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**Article**

## Public sector outsourcing

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# Public sector outsourcing

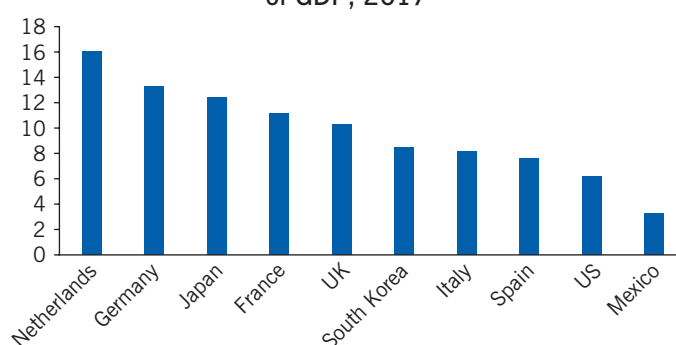
## The desirability of outsourcing the provision of public services depends on their characteristics and market conditions

Keywords: public procurement, vouchers, outsourcing, health care, education

### ELEVATOR PITCH

The decision to outsource public provision of services is multifaceted and context dependent. Doing so tends to lower labor intensity and increase its efficiency. Costs are usually lower, but quality problems can affect services like health care, though consumer choice has stimulated innovation and quality in both education and health care. Natural monopolies are less suitable for outsourcing, while network services (public transportation) may be outsourced through public tenders. Though some jobs may be lost in the short term, the long-term effects are generally positive for a wide variety of activities.

Public sector outsourcing as a percentage of GDP, 2017



Note: Costs of goods and services used and financed by government.  
Source: Based on Figure 1.

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### KEY FINDINGS

#### Pros

- + Private service provision is, in general, less costly than public provision.
- + Outsourcing public services can increase quality and expand consumer choice.
- + Competition in service provision stimulates innovation, for example in education and health care.

#### Cons

- Private sector cost minimization efforts risk worsening the quality of public services, depending on the type of service outsourced.
- Some public sector employees may lose their jobs.
- Natural monopolies (e.g. water supply, the electricity grid) cannot be privatized without risking a so-called hold-up problem or price hikes.

### AUTHORS' MAIN MESSAGE

It is impossible to give uniform policy advice on outsourcing the provision of public services to the private sector. Whether that is desirable depends on the characteristics of the service and on market conditions. For instance, educational voucher systems can increase service quality and decrease costs, though some drawbacks also exist. Natural monopolies are less suitable for outsourcing, and doing so could result in higher prices and lower quality. The best course of action is for local governments to be allowed to make their own decisions based on their specific needs, circumstances, and political preferences.

## MOTIVATION

The use of public sector outsourcing varies substantially across OECD countries (Figure 1). In Japan, the Netherlands, Germany, and Australia, outsourced production accounts for more than 50% of the total costs of publicly provided goods and services. At the other end of the scale, Mexico, Greece, Norway, and Latvia outsource between 28% and 33%. In 2017, the average share of public sector outsourcing in OECD countries was 42% of the total costs of publicly provided goods and services, or 9% of GDP. As a share of GDP, public sector outsourcing increased by more than two percentage points between 2007 and 2017 in Finland, Japan, Germany, and Australia, whereas it decreased by more than 1.5 percentage points in Greece and Ireland.

