

Peterson, George E.

**Working Paper**

## Pricing and Privatization of Public Services

IUI Working Paper, No. 91

**Provided in Cooperation with:**

Research Institute of Industrial Economics (IFN), Stockholm

*Suggested Citation:* Peterson, George E. (1983) : Pricing and Privatization of Public Services, IUI Working Paper, No. 91, The Research Institute of Industrial Economics (IUI), Stockholm

This Version is available at:

<https://hdl.handle.net/10419/94842>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# PRICING AND PRIVATIZATION OF PUBLIC SERVICES

by George E. Peterson

## CONTENTS

<b>Introduction</b> . . . . .	139
<b>Substituting Private for Public Services</b> . . . . .	143
Efficiency Comparisons . . . . .	143
Trash Collection . . . . .	144
Other Services . . . . .	151
Divestiture of Public Sector Functions	
for Budgetary Reasons . . . . .	154
Consumer Choice of Suppliers . . . . .	159
The Future of Privatization . . . . .	161
<b>Public Pricing</b> . . . . .	162
User Charges as a Budgetary Device	
in Periods of Fiscal Constraint . . . . .	165
The Future of Public Pricing . . . . .	169
<b>References</b> . . . . .	171



## **INTRODUCTION**

The malady of "too much" government has seemed to many to have an obvious cure: a stronger dosage of private sector activity. Any successful effort to restrain government spending, of course, must tilt national product toward the private sector, and by redrawing the boundary line between the public and private sectors, augment the private role. It is this assault on the perimeter of public sector responsibility that now claims priority in domestic policy, at least in the United States.

For applied public finance, the private sector model also has attained more immediate relevance. The public sector has been urged to adopt private sector principles directly, either by transferring responsibility for service provision to private firms or by adhering to the principles of private markets, such as competition and pricing, in its own service delivery. Although the injunction to emulate the private sector may appear unambiguous, several different principles have been advocated by proponents of greater reliance on private enterprise and markets.

Some have emphasized the efficiency advantages of private providers. Competition among private, profitmaking firms should encourage adoption of least-cost production methods. This potentially qualifies private firms as more efficient providers than government, at least where it is possible to price services and restrict access to them. But superior production techniques can also be adopted by public sector providers, and their use sustained by incentives other than profits. It then becomes an empirical question whether private suppliers have achieved cost reductions in delivering

standard "public" services and, if so, whether their cost advantages lie in production methods, labor management, or wage rates.

Others have emphasized the role of pricing in efficient service delivery. Charging customers for the services they consume can restrain demand, and allocate scarce resources to where the services they produce have the greatest value. Prices also can be used to allow the consumer to decide for himself how much of the service he wants to acquire, given its price. Although pricing is an essential feature of the private market model, public authorities can (and frequently do) charge prices for the services they provide. Whether used by the public or private sectors, the establishment of a pricing system also can have other important consequences -- such as removing the redistributive element from service delivery and providing only the "private" component, which individual consumers are willing to pay for. The actual effects that public service pricing has had are an empirical issue.

From a public entity's perspective, one of the most attractive features of the market model, in any version, is the prospect that it will help restore budgetary balance. Governments have looked to user charges to circumvent tax limitations; individual public service authorities have looked to special pricing mechanisms to insulate themselves from the general budget reductions being forced upon the state and local sector. Governments often volunteer to shed functions with the same criterion in mind: they propose to divest themselves of services which, if performed elsewhere, would most improve their budgetary picture.

In this paper, I attempt to assess the record and promise of the public sector movement toward private market principles of service delivery. The paper has three specific goals:

First, to examine the experience in the United States to see if the avowed objective of lowering public service costs through adoption of private sector models has been achieved, and to assess how much promise private sector methods hold for future cost savings.

Second, to examine how cost savings have been achieved, and what motivation lies behind the recent acceleration of interest in turning over responsibilities to the private sector. It is one thing if pricing is intended to achieve, and does achieve, greater efficiency in providing a given set of services; it is something quite different (though possibly also desirable) if public service costs are lowered because pricing, or transfer of service responsibility to the private sector, eliminates the costly redistributive elements of public service supply.

Third, I will consider some of the most important side consequences for public sector budgets of reliance on private firms and user charges. The scramble to buttress individual service functions with independent revenue streams, like the selective shedding of functions, promises to alter budget making in state and local governments.

For reasons of convention as much as anything else, I have divided the paper into two parts. The first part treats the direct delivery of "public" services by private firms, or joint provision of these services by the public and private sectors

in collaboration with each other. The second part treats the use of pricing principles in the public sector.

The enterprise undertaken here is not without its difficulties. The economic theory of alternative service supply proves to be rudimentary. For that reason, most of the analysis has been devoted to empirical testing of hypotheses about the cost savings to be achieved from private sector models of service delivery. This marshalling of facts tends to be specific to the United States and is sensitive to the particular institutions involved in service delivery. Evidence of this type often does not travel well beyond national boundaries.

Nonetheless, the admonition to government to heed better the private market model is heard in many countries today. For better or worse, the United States is furthest along in the effort to introduce private business and pricing into the public sector, and so it is natural to assess the experience that country has had. It is all the more appropriate to do so since U.S. experience tends to receive interested interpretation in other countries -- something that is especially likely to occur in as sensitive an area as efficiency and service-quality comparisons between the public and private sectors. And in the end, the broad conclusions that emerge from evaluation of the U.S. experience may fit European countries. The U.S. experience with public sector pricing and private sector divestiture, for example, seems generally consistent with the experience of Great Britain to date.

