

Trends in State and Local Government Employment, 1994-2001:
New York and a Group of Similar States

Presented by:

Timothy M. Maniccia
Founder
Policy Innovation, LLC
www.policyinnovation.com

7 Elk Street, 2nd Floor
Albany, NY 12207
518-449-2596
tmaniccia@policyinnovation.com

at the New York State Network for Economic Research
Research-in-Progress Conference
The Rockefeller Institute
December 4, 2002

Abstract

State and local governments across the United States are facing very difficult fiscal situations. As delivery of public services is a labor-intensive activity, employment levels will undoubtedly come under scrutiny as budget makers devise strategies for closing projected deficits.

The Bureau of the Census collects data on state and local government employment and it was used to create stylized facts on levels and changes in New York State, eight other states and for the nation as a whole during the 1994-2001 period. Using the full-time equivalent statistic and controlling for differences in population, I found that state and local government employment in New York State was significantly higher than the average of all fifty states in both 1994 and 2001.

While the level of state and local government employment in New York State bucked the national trend by falling almost two percent during this period (633 FTE/10,000 population in 1994 v. 621 in 2001), it remained almost fourteen percent higher than the average of all fifty states (621 v. 546 in U.S.). Increases in employment in elementary and secondary school instruction and police officer categories were more than offset by reductions in hospital, non-instructional elementary and secondary school, transportation and public welfare categories in New York State during this period.

The paper does not break new theoretical or empirical ground. Nor does it address the normative question of whether state and local government employment in New York State is too high, too low or just right. The aim is to provide context for what will hopefully be a more thoughtful debate on this important issue during the upcoming legislative session.

Introduction

The fiscal perfect storm. Bleeding red ink. Not since the financial crisis of the 1970s.

The comparisons are as vivid as they are varied. You can not pick up a newspaper without seeing a story describing fiscal stress at the state and local level across the United States. News accounts place the projected deficit in New York State at \$2.5 billion in the current state fiscal year and as much as \$10 billion in the upcoming fiscal year. State tax revenues declined sharply in fiscal year 2002 and, when adjusted for changes in population, inflation and legislation, show weakness in the first quarter of fiscal year 2003 (Jenny 2002).

As we approach the release of the Executive Budget, policymakers, pundits, analysts and advocates will begin floating ideas on how New York State should deal with the projected deficit. Edmund J. McMahon, a Senior Fellow at the Manhattan Institute for Policy Research, was one of the first to weigh in. He prescribed, among other remedies, a 20,000 position, or roughly ten percent, reduction in the State workforce (McMahon 2002). The Public Policy Institute of New York State (PPINYS) has also focused on the level of state and local government employment in New York (PPINYS 2002).

The paper attempts to place this issue in some context by creating stylized facts regarding state and local government employment in New York and a group of states with similar characteristics during the 1994-2001 period. This period roughly translates into the first two terms of the Pataki administration. State and local government employment is used because it is more reliable (see the description of the data below) and because of the variation in responsibilities for service delivery among the states and their local governments.

After briefly reviewing the literature on state and local government employment and describing the Census Bureau data, the paper compares the size and composition of the state and local government workforce in New York State with that of eight other states and the nation as a whole using a variety of measures. With this information we can make some judgement about the nature and dimensions of any workforce reduction initiative that becomes part of the upcoming Executive Budget. The paper closes with a discussion of possible avenues for further study.

Literature Review

State and local government employment in the United States has nearly doubled over the last three decades. Rising elementary school enrollments and prison populations as well as growing service demands from children and the elderly contributed to this phenomenon (Ritchie and Gold 1992).

This increase also took place despite adoption of tax and expenditure limitations aimed at restraining the growth in the size of government (Poterba and Rueben 1995). More

recently, the rise of conservative political ideology, as evidenced by the capture of the House of Representatives by Republicans for the first time in forty years and the election of a record number of Republican governors, did not slow the growth in state and local government employment.

While there is no disagreement that state and local government employment has grown, there are, however, competing explanations. One possible explanation for the growth in state and local government employment in an era characterized by conservative political ideology involves the sophistication and resources that public sector labor unions bring to the campaign table. Public choice theorists argue that governments use public sector employment as a tool for generating and redistributing rents (Gelb, Knight and Sabot 1991 and Bellante and Porter 1998). If true, providing greater levels of employment to those organizations that helped you get elected makes sense.

This theory has been questioned by research demonstrating that the vast majority of federal employment growth takes place during the final years of an administration. Newly elected officials actually tend to purge the executive branch initially but employment levels rise over time (Lichtenberg 1996).