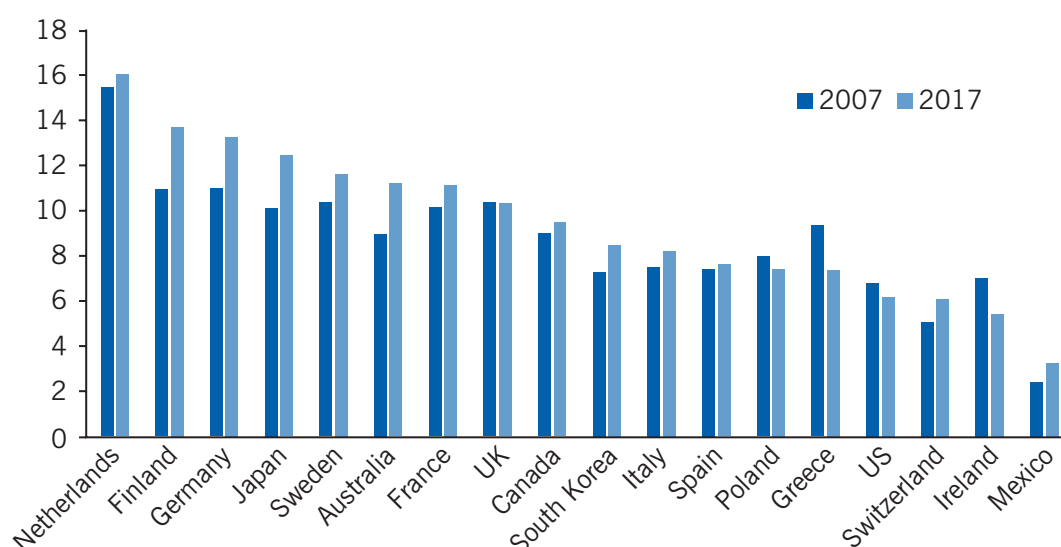
### Outsourcing and privatization

*Outsourcing*, broadly defined, entails the private sector provision of public goods or services under procurement contracts or vouchers that offer consumers of public services a choice of private sector providers.

There are two types of *public sector outsourcing*. The first is government purchases of goods and services to be used as inputs (i.e. intermediate consumption). The second is contracting out the provision of goods and services to private providers. In most OECD countries, goods and services used as inputs make up the larger part, with Belgium, Germany, Japan, and the Netherlands as notable exceptions. Some countries, including Mexico and the US, do not account separately for the two types of outsourcing in their National Accounts.

*Public sector outsourcing* is distinct from *privatization*, which entails the sale or other transfer of ownership of a public business or entity to a private entity.

Figure 1. Public sector outsourcing as a percentage of GDP



Note: Costs of goods and services used and financed by government.

Source: OECD National Accounts Statistics (database). Online at: <https://doi.org/10.1787/888934031940>

## DISCUSSION OF PROS AND CONS

The basic economic argument in favor of outsourcing is that it introduces competition and utilizes the strengths of the private sector. There is a concern, however, that outsourcing could lower service quality. The reason is that private for-profit providers have strong incentives to reduce costs but few incentives to improve non-contractible quality [1]. By this logic, outsourcing unambiguously leads to lower costs, while the effect on quality is ambiguous. Private provision is preferable to public provision when the cost reductions can be achieved with no or only small deteriorations of quality. If the negative impact of cost reductions on quality is comparatively large, public provision is preferable.

A survey of the literature concludes that the effects of public sector outsourcing on costs and quality depend on the type of service outsourced. Some services are characterized by severe contracting problems; they involve risks for contract failure that force the buyer to incur high transaction costs. Services without severe contracting problems, such as garbage collection and road maintenance, tend to have favorable outsourcing outcomes. For services with tougher contracting problems, such as prisons and employment placement, the picture is less clear, though the weight of the evidence is in favor of public provision. In line with theories of incomplete contracts, outsourcing reduces costs in most cases but has less favorable effects on quality for services with tougher contracting problems. The existing successful cases of outsourcing of services with high contracting difficulty suggest that outsourcing should not be discarded automatically, even when measuring service quality is difficult. For such complicated services, outsourcing should rather be evaluated on a case-by-case basis with considerable attention to detail.

The argument for outsourcing becomes more complex for tax-financed services supplied to private consumers. Broader political goals and information asymmetries require a more advanced framework than the simple cost-quality tradeoff. For services such as health care and education, there are additional advantages of outsourcing in terms of access, diversification, and user satisfaction. Where large transfers of power are involved, as with the army and police force, provision should remain in-house in order to preserve the sovereignty and flexibility of the state.

