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I Z A
World of Labor
Evidence-based policy making

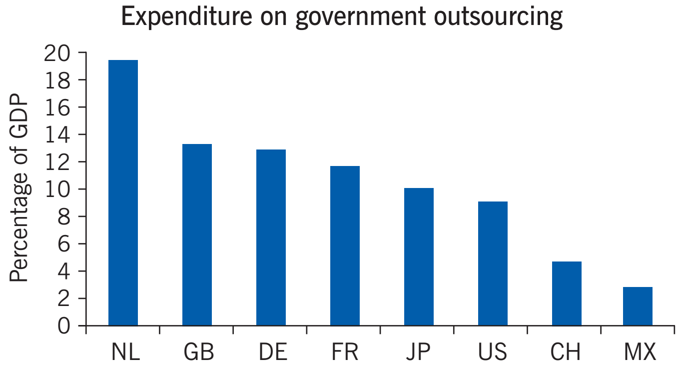
Public-sector outsourcing

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

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

ELEVATOR PITCH

Outsourcing public provision of services tends to lower labor intensity and increase its efficiency. Costs are usually lower, but quality problems can affect services like health care and residential youth care. Consumer choice has stimulated innovation in education, but the picture is ambiguous for health care. Natural monopolies are unsuitable for outsourcing. Network services (public transportation) may be outsourced through public tenders. While some jobs may be lost in the short run, the long-term effects are generally positive for a wide variety of activities.



Source: [1].

KEY FINDINGS

Pros

- The competition effects of privatization make private provision more efficient than public provision.
- Outsourcing public services can lower costs (for example, in the UK with urban public transportation) and increase consumer choice, (Sweden's school vouchers).
- Competition in service provision stimulates innovation, for example in the quality of education and more efficient use of resources.

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 (water supply, the electricity grid) cannot be privatized without risking a hold-up problem or corruption.

AUTHOR'S 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. Voucher systems can increase service quality and decrease costs. Natural monopolies are not suitable for outsourcing. Municipalities should be allowed to make their own decisions based on their needs and the degree of political support.

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MOTIVATION

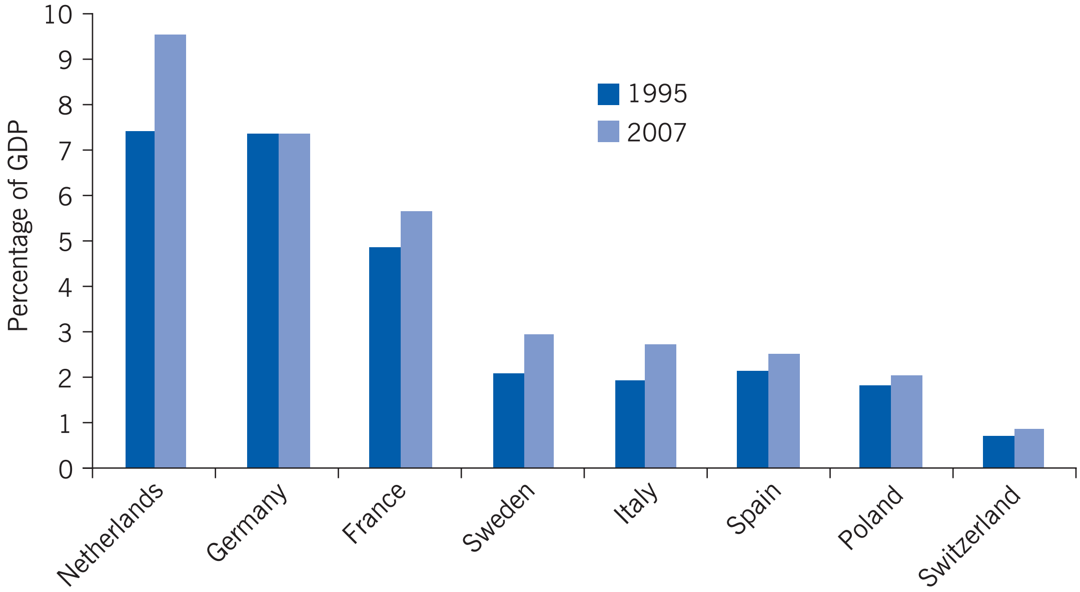
A growing number of governments are outsourcing the provision of public goods and services, whether through procurement contracts or voucher systems (see **Outsourcing and privatization**). Outsourcing has repercussions for consumers and for employees in affected sectors, and for the labor unions representing them. Not all activities are suitable for outsourcing.

