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Competitive Cities: A Report Card on Efficiency in Service Delivery in America's Largest Cities

BY ADRIAN T. MOORE, JAMES NOLAN, AND GEOFFREY F. SEGAL, WITH MATTHEW TAYLOR

Introduction

Consumers turn to objective third-party reports for information on many of the goods and services they purchase. Likewise, citizens often turn to guides and report cards that evaluate how their governments perform on readily understood measures. *Money* magazine rates the best cities in which to retire.[1] *Fortune* magazine rates the best cities for business.[2] *Governing* magazine grades cities on how well-managed they are. The U.S. Conference of Mayors rates city livability.[3] Many other guides and report cards evaluate various city attributes.[4]

Yet none of these reports examines how efficiently cities deliver services—what resources does it take to pick up the trash, fix the streets, or provide fire protection? Do some cities use more or fewer resources than others? This *Competitive Cities Report Card* is a first attempt at filling that gap.

Ideally, citizens would be able to ascertain how much money and worker time are required by their governments to provide various services, and how those resources compare to those used by other cities for *the same quality of service.* Without good performance data, citizens are left without good means to evaluate their city governments and must rely on cruder measures. Groups such as the Government Finance Officers Association, the Governmental Accounting Standards Board, and the International City/County Management

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1 www.money.com/money/depts/retirement/bpretire

2 www.fortune.com/fortune/bestcities/index.html

3 www.usmayors.org/USCM/uscm_projects_services/city_livability_awards

4 www2.lib.udel.edu/subj/godc/resguide/places.htm lists a bibliography of books rating cities and links to a number of sites providing comparison data.

Association have long sought to aid municipal governments in measuring performance of municipal services.[5] Performance measures allow city officials and citizens to evaluate the connection between policy options and their outcomes. Without measuring results, citizens can't tell success from failure.[6] Specifically, performance measurement provides:[7]

1. Evaluation of how a program is working;
2. A method to compare contracted to in-house services; and
3. Improved communications with the public.

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[5] Joni L. Leithe, *Implementing Performance Measurement in Government: Illustrations and Resources*, (Chicago: Government Finance Officers Association, 1997); Government Accounting Standards Board, *Performance Measurement For Government*, www.rutgers.edu/Accounting/raw/seagov/pmg/index.html; and Harry P. Hatry et al. *How Effective Are Your Community Services? Procedures for Measuring Their Quality*, 2nd Edition, (Washington, D.C.: The Urban Institute and The International City/County Management Association, 1992).

[6] David Osborne and Ted Gaebler, *Reinventing Government* (New York: Plume, 1993), p. 147.

[7] Len Wood, *Local Government Dollars and Sense* (Rancho Palos Verdes, CA.: Training Shoppe, 1998), pp. 218-9.

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Part 1

The Competitive Cities Approach and Summary Results

We began this project with the goal of evaluating the 50 largest U.S. cities, looking at 18 municipal services and testing 16 factors that might help explain differences in service efficiency, using data for 1993-1998. Due to missing, incomplete, or incompatible data we had to trim the number of the cities to 44, the number of services to 11, and the number of possible efficiency factors to six (see Table 1). The cities for which we could not gather enough data are: Chicago, Honolulu, Las Vegas, Minneapolis, Omaha, and Portland.

We analyzed the data with an econometric technique, data envelopment analysis (DEA), which calculates how much output (service) an agency produces for each unit of input. DEA is a new but respected methodology for comparing efficiency of government services,[8] but thus far no one has made use of it to compare and rank city governments.

DEA calculates the relative efficiency of a service by calculating efficiency scores that represent how much more output could have been produced by the given department if it were to emulate the production process of the best-performing department in the sample in that year. For instance, if the Dallas Public Library has a score of 1.40, it means that if Dallas were producing library services in the same manner as the most efficient libraries in the sample (which score a 1), then it could have produced 1.4 times as much output as it actually realized. A score of 1 means that the library is efficient and could not have performed any better relative to its peers using the best technology available.

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[8] See, for example, Catherine Craycraft, "A Review of Statistical Techniques in Measuring Efficiency," *Journal of Public Budgeting, Accounting, & Financial Management*, v.11, no.1 (1999), pp. 19-27, and Ronald C. Nyhan and Lawrence L. Martin, "Comparative Performance Measurement: A Primer on Data Envelopment Analysis," *Public Productivity and Management Review*, v. 22, no. 3 (1999), pp. 348-64.

Table 1: Scope of Competitive Cities Comparison

Cities Examined

- Albuquerque
- Atlanta
- Austin
- Baltimore
- Boston
- Buffalo
- Charlotte
- Cincinnati
- Cleveland
- Columbus
- Dallas
- Denver
- Detroit
- El Paso
- Fort Worth
- Fresno
- Houston
- Indianapolis
- Jacksonville
- Kansas City
- Long Beach
- Los Angeles
- Memphis
- Miami
- Milwaukee
- Nashville
- New Orleans
- Oakland
- Oklahoma City
- Philadelphia
- Phoenix
- Pittsburgh
- Sacramento
- San Antonio
- San Diego
- San Francisco
- San José
- Seattle
- St. Louis
- Toledo
- Tucson
- Tulsa
- Virginia Beach
- Washington, D.C.

Services Examined

- Building Maintenance
- Emergency Medical Services
- Fire Protection
- Fleet Management
- Libraries
- Parks and Recreation
- Police Services
- Solid Waste Services
- Street Repair
- Transit
- Water Services

Efficiency Factors Examined

- Average precipitation
- Average snowfall*
- Average temperature*
- Maximum temperature
- Minimum temperature
- 1990 population
- 1994 population
- 1995 population
- 1996 population
- Population change 1990-96*
- Local government share of total statewide government employees*
- City manager v. mayor structure*
- State litigiousness rank
- Size (sq miles) in 1990
- State and local taxes per $100 personal income
- State and local tax revenue per capita*

*factor that had a statistically significant effect on efficiency scores.

Result #1—Overall City Efficiency Rankings

We calculated overall efficiency rankings for all cities based on averaging scores for all data available for all cities, and weighted so that services where more data is available have more effect on overall scores. Phoenix ranked most efficient, and indeed held the position of most efficient each year between 1995-1998. Los Angeles ranked least efficient, holding that position each year between 1994-1996, but improving quite a bit in 1997 and 1998 (up to 29th in 1998).

Table 2: Overall Efficiency Rankings

Rank	City	Rank	City
1	Phoenix	23	New Orleans
2	El Paso	24	San Francisco
3	Tulsa	25	Fort Worth
4	Memphis	26	Sacramento
5	Nashville	27	Charlotte
6	San Diego	28	Washington, D.C.
7	Dallas	29	Cleveland
8	Virginia Beach	30	Cincinnati
9	Indianapolis	31	Albuquerque
10	San Antonio	32	Miami
11	Toledo	33	Austin
12	Kansas City	34	Boston
13	Milwaukee	35	Philadelphia
14	Fresno	36	Houston
15	Oklahoma City	37	Atlanta
16	Tucson	38	Baltimore
17	Jacksonville	39	Buffalo
18	Denver	40	Detroit
19	St. Louis	41	San José
20	Columbus	42	Seattle
21	Long Beach	43	Oakland
22	Pittsburgh	44	Los Angeles

Notable efficiency rank

Result #2—Regional Overall City Efficiency Rankings

We grouped cities by region and averaged regional overall efficiency scores, as shown in Table 3, finding the Southwest had the highest average efficiency, and the West/Pacific the lowest.

Table 3: Cities by Region and Regional Efficiency Ranks

Southwest	Midwest	Southeast	Great Lakes	Atlantic/ Northeast	West/Pacific
Albuquerque	Denver	Atlanta	Cincinnati	Baltimore	Fresno
Austin	Kansas City	Charlotte	Cleveland	Boston	Long Beach
Dallas		Jacksonville	Columbus	Buffalo	Los Angeles
El Paso		Memphis	Detroit	Philadelphia	Oakland
Fort Worth		Miami	Indianapolis	Pittsburgh	Sacramento
Houston		Nashville	Milwaukee	Virginia Beach	San Diego
Oklahoma City		New Orleans	St. Louis	Washington, DC	San Francisco
Phoenix			Toledo		San José
San Antonio					Seattle
Tucson					
Tulsa					
1st rank	2nd rank	3rd rank	4th rank	5th rank	6th rank

We also examined average efficiency of services by region, as shown in Table 4.

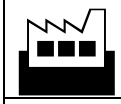
Table 4: Services Average Efficiency Scores by Region

Service	Most Efficient Region <——> Lease Efficient Region					
Fire	Midwest	West/ Pacific	Southwest	Atlantic/ Northeast	Southeast	Great Lakes
Libraries	Southwest	West/ Pacific	Southeast	Great Lakes	Atlantic/ Northeast	Midwest
Police	Midwest	Great Lakes	Atlantic/ Northeast	Southeast	Southwest	West/ Pacific
Street Maintenance	Southwest	Midwest	Great Lakes	Southeast	Atlantic/ Northeast	West/ Pacific
Transit	Midwest	Southwest	Great Lakes	West/ Pacific	Southeast	Atlantic/ Northeast

Result #3—Efficiency Ranks by Service

In addition to overall weighted efficiency scores, we ranked cities by how well they performed in each of the services we examined (most services excluded some cities due to data problems, see individual city or service pages for more detail).

Table 5: Efficiency Ranks by Service

Service	Most Efficient City	Least Efficient City
 Building Management	Tucson	Kansas City
 Emergency Medical Services	Kansas City	New Orleans
 Fire Protection	El Paso	Detroit
 Fleet Management	Nashville	El Paso
 Libraries	Albuquerque, Columbus, Oklahoma City, Phoenix, Sacramento, San Diego, Virginia Beach*	Pittsburgh
 Parks and Recreation	Albuquerque, Phoenix	Oakland
 Police	Virginia Beach	Baltimore
 Solid Waste	Albuquerque	Fort Worth
 Street Maintenance	El Paso, Fresno	Long Beach
 Transit	Atlanta, Washington D.C.	Buffalo
 Water	Milwaukee	Charlotte

*These cities all scored equally, and most, efficient relative to the other cities.

Result #4—Factors that Help Explain Efficiency Differences

We conducted an econometric analysis of the efficiency scores to see if we could determine some causes of differences in efficiency. Factors that explained some of the differences in efficiency scores are listed and explained in Table 6.[9] Note that of the factors we were able to evaluate, the one that most influenced efficiency by far was city manager vs. elected mayor governance structures—cities with city managers are far more likely to be efficient.

Some factors that we wanted to assess, we could not due to lack of data. Among these, measuring outsourcing of services was most important, but most cities could not accurately tell us what services are outsourced and the data we could gather differed from city to city, making comparisons inconsistent. So we excluded any direct measurement of the influence of outsourcing on efficiency, but did note use of outsourcing where we could. Other factors were measured, but turned out not to influence efficiency. Among these factors were: average precipitation, the relative litigiousness of the states, geographic size of the cities, and state and local taxes as a share of personal income.