### **SUBSTITUTING PRIVATE FOR PUBLIC SERVICES**

No action responds as directly to the complaint that there is excessive government as the decision to cede public service responsibilities to the private sector. This alternative has become known as "privatization" in the United States. It refers to the provision by one or more private organizations of a service frequently or traditionally furnished by government.

No model of public retrenchment foresees full replacement by the private sector of the activities cut by public budget reductions. Part of the opposition to government expenditures, after all, comes from the conviction that there is excessive commitment to the type of programs that government provides. In the United States this is particularly true of redistributive welfare programs, such as Aid to Families with Dependent Children and Medicaid, the federal-state program of medical assistance for the needy. Voter surveys repeatedly have found that those voting in tax and spending limitation referenda favor reducing expenditures for these welfare purposes. Typically, they are the only services where across-the-board cutbacks command support of a majority of the voters. (See Citrin, 1979, for evidence from California; Courant-Gramlich-Rubinfeld, 1980, for evidence from Michigan; and Ladd and Wilson, 1983, for evidence from Massachusetts.)

### **Efficiency Comparisons**

The model of privatization that has dominated discussions of service delivery choices, however, is one where private suppliers take over provision of



a standard public service. Profit incentives and competition are hypothesized to make it possible for private firms to supply the standard service at lower cost. As long as the service is provided in a way satisfactory to the public government -- which often can be assured by contract between the private supplier and the public authority -- cost efficiencies should suffice to make the private sector the preferred supplier.

### **Trash Collection**

The U.S. local government scene possesses one service -- trash collection -- that is split between public and private providers, and delivered under a variety of institutional arrangements. It therefore has provided a natural testing ground of the hypothesis that private firms will be lower cost providers of services. Trash collection has the further advantage that it is reliably quantifiable. Trash collected can be measured by tons or cubic feet picked up, and quality of service can be measured along such dimensions as frequency (one, two, or three pickups per week), and convenience (curbside or back door collection). This makes trash collection suitable both for public-private contracting, where the nature of the product has to be defined in writing, and for empirical cost comparisons.

Table 1 illustrates the variety of institutional arrangements under which trash is collected in the United States. These include:

- o Municipal collection by the city itself.
- o Contract or franchise collection, under which a private company is granted exclusive rights

by government to perform the refuse collection function for all or part of a jurisdiction, frequently the result of periodic competitive bidding. (In Table 1 "franchise" collection is used to refer to exclusive rights for the entire jurisdiction.)

- o Private, or nonexclusive collection under which private firms compete for individual refuse collection accounts. In these cases, the terms of competition vary considerably. Entry into the industry may or may not be restricted, either by government or by the local industry itself.

The variety of institutional arrangements -- which also includes mixed public and private supply in many cities -- is a tribute to the decentralized character of local government in the U.S. A few general patterns are visible -- e.g., public trash collection is more common in the South than in the Northeast or Midwest, and much more common in large, central cities than in other size governments. But the distribution of institutional arrangements provides as complete a natural laboratory as one could hope to find.

Comparisons of refuse collection costs by provider type requires a number of controls. These must standardize for service quality characteristics and also for density of collection (tons per route mile). Kemper and Quigley (1976) analyzed trash collection routes in Connecticut cities and found the inverse of density (route miles per ton) to be highly significant and positively related to pick-up time and cost per ton. Density savings were nonlinear. Dramatic savings occurred with increases in density within a range from zero to about five tons per route mile; minor savings were achievable at higher densities.

**Table 1 Single Service Arrangements for Collection of Residential Mixed Refuse**

	Total number of arrangements reported (A)	Municipal		Contract		Franchise		Private		Self-service		Other	
		No.	% of (A)	No.	% of (A)	No.	% of (A)	No.	% of (A)	No.	% of (A)	No.	% of (A)
<b>Total</b>	2,531	768	30.3	421	116.6	165	6.5	782	30.9	376	14.9	19	0.8
<u>Population group</u>													
Over 500,000	11	8	72.7	2	18.2	0	0.0	1	9.1	0	0.0	0	0.0
250,000-500,000	26	19	73.1	2	7.7	0	0.0	3	11.5	1	3.8	1	3.8
100,000-249,999	96	62	64.6	9	9.4	1	1.0	15	15.6	7	7.3	2	2.1
50,000- 99,999	172	87	50.6	17	9.9	20	11.6	26	15.1	21	12.2	1	0.6
25,000- 49,999	203	63	31.0	35	17.2	25	12.3	53	26.1	27	13.3	0	0.0
10,000- 24,999	503	179	35.6	117	23.3	34	6.8	117	23.3	54	10.7	2	0.4
5,000- 9,999	640	178	27.8	105	16.4	29	4.5	219	34.2	107	16.7	2	0.3
2,000- 4,999	880	172	19.5	134	15.2	56	6.4	348	39.5	159	18.1	11	1.3
<u>Geographic region</u>													
Northeast	981	186	19.0	213	21.7	22	2.2	382	38.9	176	17.9	2	0.2
North Central	715	143	20.0	111	15.5	16	2.2	330	46.2	107	15.0	8	1.1
South	469	341	72.7	28	6.0	34	7.2	33	7.0	27	5.8	6	1.3
West	366	98	26.8	69	18.9	93	25.4	37	10.1	66	18.0	3	0.8
<u>Metro/city type</u>													
Central	307	192	62.5	30	9.8	14	4.6	43	14.0	23	7.5	5	1.6
Suburban	2,224	576	25.9	391	17.6	51	6.8	739	33.2	353	15.9	14	0.6

Note: Percentages may not add to 100% owing to rounding.

