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July 15, 1999

The Honorable Robert F. Bennett  
Chairman  
The Honorable Christopher Dodd  
Vice Chairman  
Special Committee on the  
Year 2000 Technology Problem  
United States Senate

Subject: Reported Y2K Status of the 21 Largest U.S. Cities

Key city services—including the provision of water and wastewater treatment, emergency services, transportation systems, city government services, and the operation of public buildings—are critical to the safety and well being of city residents as we move into the next century. At your request, we identified the reported Year 2000 (Y2K) status of the nation's 21 largest cities.<sup>1</sup> On July 12, 1999, we briefed your office on the results of our work. This letter provides a high-level summary of the information presented at that briefing, including background information and the reported readiness of those cities. The briefing slides are included in appendix I.

### Background

Most large cities provide their residents a variety of services, often including water and wastewater treatment, transportation systems, and emergency services—911 systems, fire and police services, and emergency medical services. Cities also typically own and operate telecommunications systems, public buildings, and a variety of city government services--

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<sup>1</sup> According to 1996 population estimates, the United States' 21 largest cities are (1) New York, New York, (2) Los Angeles, California, (3) Chicago, Illinois, (4) Houston, Texas, (5) Philadelphia, Pennsylvania, (6) San Diego, California, (7) Phoenix, Arizona, (8) San Antonio, Texas, (9) Dallas, Texas, (10) Detroit, Michigan, (11) San Jose, California, (12) Indianapolis, Indiana, (13) San Francisco, California, (14) Jacksonville, Florida, (15) Baltimore, Maryland, (16) Columbus, Ohio, (17) El Paso, Texas, (18) Memphis, Tennessee, (19) Milwaukee, Wisconsin, (20) Boston, Massachusetts, and (21) Washington, District of Columbia.

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including city payroll, revenue collection and payment systems. Although a few cities also operate hospitals and electric power plants, these services are most often provided by state, county, or private entities.

It is important to note that some key services are provided by a mix of city and other entities. For example, within the transportation service area, most cities are responsible for traffic lights and controls, but not for subways and commuter rail systems. Throughout this letter and briefing, when discussing the Y2K status of key service areas, we only address the portion that is city owned and operated.

In providing key services to city residents, cities often use automated systems and equipment. These systems and equipment are subject to Y2K failures. Such failures could lead to a breakdown in a city's infrastructure, potentially seriously affecting city residents.

### **Cities' Reported Y2K Readiness Varies**

Our survey of major cities identified significant variances in reported Y2K readiness. Two cities reported that they had completed their Y2K efforts. Nine cities expected to complete their Y2K preparations by September 30, and the remaining 10 cities expected to complete their preparations by December 31.<sup>2</sup> Completing Y2K activities in the last months of the year increases the risk that key services will not be Y2K ready in time for 2000, because there will not be enough time to deal with unanticipated complications.

On average, cities reported completing work for 45 percent of the key service areas in which they had some responsibility. They also stated that work is well underway on the remaining services. Cities were most likely to have reported completing work in their transportation systems and telecommunications equipment. Relatively few, however, reported completing their portions of water and wastewater treatment systems, public building systems, and emergency service systems.

Given the amount of Y2K work remaining to be done in the last months of the year, contingency plans are critical to ensure that cities will continue to provide key services through the Year 2000 date change. Seven large cities reported completing Y2K contingency

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<sup>2</sup> In most cities, the majority of city services are scheduled to be completed before this completion date. For example, Los Angeles plans to have all key city systems ready by September 30, except for its wastewater treatment systems, which are to be completed in November. Similarly, El Paso plans to be Year 2000 ready by September 1, except for its police department, which is scheduled for completion on December 1.

plans, while 14 cities reported that their plans are still being developed. Further, 20 of the 21 largest cities recognized the value of testing their contingency plans: 5 cities stated that they had completed this exercise; 7 cities reported that such testing was underway; and 8 reported that they planned to test their contingency plans. Only one city stated that it would not test contingency plans.

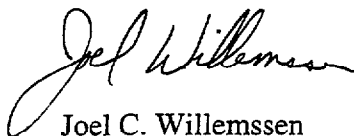
### **Objectives, Scope, and Methodology**

As requested, our objective was to identify the reported Y2K status of key services provided by the nation's 21 largest cities. To do so, we developed a structured set of questions and interviewed city officials by telephone between June 28 and July 9, 1999. When appropriate, we requested supporting documentation. We also reviewed city web sites to supplement city officials' responses. We confirmed our understanding of their Y2K status by sending summaries of our interviews to city officials and asking them to confirm or modify their reported status, as appropriate. We conducted our work in Washington, D.C. and Atlanta, GA from June 28, 1999 through July 13, 1999.