Outsourcing and privatization

Public-sector outsourcing is distinct from 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. Privatization entails the sale or other transfer of ownership of a public business or entity to a private entity.

In Germany, Japan, the Netherlands, and the UK outsourced production accounts for more than 50% of the total costs of publicly provided goods and services, and the average share in Organisation for Economic Co-operation and Development (OECD) countries was slightly above 40% in 2007. There is great variety across OECD countries in the share of gross domestic product (GDP) of in-kind social transfers purchased from private providers; these shares have not decreased for any of these countries since 1995 and have grown strongly for several countries (see Figure 1). While there

Figure 1. In-kind social transfers purchased by governments from private providers have risen since 1995



Source: Organization for Economic Co-operation and Development. “Production costs in general government.” In: *Government at a Glance 2009*. OECD Publishing, 2009; p. 63 [2].

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have been only moderate increases in the outsourcing of health care and public transport, there have been larger increases in outsourcing electricity distribution and postal services.

DISCUSSION OF PROS AND CONS

The general argument is that outsourcing and opening public sectors like health care and education to competition boost economic efficiency and output. There is a concern, however, that outsourcing could lower service quality. A survey of the literature concludes that the effects of public-sector outsourcing on service quality depend on the type of service outsourced [3].

Outsourcing generally reduces costs without hurting quality for services that are easy to standardize, like garbage collection. The same appears to hold, for the most part, for fire protection and prisons, although the picture is mixed. In contrast, public-sector outsourcing can result in quality deterioration for goods such as residential youth care and other credence goods, because their utility is difficult or impossible for consumers to ascertain. Empirical evidence suggests that not only does quality decline but also that the costs of the service increase with outsourcing.

The modeling of local government choice between public provision and outsourcing indicates that private provision is unambiguously better than public provision when the cost reduction results in moderate to no quality deterioration, as in garbage collection [4]. The model predicts that outsourcing unambiguously leads to lower costs, while the effect on quality is ambiguous. If the negative impact of cost reduction on quality is fairly large, public provision is preferable. When used with data from the US, this model indicates that services that are more difficult to contract out are more likely to be kept within the public sector. Where large transfers of power are involved, as with the army and police force, provision should remain in-house. Sectors like health care, where information asymmetries are important, cannot be treated with the simple model, but require a more complex framework.

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 the loss of public-sector jobs. However, the empirical evidence for this fear is ambiguous. Most studies that focus on developing and transition economies have concluded that the long-term effect on employment is either imperceptible or positive, although there might be short-term job losses from outsourcing or privatizing public services and enterprises, which are often overstaffed (particularly in transition economies). Reducing employment in industries with excess labor frees resources for more productive work. Also, as economic efficiency increases following privatization, more jobs tend to be created than are lost in the initial switch to private provision. Less is known about the employment effects in developed countries, although the research also points to similar outcomes.

Still, 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, how that happens is important. If membership is simply transferred from one union to another, what happens to the overall power of unions is unclear, even if the union that loses members also loses power. If the members instead move to a non-union employer, overall union membership declines and, with it, the bargaining power of the unions.

Labor intensity is much lower in privatized activities than in public provision, where redistributive goals may be more important than profit maximization. Additional public-sector inefficiencies stem from a lack of residual control rights. A growing body of literature recommends a “new public management” approach, whose goal is to organize public-sector institutions more like private businesses in their structure, management, and accounting.

Empirical analysis finds that privately owned firms are decisively more productive than publicly run firms, have lower labor intensity, and use less leverage [5]. However, the privatization itself cannot be identified as the main factor behind the productivity advantage. Rather, government-run companies are restructured before 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 that are carried out by the state is larger the higher the budgetary need for distortionary taxation.

Another study 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 [6]. 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 different marginal rates of technical substitution 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 has a positive but low elasticity, it is optimal for labor intensity to be slightly higher in the public sector than in the private sector.