Source: Savas (1977).

Table 2 compares the findings of two independent studies of trash collection costs by provider type. These show a surprisingly consistent pattern. At all city sizes, and for all types of collection service, private competition is the most expensive alternative -- usually by margins of 30 to 60 percent over public municipal service, after control for density. Kemper and Quigley attribute these cost differentials in large part to route disruption from competition. Private firms must compete for individual customers. The consequent overlapping of different routes interrupts the logic of the optimal route structure and detracts from the effective density of trash collection. Kemper and Quigley also found presumptive evidence of collusion between unregulated private suppliers in some cities, which may add a monopoly element to the cost structure.

The companion study by Savas and Stevens (1977) attributes the cost disadvantage of private, competitive firms largely to their inability to use centralized billing or achieve other administrative economies of scale.

In all of the studies contract collection -- provided through exclusive franchise agreements with private firms -- proves the least expensive service alternative. The cost advantage of private contracting climbs with city size. At populations of 50,000 or more, franchise agreements with private firms were found to cut costs by almost 50 percent from the costs of municipal provision.

Further examination of the cost advantage of private contracting reveals that most of the competitive edge comes from technical and management effi-

**Table 2**      **Costs of Residential Trash Collection, by Type of Provider**

Average cost per ton

Collection arrangement	Kemper-Quigley		Savas-Stevens		
	(1972-73)		(1975-76)		
	All cities		Under 10,000	10,000-50,000	Over 50,000
Private	\$23.50		\$28.39	\$23.08	\$30.81
Municipal	15.36		22.48	19.47	25.87
Contract	12.09		18.86	21.77	18.09

Differential cost per ton, after control for density, service quality, and other factors  
Percent variation from municipal service

Collection arrangement	Kemper-Quigley		Savas-Stevens		
	(1972-73)		(1975-76)		
	All cities		Once-a-week curbside service		
	Once-a-week Curbside	Back-of-house	Under 10,000	10,000-50,000	Over 50,000
Private	+34.0%	+27.1%	+58.3%	+11.4%	+54.6%
Municipal	--	--	--	--	--
Contract	-14.3	-30.0	- 5.0	- 8.1	-48.2

Source: Kemper and Quigley (1976); Savas and Stevens (1977).

ciencies. Table 3 shows that private contractors operate much smaller crews, have larger and more efficient vehicles, and have far lower absentee rates among employees. These differences increase in magnitude with city size.

Thus the evidence strongly confirms that private firms use a lower cost technology to provide the standard service. In both the Kemper-Quigley and Savas studies, there was no evidence of systematically lower wages paid by private suppliers. The chief cost edge of the private firms did, however, rest with their more efficient deployment of labor.

The studies of comparative trash collection costs are the centerpiece of the argument for privatization on grounds of efficiency. Trash collection is the only municipal service that is widely provided by both the public and private sectors, and the only one in the United States for which public-private cost comparisons have been made. The only other standard municipal functions frequently contracted for with the private sector are intermediate services, such as computer services and street maintenance.

If the analysis of trash collection costs shows clear-cut efficiencies for some types of private contracting, it also points up the limitations of this type of privatization as a general response to fiscal pressure. Trash collection in the United States costs about \$12 per capita, or less than 1 percent of state and local expenditures. (Bureau of the Census, 1980.) Moreover, municipal movement toward private sector supply, even within refuse collection, is so slow as to be insignificant.

**Table 3 Management Factors in Refuse Collection**

Management factor	Population				Cities having backyard collection	
	50,000 and under		Over 50,000		Muni- cipal	Con- tract
	Muni- cipal	Con- tract	Muni- cipal	Con- tract		
Mean crew size	3.08	2.06	3.26	2.15	3.04	1.98
Mean truck capacity (cubic yards)	19.04	22.21	20.63	27.14	19.90	23.50
Mean absentee rate (percent)	12	6	12	65	12	4
Mean % of vehicles loading at front and side	26 <sup>a</sup>	23 <sup>a</sup>	13	44	16	30
Mean % of cities with incentive system	57	80	80	86 <sup>a</sup>	73 <sup>a</sup>	87 <sup>a</sup>

<sup>a</sup> Not significant at .05% level.

Source: Savas and Stevens (1977).

Institutional arrangements show great stability. According to Savas and Niemczewski (1976), only 84 of the 2,531 communities responding to their survey reported that they shifted arrangements for collecting solid waste between 1970 and 1974. Only eight of the communities with changes had populations of 50,000 or more. The rest were small communities. Of the changes in arrangements which did occur, 36 were shifts from private firms to municipal agencies; 27 were shifts from municipal to private supply. The Municipal Yearbook, published by the International City Managers Association, shows 40.3 percent of cities with populations

50,000 or more as contracting out some or all of solid waste collection in 1974; five years later, in 1979, this percentage was 38 percent.

