools or entire districts is an alternative way of introducing competition that may circumvent the potential problems of student sorting associated with individual school choice. It may also facilitate the adjustment needed for extra resources to be provided in disadvantaged areas. So far this has only been tried on a limited scale in OECD countries, primarily the United States, covering around 0.3 per cent of enrolment in compulsory education. Private tuition taking place after school hours is not reflected in the enrolment numbers of Figure 1, but matters in some countries, including Korea where it has grown rapidly over the latter decades.

Post-compulsory education

The share of private institutions increases with the level of education and the degree of orientation towards specific professional skills.

- In upper secondary education, private institutions accommodate a larger share of students than in primary and lower secondary education in most countries (Figure 1, panel B).
- In tertiary education orientated towards practical, technical or occupational skills, private institutions account for more than one out of five students in half of the OECD countries (Figure 1, panel C). Within Europe, it is at this level that private institutions matter most; in Finland, Norway, the Czech Republic, Austria, Germany, Iceland and Switzerland, 20-55 per cent of students attend private institutions, compared with 10 per cent or less at other levels of education. Being better able to liaise with industry is an important motive for private arrangements at this level.
- Independent private universities play a large role in Japan and Korea where four out of five students in tertiary education attend private institutions, while the traditional top universities are typically public (Figure 1, panel C and D). For Poland, Mexico, the United States and Portugal, the share of enrolment in independent private institutions is considerable in academic-oriented tertiary education and advanced research programmes, and larger than at other levels of education (Figure 1, panel D).

Generally, there is a move over time towards private institutions and towards giving public institutions more operational freedom while increasing competition. The private American universities increased their share of total tertiary enrolment

over the 1990s by one third to 35 per cent. The Czech Republic, Hungary and Poland are actively pursuing establishment and expansion of an independent private university sector as a means of increasing capacity. Similarly, private universities specialised in MBA and ICT-related programmes for in-work students have increased their role in Germany and France. In Austria the authorities have developed a system of accreditation for local and foreign private institutions of higher education, thereby lowering entry barriers and widening the scope of education on offer to students. In upper secondary as well as tertiary education, some OECD countries, and notably the United Kingdom, have implemented reforms transforming hitherto public schools and universities into private trusts, allowing them more operational flexibility.

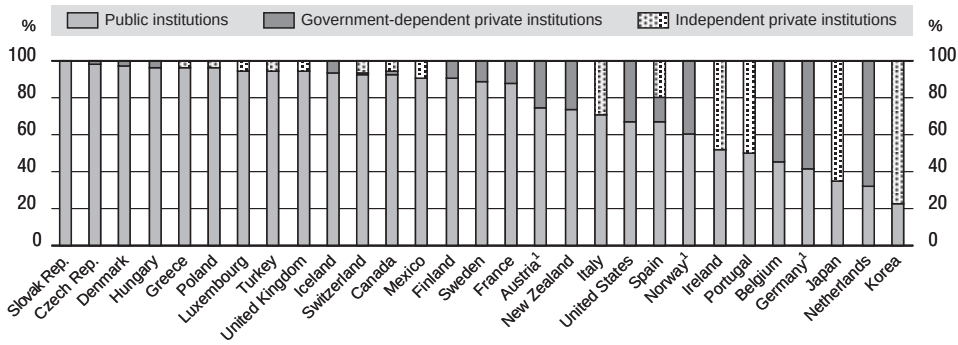
In parallel, there has been a move towards efficiency-enhancing incentives in formulas channelling funding to public and private institutions. This change has been more widespread than in compulsory education, since students in post-compulsory education are more mobile and potentially better informed – provided availability of published professional evaluations of study programmes on offer – facilitating competition among institutions. By allocating funding automatically on the basis of student enrolment, Australia, Belgium, Denmark, the Netherlands, New Zealand and the United Kingdom operate implicit voucher systems where universities are rewarded for attracting students by improving their education programmes and for reducing drop-out rates when funding is based automatically on the passing of exams, as in Denmark. Finland, Norway and Sweden have adopted mixed funding schemes, weighing different performance measures including degrees earned.

Early childhood education and care[10]

Provisions for children below compulsory school age cover a wide range from pre-schools focused on learning through centre-based day care to informal family-based day care. The extent and form of public involvement varies across these different categories. For pre-schools, public funding is predominantly channelled through public institutions rather than subsidies to parents purchasing services. Public institutions therefore account for a somewhat larger share of enrolment than private day care centres and pre-schools in the majority of OECD countries (Figure 2). For family-based day care, public funding, for natural reasons, is typically channelled through subsidies and tax-credits, allowing users more choice. Direct public spending and indirect expenditures via tax credits related to early childhood education and care for children under compulsory school age varies across OECD countries in the range 0-3 per cent of GDP, reflecting differences in the coverage of formalised care, public versus private funding and differences in compulsory school age.

Figure 2. **Public and private institutions in early childhood education and care, 2000**

Share of children enrolled in pre-primary education and centre-based day care for children from 3 years



Note: Includes pre-primary education and organised centre-based programmes designed to foster learning and emotional and social development in children from 3 years to compulsory school age as recorded in the OECD Education Database. Some types of day-care like play groups and home-based programmes are not included. See note to Figure 1.

1. For Austria, Norway and Germany, data do not allow stipulating precisely the share of government-dependent vs. independent private institutions, but as many receive a significant share of public funding, private institutions are shown as government dependent here.

Source: OECD Education Database 2002.

In terms of the framework set out earlier, childcare is a good candidate for exposure to competition via user choice. There is a large benefit from getting services that are well adapted to parents' needs, and unlike in compulsory education, the risk of cream skimming and undesirable sorting is limited. Moreover, as childcare relies on less specialised professions than education, government losing monopsony in the labour market is only a concern if regulation or collective agreements require specific staff.

Comprehensive voucher-type reforms aimed at equalising the level of public funding per child across public and private institutions by channelling *all* public funding through users have been introduced in a few countries. Australia has implemented the most comprehensive reform, replacing the previous system based on grants to non-profit organisations and local governments. Public funding is now distributed to families via the Child Care Benefit earmarked for childcare provided in Commonwealth-approved services.[11] The public subsidy is thereby levelled across different institutional settings – including for-profit and non-profit community-based day care centres and to some extent family-based day care. All families are eligible for a minimum amount, and assistance is higher for lower

income families. The Netherlands and Norway are currently considering similar comprehensive reforms, and in the United States, childcare vouchers have gained ground in federal family-support programmes since the early 1990s. Under this federal programme, services were previously provided through direct funding to public institutions or through grants or contracts with selected private childcare institutions, whereas recipients are now entitled to a voucher or cash benefit giving access to a wider range of care facilities.

