



**DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS  
COMMITTEE ON COMPETITION LAW AND POLICY**

**Working Party No. 2 on Competition and Regulation**

**COMPETITION IN LOCAL SERVICES: SOLID WASTE MANAGEMENT**

**-- United States --**

*This note is submitted by the Delegation of United States to the Working Party No. 2 FOR DISCUSSION at its next meeting on 20 October 1999.*

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## COMPETITION IN LOCAL SERVICES: SOLID WASTE MANAGEMENT

### United States\*

1. **Background on government structure in the United States:** The U.S. has four layers of general government: federal, state, county, and local. Under the U.S. Constitution, powers that are not specifically granted to the federal government belong to the (50) states, including the power to create county and local governments (cities, towns, villages, etc.).<sup>1</sup> In addition to general government units, there are many special purpose districts (such as school districts, recreation districts, and public transportation districts) that provide services and may have taxation powers. These districts may include all or parts of several local government units.

2. Table 1, provides the number of different types of governmental units in the United States.

**Table 1. Number of Local Governments by Type<sup>2</sup>**

Counties	3,043
Local General Governments	35,962
School Districts	14,556
Other Special Districts	33,131

### **Part I: The Role of Local Authorities In Regulation and Procurement**

*(Q1.1) What local services are the responsibility of local authorities?*

In general, local governments have responsibility for most local services. These include, but are not limited to: airports, education, fire protection, public buildings (including maintenance), highways, hospitals, public housing, libraries, public parking facilities, parks and recreation, public welfare, refuse collection, sewerage, public transit, utilities (including cable TV), and water. The nature of local control of these services varies a great deal. In many cases, county, state, or federal government funds help pay for the services.

In the case of some local services, for-profit firms and non-profit organizations (many of them using volunteer labor and financial donations) are also providers. For example, private, non-profit schools, hospitals, and fire protection organizations are common. For-profit refuse collection firms are common as well. (See Table 3, below.)

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*(Q1.2) How do local governments raise revenue? Where does the remainder of their income come from? Are local officials directly elected or appointed by a higher level of government?*

Common sources of income that are raised locally include: sales taxes, property taxes, and user or franchise fees.<sup>3</sup> In some states, counties and some local governments are allowed to collect income taxes.<sup>4</sup>

Additional sources of income come primarily from grants from higher levels of government. Some of these grants are for specific purposes, but many are generalized “block grants.” In some cases, local governments have to provide some degree of matching funds garnered from local sources to obtain the grant from a higher level of government.

With very few exceptions, local officials are locally elected or are appointed by local elected officials. Individuals do not hold offices at more than one level of government at any point in time. Officials are elected or appointed to hold office for a fixed term. In several states, a local official may be removed from office before his or her normal term expires through a “recall” election (if enough voters petition for such a special election). Incumbents win most recall elections.

*(Q1.3) Are there rules governing how local authorities carry out these regulatory/procurement activities? Are local authorities subject to national legislation governing how they carry out their regulatory procurement role: For example, are local governments required to tender for specific services? Which services? How are these requirements enforced? Are local authorities subject to regulatory review processes? Do these regulatory review processes extend to review of procurement processes?*

Restrictions on local government practices tend to be limited to civil rights, labor rights, and environmental issues or to criminal conduct standards and to procedural requirements for tendering. State procedural requirements may include a minimum number of bidders. Other than these procedural requirements and targeted restrictions, there are few dictates from higher levels of government about how local governments operate, including how they decide to provide services.<sup>5</sup> Federal and state governments generally do not review procurement decisions concerning local services.<sup>6</sup> (However, see the Response to Q2.4 concerning the use of experience requirements to favor local suppliers.)