### **Other Services**

For other local government service responsibilities, there is at this point only scattered evidence about the cost effectiveness or quality of service provided by private firms.

There are examples of private subscription fire service in the United States. The largest, and best known of the firms providing such service is located in Arizona, and serves the city of Scottsdale (population of some 40,000) and a number of smaller, rural communities. A comparison of fire protection costs and quality between Scottsdale and neighboring cities of comparable size shows that costs are significantly lower and service quality roughly comparable (see Table 4).

**Table 4      Firefighting Cost and Service Quality Comparisons, Scottsdale (Arizona) Private Supplier and Municipal Departments**

City	Fire service cost per capita \$	Average response time Minutes	Per capita fire loss \$	Insurance rating <sup>a</sup>
Scottsdale	6.48	3.0	5.45	5
Glendale	12.62	3.0	5.19	5
Mesa	11.43	3.0	5.26	3
Tempe	10.68	3.8	9.60	4

<sup>a</sup> Lower grades represent better ratings.

Source: Institute for Local Self-Government (1977).



The cost advantages of the private supplier rest principally with its novel approach to labor management. The firm operates in Scottsdale with a small core of full time firefighters, and relies for the rest of its manpower on auxiliaries. These are full time employees of city government departments -- mostly public works and parks employees-- who are authorized (and required) as part of the contract between the city and private fire department to leave their regular city jobs when alerted to emergency fire duties. Since auxiliaries are paid a modest monthly retainer, plus hourly wages for actual working time, labor costs are greatly lowered relative to a full time firefighting complement. One study (Sonenblum, Kirilin, and Ries, 1977) found that 44 percent of all firefighting time was provided by auxiliaries, paid on an hourly wage basis for actual firefighting time. This same labor arrangement is used by Falck Company, which provides contract fire protection to roughly half of Denmark. Falck also supplements a core of full time professionals with paid reservists (Poole, 1980).

During the early 1970s, the United States pursued a large scale experiment of the ability of private firms to improve student performance by operating public school classrooms. (See Carpenter and Hall, 1971; Gramlich and Koshel, 1975). The experiment involved new technological approaches to learning, with almost all of the firms using their own proprietary learning programs for reading and mathematics. It also introduced pricing signals into the classroom. All contractors were paid, in part, according to student performance, either by year long achievement improvements or by the proportion of pupils reaching a designated achievement level.

In some cases, pay incentives were transmitted to classroom teachers and even to pupils, who were rewarded for the progress they registered in the classroom.

The school performance contracting experiment remains something of a curio in U.S. social history. It arose with almost unprecedented speed, against a backdrop of growing frustration with public schooling. A private firm that had signed a performance contract with the school board of Texarkana, Arkansas, reported having doubled and even tripled normal achievement advances. Within a year, more than 100 school districts around the country had signed similar contracts with private contractors. Many of these were fully financed from local resources. Experimentation in another group of contracting districts was financed through the U.S. Office of Economic Opportunity, with a large coordinating grant and expansive research design.

By most standards, the experiment was highly discouraging in its implications for the ability of private contractors to bring operating efficiencies into the public schools. Careful testing showed that participating schools enjoyed only the slightest edge in achievement gains over the control group for reading and mathematics (for the OEO experiment, this advantage was 0.04 of a year's gain, or 7 percent of the average gain of the control group). In other subjects -- for which contractors were not paid -- participating students significantly underperformed the control group.

None of the nation's participating school districts chose to renew the performance contract

relation with a private provider beyond the second year. The firms, almost without exception, lost money by accepting payment schedules which required much greater student advances for them to break even. Relations between contractor and school board often disintegrated into acrimony and litigation. No cost efficiencies were obtained from private sector participation.

Although the school performance contracting experiment can be faulted on many counts -- including its hasty design and limitation to a single year's performance evidence -- it laid to rest for a decade the expectation that private firms could achieve significant efficiency gains except in routine services, similar to the kind that the private sector already provides for private customers.

#### **Divestiture of Public Sector Functions for Budgetary Reasons**

Although economists have advocated privatization on efficiency grounds, most actual shifting of state and local functions to the private sector has occurred for budgetary reasons. Faced with a serious budget deficit or an externally fixed expenditure ceiling, state and local governments have typically responded by seeking to shed some of their functions.

The budget-balancing motivation helps to define which programs are candidates for transfer. Only those programs that generate a revenue stream through sales of services can plausibly be shifted to the private sector or to quasi-independent enterprise authorities. This suggests that local gov-

ernments will attempt to shed functions that are money losers -- where prices are inadequate and political constraints prevent their modification, or where costs have risen in ways that the public sector finds impossible to control. If the stream of operating losses is tied to physical capital which can be sold for cash, the function is a still more probable candidate for transfer.

Public hospitals, city universities, city transit systems, and city sewer and water systems fall into this category. All have become frequent objects of transfer.