Subsidies and tax credits conditional on documented expenses for purchase of private childcare, however, resemble voucher systems and exist in many OECD countries (Table 2).[12] Like vouchers, these subsidies and tax credits allocate public funding on a per-user basis, thereby giving parents an incentive to choose the form of childcare that is least costly and suits their needs best across different options of family-based and centre-based day care. But these subsidies and tax credits do not necessarily imply a level playing field relative to childcare facilities funded via other channels. None of the programmes reviewed in Table 2 pay more than € 500 per child per month – most considerably less – which is often not as much as for parallel public institutions funded by block grants. In many countries these subsidies and tax credits are targeted at (or higher for) low income and working families in order to improve their work incentives. Providing subsidies and tax credits rather than separate public institutions for children from these families may facilitate integration of children from different backgrounds in the same institutions. Subsidies and tax credits for purchase of childcare from competing care settings is distinguished also by parents carrying the marginal cost, which is not typically the case for public monopoly provision, where the individual users cannot affect the size of co-payments by choosing among alternative suppliers.[13] Letting parents carry the marginal costs is warranted, provided that childcare facilities do not have local market power requiring price regulation (as indicated also earlier in Table 1).

Among private institutions, both non-profit organisations and private firms play a role with striking variation across countries. Private firms play the largest role in Australia, where the share of day care centres operated on a for-profit basis has grown during the 1990s to 73 per cent currently. In the United States, private firms supply 30 per cent of childcare services. For-profit childcare also exists in most European countries, including Belgium, Italy, the Netherlands and Portugal, primarily for children under three years, and to a much more limited extent in Finland and Norway. Interestingly, the involvement of informal family-based day care can be seen as a way of solving the monitoring problem. By choosing a day carer the parents know personally, they ensure that the carer has an incentive to give attention also to hard-to-observe service aspects, since neglect becoming apparent over time would imply losing a valued personal relationship. This has the effect of balancing short and long run incentives like the reputation concern of formal suppliers.

Table 2. **Subsidies and tax credits for purchase of child care**

Arrangements in late-1990s or latest available year

	Programme description[2]	Value per month per child, euro[1]		
		–100	100-500	500–
Australia	Child Care Benefit earmarked for childcare provided in Commonwealth-approved services. All families are eligible for a minimum amount, and assistance increases as family income decreases.		x	
Belgium	Deduction reducing taxable income by 80% of actual costs of childcare. Maximum tax credit is 5-10 times higher for parents in employment than for parents outside employment.	x	x	
Canada	Limited number of subsidies for low-income families, paid directly to care providers.		x	
	Tax credit for childcare expenses for working parents.		x	
Denmark	Local governments can give a subsidy to the purchase of child care from private providers or to care organised by groups of parents.		x	
Finland	Subsidy for purchase of private centre-based or family-based day care paid directly to the provider. Basic flat-rate with earnings supplements		x	
France	Subsidies for parents using registered family day carers or employing in-home carers.	x	x	
	Tax credit for employed parents of 25% of costs of purchasing childcare and 50% of costs for employment of in-home care up to a maximum.	x	x	
Germany	Limited number of subsidies to low income parents using centre-based or family-based day care services approved by local authorities.	x	x	
	Tax credit to working lone parents and to married couples if one parent is sick or disabled	x	x	
Luxembourg	Tax credit for the costs of (public or private) care for children under 14, reducing taxable income by documented costs up to a maximum	x		
Netherlands	Tax credit for a portion of cost for private child care up to a maximum		x	
United Kingdom	Tax credit for low- and middle-income families for child care costs		x	
United States	Limited number of subsidies for low-income parents in employment, maximum amount varies by state	x	x	
	Tax credit for actual childcare expenses for employed parents up to a maximum	x		

1. As the level of subsidies and tax credits often depends on income and other conditions, programmes can be placed in several intervals.
2. See Lundsgaard (2002) for more detailed information on the individual programmes.

Source: OECD based on national sources.

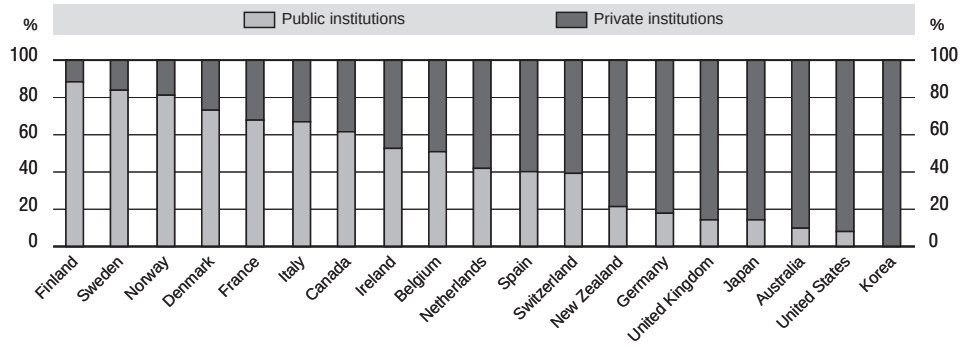
Long-term care for elderly and disabled[14]

The publicly funded provision of long-term care for elderly and disabled is growing in OECD countries and includes public and private residential institutions and help at home as well as subsidies for informal employment of personal attendants and tax credits and income support for relatives or friends acting as carers. At a level around 3 per cent of GDP, public expenditure on long-term care is highest in the Scandinavian countries, reflecting a relatively wide publicly funded coverage of both care in residential institutions and formal care at home, as well as demographics. Conversely, in southern Europe and Asia public and mandatory insurance expenditure is limited, as families retain a larger role in long-term care.