The restrictions on local procurement practices generally concern the integrity of the process rather than the mechanics. For example, local authorities and higher level authorities would be concerned if procurement decisions were being altered due to threats of violence or bribery. Criminal offenses in connection with procurement may fall under the jurisdiction of local, state, or federal law enforcement authorities. Criminal law is likely to apply if an auction is influenced through threats of physical violence or bribery or by collusion among bidders.<sup>7</sup>

Most local governments routinely have financial audits conducted by independent auditors or by the local government’s own auditor. These audits may extend to broader inquiries such as efficiency studies and studies of procurement practices in some cases, but these audits are usually conducted and reviewed at the local level. When a local government receives a grant from the federal or state government, the local government will be required to show that the funds were spent as required by the grant.<sup>8</sup>

*(Q1.4) Are there fiscal mechanisms by which the central (or sub-national) government can control the incentives or abilities of the local authorities with respect to their regulation/purchasing role? For example, can the central government threaten to withhold funding if the local authority does not comply with certain requirements? If the local authority engages in cost cutting, is it able to enjoy the resulting cost-saving itself, or would a cost-saving lead to a reduction in the funds transferred from the central government? Overall, do local authorities face strong or weak incentives to ensure the efficient regulation/procurement of local services?*

As noted above, restrictions on local government practices tend to be limited to civil rights, labor rights, and environmental issues or to criminal conduct standards. In these areas, the threat of withholding funds is the primary enforcement mechanism with respect to federal policies. Because local governments are creations of their respective states, state government mandates could be enforced directly through enforcement lawsuits or other disciplinary actions, but the threat of withholding grant money is commonly employed here as well.

There is little direct effort by higher levels of government to influence the way local governments operate in the areas of regulation and purchasing. If such measures were adopted by higher levels of government, withholding of funding is a likely enforcement measure. The options for applying this type of pressure on local authorities have been curtailed considerably, however, by the trend toward block grants and away from specific purpose grants that local governments have to apply for.

Under most block grants from higher levels of government, the local government has complete control over how the money is spent. Any savings can be spent as deemed appropriate by local government or returned to the people in the form of lower taxes. The primary restriction on using cost savings to lower taxes is that some grants require matching funds from local governments.

In general, there is relatively little pressure from higher levels of government for local governments to perform efficiently in regulation or procurement. However, there is a great deal of pressure for such efficiency enhancements from local taxpayers/voters and officials.<sup>9</sup>

This point is illustrated by survey data collected in the U.S. by the International City Manager's Association in 1997. Respondents were asked to identify factors spurring local government interest in adopting private service delivery (contracting out to private suppliers). The table excerpts the percentage citing each factor, across all respondents.

**Table 2. Factors Spurring Local Government Interest in Adopting Private Service Delivery<sup>10</sup>**

44%	External fiscal pressure
89%	Internal attempts to decrease costs
11%	State or federal mandates
25%	Change in political climate
7%	Citizen group favoring privatization
21%	Unsolicited proposal from potential vendors
11%	Concerns about [local] government liability

An important note: in the U.S., revenue sources of local governments (as well as county and state governments) tend to be quite sensitive to economic conditions. As a result, local governments go through a “feast or famine” cycle. Local, county, and state governments generally are not allowed to have a budget deficit and most of them find it politically difficult to have a budget surplus. When the economy goes into recession, many local governments experience a fiscal crisis in which officials desperately seek ways to preserve service levels, despite falling revenues. Thus, pressure on the operating departments of local government (from local officials and voters) to reduce costs tends to be inversely related to the business cycle.

## Part II: Regulation and Procurement of Solid Waste Collection and Disposal Services

**Background on survey statistics regarding provision of solid waste collection and disposal:** a useful data source for examining trends in the provision of local services in the United States is the series of surveys conducted by the International City Management Association (ICMA). The following table excerpts statistics on solid waste collection and disposal taken from the ICMA's The Municipal Year Book 1999, Chapter 5 ("Local Government Use of Alternative Service Delivery Approaches").

**Table 3**

### Exclusive Use of Public Employees for Provision of Selected Services Compared to Use of Contracting Out with For-Profit Firms (1988 through 1997)

The number next to the date is the percentage of responding jurisdictions that use public employees exclusively in providing the listed service. The number in the parenthesis (to the right) is the percentage of responding jurisdictions that provide the service exclusively by contracting out. In nearly all cases listed here, the contracts are with for-profit firms.