Table 6: Factors Affecting City Efficiency

Factor*	Explanation
 City Manager vs. Mayor governance structure	Cities with a manager are almost 50 percent more likely to be efficient than those with an elected mayor.
 Average Temperature	Cities with higher average temperatures are more likely to be efficient—efficiency scores tend to rise three percent with each one-degree increase in average temperature.
 Average Snowfall	Cities with higher average snowfall are more likely to be efficient—efficiency scores tend to rise three percent with each one-inch increase in average snowfall.
 Population Change	Cities with increasing populations are slightly less likely to be efficient—efficiency scores tend to fall one percent for each one percent increase in population (1990-1996).
 Local Government Employment	Cities in states where local government has a higher share of total state and local government employment are more likely to be efficient—efficiency scores tend to rise one percent with each one percent increase in the proportion of state and local employees who work for local government.
 Per Capita State and Local Taxes	Cities with higher per-capita state and local taxes are less likely to be efficient—efficiency scores fall roughly 10 percent for each $100 increase in per-capita state and local taxes.

*All factors listed were found to have a statistically significant effect on efficiency scores.

[9] The combination of factors in Table 4 explains 48 percent of the differences in efficiency scores (R-squared for the regression is 0.478822).

The factors listed in Table 6 are simply correlated with efficiency as indicated, and aren't necessarily causal. But looking at which causal factors are relevant for each city, and the direction of their effects, may partly indicate why a city is ranked as it is. There are many possible interpretations of why factors may have the effects we found. A few include:

- **Manager vs. Mayor:** Perhaps city managers, without the political pressure of running for office, can more readily focus on efficient operations of city services.
- **Snowfall and Temperature:** It is unlikely that snowfall or temperature directly affect efficiency in the directions indicated. Both factors are likely proxying for some other factor we did not measure. Perhaps higher snowfall makes the urgency of some municipal services greater, and thus creates more focus on efficiency. And perhaps warmer average temperatures reduces some capital and operating costs for delivering some services.
- **Population Change:** Perhaps fast growing cities focus more resources on expanding services to accommodate growth rather than focusing on efficiency.
- **Local Government Employment:** Perhaps if government services, broadly defined, are more concentrated locally than at state level, they are more responsive to citizens' concerns about efficiency.
- **Per-capita Taxes:** It makes sense that lower per-capita tax levels might mean tighter financial resources and more emphasis on efficiency.

Result #5—Quality of Public Information

Some cities do far better than others at providing the public with easy access to understandable and meaningful information about resources the city uses to deliver services and how it measures performance of services. We evaluated our experience with how cities provided that data, to what degree cities' budget information is understandable and meaningful for typical citizens, and the extent and quality of cities' use of performance measures for services.

Table 7: Quality of Public Information	
Evaluation	**City**
Best Quality Public Information	Phoenix
Notably Good Public Information	Charlotte, Dallas, San Antonio, San Diego

Part 2

Citizen Access: Transparency of Municipal Financial and Performance Data

One way to view this report is as a critique of how well cities inform citizens of how their tax dollars are being spent. Despite a strenuous effort over several years, we struggled constantly to wrest data from city agencies and were left with many areas of only partial data. No city could provide data for all services for even part of the time period we examined. A project such as the *Competitive Cities Report Card* faces several challenges and uncovers a number of lessons for providing better information to citizens.

A. General Data Inadequacy

Every city has its own budget format, reporting techniques, priorities, and goals. Cities follow no standard for budget reporting, and determine reporting formats based on agency or city government experience. Hence, data about city expenditures are often spread out over different documents and reported in different manners. Moreover, data collection and reports are seldom systematic, so often data comprise "best guesses" and approximations, or have been rounded up or down. Every city presents a challenge to simply find, interpret, and understand the available data.

Even more challenging for comparison purposes, cities have different departmental organizational structures. Services are grouped or placed in different departments in different cities. Take, for example, trash collection and street-sweeping. Trash collection services are found in sanitation, streets, public health, and general services departments, while street-sweeping is found in streets, transportation, and sanitation departments. Much of our effort was spent determining for each city what services are provided and which department provides them.

Likewise, service provision differs greatly from city to city. The street department in one city may provide all services associated with streets—including all maintenance, construction, lane-marking, street-sweeping, and signal operation. Another city street department may only provide maintenance and sweeping.

Cities have different strategies toward service delivery and tend to stress different aspects or portions of a service rather than the whole service. For example, Virginia Beach street maintenance stressed the completion of "emergency" pothole repair, while the District of Columbia stressed everything but potholes.

Taken together, these inconsistencies in the data make simple understanding difficult and accurate comparisons very challenging.

B. Problems with Availability of Data

Many cities neither track budget data over time nor make it publicly available. In theory, in an era of accountability, municipal governments should have information ready for anyone who asks for it—especially budget information. Taxpayer groups and citizens want to know how their cities are spending their money. Unfortunately, municipal governments do not make all relevant information readily available. They are often reluctant to open their books and be compared to their peers or subjected to efficiency tests. Also, departments cannot always specify which services have been privatized, and do not have any data for those services. In this study, some cities are missing data for services because they do not provide it, relying instead on private firms or on other governments (such as the county).

Even when data are available, the information is often not centralized. Information is spread across the city at different department headquarters. The city library is the closest thing to a central repository of information, but city departments don't always send the library documents—especially individual department annual reports—and libraries often lose their only copy of past budgets and other documents.

C. Opaque City Budgets

An ideal budget document would paint a clear picture of what resources are being used and what is being achieved by expending them. However, this is rarely seen. Many bemoan the lack of civic engagement by ordinary citizens, but engaged citizens need to know how city resources are being used. City governments rarely provide this basic information. It is no surprise citizens have little trust and confidence in how governments spend their money.[10] Municipal budgets are a good starting point for governments to inform citizens and alleviate ignorance and distrust toward government.

Unfortunately, most municipal governments' current budget formats are unreadable to the typical citizen. Without careful examination, even those trained in municipal budgeting can miss things. Consider, for example, "enterprise funds"—a way to account for a department's expenses separately from the rest of the city in order to work toward making them self-sufficient. In looking at one city budget (Miami), we noticed that all the city's enterprise funds had a column in the budget indicating that the amount needed to support the funds was zero. It is very rare that an enterprise fund is truly self-sufficient, especially in areas such as convention centers and transit systems. Upon further examination of the line items for each fund's revenue sources, we found that each fund had in fact received a great deal of money from the city's general fund. The way the numbers are presented leads people to incorrectly assume that the funds received no money from the city and are in fact self-sustaining.

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[10] See Penelope Lemov, "Educating the Elusive Taxpayer," *Governing* (September 1997), p. 68, or for much greater detail the Pew Research Center for the People & the Press, *Deconstructing Distrust: How Americans View Government* (1998), www.people-press.org/trustrpt.htm.

D. Cities Are Not Using Performance Measures

"In an era of constrained budgets, governments have become particularly interested in improving productivity in order to provide services of higher quality or quantity with the same level of resources."[11] In an effort to provide the kind of customer service citizens expect, local governments are reassessing how they measure performance, focusing not only on quantity but also on service delivery, that is, quality, efficiency, timeliness, accuracy, accessibility, and professionalism.[12]

To date, only a handful of cities have implemented meaningful performance measures. "Program managers and employees are uninformed, skeptical and in some cases, hostile to performance measurement."[13]

Performance Measure Selection Criteria

1. Measures that are critical to the accomplishment of the department's mission;
2. Measures for which measurement data are/or should be readily available; and
3. Measures for which measurement is easy to design, conduct, analyze, and report.

Source: Patricia Tigue and Dennis Strachota, *The Use of Performance Measures in City and County Budgets* (Chicago: Government Finance Officers Association, 1994), p. 9.

Performance goals and measures play a vital role in public budgeting. They ensure that public programs and services are provided efficiently and effectively.[14] They provide program managers and employees messages about what they are expected to achieve and how well they are doing—they allow for a more realistic accounting of agency performance.[15]

Municipal budget data may be classified in three ways: inputs, outputs, and outcomes. Governments typically focus only on inputs and ignore outputs and outcomes. Inputs are the easiest to measure. They include the resources a department or agency has or uses to achieve a policy goal. The two most basic inputs are financial resources and employees. The department budget presents the total dollars expended. The employee base is measured in full-time equivalents (FTE)—this measurement accounts for full-time, part-time, and seasonal employees.[16]

Input measures indicate what proportion of resources a budget dedicates to a certain department or the extent of agency or city council commitment to reach a particular goal (e.g., how much is a city government willing to spend to fix every pothole?). "Input measures tell you very little about how well you are doing in reaching the [goal] or objective—they measure effort much better than they assess results." [17]

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[11] Patricia Tigue and Dennis Strachota, *The Use of Performance Measures in City and County Budgets* (Chicago: Government Finance Officers Association, 1994), p. 2.

[12] Liane Levetan, "Implementing Performance Measures," *American City & County* (September 2000), p. 40.

[13] Lowell L. Huehn, "Notes From the Front: Twelve Lessons Learned from Efforts to Implement Performance-Based Budgeting," presented at American Society for Public Administrations, Orlando, FL. (April 10-14, 1999), p. 8.

[14] Tigue and Strachota, *The Use of Performance Measures in City and County Budgets*, p. 1.

[15] Kuehn, "Notes From the Front," p. 7.

[16] For example: two part-time employees who each work 20 hours a week would be counted as 1 FTE (the ratio is not this simple because of benefit packages not available to part-time employees).

[17] Steven Cohen and William Eimicke, "The Use of Citizen Surveys in Measuring Agency Performance: The Case of the New York City Department of Parks and Recreation," presented at American Society for Public Administration, Seattle, WA., (May 9-13, 1998), p. 1.

Output measures quantify the amount of work accomplished—for example—miles of road paved, tons of garbage collected, etc. Output measures measure quantity and/or quality of the work performed.[18] Measurements focus on the amount of work that is completed given the available resources.

Outcomes are often confused with outputs, but outcomes measure the effects of department outputs, not the outputs themselves. Outcome measures are, "used to evaluate the quality and effectiveness of public programs and services."[19] For example, an objective of police protection is to reduce the number of crimes committed; hence a relevant outcome measure is the number of crimes committed per capita.[20]

Efficiency measures, such as those provided in this report, relate units of inputs to units of output or outcomes, letting the user know how many relative resources it takes to produce a given amount of output or outcome.[21] Efficiency calculations provide policy makers and citizens additional information on the effectiveness of public-service provision. "If used consistently and accurately over time, [efficiency measures] can be a barometer of how well a community has responded historically to particular community needs."[22] Furthermore, with the availability of national statistics, comparisons can be made that provide information on how a community is doing as a whole.

18 Cohen and Eimicke, "The Use of Citizen Surveys in Measuring Agency Performance," p. 2.

19 Tigue and Strachota, *The Use of Performance Measures in City and County Budgets*, p. 1.

20 Ibid.

21 Gereasimos A. Giankais and Clifford P. McCue, "Local Government Budgeting: A Managerial Approach" (Westport: Praeger, 1999), p. 62.