Providing publicly funded long-term care in private nursing homes and residential institutions typically takes the form of subsidies resembling voucher systems – either reimbursing part of the fees paid by residents or paying a subsidy directly to the institution, based on the number of residents. Consequently, the effectiveness of competition hinges on the choice of institutions made by the elderly individuals or their relatives. In Australia, the government has sought to control the prices charged by private residential institutions, making compliance with price controls a condition for receiving federal nursing home funding. And to avoid "cream skimming" and access problems for elderly in severe conditions, the Resource Utilisation Group (RUG) payment system where residents are assigned to different health status categories implying different funding rates has been adopted in the United States, Iceland and parts of Canada. The RUG system has also been tried on a pilot basis in a number of countries, including Finland, Japan, Netherlands, Spain, Sweden and the United Kingdom. For the OECD countries for which data are available, the share of private residential institutions in total capacity varies widely from less than 20 per cent in Finland, Sweden and Norway to more than 80 per cent in Germany, the United Kingdom, Japan, Australia, the United States and Korea (Figure 3). Many of these private institutions are non-profit organisations and submitted to tight public regulation, but for-profit firms operate a substantial share of institutions in Ireland, New Zealand, Portugal, the United Kingdom and the United States, accounting for 69 per cent of nursing homes in the United States.

A growing range of programmes provide benefits and tax credits for the families of the elderly or disabled to retain their role as caregivers, or for the elderly or disabled to employ a personal attendant of their own choice (Table 3). Such arrangement may facilitate very flexible services close to individual user preferences, and provided that the elderly or disabled is mentally capable and sufficiently assertive, it is likely to entail more effective monitoring of quality than with a monopoly supplier leaving more of the monitoring role to government. The size of these benefit programmes in terms of number of users varies dramatically across

Figure 3. **Public and private institutions in long-term care for elderly, late 1990s**
Share of beds in nursing homes and residential care institutions[1]



1. This figure is based on collection of available national material where the exact definitions may vary. Generally only staffed homes providing nursing care and/or practical help with activities of daily living are included while long-stay hospital sections are not included.

Source: OECD based on national sources.

countries, from very few under pilot programmes to two thirds of all recipients of publicly funded long-term care in Germany. Like vouchers these programmes allocate public funding for care on a per-user basis rather than through institutions and allow the user the choice of what person should receive this public funding as caregiver. Unlike vouchers, however, the programmes in Austria, Finland and Germany allow users to spend the money on whatever purpose they want. Indeed this allows very flexible solutions including purchase of practical aids in combination with care from a personal attendant, but also brings the programme closer to income support. The personal budgets introduced in the Netherlands allow some of the same flexibility, but the budget can only be spent on care-related purposes based on the approval from a public agency. One of the policy objectives behind benefits and tax credits to support informal care is to reduce the need for more expensive formal care like in nursing homes. Even though some programmes pay substantial benefits – up to well above € 500 per month in Austria, Denmark, Finland, France, Germany and Sweden (Table 3) – these payments are still less than the cost of the alternative formal care services. In other words, making public support for informal care available as a choice, in practice works to reduce public expenditure, as relatives and other informal caregivers are likely to work more and at inconvenient hours.[15] Conversely, to avoid paying publicly for within-family care that would be provided anyway, benefits cannot be paid to spouses in France and the United States and not to any relatives in the United Kingdom (Table 3).

Table 3. **Benefits and tax credits for informal long-term care**

Arrangements by 1999/00 or latest available information

	Programme description[2]	Can relatives be employed?	Value per month, euro[1]		
			–100	100-500	500–
Australia	Means tested income support to carer who can only take other work for a maximum of 20 hours a week.	Yes		x	
	Cash benefit paid to relatives caring at home for an elderly who would otherwise be eligible for nursing home.	Yes	x		
Austria	Cash benefit paid to the disabled with substantial care needs. No restrictions on the use of payment.	Yes		x	x
Canada	Tax credit for low-income individuals living with or providing care for an infirm relative over 65	Yes	x		
	Subsidy to care-giver to purchase respite care without restriction on who is hired.	Yes	x		
Denmark	Disabled with substantial care needs can select a relative as carer for a maximum of six months. The person is employed by the local government on conditions similar to those of municipal care staff.	Yes			x
Finland	Benefit paid to the care-giver who may be anybody the elderly chooses. Informal caregivers obtain pension rights through municipal institutions. Received by a number of carers corresponding to 2 per cent of all elderly.	Yes	x	x	x
	Cash benefit paid to disabled or frail pensioners with no restrictions on its use. Received by 4 per cent of all elderly.	Yes	x	x	
France	Means-tested benefit to the elderly which may be either channelled to a residential institution or used for hiring a personal attendant. Relatives except spouses may be hired on the condition that they are unemployed and not receiving retirement income.	Yes, except spouses		x	x
Germany	Eligible users can choose between services and a cash benefit. Those choosing cash receive around half the value of those choosing services. There are no restrictions on the use of the cash benefit which is chosen by 50-70 per cent of eligible users.	Yes		x	x
Netherlands	Personal budget allowing the elderly or disabled to purchase care services from self-employed, private firms or non-profit institutions, employ relatives or friends, or purchase practical aids. To obtain a personal budget, users must reach a written agreement with a regional public agency stipulating rights and duties, and users are responsible for obtaining good quality care.	Yes		x	

Table 3. **Benefits and tax credits for informal long-term care** (*cont.*)
Arrangements by 1999/00 or latest available information

	Programme description[2]	Can relatives be employed?	Value per month, euro[1]		
			–100	100-500	500–
Sweden	Benefit paid to relative or friend taking leave to care full-time for a terminally ill person.	Yes		x	x
United Kingdom	Benefit paid to carer who must have low income and not be a full-time student.	No		x	
United States	Cash benefits paid to elderly or disabled. Programme design varies across states. Relatives can be employed, but in most states not spouses.	Yes, except spouses in most states	x	x	

1. As the level of payments typically depends on measures of need, such as the extent of disability, programmes can be placed in several intervals.
2. See Lundsgaard (2002) for more detailed information on the individual programmes.
Source: OECD based on national sources.

Contracting with a limited number of private firms and non-profit organisations for the provision of publicly funded formal help at home is occurring in some countries. In some cases, contracts are awarded based on a standard competitive tendering process, where suppliers bid on the price. In other cases, contracts are made with a set of suppliers allowing users a choice of supplier, but with an option for government to select among suppliers in subsequent contracting rounds thereby adding to the competitive pressure on suppliers. Supplying formal help at home through public institutions nevertheless remains the dominant mode of service provision in the Nordic countries as well as the United Kingdom.