### Labor unions and the impact on employment

Public sector outsourcing is controversial, in part because of its impact on employment. Public hiring is often used to reduce unemployment. The most politicized argument concerning outsourcing is the fear of losing public sector jobs. However, the empirical evidence for this is ambiguous. There might be short-term job losses from outsourcing or privatizing public services and enterprises, which are often overstaffed (particularly in transition economies). However, reducing employment in industries with excess labor frees resources for more productive work and the long-term effect on employment could be positive.

Unfortunately, the research on employment effects in developed countries is sparse and inconclusive. At the local government level in the US, public full-time employment has fallen in cities and counties that have increased service delivery from private for-profit firms. Although this decrease has been accompanied by an increase in part-time public employment, the net effect on public employment is negative [2]. At the country level, however, there is no robust relationship between public sector outsourcing and public

employment among OECD countries. Decentralization rather than outsourcing has resulted in a smaller public sector. To the extent that public sector outsourcing gives rise to regrouping instead of discharging public employees, outsourcing may make the public sector less efficient. Another aspect is that people are driven by different motivations, which makes it attractive to have different providers (both for-profit and non-profit) as this improves the matching of employers and employees.

Not surprisingly, public employee unions often strongly oppose outsourcing. Where public sector unionization is high and the employment level is held constant, collective bargaining will lead to higher wages, making public employment more expensive. Taking wages as constant, high unionization also implies more power for unions and therefore more bargaining strength against outsourcing. Outsourcing can be a means to curb the power of public sector unions if it leads to lower union membership. However, if membership is simply transferred from one union to another, what happens to the overall power of unions is unclear. If members instead move to a non-union employer, overall union membership declines and, with it, their bargaining power.

Labor intensity is much lower in private firms than in the public sector, where political goals including redistribution may be more important than profit maximization. A growing body of literature discusses a “new public management” approach, recommending—or advising against—organizing public sector institutions more like private businesses in their structure, management, and accounting. Empirical analysis finds that privately owned firms are more productive than publicly run firms, have lower labor intensity, and use less leverage [3]. Notably, government-run companies are restructured ahead of their privatization, which makes them more productive.

It has been argued that an in-built inefficiency in the public sector and distortions in taxation make government ownership relatively cheaper than privatization if the sector’s inefficiency is relatively small compared with its size and if the efficiency costs of taxation are high. Others have claimed that the range of activities carried out by the state expands in line with the budgetary need for distortionary taxation.

A study from 2008 suggests a different explanation for higher labor intensity in the public sector than in outsourced production, based on the fact that, in most countries, labor is taxed more heavily than capital [4]. If public sector units benefit from preferential treatment of civil servants in the collection of social security contributions, it can be optimal to use more labor and less capital in public production. Similarly, a local government that taxes wage income receives part of the wages that it pays back as tax revenue. While private companies would use gross factor costs in their cost minimization problem, government units would deduct from these the part of the tax revenues that they implicitly receive back. Therefore, how tax revenue is allocated between lower and higher levels of government would affect optimal labor intensity from the perspective of lower-level governments.

Thus, higher labor intensity in public production is not necessarily undesirable. While the different rates at which labor can be replaced by capital so that the level of output does not change in public and private production distort production efficiency with given factor supplies, higher labor intensity in the public sector may serve as a countervailing distortion to distorting wage taxation. When labor supply increases in real wage, but only moderately, it is optimal for labor intensity to be slightly higher in the public sector than in the private sector.

## Outsourcing education

School vouchers constitute a popular example of educational outsourcing. The empirical evidence on education vouchers is quite positive: school choice, school autonomy, and competition often lead to higher-quality education and more efficient use of resources. This finding has been demonstrated in diverse settings, though there are also studies that have found no or negative effects of voucher programs. To start with, comparisons of OECD countries point at a positive effect of competition on student performance.

In England, the radical and encompassing academy schools program means that poorly performing state schools are converted into autonomous tax-funded schools. The conversions have led to performance improvements, with the gains larger in schools with greater increases in autonomy [5]. A large field experiment in the Indian state of Andhra Pradesh demonstrates that private schools deliver slightly higher test score gains at substantially lower cost than public schools [6]. In Chile, the evidence is inconclusive with respect to voucher schools and competition; however, for-profit franchise schools seem to perform better than many other voucher schools.