22 Tigue and Strachota, *The Use of Performance Measures in City and County Budgets*, p. 19.

Part 3

Improving Budget Information for Citizens

Budgets provide governments with a mechanism to allocate resources for the pursuit of goals established with community preferences and needs in mind. Performance-based budgeting reinforces quality-improvement initiatives in each agency. Founded on a model that creates a feedback loop between fiscal investments and measurable outcomes.[23] Future funding is based on performance, similar to quality initiatives by learning organizations that modify what to do based on what resulted from past actions.[24]

While performance-based budgeting is the most useful form of budget information for the citizen, municipal governments seldom employ it. Unfortunately, the most popular approach to representing municipal budgets is the most basic and least useful to the citizen: the line-item budget. Line-item budgets are helpful to managers and other government officials. They optimize control over public expenditures and taxes, preventing mishandling of public funds.[25]

A line-item budget plans and accounts for every expenditure. An elaborate coding system is put into place, and categories of expenditures are given numbered codes to represent the type of expense (e.g. salaries-001, overtime-002, travel-003, etc.). To further complicate matters, each department or agency fund is given a code to differentiate itself from other departments (e.g. Street Department-100, Fire Department-200). Thus, for example, overtime in the Street Department is represented by 100002, and salaries for the Fire Department are 200001. For the casual observer, these designations are confusing. The citizen is confronted with a series of convoluted codes with excessive detail, readable only to the trained eye, and useful only to the agency itself, not to the taxpayer. While good at safeguarding taxpayers' money, the line-item budget "puts the focus on inputs such as what is to be purchased, and not on outputs or outcomes, such as what services will be provided."[26]

The general public has very different budget-information needs than city officials. While the line-item budget serves an internal audience quite well, it does very little to educate or assist the citizen taxpayer or external audience. A performance-based budget is more suited for communication with citizens who do not have the

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[23] Kuehn, "Notes From the Front," p. 6.

[24] Peter M. Senge, *The Fifth Discipline: The Art and Practices of the Learning Organization* (New York: Doubleday, 1994).

[25] Gianakis and McCue, *Local Government Budgeting*, p. 21 and Wood, *Local Government Dollars and Sense*, p. 56.

[26] Wood, *Local Government Dollars & Sense*, p. 61.

time to mire themselves in the minutiae of a line-item budget. Citizens are interested in the bottom line—what they're getting for their tax dollars. Codes in a line-item budget don't translate into real-world aspects of government that citizens can see.

In presenting budget information, more attention needs to be paid to the customer, the citizen taxpayer. Many governments already have embraced this notion and have issued "citizen's budgets," moving away from the agency-centric approach (line item) to a customer- centric focus by implementing performance measures. But typical citizen's budgets are usually "dumbed-down" line-item budgets. A better approach is to focus on what citizens really want and need: a demonstration of the effectiveness of the agency in carrying out policy goals and efforts to improve performance. Benchmarking agency performance over time, against other departments, and against private firms, lends itself to easy understanding and evaluation by citizens.

Part 4

Rankings by City and Results

Rank	City	Rank	City
1	Phoenix 🎖🎖	23	New Orleans
2	El Paso 🎖	24	San Francisco
3	Tulsa 🎖	25	Fort Worth
4	Memphis 🎖	26	Sacramento
5	Nashville 🎖	27	Charlotte 🎖
6	San Diego 🎖	28	Washington, D.C.
7	Dallas 🎖	29	Cleveland
8	Virginia Beach	30	Cincinnati
9	Indianapolis	31	Albuquerque
10	San Antonio 🎖	32	Miami
11	Toledo	33	Austin
12	Kansas City	34	Boston
13	Milwaukee	35	Philadelphia
14	Fresno	36	Houston
15	Oklahoma City	37	Atlanta
16	Tucson	38	Baltimore
17	Jacksonville	39	Buffalo
18	Denver	40	Detroit
19	St. Louis	41	San José
20	Columbus	42	Seattle
21	Long Beach	43	Oakland
22	Pittsburgh	44	Los Angeles

🎖 Notable efficiency rank

Albuquerque

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 31

	1992	1993	1994	1995	1996	1997	1998	1999	Average Rank—all years, all cities*
Library	1								1 (40)
Parks					1	1	1		1(15)
Police		14		16					16 (43)
Solid waste							1		1 (10)
Transit		17	16	28	25	26	24		23 (38)
Weighted Overall Efficiency Rank**		34 (44)	39 (44)	38 (44)	19 (44)	21 (43)	5 (43)		

Efficiency Comments

- Albuquerque's overall score is low because its most efficient services are those for which we have data for few other cities, and where Albuquerque provided data for only one or a few years. However, its #1 rankings are notable and indicative of efficient operations.
- Along with Phoenix, Albuquerque has the most efficient parks system of the cities examined.
- Results in libraries and solid waste are good for the one available year, but cannot show any trend.
- Something dramatic appears to have happened to the transit system in 1995 to sharply decrease efficiency relative to other large cities.

Data Availability Rating and Comments

- Albuquerque was not very helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Albuquerque grew 13.7 percent from 1990-96, five percent above the average for all cities in this report.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in New Mexico, about seven percent more state and local employees work for state government than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Atlanta

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 37

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library					21	23	22		38 (40)
Police		22	32	32	32				34 (43)
Transit		1	1	1	1	1	1		1 (38)
Weighted Overall Efficiency Rank**		40 (44)	38 (44)	33 (44)	32 (44)	30 (43)	25 (43)		

Efficiency Comments

- Atlanta's transit system was consistently the most efficient of the cities in this report.

Data Availability Rating and Comments

- Atlanta did very poorly at providing data, leaving us with only the three services for which we had national databases.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Atlanta grew 19.7 percent from 1990-96, 11 percent above the average for all cities in this report.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Georgia, about five percent more of state and local employees work for local governments than the average for all cities in this report.
- Cities with less average snowfall tend to be less efficient—Atlanta's average snowfall (2.3 inches) is 14 inches below the average for all cities in this report.
- Atlanta competitively tenders 10.8 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Austin

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 33

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library		16			15				25 (40)
Police		33	15	15	15				18 (43)
Transit		10	1	1		11	10		7 (38)
Weighted Overall Efficiency Rank**		18 (44)	32 (44)	24 (44)	35 (44)	39 (43)	31 (43)		

Data Availability Rating and Comments

- City documents are warehoused in the Historical Department of library. This has restricted hours, especially on the weekends. Files are not readily available, forms must be filled out, and you have to know exactly what you want or need.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Fast-growing cities tend to be less efficient—Austin grew 23.1 percent from 1990-96, 15 percent above the average for all cities in this report.
- Cities where government employees are more concentrated at the state level than at the local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than the average for all cities in this report.
- Cities with less average snowfall tend to be less efficient—Austin's average snowfall (1.1 inches) is 15 inches below the average for all cities in this report.
- Cities with higher average temperatures tend to be more efficient—Austin's average temperature of 68.6 degrees is 10 degrees above the average for all cities in this report.
- Austin competitively tenders five percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Baltimore

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 38

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	19	24	20	20	25	22	25		40 (40)
Parks		5	6			6	7		9 (15)
Police		36	35	34	34				37 (43)
Streets		8	13	13	15	13	15		16 (18)
Weighted Overall Efficiency Rank**		32 (44)	34 (44)	35 (44)	41 (44)	31 (43)	38 (43)		

Efficiency Comments

- Baltimore's relative efficiency in all services declined somewhat over the span of years examined in this report.

Data Availability Rating and Comments

- Not all services have available data or send annual reports.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Baltimore grew 3.9 percent from 1990-96, five percent below the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Boston

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 34

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		7	9	7	12	5			12 (20)
Library							11		13 (40)
Police		25	21	18	18				21 (43)
Transit		1	10	1	1	1	1		3 (38)
Weighted Overall Efficiency Rank**		26 (44)	31 (44)	36 (44)	39 (44)	32 (43)	16 (43)		

Efficiency Comments

- Boston consistently has a very efficient transit system (1994 is probably a data anomaly).
- Efficiency in police services improved over the span of years for which we had data.

Data Availability Rating and Comments

- Boston was not very helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Boston grew 1.1 percent from 1990-96, 7.7 percent below the average for all cities in this report.
- Cities in states with higher per-capita state and local tax revenue tend to be less efficient—in Massachusetts, per-capita state and local tax revenue is $2,841, which is $516 higher than average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Boston's average snowfall (42.4 inches) is 20 inches above the average for all cities in this report.
- Boston competitively tenders 8.3 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Buffalo

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 39

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*,[27]
Library		21	18						28 (40)
Police		5		6	6				5 (43)
Transit		37	37	38	37	38	38		38 (38)
Weighted Overall Efficiency Rank**		20 (44)	33 (44)	25 (44)	33 (44)	42 (43)	42 (43)		

Efficiency Comments

- Police services are Buffalo's most efficient agency—staying in the top 10 in the years for which we had data.

Data Availability Rating and Comments

- Buffalo was not very helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Buffalo shrank by 1.2 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities in states with higher per-capita state and local tax revenue tend to be less efficient—in New York, per-capita state and local tax revenue is $3,858, which is $1,533 higher than the city average in this report.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in New York about seven percent more of state and local employees work in local government than the average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Buffalo's average snowfall (91.9 inches) is more than 75 inches above the average for all cities in this report.
- Cities with lower average temperatures tend to be less efficient—Buffalo's average temperature of 47.7 degrees is nearly 11 degrees below the average for all cities in this report.

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[27] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Charlotte

Annual Efficiency Ranks for Each Service

Outstanding City at Providing Data and Information to Citizens

Overall Efficiency Rank: 27

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*, [28]
Fire		4		8	4	3			11 (20)
Library					10	12			18 (40)
Police		18	18	17	22				22 (43)
Streets		7	12	11	13	11	10		14 (18)
Transit		1	32	37	32	29	36		29 (38)
Water			4	5	7	6			8 (8)
Weighted Overall Efficiency Rank**		13 (44)	36 (44)	34 (44)	17 (44)	18 (43)	26 (43)		

Data Availability Rating and Comments

- Charlotte was one of the better cities at providing data—city budgets are intelligible, there is some use of performance measures, and staff were helpful in finding information.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Charlotte grew by 13.7 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in North Carolina, per-capita state and local tax revenue is $2,113, which is $212 lower than the average city.
- Cities with lower average snowfall tend to be less efficient—Charlotte's average snowfall (7 inches) is nearly 10 inches less than the average for all cities in this report.
- Charlotte is well known for competitively contracting for many services, often allowing city departments to compete against private firms. For example, Charlotte competitively tenders 4.5 percent of its transit system and contracts for some street repair.

[28] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Cincinnati

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 30

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*,[29]
Library			24	1					30 (40)
Police		7	5	5	7				6 (43)
Transit		28	26	22	21	16	23		24 (38)
Weighted Overall Efficiency Rank**		29 (44)	23 (44)	6 (44)	29 (44)	41 (43)	39 (43)		

Efficiency Comments

- The dramatic change in scores between 1994 and 1995 for library services reflects a 40 percent decrease in the libraries' budget (from $21,193,175 to $12,829,919). Since there was no such large decrease in outputs, the higher number in 1994 may have been for capital expenditures.
- Cincinnati's transit system has improved over the years, but not consistently.

Data Availability Rating and Comments

- Cincinnati was not helpful in providing data.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Slow-growing cities tend to be more efficient—Cincinnati grew by 4.7 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Ohio about five percent more of state and local employees work local government than average for all cities in this report.