Employment service

It is common among OECD countries to involve a broad range of public and semi-public education institutions as well as private firms in the training of job-seekers, while individual assistance and matching of job-seekers with vacancies is typically not outsourced. Australia and the Netherlands, however, have recently reformed their publicly funded employment services, and private suppliers – including non-profit community-based organisations as well as private firms – have now taken over the individual assistance of job-seekers (Box 4). Similarly, in the United States federal programmes have given local authorities the option of contracting with private suppliers for all kinds of employment services. In other OECD countries reforms have gone less far. In the United Kingdom as well as Sweden and

Box 4. **Employment Service in Australia and the Netherlands**

In **Australia** the public Commonwealth Employment Service (CES) was replaced by Job Network in May 1998. Under the new scheme a broad range of non-profit organisations and private firms now provide publicly funded employment services, including the matching of job-seekers with existing vacancies, job search training and individually-tailored intensive assistance to more disadvantaged job-seekers. To access Job Network services, job-seekers must be referred by Centrelink, a national agency that also processes claims and payments for a range of benefits including unemployment assistance. Having been referred, job-seekers may choose individually among the suppliers already approved in a competitive tendering process.

Providers are paid according to their performance, as for instance, commencement of a job training course entails some payment to the provider while a larger fee is paid if a participant gets a job afterwards and if he or she succeeds in keeping the job for at least 13 weeks. For some fees, the level has been determined by bids made in the competition for tenders. The re-tendering in 2000 following the first two years of the Job Network allowed the authorities to select extensively among the market participants, and suppliers that were awarded contracts for the second Job Network had, in the first Job Network, a placement performance 25 per cent above the average for all providers.

Opening the provision of employment services to competition has entailed a marked restructuring through entry of new providers, some aiming at narrow user segments, others being broader in coverage. In the second contract period stretching from 2000 to 2003, Job Network counts over 200 providers. Community-based and charitable organisations have a market share of 45 per cent, and private companies have a share of 47 per cent. The public agency succeeding CES, called Employment National, now primarily plays a role in the traditional function of matching job-seekers with vacancies, while its market share of intensive assistance to disadvantaged job-seekers has dropped to 1 per cent. 15 per cent of the providers have specialised in providing services only to targeted groups on the labour market, including disabled and indigenous people. Moreover, the number of sites in regional Australia from which the employment service is available has doubled with the second contract period, resulting from a shift towards smaller geographical tendering blocks, allowing providers to recover the costs of operating in remote areas through more differentiated subsidies.

In the **Netherlands** a contracting system has been in operation since January 2001. Dutch becoming unemployed go through the public Organisation for Work and Income (CWI) which provides advice and matching of job-seekers with vacancies based on its national database. Those eligible for unemployment benefit or disability benefit are then referred to the public agency UWV which handles benefit claim assessment and payments, and which is responsible for reintegration assistance for job-seekers but is obliged to contract with private non-profit or for-profit suppliers. Those eligible for subsistence benefit are referred to their municipality which handles benefit payments and provides reintegration assistance either in-house or – as they are now encouraged to – via contracted suppliers.

Box 4. **Employment Service in Australia and the Netherlands**

The contracting procedures followed by the UWV is based on a relatively detailed system of 22 target groups defined by different conditions or handicaps making it difficult for the job-seeker to find employment. Larger target groups are then further subdivided by economic sector and finally region. For each segment only one or a couple of contracts will be awarded based on a competitive tender, implying no or a limited choice for job-seekers. Suppliers bid for contracts by stating a price per job-seeker served, and are then paid typically half this rate when a job-seeker has received assistance and the other half, plus a bonus, if the person is subsequently employed. Substantial vocational training is funded separately and does not depend on the employment outcome.

The UWV has contracted with a total of 41 suppliers for operation during 2002, the now privatised former public supplier, Kliq, being the largest with a 17 per cent market share. The rest of the market is dominated by large suppliers associated with the former social insurance agencies, insurance companies and health and safety services, but still with a lot of mobility as from 2001 to 2002, 18 new suppliers were awarded contracts, many being smaller start-ups.

Sources: OECD (2001a), Riggs (2000), Webster and Harding (2001) and Struyven and Steurs (2002).

other Nordic countries, former public agencies supplying training for job-seekers have been transformed into independent institutions, and in France associations play a large role in publicly funded training of job-seekers. Finally, to improve the management of employment services within the public sector, Switzerland has developed detailed performance measures facilitating benchmarking. Employment services typically account for only a small fraction of GDP, but are still important, as the costs of ineffective services, in terms of benefit payments, can be high.

Crafting appropriate economic incentives for suppliers of employment services requires careful attention to the performance indicators used in funding mechanisms. Exactly what type of services each user needs varies much more for training and job-search assistance than for any other service analysed in this article. Resolving the principal-agent relationship between government as funder and the suppliers of employment services via a very detailed and comprehensive contract is therefore not feasible. Moreover, as a significant portion of the job-seekers may lack motivation (as indicated also earlier in Table 1), user choice alone does *not*

ensure effective competition – with users monitoring the agents on behalf of the principal by actively selecting the suppliers giving the most adequate and effective service. When involving alternative suppliers in employment services, OECD countries therefore typically rely on relatively flexible contracts, with payment based on elaborate outcome indicators in order to accommodate shifting needs over time, and to set a focus on re-employment of job-seekers thereby avoiding supplier-induced demand for ineffective procedures. Letting funding depend on outcome indicators such as the share of job-seekers that are in employment six months after going through training or job-search assistance, however, strongly enhances the incentive for cream skimming; even if the training or job-search assistance is highly effective in raising the likelihood of subsequent employment, individual characteristics and abilities may still matter much more. To meet this problem, job-seekers are assigned to contracted suppliers of employment services by a government agency in both Australia and the Netherlands.[16]

Enforcement of active participation by job-seekers lacking motivation is important for employment services to be effective and requires special attention as there may be legal restrictions on the extent to which contracted suppliers can apply economic sanctions to job-seekers. In Australia this has been solved by a procedure whereby the private suppliers notify Centrelink if a job-seeker does not show up for training or other assistance appointments. Centrelink then has the legal authority to withhold income support payments until the person attends an interview at Centrelink. If a reasonable excuse is provided, payments will be restored from the date of suspension. This procedure is, in fact, similar to what exists in most countries with public employment service agencies.