Shedding responsibility for public hospitals seems a particularly tempting alternative to cities in fiscal difficulty, and it is worthwhile to examine some of the recently proposed transfers for what they reveal about the motivation behind divestiture.<sup>1</sup>

The City of Detroit transferred the Detroit General Hospital (including a major new facility it had just built) to a private nonprofit hospital consortium in 1980. By doing so it relieved itself of an operating subsidy which had reached \$20 million per year. A good deal of negotiation was required to reach agreement on the terms of transfer. Initially, the private purchasers insisted upon the right to renegotiate the salary levels of all transferred employees. In the end, the consortium accepted the current salary levels of transferred employees, but won the right to renegotiate pension and other fringe benefits and to bargain independently over future wage increases. Transfer

---

<sup>1</sup> These descriptions are taken from Peterson and Wolman (1981).

to the private sector also became the occasion to rationalize staffing patterns. Within six months of announcement of the transfer, the number of licensed beds was reduced by 45 percent, and the number of hospital employees reduced by 15 percent. Part of this reduction appears to reflect reduced service provision, but most of it represents closer attention to costs in operating the hospital. The consortium agreed to continue to offer a full service, acute medical center, only after the state entered into a commitment to reimburse the hospital for the costs of indigent patients not covered by federal Medicaid.

Erie County, outside of Buffalo, New York, in the midst of its budget crisis, attempted to negotiate a sale of its public hospital to private owners, but was stymied by public opposition and a hospital workers' strike. Opposition was based on the fear that adequate services to indigents would not be provided in the private facility, and by workers' apprehension that their salary levels would be reopened for negotiation.

Fiscal strain has led to other types of divestiture. The City of Buffalo transferred its zoo to the private Buffalo Zoological Society, a private nonprofit organization. Many jurisdictions in New Jersey, Ohio, and other states have sold their sewer and water systems and electrical utilities to private companies or to new independent authorities.

Each of these transfers has certain characteristics in common. In each case, the service in question was not self financing, but required a significant subsidy from the general resources of the city government. This meant that transfer of the

function would give immediate relief to the general government's budget.

In each case, the city government first attempted to transfer service responsibility to a higher level of government. Only when this effort failed, did it consider transfer or sale to the private sector. Private sector transfers became necessary in those states, like Michigan, where the state itself was so impoverished as to make it impossible for the state government to acquire another money losing operation.

Finally, and most importantly, the transfers to the private sector were accompanied by a fundamental revamping of the cost and revenue balance. In each instance of completed transfer, the private sector owner raised charges for the services provided by the transferred facility. In most cases, the new owner insisted upon reopening the compensation agreement with employees, and signaled its intention to act less generously on wage increases and staffing in the future. In the case of the hospital transfers, the private sector operators planned to reduce the range of redistributive and subsidized services that the hospital provided, unless compensated for these costs by government payment.

These conditions of transfer demonstrate the reasons for the cost edge that the private suppliers enjoy. First, the private owner retreated from the range of redistributive responsibilities that the public sector formerly had accepted. Second, it began to lower labor costs, by attacking wage and pension rates, in respect to which there was a major imbalance between the public and private sectors, and by reducing staff levels.

This experience suggests that the economies of private sector operation lie in the sector's willingness to cut back on services and subsidized pricing, while taking a stiffer position on employee compensation and labor management. The public sector was well aware of this outcome -- having negotiated the terms of transfer in each case. It might have been able to achieve the same results with more vigorous management controls. However, the opposition that would have been engendered made it easier to cut back by transferring service responsibility to the private sector, diverting citizen resentment and management problems to new owners.

The same mixed motivation -- hope for management economies combined with willingness to accept lower service levels -- has generated proposals to transfer operation of the Medicaid health payment program to the private sector. The Commonwealth of Massachusetts, in its first budget after adoption of Massachusetts' property tax limit, proposed handing over the entire Medicaid program to a consortium of private providers. Savings from this initiative (not yet acted on) were to be targeted for local assistance to partially offset lost property tax revenues.

Economies are to be achieved in the Massachusetts proposal by reinterpreting the patient's right to a choice of providers. Patients would be limited to a "reasonable choice", meaning that they would be required to enter facilities that had excess capacity and low reimbursement rates. State officials have estimated that this reduction in service choice, coupled with private sector management efficiencies, could reduce Medicaid costs by 20 percent from 1981 levels. Unfortunately for Massa-

chusetts, private health suppliers have shared the state's assessment of savings potential, and so far have been unwilling to negotiate the fixed price contract that the state wants to enter into.

The one precedent for privatization of Medicaid is indeed discouraging. In the mid-1970s, a private firm accepted a fixed price Medicaid contract from the State of North Carolina, believing that potential management economies were large enough to justify assumption of the risk of increased patient loads. With the 1974-75 recession, the number of families eligible for Medicaid on economic grounds began to climb. The firm soon found costs to be out of control, and had to negotiate abandonment of its contract with the state.

#### **Consumer Choice of Suppliers**

Up to this point we have considered efficiency justifications for privatization. Service supply by competing private providers also has been urged to enhance citizen choice. It is likely to be on this front that the greatest battles over privatization will occur.

The principle of consumer choice is most explosive when applied to public schools. Education vouchers have been proposed in the United States for some time. These would distribute school tax receipts back to parents, in the form of vouchers cashable at any school, public or private. The voucher idea has been proposed for experimentation at several points, but public school opposition has prevented anything but the most limited testing. Experiments were limited to schools within the same public school district, distinguished from one another in



relatively modest ways. The largest voucher experiment, in San Jose, California, was terminated in midcourse. The results are inconclusive as to either the public acceptance or degree of differentiation that a full fledged voucher program would produce.