[29] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Cleveland

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 29

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*,[30]
Fire		3	6	11	7	7			14 (20)
Library	23	23	23	1	19	27			35 (40)
Parks			9	8	9	10			11 (15)
Police		11	12	13	13				13 (43)
Transit		24	34	23	30	33	18		28 (38)
Weighted Overall Efficiency Rank**		8 (44)	25 (44)	31 (44)	23 (44)	27 (43)	36 (43)		

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Cleveland grew by 1.4 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Ohio about five percent more of state and local employees work in local government than average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Cleveland's average snowfall (56.2 inches) is 39.5 inches more than the average for all cities in this report.
- Cities with lower average temperatures tend to be less efficient—Cleveland's average temperature of 49.6 degrees is nine degrees below the average for all cities in this report.
- Cleveland competitively tenders less than one percent of its transit services.

[30] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Columbus

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 20

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*, [31]
Fire		5		9	9	1			13 (20)
Fleet		3	5						5 (8)
Library			1	1	1	1	1		1 (40)
Police		26	24		30				27 (43)
Solid waste						2			4 (10)
Transit		31	33	27	27	25	29		31 (38)
Weighted Overall Efficiency Rank**		12 (44)	10 (44)	39 (44)	20 (44)	6 (43)	20 (43)		

Efficiency Comments

- Columbus has a very efficient library system.
- Solid waste services scored very well for the one year data were available.

Data Availability Rating and Comments

- Columbus was minimally helpful in providing data, but uses some performance measures in its budget.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Ohio about five percent more of state and local employees work in local government than average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Columbus's average snowfall (29 inches) is more than 11 inches above the average for all cities in this report.
- Columbus's solid waste department does not operate a landfill; rather, the city disposes of waste in private landfills.

[31] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Dallas

Annual Efficiency Ranks for Each Service

Outstanding City at Providing Data and Information to Citizens

Overall Efficiency Rank: 7

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*,[32]
Buildings			1		1	2	2	2	2 (5)
EMS			2	1	1	1	2	2	2 (7)
Fire		11	8	13	13	11			18 (20)
Library	16	20	19	17	18	26	18		32 (40)
Parks					5	5	5	3	5 (15)
Police		40	36	35	36				39 (43)
Streets			3	5	5	4	4	1	4 (18)
Transit		14	12	13	33	30	16		17 (38)
Water				1	2	1	1		2 (8)
Weighted Overall Efficiency Rank**		37 (44)	4 (44)	23 (44)	3 (44)	2 (43)	2 (43)		

Efficiency Comments

- Dallas scores very well in five of nine services, making it one of the nation's most efficient large cities.
- Fire department, police department, and libraries are Dallas' least efficient departments.

Data Availability Rating and Comments

- One of the best cities in the nation at providing data for our research. City budgets are intelligible, with substantial use of performance measures, and city staff were helpful in providing data.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Fast-growing cities tend to be less efficient—Dallas grew by 13.9 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.

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[32] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Dallas's average snowfall (3.1 inches) is more than 13 inches less than the average for all cities in this report.
- Cities with lower average temperatures tend to be less efficient—Cleveland's average temperature of 49.6 degrees is nine degrees below the average for all cities in this report.
- Dallas contracts for some street repair and building maintenance; some EMS services are privately provided; the parks department outsources some mowing and maintenance work, and relies heavily on volunteers—over 210,000 volunteer hours in 1998.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Denver

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 18

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*,[33]
Fire		1	10	4	1	1			5 (20)
Library		26							37 (40)
Police		13	7	9	10				10 (43)
Transit		11	1	1	1	1	9		5 (38)
Weighted Overall Efficiency Rank**		5 (44)	29 (44)	26 (44)	10 (44)	14 (43)	30 (43)		

Efficiency Comments

- Denver's transit system tended to be one of the most efficient among the cities examined.

Data Availability Rating and Comments

- Denver was not very helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Denver grew by 15 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities with higher average snowfall tend to be more efficient—Denver's average snowfall (61.6 inches) is almost 45 inches more than the average for all cities in this report.
- Cities with lower average temperatures tend to be less efficient—Denver's average temperature of 50.3 degrees is eight degrees below the average for all cities in this report.
- Denver competitively tenders nearly 25 percent of its transit services.

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[33] This is the city's average rank when all years and all cities data are aggregated.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Detroit

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

40

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire			11	14					20 (20)
Police			39	38	39				38 (43)
Streets			6	3	3			1	3 (18)
Transit		13	9	16	14	12	11		13 (38)
Water			1	3	4		5		5 (8)
Weighted Overall Efficiency Rank**		41 (44)	27 (44)	41 (44)	28 (44)	40 (43)	32 (43)		

Efficiency Comments

- Detroit's transit and street maintenance departments tended to improve their efficiency, while the water department efficiency fell.

Data Availability Rating and Comments

- Detroit was not very helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Detroit grew by 1.2 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities with higher average snowfall tend to be more efficient—Detroit's average snowfall (41.8 inches) is more than 25 inches more than the average for all cities in this report.
- Cities with lower average temperatures tend to be less efficient—Detroit's average temperature of 48.6 degrees is 10 degrees below the average for all cities in this report.
- Detroit competitively tenders 1.2 percent of its transit system, and is privatizing one of its five water treatment plants.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

El Paso

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

2

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Buildings		1	2	2	2	4	4		4 (5)
EMS			5	5	5	5	5		6 (7)
Fire				1					1 (20)
Fleet		5	7	6	4				8 (8)
Library	15	11	1		16	18			23 (40)
Parks		6	7	5	8	9	10		10 (15)
Police		16	14		17				17 (43)
Streets		1	1	1	1	1	1		1 (18)
Transit		34	15	26	17	21	26		25 (38)
Water					5	4			6 (8)
Weighted Overall Efficiency Rank**		2 (44)	2 (44)	2 (44)	2 (44)	3 (43)	6 (43)		

Efficiency Comments

- El Paso sustained an excellent overall efficiency rank for many years; falling off, or being overtaken by just a few cities, in 1997 and 1998.
- The services where declining relative efficiency are most apparent are building maintenance and parks.

Data Availability Rating and Comments

- El Paso publishes useful documents that made data available for comparison, but city staff were not helpful with follow-up data requests.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Faster growing cities tend to be less efficient—El Paso grew by 15.7 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than average for all cities in this report.
- El Paso outsources some park services, notably mowing, and relies heavily on volunteers in its park programs. The city water department for several years has run an efficiency improvement program and claims it is now competitive with private services, and has brought some outsourced functions back in-house. Still, the city is considering privatizing a new water treatment plant.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Fort Worth

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 25

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fleet		4	3	3	1	1	1	1	3 (8)
Police		19	16	14	14				15 (43)
Solid waste			5	7	6				10 (10)
Transit		22		1	1	1	8		10 (38)
Weighted Overall Efficiency Rank**		23 (44)	40 (44)	22 (44)	30 (44)	13 (43)	15 (43)		

Efficiency Comments

- The relative efficiency of the fleet maintenance department, and to a lesser extent the police department, increased over the years examined.

Data Availability Rating and Comments

- While city hall was very responsive to our requests, the departments themselves were not, so little data ultimately was available. The city budgets attempt to use performance measures, but have not progressed very far.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Fort Worth's average snowfall (3.1 inches) is more than 13 inches less than the average for all cities in this report.
- Eighty percent of Fort Worth's residential solid waste collection is contracted to private haulers.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Fresno

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 14

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Parks							13		14 (15)
Police		6	8	8	9				8 (43)
Streets		1	1	1	1	1	1		1 (18)
Transit		35	24	31	26	28	30		32 (38)
Weighted Overall Efficiency Rank**		11 (44)	13 (44)	11 (44)	12 (44)	22 (43)	40 (43)		

Efficiency Comments

- Fresno's street maintenance department joined El Paso's in being the most efficient of those we examined for all the years data were available.
- Police services, though in the top 10 in efficiency, declined over the period examined.

Data Availability Rating and Comments

- Fresno was not helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Fresno grew by 14.1 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Fresno's average snowfall (0.1 inches) is more than 16 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Houston

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 36

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	12	1		1	1	14	1		15 (40)
Police			40	39	40				42 (43)
Transit		1	8	10	12	20	21		12 (38)
Weighted Overall Efficiency Rank**		15 (44)	41 (44)	28 (44)	38 (44)	25 (43)	17 (43)		

Efficiency Comments

- The relative efficiency of the city's transit system declined sharply in the period examined.

Data Availability Rating and Comments

- Though city staff were very helpful, we consistently found that departments simply do not generate and maintain even basic data on which to judge efficiency. The city budget makes a poor attempt to incorporate performance measures.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Indianapolis

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

9

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	1	1	11	11	9	9	1		10 (40)
Police			10	12	12				11 (43)
Transit		21	21	1	1	1	1		11 (38)
Weighted Overall Efficiency Rank**		10 (44)	15 (44)	8 (44)	15 (44)	15 (43)	14 (43)		

Data Availability Rating and Comments

- Indianapolis did not make data available.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities with higher average snowfall tend to be more efficient—Indianapolis's average snowfall (27.4 inches) is more than 10 inches more than the average for all cities in this report.
- Indianapolis is renowned for the extent of its program of competition of municipal services. Of the services listed, Indianapolis competitively contracts 21.5 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Jacksonville

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 17

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire			4		1	6			4 (20)
Library	22	22	15	12	12	16			26 (40)
Police		30	31	28	28				31 (43)
Transit		30	31	19	11	14	13		19 (38)
Weighted Overall Efficiency Rank**		30 (44)	11 (44)	16 (44)	8 (44)	20 (43)	34 (43)		

Efficiency Comments

- The relative efficiency of Jacksonville's transit and library services improved in the period examined.

Data Availability Rating and Comments

- Jacksonville was not helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Jacksonville grew by 11.2 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Florida about six percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Jacksonville's average snowfall (none) is more than 16 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Kansas City

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 12

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Buildings		2	3	3					5 (5)
EMS			1						1 (7)
Parks		4	5	3	6	7	9		7 (15)
Streets		4	7	7	7	6	5		7 (18)
Transit		26	20	24	16	22	17		21 (38)
Weighted Overall Efficiency Rank**		14 (44)	8 44)	12 (44)	26 (44)	19 (43)	21 (43)		

Data Availability Rating and Comments

- Kansas City was moderately helpful in providing data. Their budget is exceptionally good and intelligible to users, and incorporates useful performance measures.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Kansas City competitively tenders 5.5 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Long Beach

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 21

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fleet			6	5	5	6			7 (8)
Library			17		1	1			17 (40)
Parks			10	7		11	12	5	13 (15)
Police		9	6	7	5				7 (43)
Solid waste			2	2		3	4	1	5 (10)
Streets			14	15		14			18 (18)
Transit		27	25	36	29	34	33	27	33 (38)
Weighted Overall Efficiency Rank**		36 (44)	18 (44)	17 (44)	5 (44)	12 (43)	41 (43)		

Efficiency Comments

- Police service efficiency improved over the period for which we have data, while the transit system's generally fell.