Outsourcing of support functions, contracting and public private partnerships

Sub-contracting for support functions can be an alternative or additional way of introducing competition, even if final services are delivered through a monopoly. Outsourcing of this kind plays some role in all OECD countries – but the institutions supplying publicly funded services seem to retain support functions in-house more often than do firms in business service sectors. The input combinations used by different sectors can be analysed using input-output statistics (Figure 4).[17] On average, public administration and defence buy support services from firms in telecommunication, transport, catering, insurance, IT, real estate, and other business service sectors, with the volume corresponding to roughly 10-20 per cent of their production value. Australia, which has actively pursued contracting-out as a policy of public management reform, stands out with a higher share. Comparing the input composition of different sectors is inherently difficult where production processes are not alike. Still, business services including accounting, auditing, consultancy, architecture, engineering and legal services may resemble the activities of public administration and therefore its input composition (shown in the first columns)

Figure 4. **Sub-contracting, late 1990s**

Composition of inputs as a share of production value, based on input-output statistics

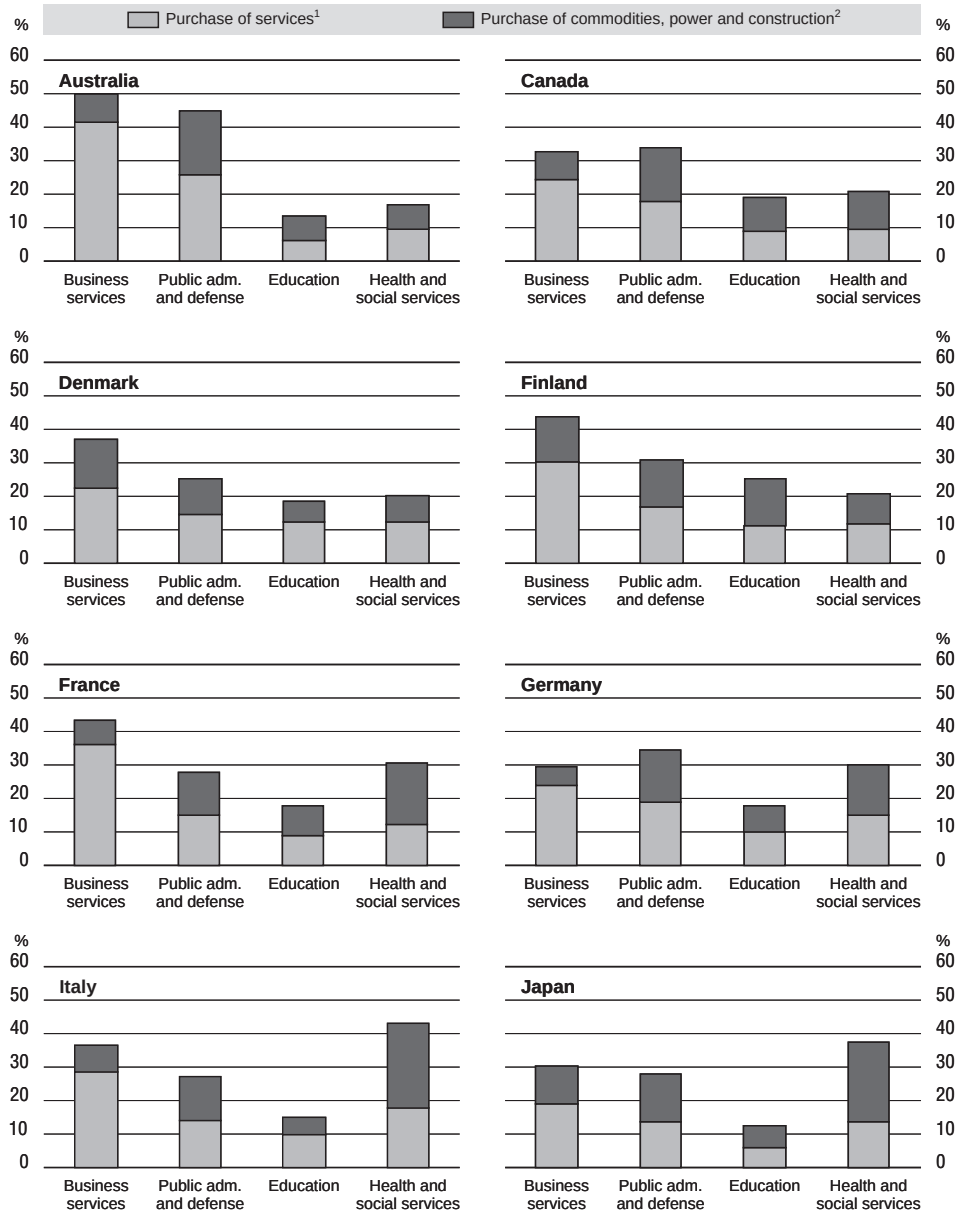
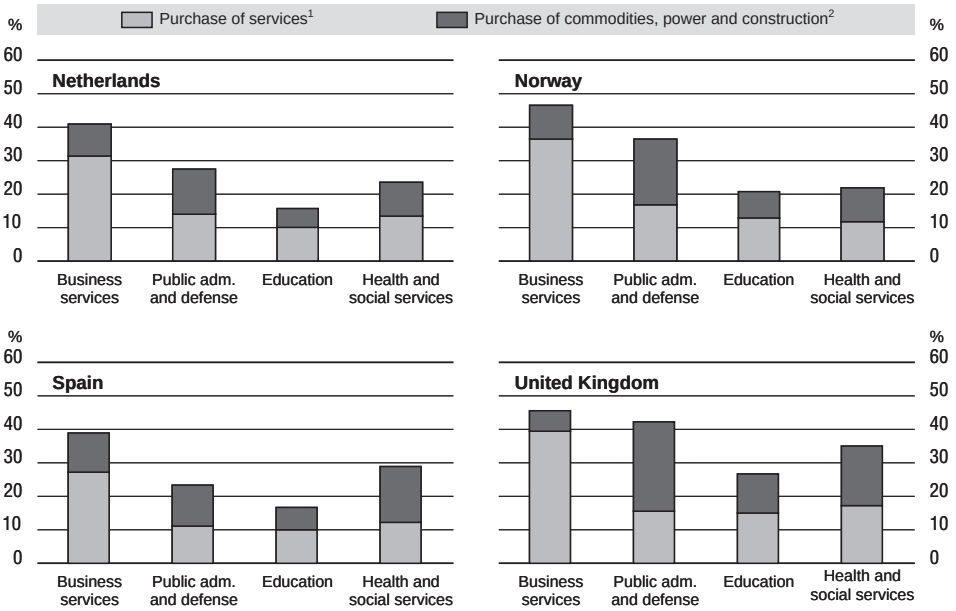


Figure 4. **Sub-contracting, late 1990s** *(cont.)*

Composition of inputs as a share of production value, based on input-output statistics



Note: Data refer to 1998 for the Netherlands and the United Kingdom, 1997 for Canada, Denmark, Japan and Norway, 1995 for Australia, Finland, France, Germany and Spain, and to 1992 for Italy.