With the tax revolt and dissatisfaction with public services has come faint signs of a revival of voucher proposals. The same November 1978 Michigan ballot that established the state's tax limits contained a proposal to set up a statewide voucher system. The proposal was defeated by a large margin, in part because the plan for implementation was left unspecified. In California, two law professors largely responsible for the school tax base equalization movement in the United States proposed a voucher plan that would have been coupled with complete equalization of per pupil expenditures, as embodied in the vouchers that parents receive. The measure did not receive enough support to get on the statewide ballot.

A still more imminent test of freedom of choice in schooling takes the form of the proposed tuition tax credit. This measure -- originally endorsed by the current Administration -- would partially defray the costs of private schooling by granting parents a tax credit for private school costs up to some ceiling, originally set at \$500. A study by Peterson (1978) of the three way choice between public, private-religious, and other private schools, found that this choice was extremely sensitive both to local public school quality and to the price of religious schooling. In school zones where school quality, as measured by average fourth grade achievement levels, was 1.0 year below the national average, the price elasticity of

demand for parochial (religious) school enrollment was -1.35, for households of average income. This result implies that a \$500 tax credit for private schooling would have the effect of switching 17 percent of remaining urban public school pupils to private schools. Although the exact impact of a tax credit is difficult to predict, the apparent sensitivity of public school enrollment to the relative costs of public and private schooling makes it understandable that the tuition tax credit should have become the number one target of teacher union lobbying in the United States.

#### **The Future of Privatization**

Though the record of privatization in the United States is a highly diverse one, several common conclusions emerge from the range of experience:

- o For some services -- most conspicuously, trash collection and hospital management -- there are pure efficiency gains to be reaped from private operation of "public" services. The efficiency gains appear to come primarily from better labor management and, frequently, lower compensation levels. Not all types of privatization are equally efficient, as the cost comparisons for trash collection clearly show.
- o Market participants on both the government and private sector side often greatly exaggerate the efficiency gains that can be achieved by privatization. The social landscape of the 1970s is littered with failed attempts by private firms to make a profit under fixed cost contracts that presumed large efficiency gains.

- o Pure efficiency differentials in service delivery create the potential for only small savings relative to the total state and local cost picture. Greater savings typically are accompanied by de facto cutbacks in service provision. As a practical matter, recent transfers of functions to the private sector appear to be motivated by the desire to shed functions generating budget deficits, and to divert from public management some of the stress associated with service reductions and tougher labor management.
- o Of far greater potential impact than private contracting is the admission of direct competition among private providers into "public" service delivery. A voucher system for schools or even a significant tuition tax credit, would transform patterns of service delivery in ways that exceed the total impact of privatization up to now.

#### **PUBLIC PRICING**

While privatization of public services has proceeded fitfully in the United States, with no clear trend in evidence, the application of user fees and charges has steadily gathered force. Even the narrowest definition of pricing -- limited to current charges plus sales of municipal utilities -- shows more than \$90 billion raised in this manner in 1977.

During the first half of the 1970s, through 1977, receipts by government from user charges generally kept pace with the overall rapid growth of government activity, and often exceeded the rates of

**Table 5**      **Percent Change in General Revenues by Source, and by Level and Type of Government**  
Fiscal years 1972 to 1977

	Federal government	State government	Local government
Intergovernmental revenue	a	73.6	93.5
Tax revenue	58.6	68.8	50.7
Broad-based taxes	65.4	87.5	49.1
Selective sales tax	6.0	37.8	86.7
License fees	-	37.2	100.0
Current charges	100.8	55.1	72.1
Special assessments	-	-	14.3
Other miscellaneous revenues	149.2	151.7	85.0
Total revenue	65.6	71.5	70.2

<sup>a</sup> No receipts from this source in 1972.

Source: U.S. Bureau of the Census, 1977 Census of Governments: Compendium of Government Finances, Volume 4, No. 5.

growth of revenues from other sources. Table 5 presents measures of the rates of growth between fiscal year 1972 and 1977 of the various types of government revenues. As can be seen, current charges were the most rapidly rising source of revenue of the federal government during the period, with the single exception of "miscellaneous revenue".<sup>2</sup> For local governments, the growth in current charge and license fee revenues was above average for total revenue growth. Only for state governments did the revenue share of fees and changes fail to increase over this period.

<sup>2</sup> "Miscellaneous revenue" comprises nontax revenues of governments aside from current charges and intergovernmental aid. It includes income from the sale of property and interest earnings.

**Table 6      General Revenues of Local Governments in 75  
Major Metropolitan Areas**  
Fiscal years 1977 to 1979

General revenue	1977		1979		Percent change 1977-1979
	Dollars (billions)	Percent of total	Dollars (billions)	Percent of total	
Intergovernmental revenue	46.3	41.6	56.8	44.6	22.7
Tax revenue	49.6	44.6	53.0	40.6	6.9
Current charges	10.5	9.4	13.5	10.4	28.6
Miscellaneous	4.9	4.4	7.1	5.4	44.9
<b>TOTAL GENERAL REVENUE</b>	111.3	100.0	130.4	100.0	17.2
Utility revenue	n/a	-	10.0	-	-

Source: U.S. Bureau of the Census, "Local Government Finances in Selected Metropolitan Areas and Large Counties: 1978-1979", GF79 No. 6, November 1980.