Data Availability Rating and Comments

- Long Beach was generally helpful in providing data. Staff in most departments were very helpful, with the exception of the fire department.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about 8 percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Long Beach's average snowfall (none) is more than 16 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Los Angeles

Annual Efficiency Ranks for Each Service

Bottom of the Barrel: Worst Overall

44

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		13							19 (20)
Library		1				11	1		8 (40)
Police		41	41	40	41				43 (43)
Weighted Overall Efficiency Rank**		43 (44)	44 (44)	44 (44)	44 (44)	38 (43)	29 (43)		

Data Availability Rating and Comments

- Los Angeles was not at all helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Los Angeles grew by three percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Los Angeles's average snowfall (none) is more than 16 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Memphis

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

4

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		12	7	12	11	9			17 (20)
Fleet		1	1	1		3			2 (8)
Library	13	14							24 (40)
Parks		3	3	2	4	4	6	2	6 (15)
Police		27	26	30	33				32 (43)
Solid waste			3	5	4	6	8	4	8 (10)
Streets		3	5	4	4	3	1	1	5 (18)
Transit		29	18	29	22	24	27		27 (38)
Weighted Overall Efficiency Rank**		3 (44)	1 (44)	20 (44)	13 (44)	4 (43)	11 (43)		

Data Availability Rating and Comments

- Memphis keeps good data, but it is not centrally located, so it takes legwork to get information. The city budget is clear and intelligible, and internal annual reports track city performance data well.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in Tennessee, per-capita state and local tax revenue is $1,765, which is $560 lower than average for all cities in this report.
- Memphis's public works department outsources 80 percent of street-paving and 50 percent of right-of-way work. The city also contracts out solid-waste collection at a small percentage of municipal residences and disposes of solid waste in private and other governments' landfills. The parks department uses almost as many volunteer hours per year as paid staff hours.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Miami

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 32

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	14		1	15		19			20 (40)
Police		32	30	25	20				28 (43)
Transit		12	23	17	19	18	12		16 (38)
Weighted Overall Efficiency Rank**		42 (44)	26 (44)	15 (44)	37 (44)	26 (43)	33 (43)		

Efficiency Comments

- The relative efficiency of Miami's police and transit system improved over the years examined.

Data Availability Rating and Comments

- Miami was not at all helpful in providing data, and city budgets are overly complex and difficult to interpret.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Florida about 6 percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Miami's average snowfall (none) is more than 16 inches less than the average for all cities in this report.
- Cities with higher average temperature tend to be more efficient—Miami's average temperature (75.9 degrees) is more than 17 degrees above the average for all cities in this report.
- Miami competitively tenders 3.8 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Milwaukee

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 13

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library		15	1	1	14	21	16		21 (40)
Police		20	19	19	19				20 (43)
Transit		1	28	21	24	23	20		20 (38)
Water							1		1 (8)
Weighted Overall Efficiency Rank**		16 (44)	21 (44)	14 (44)	24 (44)	29 (43)	22 (43)		

Data Availability Rating and Comments

- Milwaukee was not helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Milwaukee grew by 1.8 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities in states with higher per-capita state and local tax revenue tend to be less efficient—in Wisconsin, per-capita state and local tax revenue is $2,702, which is $377 higher than average for all cities in this report.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Wisconsin about six percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Milwaukee's average snowfall (50.1 inches) is more than 33 inches more than the average for all cities in this report.
- Cities with lower average temperature tend to be less efficient—Milwaukee's average temperature (46.1degrees) is more than 12 degrees below the average for all cities in this report.
- Milwaukee competitively tenders 2.4 percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Nashville

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

5

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
EMS			3	3	3	3	3	3	4 (21)
Fleet		1	1	1	1	1	2	2	1 (8)
Library		17			20	17	12		27 (40)
Police		24	20	24	27				25 (43)
Solid waste			4	6	4	7	7	5	9 (10)
Streets		5	10	10	11	9	14	6	13 (18)
Transit		19	19	34	28	36	32		30 (38)
Weighted Overall Efficiency Rank**		4 (44)	12 (44)	10 (44)	7 (44)	10 (43)	8 (43)		

Efficiency Comments

- Nashville had the most efficient fleet operation for years, barely falling to second place in the last two years examined.
- Nashville also sustained a very high level of efficiency in EMS operations.

Data Availability Rating and Comments

- Nashville did not make it easy to get data. The city relies on the library to store budget documents, but that collection is incomplete and difficult to access. Some budgets can be viewed at city government agencies, but not at city hall.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in Tennessee, per-capita state and local tax revenue is $1,765, which is $560 lower than average for all cities in this report.
- Nashville does not own and operate its own landfill, but rather disposes of solid waste in private and other governments' landfills.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

New Orleans

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 23

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
EMS			6						7 (21)
Fire		8		10	8				16 (20)
Library					13	1	17		22 (40)
Police		23	17	20	21				23 (43)
Streets		6	11	12	14	10	13		15 (18)
Transit		38	36	30	36	35	31		37 (38)
Weighted Overall Efficiency Rank**		24 (44)	20 (44)	37 (44)	16 (44)	24 (43)	18 (43)		

Data Availability Rating and Comments

- Data was difficult to obtain in New Orleans. The city manager's office refused to allow access to budgets, referring us to the library.
- EMS reported data for one year; requests for other data was denied.
- The fire department used to provide an excellent annual report, which were discontinued after budget cuts—cuts and new data were not made available.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—New Orleans grew by 2.1 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities with lower per-capita state and local tax revenue tend to be more efficient—in Louisiana, per-capita state and local tax revenue is $1,723, which is $602 lower than average for all cities in this report.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Louisiana about five percent more of state and local employees work for state government than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—New Orleans's average snowfall (0.1 inches) is nearly 17 inches less than the average for all cities in this report.
- Cities with higher average temperature tend to be more efficient—New Orleans's average temperature (68.1 degrees) is nearly 10 degrees above the average for all cities in this report.
- New Orleans outsources 80 percent of its street maintenance work.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Oakland

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 43

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	18	19			17	25	19		31 (40)
Parks				9	11	13		6	15 (15)
Police		15	13						14 (43)
Weighted Overall Efficiency Rank**		39 (44)	42 (44)	43 (44)	43 (44)	43 (43)	43 (43)		

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Oakland's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Oklahoma City

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

15

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		6	1	5	6	8			9 (20)
Library	1	1	1			1	1		1 (40)
Police		21	23	21	23				24 (43)
Transit		1	11	14	13	15	25		14 (38)
Weighted Overall Efficiency Rank**		9 (44)	7 (44)	32 (44)	31 (44)	17 (43)	19 (43)		

Efficiency Comments

- The efficiency of Oklahoma City's transit system declined steadily relative to other cities examined.

Data Availability Rating and Comments

- Oklahoma City was not helpful in providing data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in Oklahoma, per-capita state and local tax revenue is $1,852, which is $473 lower than average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Philadelphia

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 35

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	20	25	12	16	11		23		29 (40)
Police		39	37	36	37				40 (43)
Transit		9	14	12	9	10	15		9 (38)
Weighted Overall Efficiency Rank**		38 (44)	35 (44)	27 (44)	36 (44)	36 (43)	27 (43)		

Efficiency Comments

- The relative efficiency of Philadelphia's library system improved over the years for which we have data.

Data Availability Rating and Comments

- Philadelphia city departments were not responsive to our requests for data. The city's budgets were perhaps the most impenetrable of any city we examined, difficult to decipher even for those experienced with city budgets.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Philadelphia grew by 0.6 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Philadelphia competitively tenders one percent of transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Phoenix

Annual Efficiency Ranks for Each Service

Outstanding City at Providing Data and Information to Citizens

Overall Efficiency Rank:

1

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Buildings				1	3	3	3	3	3 (5)
Fire		9							10 (20)
Fleet			4	4	3	4	3	3	4 (8)
Library	1	1	1	1	1	1	1		1 (40)
Parks			1	1	1	1	1	1	1 (15)
Police		37	38	37	38				41 (43)
Streets		4	6	6	5	6	5		6 (18)
Transit		36	22	20	23	17	19		26 (38)
Water			2	2	3	3	4		6 (8)
Weighted Overall Efficiency Rank**		25 (44)	3 (44)	1 (44)	1 (44)	1 (43)	1 (43)		

Efficiency Comments

- Phoenix surged to first place in the years we examined. Our data does not go back far enough to show when the climb started, but Phoenix went from 25th in 1993 to 1st in 1995!
- Phoenix was consistently tied with Albuquerque for the most efficient parks departments and with several cities for the most efficient library system.

Data Availability Rating and Comments

- Phoenix was the best city we examined for providing data and producing understandable and useful reports to citizens.
- Phoenix keeps excellent data, useful performance measures, and produces a citizens' budget that is second to none. The citizens' budget relays the bottom line to the consumer; giving raw data and comparing themselves against other metropolitan areas.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Fast-growing cities tend to be less efficient—Phoenix grew by 22.7 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are less concentrated at the state level than at local level tend to be more efficient—in Arizona about four percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Phoenix's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.
- Cities with higher average temperature tend to be more efficient—Phoenix's average temperature (72.6 degrees) is 14 degrees above the average for all cities in this report.
- Phoenix is internationally renowned for its service competition program, wherein many city departments have competed against private firms for contracts to provide services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Pittsburgh

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 22

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library		28	22	19	23	28	21		39 (40)
Police		3	1	1	1				2 (43)
Transit		33	35	33	35	37	34		36 (38)
Weighted Overall Efficiency Rank**		19 (44)	17 (44)	13 (44)	21 (44)	37 (43)	28 (43)		

Data Availability Rating and Comments

- None of Pittsburgh's city departments responded to our requests for data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Pittsburgh shrank by one percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities with higher average snowfall tend to be more efficient—Pittsburgh's average snowfall (43.5 inches) is nearly 27 inches more than the average for all cities in this report.
- Cities with lower average temperature tend to be less efficient—Pittsburgh's average temperature (50.3 degrees) is more than eight degrees below the average for all cities in this report.
- Pittsburgh competitively tenders two percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Sacramento

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 26

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library							1		1 (40)
Police		12	9	10	8				9 (43)
Transit		18	1	1	10	1	1		8 (38)
Weighted Overall Efficiency Rank**		33 (44)	30 (44)	21 (44)	27 (44)	34 (43)	13 (43)		

Efficiency Comments

- Sacramento's police department improved its relative efficiency during the period examined.