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As agreed with your office, we will send copies to the Honorable John Koskinen, Chairman of the President's Council on Year 2000 Conversion; the Honorable Jacob J. Lew, Director of the Office of Management and Budget; and other interested parties. Copies will also be made available to others upon request.

If you have any questions on matters discussed in this letter, please call me at (202) 512-6408, or Colleen Phillips, Assistant Director, at (202) 512-6326. We can also be reached by e-mail at [willemsenj.aimd@gao.gov](mailto:willemsenj.aimd@gao.gov) and [phillipsc.aimd@gao.gov](mailto:phillipsc.aimd@gao.gov), respectively. Key contributors to this assignment were Glenda Wright, Barbarol James, and Sandra Fissel.



Joel C. Willemsen  
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# ***Reported Y2K Readiness of 21 Largest U.S. Cities***

Briefing for the Special Committee on the Year 2000  
Technology Problem, United States Senate

July 12, 1999



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GAO

## Briefing Overview

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- Objective, Scope, and Methodology
- Summary of Survey Results
- Cities' Reported Y2K Status

## Objective, Scope, and Methodology

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### Objective

- Identify reported Y2K status of key services provided by the nation's 21 largest cities

### Scope

- 21 largest cities (1996 population estimates):
  - New York, NY
  - Los Angeles, CA
  - Chicago, IL
  - Houston, TX
  - Philadelphia, PA
  - San Diego, CA
  - Phoenix, AZ
  - San Antonio, TX
  - Dallas, TX
  - Detroit, MI
  - San Jose, CA\*
  - Indianapolis, IN
  - San Francisco, CA
  - Jacksonville, FL
  - Baltimore, MD
  - Columbus, OH
  - El Paso, TX
  - Memphis, TN
  - Milwaukee, WI
  - Boston, MA\*
  - Washington, DC

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# GAO Objective, Scope, and Methodology (cont'd.)

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## Methodology

- interviewed city officials by telephone June 28 - July 9, 1999
- requested information on the Y2K status of systems supporting key city services:
  - electric power
  - water/wastewater
  - telecommunications
  - emergency services
  - hospitals/healthcare facilities
  - transportation
  - public buildings
  - city government services
- Y2K-induced failures in these services could significantly affect city residents
- requested supporting documentation and confirmation of data

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# GAO Objective, Scope, and Methodology (cont'd.)

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Response rate: 100%

## Notes:

- In many cities, key services--including electric power and hospitals/healthcare facilities--are provided by state, county, or private entities. Some key services are provided by a mix of city and other entities. For example, within the transportation service area, most cities are responsible for traffic lights and controls, but not for subways and commuter rail systems.
- Throughout this briefing, when discussing the Y2K status of key service areas, only the portion that is city owned and operated is addressed.



## Summary of Survey Results

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- Large cities report that they are working on the Y2K problem
  - 2 cities reported being fully Year 2000 ready
  - 9 cities plan to be fully Year 2000 ready by September 30
  - 10 cities plan to be fully Year 2000 ready between October 1 and December 31

## Summary of Survey Results (cont'd.)

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- On average, cities reported that their work is completed in 45 percent of the key services in which they have some responsibility, and that work is well underway on the remaining key services
  - A majority of cities reported completing work on their portions of the transportation and telecommunications service areas
  - Few cities reported completing work on their portions of water and wastewater treatment systems, public building systems, and emergency service systems

## Summary of Survey Results (cont'd.)

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- Most cities said they are having the Y2K readiness of key systems independently verified
  - 6 cities said they have completed independent verification
  - 13 cities reported having independent verification ongoing
  - 2 cities plan for future independent verification

## Summary of Survey Results (cont'd.)

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- Large cities said they are working on Year 2000 contingency plans
  - 7 cities said they have completed contingency plans
  - 14 cities reported that contingency plans are still in development
- ...and testing them
  - 5 cities said they have tested contingency plans
  - 7 cities reported they are currently testing their contingency plans
  - 8 cities said they plan to test contingency plans
  - 1 city reported that it does not plan to test contingency plans
- All 21 cities stated that they will have Y2K emergency operations centers working through the date rollover

# GAO Survey Results: Cities' Reported Y2K Status

Cities' Estimates for Completing Y2K Efforts on Key City Services

City	Currently Y2K Ready	Fully Y2K Ready by September 30, 1999	Fully Y2K Ready between October 1, 1999 and December 31, 1999
New York, NY		X	
Los Angeles, CA			X
Chicago, IL			X
Houston, TX		X	
Philadelphia, PA		X	
San Diego, CA		X	
Phoenix, AZ			X
San Antonio, TX			X
Dallas, TX	X		
Detroit, MI			X
San Jose, CA		X <sup>1</sup>	
Indianapolis, IN		X	
San Francisco, CA			X
Jacksonville, FL		X	
Baltimore, MD			X
Columbus, OH			X
El Paso, TX			X
Memphis, TN		X	
Milwaukee, WI		X	
Boston, MA	X		
Washington, DC			X

<sup>1</sup>This estimate excludes San Jose's city-owned telecommunications equipment, which is currently being assessed. City officials stated that until this assessment is completed at the end of July, the city could not estimate when these systems would be Y2K ready.