Year of Survey	% of Jurisdictions Using Only Public Employees	% of Jurisdictions Exclusively Contracting Out
<b>Residential Solid Waste Collection</b>		
1988	52.0%	(36.0%)
1992	46.7%	(38.3%)
1997	36.8%	(49.0%)
<b>Commercial Solid Waste Collection</b>		
1988	40.0%	(38.0%)
1992	23.3%	(54.4%)
1997	23.1%	(60.2%)
<b>Solid Waste Disposal</b>		
1988	51.0%	(25.0%)
1992	31.5%	(32.9%)
1997	30.0%	(40.8%)

ICMA notes that relatively few jurisdictions have shed functions,<sup>11</sup> but that solid waste collection and disposal are exceptions. Solid waste collection has reportedly been shed by 10% of respondents while commercial collection has been shed by 11% of respondents to the ICMA's survey. Disposal services have been shed by 14% of respondents. Franchises and concessions are more common in solid waste collection (residential 14.2%, commercial 16.9%) than in any local service other than public utilities. Not all contracting out by local governments entails a formal competition process. Some cities with substantial contracting out do not rely on a formal competition process. For example, the city of San Jose, California, contracts out approximately \$250,000,000 annually (25% of its budget), but only started consideration of formal competition procedures in 1996. During its study of competition procedures, San Jose surveyed eight cities selected for their leadership in privatization. Most reported a mix of formal and informal processes used to contract out. ("Alternative Service Delivery Methods and the Competition Process, San Jose, California," published by the ICMA, 1997.)

*(Q2.1) Who pays for solid waste collection services? Are they paid for by (a) local authorities; (b) customers (i.e. households and businesses); (c) some combination, or (d) some other source?*

The common patterns of payment for refuse collection include: a separate refuse collection assessment on each household or payment out of general tax revenues. (Note: there is a tax bias toward payment from general revenues. For individual tax payers who itemize deductions on their federal income taxes, local taxes are deductible in calculating taxable income while fees paid for similar services from private suppliers are not deductible.) Businesses often desire special forms of refuse collection and pay for these themselves. User fees collected by local government or by competing firms are somewhat more common in rural areas where government operated and financed services are somewhat less comprehensive than in urban areas.

*(Q2.2) Can other firms compete to provide solid waste collection services, either through a tendering process, or on a customer-by-customer basis? If so, how does the tendering process operate: What is the length of time between tenders? Are there any requirements on the tendering process designed to ensure adequate competition?*

Some degree of competition applies to residential refuse collection services in somewhat more than half of U.S. local governments. For various historical and cultural reasons, government employees are most likely to be the exclusive providers of residential refuse collection in larger cities in the Northeast and smaller cities in the South. Western cities of all sizes are more likely to utilize competition to procure residential refuse collection services. The proportion of services subject to competition rises to about 3/4 in refuse collection from commercial establishments.

There are many differing arrangements with respect to the method and frequency of tendering. As mentioned above, some local governments use a formal bidding system, while others rely on informal processes. Most local governments utilize contracts covering 3 to 7 years. Customer-by-customer competition is most common in collection of solid waste from commercial establishments.

One of the most interesting cases of contracting out of refuse collection services occurs in the city of Phoenix, the ninth largest city in the U.S. (1990). Since 1978, Phoenix has provided a tendering system in which private suppliers compete with city departments to provide services including residential solid waste collection.<sup>12</sup> Separate tenders are allowed for six sections of the city. A contract for refuse collection lasts for 5 to 7 years and one or more areas of the city come up for tender every other year. For each multi-year contract, private suppliers and the city's public works department submit bids to supply the service. The city then selects the winning bidder and contracts with that bidder. Both private suppliers and the city public works department have won bids. Private parties may serve up to half of the city at any one time. In the case of the bids of the city's public works department, there is a separate auditing department with the responsibility to ensure that the bid of the department is consistent with anticipated costs of providing the service. This helps 1) to ensure that the city department will not win the tendering by offering an unrealistic low bid, and 2) to encourage private parties to undertake the costs of preparing a bid.