Data Availability Rating and Comments

- Sacramento city departments did not fulfill our requests for data.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Sacramento's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.
- Sacramento competitively tenders six percent of its transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

San Antonio

Annual Efficiency Ranks for Each Service

Outstanding City at Providing Data and Information to Citizens

Overall Efficiency Rank: 10

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
EMS			4	4	4	4	4	4	5 (7)
Fire				6	10	10			15 (20)
Library	1	1		1	7	15	13		12 (40)
Parking					3	3	3	3	3 (3)
Parks			4	4	7	8	8	4	8 (15)
Police		38	34	33	35				36 (43)
Solid waste				4	3	4	6	2	7 (10)
Streets			8	8	8	7	7	1	8 (18)
Transit		15	1	1	1	1	1		6 (38)
Water			3	4	6	5	6		7 (8)
Weighted Overall Efficiency Rank**		35 (44)	16 (44)	3 (44)	4 (44)	5 (43)	3 (43)		

Data Availability Rating and Comments

- San Antonio was one of a few cities that did a very good job of providing data and responding to our requests.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Fast-growing cities tend to be less efficient—San Antonio grew by 12.5 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the state level than at local level tend to be less efficient—in Texas about 23 percent more of state and local employees work for state government than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—San Antonio's average snowfall (0.9 inches) is nearly 16 inches less than the average for all cities in this report.
- About 20 percent of San Antonio's residential solid-waste collection is contracted to private haulers, and the city does not own and operate its own landfill, but rather disposes of solid waste in private and other government's landfills. The city also contracts for some street repair.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

San Diego

Annual Efficiency Ranks for Each Service

Outstanding City at Providing Data and Information to Citizens

Overall Efficiency Rank: 6

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire			1						1 (20)
Library	1	1	1	1	1	1	1		1 (40)
Parks		1			3		1		3 (15)
Police		35	33	29	29				35 (43)
Solid waste							3		3 (10)
Streets					9		11		10 (18)
Weighted Overall Efficiency Rank**		27 (44)	28 (44)	30 (44)	14 (44)	33 (43)	4 (43)		

Efficiency Comments

- San Diego's library system was consistently one of the most efficient examined, and the city police department improved its relative ranking during the years for which we have data.

Data Availability Rating and Comments

- Many years of data were not available, and city departments were not very helpful. The city budget is published in many volumes, making it very difficult to ferret out specific information.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Sacramento's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.
- San Diego contracts for some parks landscaping and maintenance, some street repair, and for management and operation of the city jail.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

San Francisco

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

24

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire				3	1				7 (20)
Library	1					13	15		16 (40)
Police		34	27	27	25				30 (43)
Water					1	2	3		3 (8)
Weighted Overall Efficiency Rank**		44 (44)	43 (44)	40 (44)	22 (44)	23 (43)	35 (43)		

Efficiency Comments

- San Francisco's police department's relative efficiency improved over the years for which we have data, while that of the water department fell.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—San Francisco grew by 3.2 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about eight percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Sacramento's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.
- The city's water distribution system is entirely privatized.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

San José

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 41

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire			1	2	5				6 (20)
Library	1		13						9 (40)
Police		10	11	11	11				12 (43)
Streets			9	9	10	8	8		12 (18)
Transit		16	29	18	20	27	28		22 (38)
Weighted Overall Efficiency Rank**		31 (44)	5 (44)	19 (44)	18 (44)	35 (43)	24 (43)		

Efficiency Comments

- San José's fire department and transit system declined in their relative efficiency ranks during the years for which we have data.

Data Availability Rating and Comments

- San José was not particularly helpful in providing data. The city budgets do incorporate a fair number of performance measures, but more internally driven than they are related to citizen concerns.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in California about 8 percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—San José's average snowfall (none) is nearly 17 inches less than the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Seattle

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

42

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		1							1 (20)
Library	21	27	16						33 (40)
Police		28	25	23	24				26 (43)
Weighted Overall Efficiency Rank**		28 (44)	37 (44)	42 (44)	42 (44)	--	--		

Data Availability Rating and Comments

- Seattle's city departments did not respond to any of our requests for data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

St. Louis

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 19

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	17	18		18	22	24	20		34 (40)
Police		29	29	26	26				29 (43)
Solid waste			1	1	1	1	2		1 (10)
Streets			9		14	12	12	12	17 (18)
Transit		23	17	15	15	13	14		15 (38)
Weighted Overall Efficiency Rank**		22 (44)	24 (44)	9 (44)	11 (44)	11 (43)	7 (43)		

Efficiency Comments

- St. Louis's solid waste department was consistently the most efficient of the cities we examined, and the transit system's relative efficiency improved over the years for which we have data.

Data Availability Rating and Comments

- Some city departments were helpful in providing data, others were not. City hall did not have a command of where data is—at one point sending us literally to a hole in the ground, a building that had been torn down.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—St. Louis grew by 2.2 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in Missouri, per-capita state and local tax revenue is $1,864, which is $461 lower than average for all cities in this report.
- St. Louis outsources its transfer stations and landfills and all commercial solid waste collection, and also competitively tenders about five percent of transit services.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Toledo

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: **11**

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	11	13	14	13		20	14		19 (40)
Police		1	1	1	3				3 (43)
Transit		25	27	35	31	31	37		34 (38)
Weighted Overall Efficiency Rank**		7 (44)	9 (44)	7 (44)	25 (44)	28 (43)	23 (43)		

Efficiency Comments

- Toledo's police department is one of the most efficient of the cities we examined.
- The city transit system's relative efficiency declined during the years for which we have data.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Slow-growing cities tend to be more efficient—Toledo shrank by 0.4 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are more concentrated at the local level than at state level tend to be more efficient—in Ohio about five percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with higher average snowfall tend to be more efficient—Toledo's average snowfall (38 inches) is more than 20 inches more than the average for all cities in this report.
- Cities with lower average temperature tend to be less efficient—Toledo's average temperature (48.5 degrees) is more than 10 degrees below the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Tucson

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 16

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Buildings						1	1	1	1 (5)
Fleet						5	4	4	6 (8)
Library		12	1						14 (40)
Police		17	22	22	16				19 (43)
Streets								7	11 (18)
Transit		20	13	25	18	19	22		18 (38)
Weighted Overall Efficiency Rank**		17 (44)	19 (44)	29 (44)	34 (44)	9 (43)	10 (43)		

Efficiency Comments

- Tucson's building maintenance department was the most efficient of the cities for which we had data.

Data Availability Rating and Comments

- A few departments were helpful in providing data, but only for the most recent years. Older data was not provided, and other departments were not helpful.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Fast-growing cities tend to be less efficient—Phoenix grew by 15.1 percent from 1990-96, while the average for all cities in this report was 8.8 percent growth.
- Cities where government employees are less concentrated at the state level than at local level tend to be more efficient—in Arizona about four percent more of state and local employees work for local governments than average for all cities in this report.
- Cities with lower average snowfall tend to be less efficient—Tucson's average snowfall (1.3 inches) is 15 inches less than the average for all cities in this report.
- Cities with higher average temperature tend to be more efficient—Phoenix's average temperature (68.4 degrees) is nearly 10 degrees above the average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Tulsa

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

3

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Library	1	1	1	1	8	9	1		11 (40)
Parks		2	2			3	4		4 (15)
Police		4	4	4	4				4 (43)
Transit		1	1	11	1	1	1		4 (38)
Weighted Overall Efficiency Rank**		1 (44)	6 (44)	4 (44)	6 (44)	7 (43)	9 (43)		

Data Availability Rating and Comments

- Tulsa's city departments were not helpful in providing data, nor was its budget very informative.

Some Factors Behind the Rankings

- Cities without city managers tend to be significantly less efficient than those with city managers.
- Cities in states with lower per-capita state and local tax revenue tend to be more efficient—in Oklahoma, per-capita state and local tax revenue is $1,852, which is $473 lower than average for all cities in this report.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Virginia Beach

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank:

8

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
EMS				2	2	2	1	1	3 (7)
Library	1	1	1	1	1	1	1		1 (40)
Parks			8	6	10	12	11		12 (15)
Parking					1	1	1	1	1 (3)
Police		1	1	1	1				1 (43)
Solid waste			6	3	2	5	5	3	6 (10)
Streets							9		9 (18)
Transit		32	30	32	34	32	35		35 (38)
Weighted Overall Efficiency Rank**		6 (44)	22 (44)	5 (44)	9 (44)	16 (43)	12 (43)		

Efficiency Comments

- Virginia Beach's parks and transit departments declined in relative efficiency over the years for which we have data.

Data Availability Rating and Comments

- A few departments were very helpful in providing data, while others were not. City hall and the budget department were distinctly unhelpful, with City Hall at one point sending us to a water tower when we sought the water department. The budget department resisted repeated attempts to get copies of budgets.

Some Factors Behind the Rankings

- Cities with city managers tend to be significantly more efficient than those without.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Washington, DC

Annual Efficiency Ranks for Each Service

Overall Efficiency Rank: 28

	1992	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Fire		10	5		14	4			8 (20)
Library	24	1	21	14	24	10	24		36 (40)
Police		31	28	31	31				33 (43)
Transit		1	1	1	1	1	1		1 (38)
Weighted Overall Efficiency Rank**		21 (44)	14 (44)	18 (44)	40 (44)	8 (43)	37 (43)		

Efficiency Comments

- The District's transit system was consistently one of the most efficient of the cities we examined.

Data Availability Rating and Comments

- Several sudden jumps in ranks from year to year indicate inconsistent data keeping.
- City budgets included performance measures, but they were bad example, failing to measure those things that matter.
- City hall staff were not helpful and very little data was provided, with many false leads provided by staff.

A Factor Behind the Rankings

1. Cities without city managers tend to be significantly less efficient than those with city managers.

NOTES: * This is not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. Because it uses all years, and in some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores. ** Also not the average of the annual scores for this city. This ranking reflects the average calculated with weighting that gives the most influence to the services for which there is the most data. So cities with better scores in those services where we have data from most cities, will tend to score better here.

Part 5

Results and Rankings by Service

Service	Top Performers	Page
Building Maintenance	Tucson	65
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Police	Virginia Beach	72
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Transit	Atlanta, Washington DC	76
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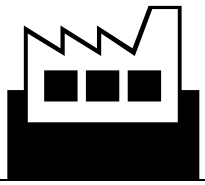
Building Management



Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Dallas		1		1	2	2	2	2
El Paso	1	2	2	2	4	4		4
Kansas City	2	3	3					5
Phoenix			1	3	3	3	3	3
Tucson					1	1	1	1

Inputs used:

1) Number of full time equivalent staff; and
2) Buildings budget ($).

Output used:

1) The number of square feet of city building space available.

We assume that building departments use staff and money to maintain and manage buildings owned by the city. The budget variable serves as a proxy for other capital inputs.

Analysis

We computed both variable returns to scale (VRS, meaning that efficiency changes with size) and constant returns to scale (CRS, meaning efficiency is independent of size) efficiency scores. Given that two cities in the sample (Dallas and Phoenix) have much more building space available than others in the sample, the VRS scores will be discussed here. Note that the sample is constrained in that the same cities (with minor exceptions) are scored in each year so there is little chance to see variation in the comparison set.

Among smaller cities, Tucson consistently ranks among the best performing cities in the sample. Kansas City and El Paso perform very poorly when they show up in the sample. The Arizona cities (Tucson and Phoenix) perform very well.

Output Measures We Would Like to See

2. Square footage maintained; and
3. Number of buildings.

Performance Measures We Would Like to See

- Response time for emergency repair;
- Average days to institute routine repairs; and
- Percentage of preventive maintenance completed.[34]

[34] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Emergency Medical Services

Annual Efficiency Ranks for Each City

	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Dallas	2	1	1	1	2	2	2
El Paso	5	5	5	5	5		6
Kansas City	1						1
Nashville	3	3	3	3	3	3	4
New Orleans	6						7
San Antonio	4	4	4	4	4	4	5
Virginia Beach		2	2	2	1	1	3

Inputs Used:

1) Number of employees as full-time equivalents; and
2) Total city budget for EMS operations ($).