# GAO Survey Results: Cities' Reported Y2K Status

## Reported Y2K Readiness of Key City Services

(Y=Fully Ready, N=Not Ready, N/A=Not Applicable--the city does not own or operate this service, Note: Many cities operate some (but not all) systems within a key service. Only city-operated systems are addressed in this table.)

Key City Services	Electric Power	Water/Wastewater Treatment	Telecommunications (not 911)	Emergency Services	Hospitals/Healthcare Facilities	Transportation	Public Bldgs.	City Gov't Services
<b>Cities</b>								
New York	N/A	Y	Y	N	N	Y	Y	Y
Los Angeles	Y	N	N	N	N/A	Y	N	Y
Chicago	N/A	N	Y	N	N/A	N	N	N
Houston	N/A	N	Y	N	Y	Y	Y	Y
Philadelphia	N/A	Y	Y	Y	N/A	Y	Y	N
San Diego	N/A	N	Y	N	N/A	Y	N	Y
Phoenix	N/A	N	N	N	N/A	Y	N	Y
San Antonio	N	N	Y	Y	N/A	Y	Y	N
Dallas	N/A	Y	Y	Y	N/A	Y	Y	Y
Detroit	N	N	N	N	N/A	N	N	Y
San Jose	N/A	N	N	N	N/A	N	Y	N
Indianapolis	N/A	N/A	Y	N	N/A	Y	Y	N
San Francisco	N/A	N	N	N	N	N	N	N
Jacksonville	N/A	N/A	N	N	N/A	Y	N	N
Baltimore	N/A	N	N	N	N	N	N	N
Columbus	N/A	N	N/A	N	N	N	N	N
El Paso	N/A	N/A	N/A	N	N/A	Y	N	N
Memphis	Y	Y	Y	N	N/A	Y	Y	Y
Milwaukee	N/A	N	Y	N	N/A	Y	N	N
Boston	N/A	N/A	Y	Y	N/A	Y	Y	Y
Washington, DC	N/A	Y	N	Y	Y	Y	N	N

# GAO Survey Results: Cities' Reported Y2K Status

## Reported Status of Cities' Y2K Efforts

City	Fully Y2K Ready <sup>1</sup> by the end of:	Independent Verification is Completed, Ongoing, or Planned?	Has Completed Contingency Plans?	Testing of Contingency Plans is Completed, Ongoing, Planned, or Not Planned?
New York, NY	August	Ongoing	No	Planned
Los Angeles, CA	November	Ongoing	Yes	Completed
Chicago, IL	October	Ongoing	No	Planned
Houston, TX	August	Ongoing	Yes	Planned
Philadelphia, PA	September	Completed	Yes	Completed
San Diego, CA	September	Completed	No	Ongoing
Phoenix, AZ	November	Ongoing	No	Ongoing
San Antonio, TX	October	Planned	No	Completed
Dallas, TX	July	Completed	Yes	Completed
Detroit, MI	November	Completed	Yes	Completed
San Jose, CA	September <sup>2</sup>	Ongoing	No	Ongoing
Indianapolis, IN	September	Ongoing	No	Planned
San Francisco, CA	November	Ongoing	Yes	Ongoing
Jacksonville, FL	September	Ongoing	No	Ongoing
Baltimore, MD	December	Ongoing	No	Planned
Columbus, OH	November	Ongoing	No	Ongoing
El Paso, TX	December	Ongoing	No	Planned
Memphis, TN	August	Completed	No	Not Planned
Milwaukee, WI	September	Ongoing	No	Planned
Boston, MA	July	Completed	No	Ongoing
Washington, DC	November	Planned	Yes	Planned

12 <sup>1</sup>In most cities, the majority of city functions are scheduled to be completed well before this date. For example, Los Angeles plans to have all key city systems ready by September 30, except for its wastewater treatment systems, which are to be completed in November. Similarly, El Paso plans to be Year 2000 ready by September 1, except for its police department, which is scheduled for completion on December 1.

<sup>2</sup>This estimate excludes San Jose's city-owned telecommunications equipment, which is currently being assessed.





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