Reliance on user charges has risen sharply since 1977, far outpacing the growth in general tax revenues. Table 6 shows that current charges in major metropolitan areas grew by almost 29 percent between 1977 and 1979, or more than four times the rate of growth of tax revenues. A survey performed by the Joint Economic Committee (1981) of Congress estimates another 20 percent jump in city revenues from charges in 1980. This contrasts with less than 4 percent growth in local general taxes.

User charge revenues are highly concentrated in a few functional areas. For states, these are state universities and state hospitals; for local governments, hospitals, sewer and water systems.

**User Charges as a Budgetary Device in Periods  
of Fiscal Constraint**

The economics profession has been attracted to user fees and prices because of their rationing ability. The existing fee structure plays this role most importantly in the human services by limiting entry to universities and hospitals. In other markets, user fees remain largely unexploited as rationing devices. They have not been used in the United States to relieve automobile congestion, for example, despite frequent recommendations for their use for this purpose.

The practical adoption of user fees has been motivated above all by budgeting considerations. In most government budgeting, it is the general tax support for a function that generates budgetary conflict. If a service function is able to reduce its net cost to the general taxpayer, through adoption of a fee schedule or a hike in existing fees, it stands a better chance of surviving a cutback period with its service responsibilities intact.

A more aggressive pricing strategy thus is a natural first response to fiscal pressure. Increases in tuition fees, sewer and water charges, and miscellaneous fees have become common throughout U.S. state and local government. Fee hikes to restrain demand for costly services have also occurred. Many states have adopted new copayment charges for Medicaid services, hoping that these will restrain growth in utilization rates. In several other states, federal courts have overturned even more stringent pricing policies for Medicaid services, on the grounds that these are inconsistent with federal law.

A similar budget strategy appears to have been followed in Great Britain. Glennerster (1980) reports that both the National Health Service and the Department of Educational Services were able to preserve their total service commitments in the face of budget reductions by increasing fee levels -- prescription and dental charges in the case of NHS; school meals prices, charges on school transport and other fees for education.

A special impetus to fees and charges in the U.S. has come from efforts to circumvent new limitations on revenues from general tax sources. Most of the formal tax limitations do not apply to revenues from user fees and charges. The most rapid growth in fees and charges has occurred in states with newly adopted tax limitations that exempt fees and charges from their ceilings.

In California, despite rapid action by the state government to increase state aid to localities, the immediate fiscal reaction was to raise user charges. Forty-three percent of California cities and 74 percent of California counties report that they increased the rates of older fees and charges or imposed new ones within five months of the passage of proposition 13 (see Table 7). Overall, higher fees and charges were projected to generate \$100 million in additional revenues for the localities in fiscal year 1979 during a period in which cities and counties were experiencing sizeable revenue losses from the property tax.

Similar interest in user charges has been stimulated in New Jersey since government spending lids imposed in that state in 1976 began to constrain government options a few years later. The evidence from that state shows that a number of the major

**Table 7      Increases in Fiscal Year 1979 Revenues  
from Higher Rates of Fees and Charges  
Enacted by California Cities and Coun-  
ties between June 1 and November 1, 1978**

	Cities	Counties	Total
Business licence	\$11.7 (18%)	\$ 0.247 (7%)	\$ 11.9
Utility users	\$ 2.6 (2%)	\$ 0.0	\$ 2.6
Transient occupancy	\$ 3.3 (11%)	\$ 4.0 (12%)	\$ 7.3
Admissions	\$ 0.647 (1%)	\$ 0.015 (1%)	\$ 0.662
Property transfer	\$ 4.4 (1%)	\$ 0.0	\$ 4.4
Planning and development	\$20.9 (30%)	\$ 5.2 (52%)	\$ 26.1
Utility service charges	\$17.7 (18%)	\$ 2.4 (5%)	\$ 20.1
Park and recreation	2.5 (11%)	\$ 5.7 (10%)	\$ 8.2
Other	\$10.6 (10%)	\$ 9.6 (34%)	\$ 20.2
Total	\$74.3 (43% <sup>a</sup> )	\$27.2 (74%)	\$101.5

<sup>a</sup> Because in many cases a city or county increased more than one kind of charge, percentages in each category, when combined, exceed overall percentage of jurisdictions raising fees.

Note: Figures in parentheses are the percentage of cities or counties which adopted increased rates of the charge or fee.

Source: Cal-Tax, Local Government Profile: A Post-Proposition 13 Survey of 405 Cities, 58 Counties and 69 Special Districts, Cal-Tax Research Bulletin, Sacramento, Calif., November 1978).



cities responded to spending lids by selling municipal facilities to private utilities, independent authorities or special districts. These sales shifted the facilities from general property tax financing to user charges, or special property tax assessments outside the CAP law. Special district property tax levies rose by 5 percent, 30 percent, and 10 percent annually during the first three years following the adoption of the lids in 1976, compared to 2 and 6 percent in the preceding two years, and compared to a nominal 5 percent ceiling on local budget growth (Beer, 1981).