Outsourcing education

A popular example of public-sector outsourcing is education. The empirical evidence on public-sector outsourcing of education services is quite positive: competition can lead to higher-quality education and more efficient use of resources. This finding has been demonstrated in diverse settings. The effects of private provision of schooling on educational outcomes have been studied for Chile, for the creation of autonomous grant-maintained schools in the UK, and for the effect of private-school competition on public-sector schools in Milwaukee in the US. Metropolitan areas with more choice among public schools have been found to have more productive public schools, which reduces demand for private schooling.

A voucher system introduced in Sweden in 1992 paid the entire cost of attending private or "independent" schools (*friskolor*), thus introducing competition into school choice. To minimize the possibility of adverse effects on public-sector schools, student selection could not be based on ability or socio-economic background, but only on such factors as proximity to the school and position on a waiting list. Before the reform, just 1% of children attended private schools; by 2012, 25.6% of students attended private or independent secondary schools, and 12.6% attended private or independent primary schools [7].

In line with previous studies, analysis shows that the increase in the share of independent schools led to an increase in educational achievement at the end of compulsory schooling and raised the probability of students going to university [7]. Several robustness checks made possible by the richness of the data confirm that there are no confounding effects of differential grade inflation and no omitted variables, such as a correlation between characteristics of a certain municipality and the probability of having a higher or lower share of independent schools.

Increased competition might lead to cost minimization, but it could also increase the costs per student for schools losing students. However, the productivity analysis showed no evidence of increased costs per student, indicating that the positive effect of the reform on performance came from the increased productivity induced by competition.

Health services outsourcing

The health sector picture is more complicated. There has been a steady increase in employment in the private health sector, along with an increase in privately run hospitals. In 2006, the share of full-time hospital employees working in the private sector was 13% in Germany, 18% in Australia, and 8% in Sweden. Thus, despite the increase, health care is still predominantly provided publicly.

Health care is a sensitive area of public procurement. Outsourcing to private institutions could lead to the exclusion of 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 [3]. 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 and could have shifted attention from less observable indicators of health care quality.

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 [8]. 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 socio-economically 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 is whether public-sector outsourcing would simply replace a public monopoly with a private one in sectors that are "natural monopolies"—sectors 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

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. However, they cannot commit to the terms of the future transaction in advance or make a binding contract on relationship-specific investment. Consequently, either agent may refrain from making relationship-specific investments out of concern that doing so would weaken his or her bargaining position.

raise prices because it faces no competition. To prevent such behavior, governments have introduced price regulation for natural monopolies. The UK has used revenue cap regulation based on the inflation rate (the retail price index, or RPI) and possible efficiency savings (X), using the formula RPI–X. 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.

The outsourcing of water distribution shows the pitfalls of trying to outsource a public monopoly. In 2011, the European Commission issued a proposal to transfer the competencies of infrastructure development in traditionally publicly held sectors like water distribution, ports, and toll roads to private hands through the award of concession contracts for public–private partnerships. Massive protests greeted the proposal in Austria and Germany, where people feared that privatization would lead to higher prices, unjustified profits for the managing private companies, and lower water quality. The city of Munich, for example, takes great pride in its high water-quality standards and strongly opposed the directive for these reasons. A way forward might be to allow municipalities to decide, on their own, which basic services are suitable for outsourcing and which should remain in public hands.

Privatization of the water supply system in developing countries shows a different, though ambiguous, picture. Privatization of water supplies in Colombia has led to improved water quality and better health outcomes [9]. Privatizations in Argentina and in Manila, 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 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 area of outsourcing. 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" [10]. 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? 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 very different approaches, with very different outcomes. The UK auctions (in London) were small and highly transparent, while the French auctions were bigger and less transparent [10]. Operating costs ended up being a lot lower in London, although costs started out at the same level. A comparison of the two systems concluded 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

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. The model has been studied to explain the decisions on public-sector outsourcing by US counties. 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. Cities that are run by an appointed manager rather than an elected official have a lower level of in-house production [11].

A study of municipal governments in Sweden empirically tested the influence of political variables on the provision of public services [12]. Municipal governments' color is measured by a left–right dummy variable (that is, a variable that is one in a case of an event, e.g. the ruling majority is left, and zero otherwise) according to the ruling majority, and the political preferences of the electorate are measured by the share of votes going to the right block. The analysis covered 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 because of a national voucher system.