Others argue that government jobs represent a hedge against external risk faced by the domestic economy. "Secure" jobs in the public sector counteract the income and consumption risk faced by households, thus serving as a mechanism of social insurance (Rodrik 1997).

This paper seeks not to explain the growth in state and local government employment but to describe it in more detail. Before doing so, let me share a description of the data and how it is collected, courtesy of the Census Bureau (Bureau of the Census 2002).

Data

The U.S. Bureau of the Census conducts an annual survey of government employment. This survey measures the number of government civilian employees and their gross payrolls for one month. Data are for the month of October through 1995. Beginning with the 1997 survey, data are for the month of March. There was no survey between October 1995 and March 1997. This survey provides data on full-time and part-time employment, part-time employee hours worked, full-time equivalent employment, and payroll statistics by type of government and by governmental function.

Data are based on information obtained in the Annual Survey of Government Employment and Payroll. Federal Government data were compiled by Census Bureau staff from records of the U.S. Office of Personnel Management. Approximately one-half of the state governments provided data from central payroll records for all or most of their agencies/institutions. Data for agencies and institutions for the remaining state governments were obtained by mail canvass questionnaires.

Local government data were generally requested by mail canvass questionnaires. The local government statistics in this survey are developed from a sample survey. Therefore, the local totals, as well as state and local aggregates, are considered estimated amounts subject to sampling error.

State government employment and payroll data are not subject to sampling. Consequently, state-local aggregates shown here for individual states are more reliable (on a relative standard error basis) than the local government estimates they include. Estimates of major United States totals for local governments are subject to a computed sampling variability of less than one-half of 1 percent. State and local government totals are generally subject to sampling variability of less than 3 percent.

Employment refers to all persons gainfully employed by and performing services for a government. Employees include all persons paid for personal services performed, including persons paid from Federally funded programs, paid elected or appointed officials, persons in a paid leave status, and persons paid on a per meeting, annual, semiannual, or quarterly basis. Unpaid officials, pensioners, persons whose work is performed on a fee basis, and contractors and their employees are excluded from the count of employees. Full-time employees are defined to include those persons whose hours of work represent full-time employment in their employer government; part-time employees are those persons who work less than the standard number of hours for full-time work in their employer government.

Full-time equivalent employment is a derived statistic that provides an estimate of a government's total full-time employment by converting part-time employees to a full-time amount. To the actual number of full-time employees reported is added the number of employees that could have been employed if the reported number of hours worked by part-time employees had been worked by full-time employees instead.

These statistics are computed for each functional category of a government using the following formula:

$$\text{Full-Time Employees} + \frac{\text{Part-Time Hours Paid}}{\text{Standard Number of Hours for Full-Time Employees in that Government}}$$

The method for calculating full-time equivalent employment based on part-time hours worked has been in use since the 1986 employment survey.

Findings

Comparing state and local government employment levels in New York State with those of other states allows us to better evaluate whether these levels are excessive, inadequate or somewhere in between. Notice I said *better* evaluate. Ultimately, the determination of whether New York State and its local governments employ too many or too few people is

a normative question and based on the quantity and quality of the services New Yorkers demand as well as their preferences for how those services are delivered.

As stated previously, in most cases we will be analyzing state and local government employment because states, which are responsible for local governments under the United States Constitution, assign responsibility for service delivery differently. For example, New York and California are the only states that place Medicaid responsibilities on their local governments (in this case, counties). Because this is a significant responsibility, comparing local government employment between New York and New Jersey, for example, would be an apples-to-oranges comparison. Combining state government employment with local government employment resolves this problem.

The paper analyzes the 1994-2001 period because it closely approximates the start of the Pataki administration. Data for 2002 are not yet available. While Governor Pataki did not take office until 1995, the 1994 data was based on employment levels in October 1994, thus representing state and local government employment levels immediately prior to the Governor's election in November 1994.

The paper compares state and local government employment in New York to levels in eight other states and the national average. The states were chosen to enable analysis of employment levels based on size and geography. As New York is a large state in the northeast, five other large states and four northeastern states (Pennsylvania is both large and in the northeast) were used. Table 1 provides the relevant population figures. California was the most populous but Florida grew the fastest during this period.