The figure shows what sectors supply the inputs used by business services, public administration and defence, education, and health and social services respectively. The remaining part of production value reflects value added in the firms and institutions internally, *i.e.* wages and operating surplus. Purchases from and payments to and among public administration, defence, education, health, social and community services have been eliminated, as statistical methods differ across countries. The business services sector shown for comparison in the first columns includes accounting, consultancy, architecture, engineering and legal services, ISIC 36. Public administration includes also agencies for compulsory social security schemes.

1. Services refers to input from telecommunication, transport, insurance and other kinds of business service sectors, ISIC 27-36.
2. Commodities, power and construction refers to input from ISIC 1-26.

Source: OECD, STI/EAS based on input-output tables from national accounts.

may be used as a rough benchmark. Indeed, in all the countries analysed, the production of these business services involves a larger share of sub-contracting for support services. The magnitude of the difference may indicate a scope for increased sub-contracting in the public administration of OECD countries. For education, and in some countries also for health and social services, the share of purchased service inputs is still lower, but for these sectors the business service sector may be less applicable as benchmark.

Support functions can also be outsourced via intra-governmental contracting. For example, most government-owned buildings used by universities and federal ministries in Austria have been transferred to the fully government-owned corporation B*undesimmobiliengesellschaft* (BIG), and in other countries including Denmark, the Netherlands, Norway and Sweden, similar reforms have been implemented during the last decade. Such intra-governmental contracting may promote economies of scale and specialisation in building maintenance, cleaning and security services, but also improve the allocative flexibility for public institutions, as long as the buying agency has some discretion to decide on where to buy the service. Indeed, charging a rent reflecting the market value may induce a change to more appropriate facilities in situations where public agencies for historical reasons occupy buildings that match their current needs poorly.[18]

While the review of childcare and long-term care in earlier sections showed a wide variation with countries like the United States in one extreme having large involvement of private and for-profit suppliers and with the Nordic countries in the other extreme having mainly public and some non-profit suppliers, there does not seem to be a similar pattern for technical services. Comparing information from detailed surveys and government accounts data for the United States, Norway and Denmark shows that the extent of contracting for technical services like waste collection, and street repair and maintenance is fairly similar for these countries (Box 5).

Public private partnerships based on comprehensive contracts with private finance of investment are used frequently in the United Kingdom. Across OECD countries, public agencies rarely undertake the construction of physical assets like roads and school and hospital buildings, but rather contract with private construction companies. Beginning in the early 1990s, however, central and local governments in the United Kingdom have established a large number of more comprehensive contracts where private investors finance, design, build, maintain and operate facilities, meaning that government buys a stream of services rather that an asset, and pays according to a formula depending on availability and maintenance status of facilities. The cumulative net present value of expected future government payments under these contracts is close to 4 per cent of one year's GDP (Table 4), and while construction and maintenance of physical assets, such as roads, railways and buildings for hospitals and schools account for most contracts, the Public Private Partnership programme has been broadened to other types of assets, like IT-systems, and to encompass the full operation of services such as prisons. Most other European countries are systematically exploring the options for such comprehensive private-finance contracts in relation to new infrastructure investment, but while some, notably the Netherlands have adopted the approach for a number of large-scale projects, other countries have returned to the traditional model where government owns the asset. In Australia and the United States private

Box 5. **Contracting-out in the United States, Norway and Denmark**

Information on the involvement of external suppliers at a detailed service level is shown in the table for the United States, based on a nation-wide survey of cities and counties, and for Norway and Denmark, based on the accounts of municipalities and counties. Given the differences in sources, described in Lundsgaard (2002), numbers should be compared across countries with caution. Still, the following picture emerges:

- In basic technical service areas, such as waste collection, street repair and maintenance, the average extent of contracting-out is comparable in the United States, Norway and Denmark, although in Norway much of this is intra-governmental contracting.
- Some technical services reveal interesting cross-country differences. For public bus transport systems, the involvement of private operators appears to be considerably higher in Norway than in the United States. For fire protection, voluntary (non-profit) fire brigades are common in the United States, but contracting with private firms is largely non-existent in both the United States and Norway. In contrast, one quarter of fire protection is contracted for in Denmark, most of it with a private firm.
- In recreation and culture, there is a tendency for more involvement of private suppliers in the United States than in the Scandinavian countries, including private firms maintaining and administrating parks, sports facilities and cemeteries and non-profit organisations operating museums and public libraries.

Table **Provision of publicly funded services in local governments, cities and counties**

	United States		Norway		Denmark
	Other parts of government	Private firms and non-profits	Other parts of government	Private firms and non-profits	Private firms and non-profits[1]
Waste collection	3	62	40	27	75
Street repair and maintenance, snowplowing, sanding	5	23	23	2	39
Public bus transport	40	29	7	83	
Fire and accident protection	9	17	12	3	28
Ambulance services	12	45	5	59	
Operation and maintenance of parks, sports facilities and cemeteries	8	21	4	2	13
Museums	20	54	3	24	18
Public libraries	33	11	1	0	12

Note: See Lundsgaard (2002) for description of sources and methods.

1. Includes purchase of final services as well as intermediate services used by public entities supplying the final service, creating an upward bias compared to the numbers for contracting with private firms and non-profits in the United States and Norway.

Source: OECD based on national sources.