The ultimate consequences of the impulse to greater application of fees and special districts are difficult to foresee at this juncture. Both measures change the nature of budgetary competition. A service provided by an independent authority, possessing an independent revenue stream, is well insulated from general budgetary adjustments. Peterson et al. (1981) have shown that water and sewer systems provided through independent authorities are maintained in better condition, have higher maintenance reinvestment rates, and higher user charges than systems that are operated as part of the general government budget. From the point of view of the individual service function, the separation of service responsibility therefore is likely to be beneficial. If there is reason to think that in the course of daily budgetary competition certain expenditures (like maintenance) tend to get postponed, an independent service district with full pricing authority may be in the public interest. Certainly, the use of special authorities and strengthened pricing mechanisms has been adopted as the central strategy of public capital revitalization in both the U.S. and Great Britain.

The budgetary rigidities introduced by user fees and special districts, however, also inflict costs on local government. They can make it difficult to recapture the budget as an expression of overall spending priorities. This is especially true in the United States, where much of state-local finance reform in the twentieth century has taken the form of freeing governments from the earmarking of revenues to specific purposes that formerly prevailed.

Finally, most public service pricing sets prices equal to average costs. In industries where there are declining marginal costs, such a pricing system moves away from economic efficiency. Water and sewer systems, with their large fixed costs, will operate at inefficiently low service levels and unnecessarily high costs when priced at average cost.

#### **The Future of Public Pricing**

Although public service priority pricing appears to be enjoying a surge of policy attention in the United States, pricing has not been used to a significant extent to create market analogs in the public sector. Only sewer and water systems and park and recreation facilities are commonly priced to recover full costs.

Most other pricing of public services has been adopted as a revenue measure. The pressure to diversify revenue sources, and lessen reliance on general taxation, has been intensified by the tax limitation measures adopted by many states.

In the future, the use of fees and charges to restrain demand for public services is likely to become much more important. Already, in reaction to federal budget cuts and tightened budgets of their own, states have begun to impose user fees and copayments on various types of human and social service programs. If federal regulations prohibiting copayment in health and other programs are relaxed, the use of pricing to limit demand (and hence costs) is likely to intensify.

**REFERENCES**

- Ahlbrandt, R.S. (1973). Municipal Fire Protection Services: Comparison of Alternative Organizational Forms. Sage Publications, Beverly Hills, Calif.
- Cal-Tax, (1978). "Local Government Profile: A Post-Proposition 13 Survey of 405 Cities, 58 Counties, and 69 Special Districts", Cal-Tax Research Bulletin, Sacramento, Calif., November.
- Carpenter, P., and Hall, G.R. (1971). Case Studies in Educational Performance Contracting: Conclusions and Implications. R-900/1-HEW, Rand Corp., Santa Monica, Calif.
- Citrin, J., (1979). "Do People Want Something for Nothing: Public Opinion on Taxes and Government Spending", National Tax Journal, Supplement, May.
- Courant, P.N., Gramlich, E.M., and Rubinfeld, D.L. (1980). "Why Voters Support Tax Limitation Amendments: The Michigan Case." National Tax Journal, March.
- Glennester, H. (1980). "Prime Cuts: Public Expenditure and Social Services Planning in a Hostile Environment." Policy and Politics.
- Gramlich, E.M., and Koshel, P.P. (1975). Educational Performance Contracting, Brookings Institution, Washington, D.C.
- Institute for Local Self-Government (1977). Alternatives to Traditional Public Safety Delivery Systems: Civilians in Public Safety Services, Berkeley, Calif.
- Joint Economic Committee of the Congress of the United States (1981). Trends in the Fiscal Condition of Cities: 1979-1981, U.S. Government Printing Office, Washington, D.C., May.

- Kemper, P., and Quigley, J.M. (1976). The Economics of Refuse Collection, Ballinger, Cambridge, Mass.
- Ladd, H.S., and Wilson, J.B. (1983). Who Supports Tax Limitations: Evidence from Massachusetts' Proposition 2 1/2", *Journal of Policy Analysis and Management*, Winter.
- Municipal Garbage Collection Survey (1975). Municipal Yearbook 1975, International City Management Association, Washington, D.C.
- Peterson, G.E. (1978). Household Demand for Private Schooling, The Urban Institute Working Paper 1285-05, Washington, D.C.
- Peterson, G.E., Humphrey, N., and Miller, M. (1981). The Future of America's Capital Plant, The Urban Institute, Washington, D.C.
- Peterson, G.E., and Wolman, H. (1981). "State and Local Government Strategies in Budget Retrenchment." *Tulane Law Review*, Spring.
- Poole, R.W. (1980). Cutting Back City Hall, Universe Books, New York.
- Savas, E.S. (1977). The Organization and Efficiency of Solid Waste Collection, Lexington Books, Lexington, Mass.
- Savas, E.S., and Niemczewski, S. (1976). "Who Collects Solid Waste?" Municipal Yearbook: 1976. International City Management Association, Washington, D.C.
- Savas, E.S., and Stevens, B (1977). Evaluating the Organization of Service Delivery: Solid Waste Collection and Disposal. Columbia University Graduate School of Business, New York.
- Sonenblum, S., Kirilin, J.J., and Ries, J.C. (1977). How Cities Provide Services: An Evaluation of Alternative Delivery Structures, Ballinger, Mass.