In the US, different voucher programs, typically targeted at disadvantaged students, provide varying results. The first voucher program was launched in the city of Milwaukee in 1990. The program led to a large increase in the number of private schools and improved student performance in public schools. The first federally funded voucher program, in Washington DC, improved the high school graduation rate of participating students, but did not improve their test scores [7]. Positive effects of competition from private voucher schools have also been found in Florida and Ohio. In Ohio, however, the effect was negative for the students who used the voucher [8]. Finally, a state-wide voucher program in Louisiana had a negative impact on students' English and mathematics scores. The impact was less negative—and sometimes positive—at schools that were larger, charged higher tuition, and had longer school days. So, while the weight of the US evidence speaks in favor of voucher programs, there are notable exceptions.

Sweden provides a particularly interesting testing ground with a national voucher system and for-profit private schools. A Swedish reform in 1992 allowed private “independent” schools (*friskolor*) to set up and receive tax funding for each student. To minimize adverse effects on municipal schools, student admission to compulsory-level independent schools may only be based on four preset criteria: proximity to the school, having a sibling at the school, having attended preschool at the same school, and position on a waiting list. Admittance to upper-secondary schools is strictly based on final grades from compulsory school. Before the reform, just 1% of children attended private schools; by 2017, 26% of students attended independent upper-secondary schools, and 15% attended independent schools at the compulsory level.

Studies conclude that the voucher reform has raised the performance of Swedish students at the end of compulsory school. The effect appears about ten years after the reform and cannot be explained by other factors, including grade inflation. Increased competition might lead to cost minimization, but it could also increase the costs per student for schools losing students. However, as the costs per student were unaffected by the reform, the positive effect on student performance constitutes a productivity improvement [9].

Comparisons of Swedish independent and municipal compulsory schools show that the independent schools perform slightly better both in the international PISA tests and

according to value-added measures. However, at the upper-secondary level, independent schools perform worse than municipal schools on externally graded standardized tests in first-year core courses [10].

Segregation has increased in Swedish schools following the introduction of school choice. This is mostly due to residential segregation, but school choice has also contributed. Segregation is often seen as problematic, but its consequences for academic outcomes seem more tolerable. Such consequences rely on the peer group effect, the sign and size of which has been debated. In Sweden, both the performance of weak socioeconomic groups and the importance of parental background have remained fairly stable as the share of students in independent schools has increased [11].

### Health services outsourcing

The health sector picture is more complicated than education. There has been a steady increase in employment in the private health sector for decades, along with an increase in privately run hospitals. However, in 2006, the share of full-time hospital employees working in the private sector was 15% in Germany, 18% in Australia, and 8% in Sweden, indicating that health care is still predominantly provided publicly. A typical characteristic of health care is that several remuneration models are often combined, reflecting the scope and complexity of the sector.

Health care is a sensitive area of public procurement. Outsourcing to private institutions could exclude the sickest individuals in an effort to reduce costs. Outsourcing of health services also has to be treated with caution because it is a rare case of public competition, rather than public monopoly or private competition. Even though the payoffs to innovation are small when competition is between public entities, the case for public competition is strengthened by the power that users have to choose a hospital, and the fact that each hospital can feasibly be seen as an independent unit. The effect on costs and quality of such public competition, though differing from private competition, can be studied in this setting. The estimation results are mixed and differ for different aspects of health care, but there are some clear indications of quality improvement.

The UK introduced pro-competition reforms in the 1990s and 2000s. In the 1990s, selective contracting was introduced between public sector buyers of secondary health care and hospitals. Contracts were negotiated based on price, volume, and quality. Analysis of the reforms, though weakened by the short duration of the reforms and the lack of adequate data, found that while the costs of care and waiting times fell in those areas with more competition, the overall effects of the internal market on the unobserved quality of care were negative. Long waiting times were a prominent complaint, while less observable indicators of health care quality have received less attention.