The results validate the theory of the citizen candidate—the idea that political candidates run for office primarily to be able to implement their own policy preferences. Consequently, where politicians can influence policies directly, as in the choice of public or private provision of preschools, politicians on the right would be expected to implement more outsourcing than those on the left. This is what the study found. It found no support for the patronage model.

LIMITATIONS AND GAPS

While studies tend to find that outsourcing and privatization have an overall ambiguous or positive effect on job creation in the medium to long run, as excess public-sector labor is freed for more productive uses, research has focused more on developing and transition economies. Less work has been done on developed countries, although the research that has been done finds similar results.

Another gap is in the sectoral analysis of the effects of outsourcing public services to private entities. It is unclear whether the privatization of government enterprises and the outsourcing of public services to private entities have the same employment effects in all affected sectors. Thus, it is too soon to say with certainty that public outsourcing will in general lead to positive employment effects. Another area needing research is whether the employment effects differ between the outsourcing of public services and the privatization of public enterprises.

SUMMARY AND POLICY ADVICE

As this examination of the possibilities for public-sector outsourcing for different market and competitive settings shows, 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 on outsourcing. Outsourcing may reduce employment in the short run, but it also frees resources that can be reallocated to other activities over the longer run.

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. However, in the case of a natural monopoly, there is considerable risk that quality will deteriorate after outsourcing or privatization.

Networks like the public transportation system can be separated into components that are suitable for exposing 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?

In all discussion of the 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 determine which activities would benefit from outsourcing, and 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 Guiding Principles of Research Integrity*. The author declares to have observed these principles.

REFERENCES

Further reading

Lane, J.-E. *New Public Management*. London and New York: Routledge, 2000.

Propper, C., S. Burgess, and D. Gossage. "Competition and quality: Evidence from the NHS internal market 1991–1999." *The Economic Journal* 118 (2008): 138–170.

Key references

[1] Organisation for Economic Co-operation and Development. "Government outsourcing." In: *Government at a Glance 2011*. OECD Publishing, 2011; p. 169.

[2] Organisation for Economic Co-operation and Development. "Production costs in general government." In: *Government at a Glance 2009*. OECD Publishing, 2009; p. 63.

[3] Andersson, F., and H. Jordahl. *Outsourcing Public Services: Ownership, Competition, Quality and Contracting*. Working Paper No. 874. Research Institute of Industrial Economics, 2011.

[4] Hart, O., A. Shleifer, and R. W. Vishny. "The proper scope of government: Theory and application to prisons." *The Quarterly Journal of Economics* 112:4 (1997): 1127–1161.

[5] Dewenter, K. L., and P. H. Malatesta. "State-owned and privately owned firms: An empirical analysis of profitability, leverage, and labor intensity." *American Economic Review* 91:1 (2001): 320–334.

[6] Poutvaara, P., and A. Wagener. "Why is the public sector more labor-intensive? A distortionary tax argument." *Journal of Economics* 94:2 (2008): 105–124.

[7] Böhlmark, A., and M. Lindahl. *Independent Schools and Long-Run Educational Outcomes: Evidence from Sweden's Large-Scale Voucher Reform*. IZA Working Paper No. 6683, June 2012.

[8] Gaynor, M., R. Moreno-Serra, and C. Propper. "Can competition improve outcomes in UK health care? Lessons from the past two decades." *Journal of Health Services and Research Policy* 17:1 (2012): 49–54.

[9] Barrera-Osorio, F., M. Olivera, and C. Ospino. "Does society win or lose as a result of water privatization? The case of water sector privatization in Colombia." *Economica* 76:304 (2009): 649–674.

[10] Amaral, M., S. Saussier, and A. Yvrande-Billon. "Auction procedures and competition in public services: The case of urban public transport in France and London." *Utilities Policy* 17 (2009): 166–175.

[11] Levin, J., and S. Tadelis. "Contracting for government services: Theory and evidence from US cities." *The Journal of Industrial Economics* 58:3 (2010): 507–541.

[12] Elinder, M., and H. Jordahl. "Political preferences and public sector outsourcing." *European Journal of Political Economy* 30 (2013): 43–57.

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