*(Q2.3) Which prices are controlled by the tender? Are these prices fixed, or can they vary with changes in cost or demand? Does the contract specify how prices will be changed over time? Is the incumbent operator allowed to keep the benefits of any cost savings it makes? How does the government ensure that quality standards are maintained? How does the government avoid claims by the bidder ex post that it is unable to provide service at the current prices, which must be raised? Does the government own any facilities which are to be operated and maintained by the successful bidder? How does the government ensure that these facilities are maintained toward the end of the tender period? Has the local government established a separate institution for carrying out such tenders and enforcing the terms and conditions of tenders? If so, what is the nature and function of that institution?*

The basic choice is between a fixed price contract and an adjustable rate contract. Fixed price contracts force the contractor to assume all the risk associated with variations in the inflation rate. Contractors typically require compensation (a risk premium) for assuming such risk, as would most businesses. (Essentially, a contractor who accepts a fixed price contract is offering both to provide a service and to insure the buyer against inflation.) An adjustable rate contract allows risk sharing between the local government and the contractor and should result in lower bids. There are two common methods for adjusting rates. One is an automatic adjustment that is keyed to a widely accepted measure of inflation. This has the advantage of avoiding disagreements on the appropriate inflation adjustment. Another alternative is an adjustment process uniquely attuned to the operations of the particular contractor. This is akin to utility rate hearings in which the contractor requests adjustments based on its specific expenditures. The transactions costs of the latter process may be relatively large because of the incentives and opportunities to overstate cost increases in order to secure a higher rate increase.

Again, focusing on Phoenix, the price specified in the residential solid waste collection contract is a per household price, so the revenue of the contractor will increase with increased demand. This has been important in Phoenix because the city has experienced rapid growth in population. The winning bidder can retain the benefits of any cost savings it is able to realize.

The contract price in Phoenix is fixed for the first year of the contract, but it is adjustable for the last four years of the contract. Adjustments to the contract price in the last four years are based on changes in the cost of operations, as reflected in the U.S. Department of Labor's Consumer Price Index (CPI) for Urban Wage Earners and Clerical Workers. The contract price is adjusted annually after the first year by the percentage change in the CPI. The annual change may not exceed 8% in either direction. In other cities, contractors are allowed to request a price increase if their costs prove to be unexpectedly high.

In order to avoid deteriorations in the quality of service, Phoenix includes financial penalties if households are missed during collections. Further, the city delays payments until claims by citizens concerning damages done by the contractor during collections are resolved. Private bidders must post a performance bond. Among U.S. local governments that contract out for services, performance bonds are perhaps the most common method to assure contractor performance. The city of Phoenix employs inspectors who conduct spot checks on quality of service and respond to complaints by citizens. The city also operates a customer complaint telephone line and uses the pattern of complaints to evaluate performance. The city plans to use surveys of consumer satisfaction to assure that quality is maintained with a proviso that unacceptable levels of consumer satisfaction that go unremedied for two years may result in early termination of a contract on the basis of nonperformance.

The contracts for solid waste collection in Phoenix do not require giving control of city-owned equipment to contractors. The length of the contract (5-7 yrs.) was selected specifically to avoid this. Five years is approximately the period necessary to amortize equipment used for solid waste collection. The only pieces of equipment owned by the city in the areas served by private contractors are the refuse containers used by the individual households or groups of households. Here the procurement costs proved to be considerably lower for the city than for contractors, so the city elected to retain this part of the operation. City inspectors monitor for abuses of this equipment by the contractor.

Most local governments use relatively modest contract periods, like Phoenix. There are a few examples of local governments with much longer contract periods stretching 20 years or more.

Issues of contractor treatment of local government assets arise most frequently when local governments contract for the operation of transfer stations and disposal sites. Contractual provisions, performance bonds, and monitoring by city employees are the typical means of trying to curtail abnormal wear and tear on local government-owned assets.

To avoid ex-post manipulation by the contractor, Phoenix continues to provide refuse collection services in other parts of the city so that it could expand these services if the contractor attempts to hold up the city. Further, the city retains the right to take control of the contractor's equipment if service is stopped while the contract is in force. The contracts specifically state that a strike is not a justification for nonperformance. Finally, the city offers a letter of commendation to contractors that perform as expected. This commendation will not be forthcoming if the contractor does not perform adequately.

The Phoenix auditor's office is in charge of the bid process and evaluates the bids. As mentioned above, a member of the city auditor's staff helps create and certify the validity of the bids from the city's public works department. The auditor's department is also responsible for assuring that if the city wins the bid, its costs stay within its bid. The auditor's department conducts an annual audit of the public works department to secure compliance.

An important issue in Phoenix and other cities using competitive bidding is displacement of government workers. Phoenix gives preference to displaced workers in filling other city job openings and requires contractors to offer jobs to displaced workers. Contractors are not required to retain unsatisfactory displaced workers.