Table 4. **Public private partnerships (PPPs) involving private finance of investments**
Contracts concluded up to mid-2002

	Value of contracts[1]		Examples and comments
	Euro bn	Per cent of GDP	
Australia			Private prisons.
Austria/Hungary			The Budapest-Vienna superhighway completed in 1996 was built and operated by a private consortium. Following public demand for reduced tolls, government now pays a subsidy.
Finland			The Järvenpää-Lahti highway including re-construction and maintenance of 69 km highway for 15 years. Payment to the private consortium is based on the traffic volume (shadow tolls), but with a fixed upper limit to the total payments. Current policy, however, is only to make design-and-build contracts, while the public road administration will be in charge of maintenance.
Transport	0.2		
Total	0.2	0.1	
France			Out of total 8 800 km of motorway, 7 300 km are subject to tolls, out of which 800 km is operated by private companies. Within the original framework established in 1970, concessions have been granted without competition but according to the financial position of the respective companies, thereby financing new investments by toll receipts from older roads. The figures here include only projects under the new framework with concessions now being granted on the basis of competitive tendering, making them comparable to UK PPP-projects. Currently, government is preparing to sell the public companies operating toll roads.
Transport	1		
Total	1	0.1	
Ireland			The National Road Authority has implemented some PPP projects and is now developing a set of schemes.
Netherlands			The first elements of the High Speed Line South railway from Amsterdam to the Belgian border to be completed in 2005 and the A59 Rosmalen-Greffen road are being contracted. More large scale rail and road projects are likely to be organised as PPPs. Going beyond transport infrastructure, the use of PPPs is expanding to cover water purification, urban development and research/knowledge centres.
Transport	1.4		
Water purification	0.5		
Total	1.9	0.5	
Poland			In 1994, a program for a total of 2000 km motorway was initiated, giving concessions to private firms to construct and operate toll-roads. Until 2000 however, only 100 km of new motorway had been built, and toll revenues are now supplemented with public funding through road-availability payments.
Portugal			Beginning with roads, the application of private finance has expanded rapidly with 14 deals being concluded in 2000 across the areas of transport, water and energy.
Sweden			Railway from Arlanda airport to Stockholm.
Switzerland			For the new Transalpine Railway Lines, totalling euro10 bn, PPP models have been considered, but for the basic construction of tunnels etc., work is now starting in a traditional publicly-financed framework.

Table 4. **Public private partnerships (PPPs) involving private finance of investments**
Contracts concluded up to mid-2002

	Value of contracts[1]		Examples and comments
	Euro bn	Per cent of GDP	
United Kingdom			The PPP model is used to an increasing extent in a wide range of areas, including roads, railways, IT-systems, prisons and buildings for schools and hospitals. By mid-2002 approximately 500 deals representing an estimated total value of euro 50 bn had been signed – the bulk of which since 1996. A considerable number of deals are announced and being prepared that will add to the values shown here.
Transport	29.1		
Health	7.3		
Education	4.3		
Public safety	1.8		
Defence	5.0		
Other areas	1.8		
Total	49.3	3.7	
United States			While toll roads are common in the United States, they are typically constructed by publicly-owned companies. Consequently, private capital is typically involved only through debt finance. Private prisons hold around 3 per cent of prisoners.

1. To illustrate the magnitude of PPP contracts accumulated during the last decade, the table shows the total net present value of projected future payments throughout the duration of these contracts. Comparing these stocks to the flow of annual GDP illustrates *how much* and for *how long* PPP contracts have been used. Notice that contract net present values include investment as well as costs of maintenance and other services.

Source: OECD based on national sources.

prisons are in several cases run as long-term contracts, with government payments based on criteria similar to those used in the United Kingdom under the public private partnership approach.[19]

CONCLUSIONS AND POLICY IMPLICATIONS

The picture that emerges from this article is that public funding and service supply are increasingly being de-coupled in the interests of improving service provision and cost efficiency. Public funding does not necessitate service supply via traditionally organised public institutions. Instead, allowing the *agents* supplying services more flexibility while shaping their incentives may be a better solution for government as a *principal* in terms of creating clear demand signals and promoting efficiency, and a range of different institutional approaches are being used to that end. These include the introduction of performance criteria for in-house public production, contracting-out, and combinations of user choice arrangements to introduce competition in service supply. At a technical and practical level,

whether, and to what extent, competition can be introduced, and by what instruments, depends on the characteristics of the service provided.

- Benchmarking and internal performance contracts are applicable for most services including police and public administrative functions.
- Competition through competitive tendering and contracting is appropriate for most technical functions such as cleaning, waste collection and maintenance of buildings and equipment, and the available data indicate that this frequently takes place in OECD countries. For publicly funded services used by individuals, competitive tendering and contracting with one supplier for a given geographical area or user segment may also be relevant when individual choice is considered not to entail sufficient competitive pressures or to result in counterproductive interaction among suppliers or supplier-induced demand. For employment services emphasis is typically more on contracting than on user choice for these reasons.
- Competition through user choice can be introduced via per-user funding of public suppliers, via tax credits or vouchers. In post-compulsory education, users can typically choose among different public institutions, while less so in compulsory education. In childcare and long-term care for elderly and disabled many OECD countries rely on a broader mix of suppliers by giving subsidies/tax credits for the purchase of private care and supporting informal caregivers financially.

Overall, the pattern of private sector involvement in publicly funded service provision appears to be quite variable, but the process of introducing competition does seem to have become important, in many cases, to public expenditure reform. What is characteristic about these reforms is *not* a marked shift towards privatisation as in the case of network utilities and state owned enterprises in other sectors in many OECD countries. Public institutions in education and care for children and elderly are rarely sold to private investors but rather given more operational flexibility, and reallocation of activity among different suppliers following reforms typically takes place only gradually – except in the case of employment services in some countries. What *is* characteristic is the development of regulation necessary to make competition effective and avoid negative side effects. Funding rates reflecting the different resource requirements of individual users can be necessary to avoid cream skimming and undesirable sorting in schools as well as nursing homes and employment services. Also, price regulation for the charges paid by users can be necessary to contain local monopolies and protect users being locked in as a result of sunk costs from shifting supplier. Published evaluations of suppliers can be essential to help users make an informed choice and to strengthen reputation effects thereby inducing suppliers to maintain a high level of quality throughout. Elaborate forms of performance related funding can be necessary to ensure a focus on outcomes rather

than procedures in areas like employment services. And with comprehensive contracting involving private finance of infrastructure, a series of obstacles may weaken competitive pressures and call for cautious contractual design. Advancing the understanding of regulatory issues like these based on OECD country experience is key to successful implementation of competition in publicly funded services.