The UK reform in the 2000s focused on giving patients more choice, and price regulation replaced selective contracting. Hospitals received fixed prices for each type of treatment, and patients could choose from among five hospitals. The introduction of patient choice triggered a change in the choice of hospitals, with patients choosing higher-quality hospitals as measured by the mortality rate for heart-attack patients [12]. Hospitals facing more competition due to lower market concentration showed an increase in quality



after the reform without an increase in cost. Finally, the reforms have not worsened—and might have even improved—the status of the socioeconomically disadvantaged.

Health care and education services make an interesting comparison. Adverse selection is particularly strong in the health sector, and information asymmetries are arguably higher in the health sector than in education. While there is scope for adverse selection in education—weaker students could find it harder to get into good schools—the problem seems to be larger in the health sector. The success of initiatives such as Sweden's education voucher program suggests that similar reforms could be tested in health care.

### Natural monopolies and the case of water provision

Another concern related to public sector outsourcing is whether a public monopoly would simply be replaced by a private one in sectors that are “natural monopolies”—that is, where the presence of more than one firm is not cost-efficient. In the case of a natural monopoly, the scope for outsourcing is undermined by the possibility of a hold-up problem or corruption. An unregulated private monopoly firm can easily continue to raise prices because it faces no competition. There is also a geographical aspect to the problem; in many small municipalities, there is only room for one provider of tax-financed services such as health care and elderly care. In such markets, it makes sense for the public sector to avoid purchasing the service from a for-profit firm.

#### Hold-up problem

Hold-up refers to a problem that can arise when two agents know that they would need to make relationship-specific investments to reap gains from future transactions (e.g. a company building a railway line to serve a mine owned by another company). However, they cannot commit to the terms of the future transaction in advance or make a binding contract on the relationship-specific investment. Consequently, either agent may refrain from making relationship-specific investments out of a concern that doing so would weaken his or her bargaining position.

To prevent natural monopolies from exploiting their market power, governments have introduced price regulation. The UK uses revenue cap regulation based on the inflation rate (the retail price index, or RPI) minus expected efficiency improvements. The US instead regulates the rate of return for private monopolies, using a formula based on the efficient costs of production plus a market-determined rate of return on capital.

Water supply is a complex case. Clean water is widely regarded as a basic human right that should be provided to everyone at low cost. Water shortages are typically met by recommendations and prohibitions on the use of water rather than by price hikes. Moreover, there is an important local public good aspect to water, as bad water and sanitation can transmit diseases like cholera. European countries and cities have adopted different models for water supply and sewage, although the public sector is responsible for the supply to an overwhelming majority of users. After a wave of privatization starting in the 1980s, re-municipalization has become the recent trend in water supply. So far, re-municipalization has been followed by price cuts, as would be expected by



models of market power. However, investment has been reduced too, raising fears that the lower prices may not be sustainable. In cities where public provision has worked fine for decades, such as in many German, Finnish, and Swedish cities, it is—given the complexities—difficult to see any strong arguments for outsourcing the water supply.

Privatization of the water supply in developing countries has been rather successful, with some exceptions. Privatization of the water supply in Colombia has led to improved water quality and better health outcomes. Privatizations in Argentina and the Philippines are also generally considered success stories. In these countries, poor people who lacked access to good-quality water are now able to purchase it because for-profit companies have an incentive to sell water that customers are willing to buy. On the other hand, the attempt to introduce private participation in the water supply failed in Bolivia, where massive price increases led the government to cancel the concession to the private company.

### **Public transportation**

Public transportation systems are another outsourcing option. An important mechanism to open the sector to competition is competitive tendering through auctioning. The idea is to “replace competition in the field by competition for the field” [13], p. 166. The higher the number of bidders, the more aggressively they should bid and the lower the final prices should be. Several design issues come into play: How many routes should be tendered simultaneously? Should contracts be auctioned for a single route or a group of routes? For instance, bundling routes leads to benefits from shared fixed costs but can make it harder for smaller bidders to join. Finally, there is a risk of an inefficient outcome through collusion against the public buyer. Local public authorities need some discretionary means to minimize such behavior.