*(Q2.4) Are there any regulatory controls on who may bid? Are there any controls on the ownership or the lines of business of these firms? Are there any controls on foreign ownership?*

Generally, there are no absolute controls on who may bid. However, local governments often informally or formally take into account non-price factors such as financial stability and experience. The most important of these restrictions are "experience" requirements, sometimes suggested by incumbent suppliers. For example, requirements that the bidder have experience doing similar work in the same state may effectively exclude potential bidders with operations in other states, including neighboring states, or outside the U.S. Experience requirements have generally displaced more explicit contractual restrictions that exclude non-local suppliers. Many bid systems require that the potential contractor be able to post a performance bond and demonstrate that it has insurance coverage.

To the best of our knowledge, there are no explicit restrictions preventing foreign ownership of local waste-collection bidders. To the extent that bidding firms are public companies, there is no publicly available system to monitor or preclude foreign ownership of securities issued by these firms that falls below the substantial ownership disclosure thresholds of the Securities and Exchange Commission.

*(Q2.5) In the case where some or all of the price of solid waste collection services is paid by customers, can other firms compete to provide these services? Is competition limited to a certain class of customers, such as those which produce the largest quantity of waste?*

In most instances, franchises are exclusive. Where bidding is on a customer-by-customer basis, multiple suppliers are more likely.

See the response to Q3.2 and Q3.3.

*(Q2.6) Are the prices charged to customers for solid waste collection regulated or set by government in some way?*

In three of the fifty states (Montana, Washington, and West Virginia), refuse collection prices are regulated to some degree at the state level. Some California counties also regulate rates.

In the Phoenix example, the price is determined by contract on a per-household basis and the money is paid from general revenues. Where private suppliers collect from individual customers, rates may either be on an average-per-household basis or on a volume basis. Where exclusive contracts are granted, there is more likely to be a limit on fees. For refuse collection, rate setting is most likely to occur through the contracting process or franchise-granting process rather than through some ongoing rate regulation agency.

*(Q2.7) Where private firms compete to provide solid waste collection services, are these firms required to be licensed? What license conditions are imposed (if any)? Are there controls on the ownership or lines of business of these firms? Are there any controls on foreign ownership?*

Some states or local governments require suppliers to have a solid waste collection license for each truck they operate. Per truck fees are generally modest. Most states and local governments require safety inspections of refuse collection vehicles. The more binding constraints on solid waste collection firms come from environmental, health, and labor regulations and from requirements of insurers. Local governments typically require private contractors to carry insurance against a wide variety of problems that might lead to legal claims against the supplier (or the local government) for damages to persons or property committed by the contractor. To obtain such insurance, the contractor is often required by the private insurer(s) to show evidence of operating capabilities and sensitivity to operating risks in the business. Failure to operate according to the recommendations of the insurer may result in cancellation of the insurance or the assessment of higher rates.

To the best of our knowledge, there are no widespread restrictions on the ownership of other lines of business by these firms. We do not know of any restrictions on foreign ownership.

*(Q2.8) How is the market for waste disposal organized? Who purchases waste disposal services? Are they paid for by customers or directly by local governments? Where they are paid for by customers, is there competition for waste disposal services? Where they are paid for by local government, are these services subject to tendering? What is the nature of the tendering?*

Until the rise of the environmental movement, local governments often provided residential service and many local governments operated landfills. Some also provided commercial collection service. Usually, private companies were not permitted to compete with the municipalities, especially for residential service. Today, many of these communities hire private companies to provide the service. In most cases, the private firm is given the exclusive right to collect the waste in a franchise area. The franchised firm is often chosen by a bidding process. Local governments are increasing contracting separately for collection and disposal services. Where service competition is on a customer-by-customer basis, each collection firm typically offers a vertically integrated collection and disposal service. Individual customers seldom make a separate decision about disposal.

The passage of stricter environmental laws has increased the cost of operating landfills and increased the efficient scale of operating landfills. As a result, many of the communities have stopped providing this service. These communities have chosen not to construct new facilities or upgrade their old facilities to meet the new environmental standards but, instead, have turned over operation of their facilities to private firms, or sold their facilities to private firms. In some cases, a number of communities have joined together to operate regional landfills. In some instances, local governments have elected to

construct and operate solid waste incineration facilities. The local government then sells the heat (or steam) produced from these facilities.