Outputs Used:

1) The inverse of reported response time for medical services, measured in minutes (using decimal fractions).

We have assumed that EMS production uses assets (labor and operational budget) to produce faster response time for emergency services. The budget variable serves as a proxy for other capital inputs. Since no literature finds increasing returns to scale in EMS, we assume that EMS operations experience variable returns to scale.

Analysis:

Given that Kansas City provided only one year's data, a more realistic look at the data shows Dallas performing overall best, closely followed by Virginia Beach. Likewise with New Orleans's one year of data; El Paso comes out consistently least efficient.

Output Measures We Would Like to See

- Number of calls responded to.

Performance Measures We Would Like to See

- Response time;
- Education programs/participants; and
- Resuscitation success rate.[35]

[35] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Fire Protection

Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	Average over all years and cities
Boston	7	9	7	12	5	12
Charlotte	4		8	4	3	11
Cleveland	3	6	11	7	7	14
Columbus	5		9	9	1	13
Dallas	11	8	13	13	11	18
Denver	1	10	4	1	1	5
Detroit		11	14			20
El Paso			1			1
Jacksonville		4		1	6	4
Los Angeles	13					19
Memphis	12	7	12	11	9	17
New Orleans	8		10	8		16
Oklahoma City	6	1	5	6	8	9
Phoenix	9					10
San Antonio			6	10	10	15
San Diego		1				1
San Francisco			3	1		7
San José		1	2	5		6
Seattle	1					1
Washington DC	10	5		14	4	8

Inputs Used:

1) Budget (in millions$); and 2) Number of staff.

Outputs Used:

1) Number of civilian deaths; and 2) Total fire losses (in $ millions).

We assume that fire departments use money and staff (and equipment) to prevent deaths and property damage from fires. Since no literature finds increasing returns to scale in fire protection, we assume that fire protection operations experience variable returns to scale.

Analysis:

Given that El Paso, San Diego, and Seattle provided only one year's data, a more realistic look at the data shows San José performing overall best, closely followed by Jacksonville. As with Detroit's one year of data, Dallas in reality comes out consistently least efficient.

Output Measures We Would Like to See

- Number of calls responded to.

Performance Measures We Would Like to See

- Average response time;
- Ratio of fire loss to potential fire loss;
- Number of inspections;
- Education programs/participants; and
- Community assistance.[36]

[36] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Fleet Management

Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Columbus	3	5						5
El Paso	5	7	6	4				8
Fort Worth	4	3	3	1	1	1	1	3
Long Beach		6	5	5	6			7
Memphis	1	1	1		3			2
Nashville	1	1	1	1	1	2	2	1
Phoenix		4	4	3	4	3	3	4
Tucson					5	4	4	6

Inputs used:

1) Number of full-time equivalent staff; and
2) Fleet budget ($) as a proxy for all other inputs

Output used:

1) The number of vehicles in the fleet.

We assume that fleet departments use staff and money to maintain and manage the city vehicle fleet. With little guidance on the issue of returns to scale in fleet services, we computed both VRS and CRS efficiency scores. The similarities between both sets of scores indicate to us that these services operate at (roughly) constant returns to scale.

The City of Long Beach was included in the sample, but their vehicle count data were suspect. Since Long Beach doesn't strongly influence the efficient frontier, it was left in the study. In addition, there were reliability figures available for the fleet data, but these were very sparse, so they were excluded.

Analysis

We can see that Nashville scores efficiently in early years, and Fort Worth is most efficient in the latter part of the sample. In addition, several cities rank efficiently at different times throughout the sample (including Fort Worth), unlike many other portions of this study where only a small number of city services dominate a sample. This gives us confidence that for a small data set, results are not being driven by a single city. Among worst performers, when they are part of the sample, the cities of Phoenix and El Paso rank among the worst fleet services.

Output Measures We Would Like to See

- Breakdowns of vehicle types and maintenance needs; and
- Average miles and/or hours of use per vehicle.

Performance Measures We Would Like to See

- Daily functionality (percentage);
- Actual per unit cost for various services, such as oil change and transmission change;
- Average monthly backlog;
- Major/minor repairs completed on schedule; and
- Percentage of preventive maintenance completed. [37]

[37] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Libraries

Annual Efficiency Ranks for Each City

	1992	1993	1994	1995	1996	1997	1998	Average over all years and cities*
Albuquerque	1							1
Atlanta					21	23	22	38
Austin		16			15			25
Baltimore	19	24	20	20	25	22	25	40
Boston							11	13
Buffalo		21	18					28
Charlotte					10	12		18
Cincinnati			24	1				30
Cleveland	23	23	23	1	19	27		35
Columbus			1	1	1	1	1	1
Dallas	16	20	19	17	18	26	18	32
Denver		26						37
El Paso	15	11	1		16	18		23
Houston	12	1		1	1	14	1	15
Indianapolis	1	1	11	11	9	9	1	10
Jacksonville	22	22	15	12	12	16		26
Long Beach			17		1	1		17
Los Angeles		1				11	1	8
Memphis	13	14						24
Miami	14		1	15		19		20
Milwaukee		15	1	1	14	21	16	21
Nashville		17			20	17	12	27
New Orleans					13	1	17	22
Oakland	18	19			17	25	19	31
Oklahoma City	1	1	1			1	1	1
Philadelphia	20	25	12	16	11		23	29
Phoenix 🎖	1	1	1	1	1	1	1	1
Pittsburgh		28	22	19	23	28	21	39
Sacramento							1	1
San Antonio	1	1		1	7	15	13	12
San Diego 🎖	1	1	1	1	1	1	1	1
San Francisco	1					13	15	16
San José	1		13					9
Seattle	21	27	16					33
St Louis	17	18		18	22	24	20	34
Toledo	11	13	14	13		20	14	19
Tucson		12	1					14
Tulsa	1	1	1	1	8	9	1	11
Virginia Beach 🎖	1	1	1	1	1	1	1	1
Washington DC	24	1	21	14	24	10	24	36

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Inputs used:

1) Number of library branches;
2) Operating expenditures per capita;
3) Number of librarians;
4) Number of other staff; and
5) Book holdings.

Outputs used:

1) Number of library registrations;
2) Total number of visits; and
3) Collection turnover ratio.

We have assumed that library production uses capital assets (buildings and books) and labor (librarian and staff) to produce service. Frequently, library service is only indirectly consumed (registrations, visits), but we believe that the public still derives a benefit from the potential for actual consumption. And at other times, the service is directly consumed (turnover ratio); library output is thus a combination of services offered and services consumed.

On the input side, all inputs represent physical quantities of production except for input #2, operating expenditures per capita. This was included to ensure that a given library would be penalized on the efficiency measure if it spent too much on its set of inputs. All other inputs are readily identifiable factors of library production.

The scores we interpret assume that all libraries operate at constant returns to scale. This is a reasonable assumption given the size of the cities and that library provision appears to be a decreasing cost activity.

Analysis

Several patterns can be observed in the library efficiency scores. Three libraries are ranked as most efficient in every year of the sample (Phoenix, San Diego, Virginia Beach), while several changed scores dramatically, going from most efficient to very inefficient (Milwaukee, District of Columbia). Some flirted with efficiency over the entire sample (Indianapolis), and others were consistently ranked poorly (Baltimore, Philadelphia, Oakland).

Performance Measures We Would Like to See

- Amount of fines billed/collected;
- Programs offered/attendance. [38]

[38] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Parks and Recreation

Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	1998	1999	Average over all years & cities*
Albuquerque				1	1	1		1
Baltimore	5	6			6	7		9
Cleveland		9	8	9	10			11
Dallas				5	5	5	3	5
El Paso	6	7	5	8	9	10		10
Fresno						13		14
Kansas City	4	5	3	6	7	9		7
Long Beach		10	7		11	12	5	13
Memphis	3	3	2	4	4	6	2	6
Oakland			9	11	13		6	15
Phoenix		1	1	1	1	1	1	1
San Antonio		4	4	7	8	8	4	8
San Diego	1			3		1		3
Tulsa	2	2			3	4		4
Virginia Beach		8	6	10	12	11		12

Inputs used:

1) Number of full time equivalent staff; and
2) Parks budget ($).

Output used:

1) The total number of acres of park space available .

We assume that parks departments use staff and funds to operate and maintain city parks. We computed both VRS and CRS efficiency scores. Given that some cities in the sample have much more park space available than others in the sample (i.e. San Diego and Phoenix), the VRS scores were reported and will be discussed here so that we better account for this size variation.

Data and Results

Among smaller cities, Albuquerque ranks consistently as the best performing city in the sample. Baltimore and Kansas City perform poorly. Cities with large parks infrastructure (San Diego and Phoenix) perform best among the largest cities.

Output Measures We Would Like to See

- Number of facilities;
- Number and type of programs offered; and
- Number of people using programs.

Performance Measures We Would Like to See

- Volunteer hours used;
- General condition of facilities (functionality);[39] and
- Customer satisfaction with programs and facilities.

[39] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Police

Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	Average over all years and cities*
Albuquerque	14		16		16
Atlanta	33	32	32	32	34
Austin	22	15	15	15	18
Baltimore	36	35	34	34	37
Boston	25	21	18	18	21
Buffalo	5		6	6	5
Charlotte	18	18	17	22	22
Cincinnati	7	5	5	7	6
Cleveland	11	12	13	13	13
Columbus	26	24		30	27
Dallas	40	36	35	36	39
Denver	13	7	9	10	10
Detroit		39	38	39	38
El Paso	16	14		17	17
Fort Worth	19	16	14	14	15
Fresno	6	8	8	9	8
Houston		40	39	40	42
Indianapolis		10	12	12	11
Jacksonville	30	31	28	28	31
Long Beach	9	6	7	5	7
Los Angeles	41	41	40	41	43
Memphis	27	26	30	33	32
Miami	32	30	25	20	28
Milwaukee	20	19	19	19	20
Nashville	24	20	24	27	25
New Orleans	23	17	20	21	23
Oakland	15	13			14
Oklahoma City	21	23	21	23	24
Philadelphia	39	37	36	37	40
Phoenix	37	38	37	38	41
Pittsburgh	3	1	1	1	2
Sacramento	12	9	10	8	9
San Antonio	38	34	33	35	36
San Diego	35	33	29	29	35
San Francisco	34	27	27	25	30
San José	10	11	11	11	12
Seattle	28	25	23	24	26
St Louis	29	29	26	26	29
Toledo	1	1	1	3	3
Tucson	17	22	22	16	19
Tulsa	4	4	4	4	4
Virginia Beach	1	1	1	1	1
Washington DC	31	28	31	31	33

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Inputs used:

1) Number of sworn officers; and
2) Number of support staff.

Output used:

1) Crime index (of all types of crime dealt with by police forces).

We assume that police departments use staff to reduce crime levels. Budget data were too inconsistent to include.

Since the crime index is a factor to be minimized for a given city, we computed the DEA efficiency scores by inverting the index. This is a common procedure in the efficiency literature when the output is categorized as a "bad" rather than a "good."