Both France and the UK have used auctions to introduce competition into urban public transportation, using different approaches, and reaching different outcomes. The UK auctions (in London) were small and highly transparent, while the French auctions were bigger and less transparent [13]. Operating costs ended up being much lower in London, although costs started at the same level. A comparison of the two systems concludes that improving competition depends crucially on the design of the auction. The London design fosters a more competitive environment, especially when there are new private firms entering the bidding who compete more fiercely.

### **Political economy of the public–private choice**

Both economic efficiency concerns and political factors are important for understanding the variation in public sector outsourcing. US cities rely more on outsourcing for services with higher contracting difficulty and for services whose quality is relatively important. Political support is, however, not only built up by efficient economic management.

The patronage model of political decision-making claims that economic rents accrue to all political candidates independent of their standing if they increase in-house provision of public services. This model has been studied to explain US counties’ decisions on public sector outsourcing. Studies have found strong evidence of political patronage: laws that restrict a county’s spending lead to increased outsourcing, while higher levels of unionization and the right to strike for public sector employees lead to more in-house

production of services [14]. A related pattern is that cities run by an elected official have lower levels of outsourcing than cities run by an appointed manager. In Norway, municipalities reduce outsourcing when experiencing fiscal stress in the form of an externally caused reduction in hydropower revenue.

Outsourcing can also be ideologically determined. A Swedish study covers a period when municipalities were free to decide between public and private provision of preschools but had very limited influence over the provision of primary schools. Using within-municipality variation, the results demonstrate that politicians on the right rely more on outsourcing for services which they can influence directly, and vice versa [15].

## LIMITATIONS AND GAPS

Outsourcing typically has two distinct effects. The first is due to the difference between public and private providers. The second is due to choice and competition and operates at the market level. Many studies fail to fully discriminate between the two effects and their relative importance under different circumstances remains to be demonstrated.

With few exceptions, outsourcing is compared with public sector in-house production without considering the difference between for-profit and non-profit providers. The interplay and respective roles of different private providers—in particular, the less common non-profits—thus constitutes an important avenue for future research.

When it comes to employment effects, there has been more research on the privatization of public enterprises than on outsourcing, and more studies have focused on developing and transition economies than on developed countries.

## SUMMARY AND POLICY ADVICE

Due primarily to the extremely wide variety of contexts and stakeholders involved, it is not possible to give uniform policy advice on the outsourcing choice. Whether outsourcing an activity is optimal depends on whether it is a natural monopoly, how much scope there is for a hold-up problem to arise, whether cost reduction can be expected to result in a deterioration in service quality, and whether quality can be increased through competitive pressure. Political motivations and employment effects will also influence the decision to outsource.

Outsourcing may reduce employment in the short term, but it also frees resources that can be reallocated to other activities over the longer term.

Some public goods and services can be successfully subjected to competition that improves quality and lowers costs. For example, introducing a voucher system can improve education outcomes. Voucher systems, however, involve a tricky trade-off. Private providers need excess capacity to be able to attract users by delivering high quality. As this excess capacity is costly, a voucher system might lead to higher total costs. In the case of a natural monopoly, there is considerable risk that quality will deteriorate after outsourcing or privatization to a for-profit firm.

Networks like public transportation systems can be separated into components that are suitable for exposure to competition through auctions among private suppliers. The outcomes, however, depend on the design of the auction.

While most examinations of the decision on whether public or private provision of services is preferable have looked at the economic arguments, political economy considerations are also important. How much are politicians' decisions influenced by the effect on a politician's chances of being elected or re-elected?

Whenever discussing the potential outsourcing of public production, it is essential to keep in mind the differing effects of outsourcing on the quality and costs of public goods and services. Realizing the potential benefits of outsourcing requires careful analysis to understand which activities would benefit from outsourcing and to determine how outsourcing should be implemented to provide the proper incentives for cost saving while maintaining or improving quality. In some cases, public competition can serve as an effective alternative or complement to outsourcing.

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### **Competing interests**

The IZA World of Labor project is committed to the IZA Code of Conduct. The authors declare to have observed the principles outlined in the code.

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