Implementing reform requires attention not only on the endpoint, but also on how to manage the transition process. Given the complex regulatory issues involved, gradual transition may have the important advantage of facilitating learning and allowing fine-tuning of the system. Indeed, the contracting regimes for employment services in Australia and Netherlands are being adjusted during their implementation and with consecutive contracting rounds. Similarly, a gradual transition may have the advantage of allowing alternative suppliers time to establish and grow, preventing capacity constraints arising from sudden shifts in demand. Allowing more experimentation and diversity at a local level can be instrumental in both these respects; by facilitating learning and gradual industry growth, as has happened for development of user choice in care, and contracting more broadly in the Scandinavian countries, where local governments have relatively wide responsibilities. Making competitive tendering compulsory for specific services managed by local governments has typically been less successful. Instead, improving comparability of costs across suppliers by requiring local governments to use cost based accounting and treating public and private suppliers similarly with regards to value-added taxation, seems to be a more fruitful approach. When public organisations lose contracts or when users choose alternative suppliers, managing downsizing is a crucial transition issue in order not to accumulate dead-weight costs in terms of spare capacity.

NOTES

1. See the special issue of this journal on regulatory reform in network utilities and other sectors: OECD *Economic Studies*, No. 32, 2001/1.
2. See the annex in Lundsgaard (2002) for a more rigid microeconomic analysis of the incentives from competition and non-government ownership.
3. In the Netherlands, legislation guarantees unchanged employment conditions when public employees are transferred to the contractor winning a competitive tender. More generally, where public employees have civil servant status and enjoy special job protection and pension rights, transformation into private law employment relations and funding accumulated pension obligations is an important prerequisite to making contracting-out feasible, as reviewed by Debande (1999). See also Martin (2002) for successful and unsuccessful examples of building good labour relations into the contracting process.
4. Abstracting from any positive effects on labour productivity, higher wages for a given level of employment appear as a problem when seen from the perspective of the public purse, but this transfer of surplus resulting from changes is market power is not a problem from an overall economic perspective. Generally, market clearing from non-coordinated competition entails a more efficient allocation than one side having monopoly or monopsony power. However, as public funding is based on distortionary taxation, such transfers to employees do entail an overall economic efficiency loss.
5. As an illustration of how important and complex these mechanisms can be, consider the case of housing rent vouchers to low-income groups in the context of a large stock of old worn-down buildings. Such a situation can exist if rent regulation makes refurbishment economically unattractive to landlords, or in poor and deteriorating neighbourhoods where market clearing rents fall below the level necessary to cover the fixed costs of new construction works, but remain sufficient to cover the operating costs of existing buildings. In this context, the effect of housing vouchers to low-income groups may be higher rent levels with little improvement in the actual housing conditions for low-income families. In fact, Susin (2002) finds that housing vouchers distributed to some low-income groups, but not all, in the United States, have increased market rents to an extent that implies an increase in rent expenditure for non-recipient low-income families that more that offset the subsidy voucher recipients.
6. Scarcity of specialised production factors such as trained professionals may reinforce the budget pressures via price and wage increases in addition to quantity increases.
7. The importance of the number of professionals for supplier-induced demand has mostly been researched for health care, with Richardson (2001) giving a recent overview. Often, the number of doctors is found to be a stronger determinant of demand than user charges.

8. Most private schools in OECD countries have religious roots while a smaller share of private schools have been founded based on specific pedagogic ideas.

9. Allowing private schools to give tuition discounts to talented students may in a similar way contribute to inequality of education outcomes, since if motivated and bright students raise the performance of other students in their peers, any such policy that allows above average talented students to attend elite schools will reduce the achievement of students in the remaining schools. In the United States, propensity to attend private tuition-charging schools rises with income and ability, as documented by Epple *et al.* (2000). One reason for this is the tuition discounts given by some expensive private schools to particularly talented students. Considering this as a trade whereby high-ability students from low-income families sell their positive contribution to their peers in exchange for access to the superior teaching provided at elite schools, Epple and Romano (1998) point out that it is inefficient as the loss for pupil peers in public schools is not priced.

10. The description draws on Besharov and Samari (2000), Meyers and Gornick (2000), OECD (2002), OECD (2001c), Rostgaard and Fridberg (1998) and national sources.

11. Some operational grants still exist for institutions that are deemed part of the education sector and in some states.

12. Parental leave schemes are not included in the table, as they reflect a different category of care arrangement. Tax credits for employers contributing to childcare expenses exist in some countries as well, including Belgium, Italy, the Netherlands and the United States.

13. For tax credits, users carry the full marginal costs only when costs reach or supersede the maximum tax credit.

14. This section draws on Jenson and Jacobzone (2000), OECD (1996) and a range of national sources.

15. The experience from some of these programmes has raised concerns about the employment conditions of the personal attendants. For example, surveys from Austria show that only few have a formal contract and many are paid on an irregular basis.

16. Analysing employment service provision under the Job Training Partnership Act in the United States, Heinrich (2000) finds that non-profit suppliers were not more likely to serve disadvantaged clients, and that there were no consistent difference in the effectiveness in increasing participants' earnings and employment rates across for-profit, non-profit and public suppliers. Conversely, funding incentives improved the performance for all forms of service suppliers.

17. For example in France, input from other sectors account for 27 per cent of production value or output from public administration and defence. Around half of these inputs come from service sectors, while the other half is commodities, power and construction inputs. The 73 per cent of production value not reflecting inputs is the value added of the public administration and defence sector. Institutions in public administration also pay for/purchase some services from each other, but these have been eliminated from Figure 4, as statistical methods differ across countries.

18. Transferring assets to a separate government-owned corporation is not recorded as revenue and therefore does not affect general government deficit/surplus, but subsequently funding construction projects by borrowing within such a separate government owned corporation is off the balance sheet of general government. However, this in

itself does not reduce future repayments and therefore should be expected to have largely the same macroeconomic effects as public debt.

19. Seen in a historical perspective, these comprehensive contracts involving private finance follow a long tradition in many countries of giving concessions to private companies to develop, construct and operate infrastructure utilities while charging the users and not necessarily involving government in any financial transactions. For example in France, when channels, railways, city transport and gas and electricity utilities were initially constructed during the 19th century, it was largely based on private equity finance, and by 1860, infrastructure companies accounted for almost 70 per cent of the total capitalisation at the Paris stock exchange. In more recent history, private finance has played a role in the construction of French highways as toll roads (Table 4). What is new about the infrastructure projects under the public private partnership programme is that services are now "sold" to government. Instead of collecting tolls from drivers, the contractor of a PPP-highway receives "shadow-tolls" from government, as, for example, in the case of the *Järvenpää-Lahti* highway in Finland. The issue of giving the operators incentives to efficient design, construction and maintenance is thereby de-coupled from the question of funding.

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