*(Q2.9) How is the market for recycling organized? What national or local legislative mandates provide incentives for recycling? Is recycling carried out separately from other waste management? Who pays for the service? Is there competition for recycling services? Are these services tendered? What is the nature of the tendering?*

The extent and organization of recycling varies considerably in different parts of the country. Some areas have extensive programs that collect and separate aluminum, steel, a wide range of plastics, cardboard containers, newspapers, and other paper. Much recycling is driven by environmental concerns and by avoiding costs of disposal. Recycling programs have arisen in part because of state and local government mandates to reduce the volume of refuse going into landfills. The state mandates typically do not specify how local governments must approach recycling. Some local governments have made recycling mandatory for commercial establishments in order to reach recycling targets.

Recycling is commonly carried out on a separate schedule from other solid waste disposal and usually employs separate equipment that allows collection personnel to sort the recycling items by separating plastics, metals, and paper. The range of materials collected for recycling varies considerably from city to city.

Recycling programs seek to be self-supporting, although success in this regard depends to a large extent on volatile prices for the recycled items, disposal fees that are avoided, and on public participation rates in the recycling program (route economies). In most cases, participation by individual households in the local government's recycling program is voluntary. However, local governments may employ various inducements to encourage citizens to participate. (For instance, one local government awards small cash prizes to randomly selected households that participate in the recycling program.) To the extent that financial support is needed for a recycling program, general revenues are typically used. Some federal and state funding is available to launch recycling programs. For example, funds from higher levels of government are sometimes used to provide consumers with recycling containers at the beginning of the program.

In the Phoenix example, recycling has been combined into the solid waste collection competitive bid process. Typically, waste collection and recycling are subject to the same type of procurement or combined as in Phoenix. In Phoenix, bidders are required to collect refuse one day per week and to collect recycled items one day per week. The contractor brings the recycled items to the city's recycling centers for processing. The city thus retains the functions of sorting and selling recycled items.

### **Part III: Market Structure and Competition Issues in Solid Waste Collection**

*(Q3.1) In those cases where the local government tenders for the right to provide solid waste collection services, how many bids are typically received? Do the same companies all regularly bid against one another, or is there a different combination of bidder in each tender? What are the rough market shares of these companies? Have these market shares changed over time?*

A relatively modest 26% of the respondents to the ICMA's 1997 survey cited an "insufficient supply of competent private deliverers" as an obstacle to adopting private service delivery.<sup>13</sup> The guidelines for public-private competition suggested by the ICMA recommend that local governments not contract for services where only one bidder is likely to participate. In the Phoenix example, the number of private bidders has averaged four and has ranged from six to three. The number of private bidders has declined over time primarily due to mergers. The city is concerned about the decline in the number of

private bids.<sup>14</sup> The identity of the bidders largely has remained the same, but the city has a program seeking to encourage additional viable private bidders. More generally, local governments that are concerned about the number of bidders may be able to increase their number by developing a wider bid solicitation process or by modifying the terms of future contracts to encourage more bidders.

Because solid waste collection markets are local in nature and many continue to be served primarily by local government departments, competitive conditions in relevant markets are unlikely to have much relationship to figures developed for the nation as a whole. At the national level, the structure of solid waste collection continues to be unconcentrated, but the structure at the local level may differ considerably. There are no publicly available statistics for assessing market shares at the local level. As the ICMA statistics indicate, there are many local markets that continue as government operated monopolies and others that have a considerable degree of competition. However, an important caveat is the relationship between collection and disposal, which may involve serious restrictions on competition through new entry, discussed in Q3.2 and Q3.3.

*(Q3.2 and Q3.3) What is the ownership of the largest firms in this industry? Are they owned by local government or a group of local governments? In those cases where a government directly owns a waste collection company, are other private firms able to compete on a competitively-neutral basis? In what other markets do these firms compete? Are they integrated vertically into the provision of waste disposal services or recycling? Do they also compete to provide waste services in other cities?*

In most local markets, the largest firms are national or regional private corporations. These firms operate in a number of local markets, providing residential collection, commercial collection (small containers from 1 to 10 cubic yards (CY)), and roll-off (large containers up to 40 CY) collection services. They also operate transfer stations,<sup>15</sup> recycling centers, sanitary landfills, and incinerators in a number of these local markets. In the past, private firms were often large collection firms in one or a few local markets, frequently also providing disposal services. Most of these firms have been acquired by the national or regional firms.