Data and Results

Due to the lack of input data (capital measures) and the ambiguities associated with any measure of police "output," our results must be interpreted with caution. Furthermore, these efficiency scores assume that police services operate at variable returns to scale (VRS). There is little research to give us guidance on the issue of returns to scale in police services. Here, we assume that the disparity in city size in the sample makes VRS a reasonable assumption.

Very few cities in the sample achieve a high efficiency rating. Virginia Beach is the only city to have a perfect efficiency rating over all four years. It is noteworthy that Los Angeles has by far the worst scores in each year. Interestingly, a large, older city like Pittsburgh scored well in all years except 1993. And among smaller cities, Toledo maintains a perfect efficiency score except for 1996.

Output Measures We Would Like to See

- Number of patrol hours.

Performance Measures We Would Like to See

- Average response time (emergency and non-emergency);
- Department clearance rate for various crimes (and percentage points above/below national level); and
- Crime rates per 1,000 population. [40]

[40] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Solid Waste

Annual Efficiency Ranks for Each City

	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Albuquerque					1		1
Columbus				2			4
Fort Worth	5	7	6				10
Long Beach	2	2		3	4	1	5
Memphis	3	5	4	6	8	4	8
Nashville	4	6	5	7	7	5	9
San Antonio		4	3	4	6	2	7
San Diego					3		3
St Louis	1	1	1	1	2		1
Virginia Beach	6	3	2	5	5	3	6

Inputs used:

1) Number of full-time equivalent staff; and
2) Solid-waste budget ($)

Output used:

1) The number of citizens served

We assume that sanitation departments use staff and funds to collect and dispose of solid waste from all residents. Once again, there is little research to give us guidance on the issue of returns to scale in waste service, so we computed both VRS and CRS efficiency scores. The similarities between both sets of scores indicate to us that solid-waste services operate at (more or less) constant returns to scale.

Data and Results

The city of St. Louis dominates every year for which it falls in the data set. When it is in the sample, the city of Fort Worth possesses among the worst-ranked solid-waste services.

Output Measures We Would Like to See

- Tons collected;
- Tons recycled;
- Tons disposed; and
- Tons per route mile.

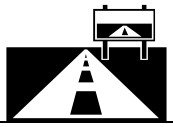
Performance Measures We Would Like to See

- Missed routes; and
- Response time to complaints and service requests.[41]

[41] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Streets



Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	1998	1999	Average over all years and cities*
Baltimore	8	13	13	15	13	15		16
Charlotte	7	12	11	13	11	10		14
Dallas		3	5	5	4	4	1	4
Detroit		6	3	3			1	3
El Paso	1	1	1	1	1	1		1
Fresno	1	1	1	1	1	1		1
Kansas City	4	7	7	7	6	5		7
Long Beach		14	15		14			18
Memphis	3	5	4	4	3	1	1	5
Nashville	5	10	10	11	9	14	6	13
New Orleans	6	11	12	14	10	13		15
Phoenix		4	6	6	5	6	5	6
San Antonio		8	8	8	7	7	1	8
San Diego				9		11		10
San José		9	9	10	8	8		12
St. Louis	9		14	12	12	12		17
Tucson							7	11
Virginia Beach						9		9

Inputs used:

1) Number of full-time equivalent employees (FTE); and
2) Total city budget for street operations.

Output used:

1) Number of miles of streets serviced.

We assume that street-maintenance production uses assets (labor and operational budget) to produce street services. Again, the budget variable serves as a proxy for other non-reported capital inputs. No research exists to give guidance on the issue of returns to scale in street services, so we computed both VRS and CRS efficiency scores. Examining them side-by-side, they are not similar. As with many other services in this study, we focus on the VRS scores (which account for size differentials) because of the size disparity among the cities in the sample.

Data and Results

Even with the assumption of variable returns to scale, two small cities (Fresno and El Paso) are consistently the best-performing cities in this small sample. Of the larger cities, Memphis and Dallas score efficiently late in the sample when many other comparable observations are missing. But we note that a large city, Long Beach, also scored worst every year it was in the sample.

Output Measures We Would Like to See

- A measure of amount resurfaced.

Performance Measures We Would Like to See

- Actual per unit cost to fix potholes, resurface lane mile, restripe etc.;
- Percentage of projects completed at or under budget; and
- Average response to emergency maintenance.[42]

[42] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Transit

Annual Efficiency Ranks for Each City

	1993	1994	1995	1996	1997	1998	Average over all years and cities*
Albuquerque	17	16	28	25	26	24	23
Atlanta	1	1	1	1	1	1	1
Austin	10	1	1		11	10	7
Boston	1	10	1	1	1	1	3
Buffalo	37	37	38	37	38	38	38
Charlotte	1	32	37	32	29	36	29
Cincinnati	28	26	22	21	16	23	24
Cleveland	24	34	23	30	33	18	28
Columbus	31	33	27	27	25	29	31
Dallas	14	12	13	33	30	16	17
Denver	11	1	1	1	1	9	5
Detroit	13	9	16	14	12	11	13
El Paso	34	15	26	17	21	26	25
Fort Worth	22		1	1	1	8	10
Fresno	35	24	31	26	28	30	32
Houston	1	8	10	12	20	21	12
Indianapolis	21	21	1	1	1	1	11
Jacksonville	30	31	19	11	14	13	19
Kansas City	26	20	24	16	22	17	21
Long Beach	27	25	36	29	34	33	33
Memphis	29	18	29	22	24	27	27
Miami	12	23	17	19	18	12	16
Milwaukee	1	28	21	24	23	20	20
Nashville	19	19	34	28	36	32	30
New Orleans	38	36	30	36	35	31	37
Oklahoma City	1	11	14	13	15	25	14
Philadelphia	9	14	12	9	10	15	9
Phoenix	36	22	20	23	17	19	26
Pittsburgh	33	35	33	35	37	34	36
Sacramento	18	1	1	10	1	1	8
San Antonio	15	1	1	1	1	1	6
San José	16	29	18	20	27	28	22
St Louis	23	17	15	15	13	14	15
Toledo	25	27	35	31	31	37	34
Tucson	20	13	25	18	19	22	18
Tulsa	1	1	11	1	1	1	4
Virginia Beach	32	30	32	34	32	35	35
Washington DC	1	1	1	1	1	1	1

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Inputs used:

1) Number of employees;
2) Number of vehicles used in peak service; and
3) Equivalent amount of fuel used.

Outputs used:

1) Annual vehicle miles traveled (all transit movements); and
2) Annual revenue vehicle miles traveled (only those transit movements carrying passengers).

We have assumed that transit production uses assets (labor, vehicles, and fuel) to produce total traveled miles and passenger services. Since many agencies operate several modes simultaneously (such as light rail, buses, or mini-vans), it is important to measure total fuel used in a standard metric. All energy sources (such as electricity or compressed natural gas) used to power a transit vehicle were, therefore, converted to a common measure (gallons of diesel fuel) before the efficiency study was undertaken. These conversion factors can be found in most chemistry texts. Those used here are available upon request.

Those cities eliminated from the sample (Baltimore, Chicago, Los Angeles, Oakland, San Diego, San Francisco, and Seattle) were ones in which at least two large distinct transit agencies operate. Still, several cities in this study (such as Dallas) possess more than one transit agency, but in all cases these other agencies are substantially smaller than the major transit provider.

The reported efficiency scores also assume that all transit-service providers operate at variable returns to scale. There is some debate about the level of minimum efficient scale in transit. Thus, considering the size differentials among operators chosen here (in 1998, the Fresno, California transit agency operated 95 vehicles whereas the Atlanta and Philadelphia transit agencies operated over 2,000 vehicles), we believe it is safe to assume among agencies in this sample that returns to scale are variable.

Analysis

Among large transit agencies, Atlanta and Washington, D.C. ranked as efficient over the entire sample, and Boston falls below full efficiency in just a single year (1994). Denver is efficiently ranked in all but the first and last years of the sample. Among mid-sized agencies, few consistent trends emerge. Of interest is that from 1995 onward, Indianapolis is ranked as efficient. Among the smaller agencies, Tulsa leads, with consistent highest rankings throughout the sample.

Those larger agencies that fare particularly poorly are Buffalo and Pittsburgh, while Toledo, and Fresno perform poorly among mid-sized and smaller agencies.

Performance Measures We Would Like to See

- Percentage of trips on schedule; and
- Area coverage (percent of housing within four blocks of stop).[43]

[43] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

Water

Annual Efficiency Ranks for Each City

	1994	1995	1996	1997	1998	Average over all years and cities*
Charlotte	4	5	7	6		8
Dallas		1	2	1	1	2
Detroit	1	3	4		5	5
El Paso			5	4		6
Milwaukee					1	1
Phoenix	2	2	3	3	4	4
San Antonio	3	4	6	5	6	7
San Francisco			1	2	3	3

Inputs used:

1) Number of employees; and
2) Total city budget for water operations.

Outputs used:

1) Number of persons served; and
2) Volume of water produced (millions of gallons per day).

We have assumed that water production uses assets (labor and operational budget) to produce water services. In this case, the budget variable serves as a proxy for other capital inputs. The reported efficiency scores also assume that all water-service providers operate at constant returns to scale.

Data and Results

Dallas is clearly the best-performing city in this small sample. San Antonio is consistently among the worst-ranking water-service producers.

Output Measures We Would Like to See

- Miles of water mains;
- Number of treatment facilities, pumping stations, etc.; and
- Percent of water from each type of source (surface, ground, purchased).

Performance Measures We Would Like to See

- Reliability (percentage);
- Fire protection rating;
- Water quality ratings; and
- Response time to complaints and handle emergencies.[44]

[44] Tigue and Strachota, "The Use of Performance Measures in City and County Budgets," pp. 21-153.

NOTE: Not the simple average of the annual scores for this city. The average rank comes from aggregating scores for all years and all cities in each service. In some years there may be many more or less efficient cities than in the years for which this city has scores, the average rank can vary substantially from the year-to-year ranks. The more years of data a city has for a service, the closer this average rank will be to the simple average of the annual scores.

About the Authors

Adrian T. Moore is Executive Director of Reason Public Policy Institute (RPPI) in Los Angeles. He is author of many studies and articles on government management, and he is co-author of *Curb Rights: A Foundation for Free-Enterprise in Public Transit*, published in 1997 by the Brookings Institute Press. He has a Ph.D. in economics from the University of California (Irvine).

James Nolan is Assistant Professor and Transportation Chair, Department of Agricultural Economics, University of Saskatchewan. He received a Ph.D. in economics from the University of California (Irvine). He has published several articles on the subject of efficiency measurement and productivity in the public sector.

Geoffrey F. Segal is a policy analyst with RPPI. He is co-author of several reports on government management, including *Privatizing Landfills: Market Solutions for Solid-Waste Disposal* and *Infrastructure Outsourcing: Leveraging Concrete, Steel, and Asphalt with Public-private Partnerships.* He has a Masters in public policy from Pepperdine University.

Matthew D. Taylor is an adjunct policy analyst at Reason Public Policy Institute (RPPI) and has previously been a contributor to RPPI's *Privatization Watch*. He has a master's degree in Public Policy with a focus on American Government and Economics from the Pepperdine School of Public Policy. Mr. Taylor holds a bachelors degree in Economics and Political Science from Linfield College in Oregon.