U.S. local governments do not generally own firms. Where a local government continues to perform collection services with its own employees, it may either provide collection services on an exclusive basis or in competition with private firms (as in Phoenix). (See Table 3.)

*(Q4.1 and Q4.2) Have competition concerns arisen in the solid waste industry? In particular, have there been any cases of bid-rigging, market-sharing or price-fixing? Have there been allegations of predatory pricing? Have any horizontal mergers between solid waste management firms been challenged by the competition authorities? What remedies (if any) were proposed? Have competition concerns arisen from integration into waste disposal facilities?*

There have been several market allocation cases brought against private firms that provide commercial and roll-off services in local markets.<sup>16</sup> The suits generally involved agreements not to solicit each other's customers and several included exchanging price lists, price fixing, and bid rigging. These cases primarily have dealt with commercial and roll-off services, not residential collection or disposal services. There have been a few private predatory pricing cases brought against private haulers. Again, these cases usually deal with commercial or roll-off services. Some of these private cases have been successful, despite the substantial burden on complainants in bringing such cases. Additionally, private haulers have complained that the prices being charged by their competitors do not cover or barely cover their competitors' disposal costs. Often, the competitor is the owner of the disposal site.

The U.S. Department of Justice has also brought a monopolization case against Browning/Ferris Inc. (BFI), a large national firm, and two of its subsidiaries. The case was brought in two local markets where the defendants were alleged to have market power and large market shares in small container

hauling. It was alleged that each of the defendants, acting with specific intent, used and enforced contracts containing restrictive provisions to exclude and constrain competition and to maintain and enhance their market power. BFI settled the case by agreeing to modify its contracts in those two markets. The types of provisions that were challenged and changed included the exclusive right to collect and dispose of all of a customer's waste, the initial term of three years, automatic renewals of three years unless the customer gave advance notice, and payment of large liquidated damages for terminating the contract at other times. The contracts provide little price protection for the customer, allowing the firm to raise price for several reasons stated in the contract without any recourse for the customer and to raise prices for other reasons unless the customer objected in a timely manner. A similar monopolization case was brought against Waste Management, another large national firm, in two different local markets. It was also settled with similar contract modifications.

A number of horizontal mergers have been challenged by the Antitrust Division of the U.S. Department of Justice. These cases have involved allegations that the merger would substantially lessen competition in the provision of: (1) small container hauling services; (2) disposal services; and/or (3) transfer station services in local markets. Divestiture of small container routes, landfills, and transfer stations in the local market have often been required as remedies. In some cases, contract modifications to make the contracts less restrictive have been required instead of total divestiture of small container routes.<sup>17</sup> Landfills often serve larger areas, so that sometimes sale of space in the landfill (that can be resold by the purchaser) has been required instead.

Disposal costs are often the largest cost for a commercial waste hauler and can easily amount to over 40% of its total costs. For this reason, control of disposal sites and transfer stations by the major hauling firms in a market has raised competitive concerns, although no merger cases have been litigated on this point.<sup>18</sup>

*(Q5.1) Have there arisen concerns regarding violations of environmental laws? Where competition has been introduced in waste collection or disposal, was this associated with enhanced concerns regarding compliance with environmental laws? Have environmental laws or law enforcement been strengthened?*

To date, there does not appear to be a discernable correlation between competition and environmental problems. To the extent that solid waste disposal raises public concerns about environmental effects, a favorable environmental compliance record is likely to be a competitive advantage rather than a liability. Adverse publicity about environmental compliance on the part of a supplier can also have negative commercial effects on the supplier to the extent that customers become concerned about being judged liable for non-compliance by their supplier of waste collection or disposal services. Insurers may respond negatively as well to a flawed environmental record.

Environmental laws and enforcement regarding disposal and collection of solid waste have generally been strengthened over time, but this does not appear to be directly related to privatization of disposal or collection services.

## Notes

- 1 In most instances, there are several cities, towns, and villages within a county, however, some parts of the county will not be included within a city, town, or village. In the following discussion, local government is defined as the smallest unit of general government with jurisdiction over a given location. Cities generally have larger populations than towns and towns generally have larger populations than villages. States often set a minimum population requirement for a local entity to be designated as a city.
- 2 The American Almanac/Statistical Abstract of the United States, 1995-1996, Table 472.
- 3 Property taxes, on average, provide for approximately 23% of general revenues, sales taxes provide 12%, income taxes and licenses provide 9%, user charges (long- and short-term) provide 28%, and intergovernmental transfers provide 28%. The American Almanac/Statistical Abstract of the United States, 1995-1996, Table 501. Some counties or local governments also operate retail business enterprises such as liquor stores or electric utilities that generate revenues; enterprise revenues are not included in the above calculations.
- 4 For example, in the State of Maryland, counties collect income taxes through a surtax on the state income tax and some of these funds flow through to local governments based on the residence of the individual taxpayers.
- 5 See the response to Q2.6 for an exception with respect to collection of solid waste.
- 6 However, if the higher level of government perceives that the local government is facing severe financial difficulties, the higher level of government may effectively take control of most local government functions until the financial crisis is alleviated. Well known examples of such takeovers include those in New York City (1970s) and Washington, D.C. (late 1990s).
- 7 The federal and state antitrust agencies found numerous collusive agreement in contracting for road construction projects during the 1980s. See the response to Q4.1 and Q4.2 regarding antitrust cases in solid waste collection and disposal services.
- 8 A recent exception to the generally routine review of local performance by state officials has been in the area of education. Some states recently have established educational performance standards. Failure of a school district to meet these performance standards may result in the state taking control of that school district. Another exception has come in the form of planning requirements. For example, some states require local governments to establish and follow-through on a multi-year plan regarding disposal of refuse and recycling.
- 9 There is a strong literature in urban economics about competition between jurisdictions to attract businesses and population. This literature originated with Charles Tiebout's article in the Journal of Political Economy (October 1956, 64:5, 416-424) entitled "A Pure Theory of Local Expenditures." The Fall 1997 issue of the Journal of Economic Perspectives contains a section of articles relating this theory to recent political discussions of fiscal federalism and general devolution of functions to lower levels of government.
- 10 ICMA, The Municipal Year Book 1999, p. 41.

- 11 When a jurisdiction sheds a function, it neither performs the function nor contracts for its performance. When a jurisdiction sheds a function, residents of that jurisdiction must obtain the service on an individual basis or do without the service. Jurisdictions that have shed a function no longer appear in the ICMA statistics regarding that function.
- 12 Another important form of competition in providing services is competition between government units. The most explicit instance of this competition is the Lakewood Plan in Los Angeles County. Originated in 1954, this program gives local governments the choice of providing a variety of services themselves or of contracting with the county for the service. In a vast majority of cases, the cities have elected to receive the services from the county because of economies of providing the service at that level. A related competitive option is available in Prince George's County, Maryland, where local governments select whether to provide services themselves or allow the county to provide the service. If the local government elects to provide the service, the county government transfers to the local government a portion of the county government's general revenues comparable to the county government's avoided costs. Local governments may elect to provide part-time police services, for example, with the county providing these services during other periods.
- 13 "Selecting Services for Public-Private Competition," ICMA, MIS Report 28:3 (March 1996), p. 8.
- 14 ICMA, The Municipal Year Book 1999, p. 44.
- 15 A transfer station is a facility (usually close to one or more population centers) where waste is consolidated for shipment to a (more distant) waste disposal site.
- 16 Roll-off service is collection using large waste-containers at the customer's site. The containers are rolled on or off a flat-bed truck by hydraulically tilting the bed of the truck and using a winch to raise the container onto the truck or lower the container from the truck.
- 17 Another remedy element in some cases has been a requirement that the parties obtain prior approval from the relevant antitrust agency before undertaking any additional mergers.
- 18 Litigation may be difficult in instances where local governments or a combination of local governments and private firms are involved in actions that raise competitive concerns. Actions of local governments that are approved or supervised by a state often are shielded from antitrust review under the "state action" doctrine.