Table 1: Population				
	1994	2001	Chg	% Chg
California	31,361,934	33,871,648	2,509,714	8.0%
Connecticut	3,273,040	3,405,565	132,525	4.0%
Florida	13,964,771	15,982,378	2,017,607	14.4%
Illinois	11,734,164	12,419,293	685,129	5.8%
Massachusetts	6,042,073	6,349,097	307,024	5.1%
New Jersey	7,905,880	8,414,350	508,470	6.4%
New York	18,196,829	18,976,457	779,628	4.3%
Pennsylvania	12,058,380	12,281,054	222,674	1.8%
Texas	18,433,735	20,851,820	2,418,085	13.1%
U.S.	260,372,174	281,421,906	21,049,732	8.1%

Table 2 provides data on state and local government employment, using the full-time equivalent statistic described above. To no one's surprise, the most populous states also had the largest state and local government workforce. Unlike with population, however,

California had both the largest and the fastest growing workforce. Florida's growth was a close second.

Table 2: State and Local FTE				
	1994	2001	Chg	% Chg
California	1,447,033	1,735,142	288,109	19.9%
Connecticut	171,068	182,354	11,286	6.6%
Florida	697,914	803,175	105,261	15.1%
Illinois	575,826	616,153	40,327	7.0%
Massachusetts	296,745	332,556	35,811	12.1%
New Jersey	429,574	459,066	29,492	6.9%
New York	1,151,077	1,178,230	27,153	2.4%
Pennsylvania	521,192	540,725	19,533	3.7%
Texas	1,091,682	1,209,448	117,766	10.8%
U.S.	13,912,227	15,378,924	1,466,697	10.5%

To further aid in the comparison, differences in population have to be controlled. The measure used to compare the size of the state and local government workforce across states of different sizes is state and local government full-time equivalent employment/10,000 population, provided in Table 3.

Table 3: State and Local FTE/10,000 Population				
	1994	2001	Chg	% Chg
California	461	512	51	11.0%
Connecticut	523	535	13	2.4%
Florida	500	503	3	0.6%
Illinois	491	496	5	1.1%
Massachusetts	491	524	33	6.6%
New Jersey	543	546	2	0.4%
New York	633	621	(12)	-1.8%
Pennsylvania	432	440	8	1.9%
Texas	592	580	(12)	-2.1%
U.S.	534	546	12	2.3%

Growth in the state and local government workforce in California is now dramatically larger than the other states and Florida's growth is nearly flat, meaning its workforce only grew as fast as its population.

How does New York stack up using this measure over this period? It had, by far, the largest state and local workforce at the beginning and at the end. It employed nearly one hundred more people for every 10,000 residents than the national average in 1994. This figure dropped to seventy-five people in 2001.

New York State's governments employed forty-one more people for every ten thousand residents than the closest state (Texas). If it had Texas' ratio of workforce to population, there would have been almost 78,000 fewer state and local government employees in New York State in 2001. Using the average cost/employee measure employed by McMahon (McMahon 2002), New York State and its local governments would have spent \$5.2 billion less on personal service in 2001.

Table 4 presents the results of calculations aimed at teasing out variation based on size and population.

Table 4: Average State and Local FTE/10,000 Population				
	1994	2001	Chg	% Chg
New York State	633	621	(12)	-1.8%
Populous states	518	525	7	1.4%
Northeastern states	524	533	9	1.7%
United States	534	546	12	2.3%

While state and local government employment in New York State bucked the trend by falling almost two percent over the period, the levels in each year are dramatically higher than other populous and northeastern states. Neither the populous nor the northeastern states had average state and local government employment greater than the nation as a whole. What this suggests is neither New York State's location in the northeast nor its size, as measured by population, can explain the size of its state and local government workforce.

Notwithstanding the danger of comparing the state and local components of state and local government employment described earlier, reviewing the components illustrates how each changed over the period. Table 5 indicates that state government employment in most of the populous states shrank (except in California where it grew and Pennsylvania where it was largely flat). New York's reduction outpaced that of the nation as a whole.

Table 5: State FTE/10,000 Population				
	1994	2001	Chg	% Chg
California	104	110	6	5.5%
Connecticut	193	194	1	0.6%
Florida	122	117	(5)	-4.0%
Illinois	114	105	(10)	-8.4%
Massachusetts	136	150	14	10.5%
New Jersey	136	163	26	19.2%
New York	150	133	(17)	-11.3%
Pennsylvania	125	125	1	0.5%
Texas	142	129	(14)	-9.5%
U.S.	150	148	(2)	-1.4%

Table 6 provides data on the local component. With the exception of New Jersey we see growth across the board, including dramatic growth in California. New York State grew more slowly than the nation as a whole.

Table 6: Local FTE/10,000 Population				
	1994	2001	Chg	% Chg
California	357	402	45	12.6%
Connecticut	329	341	12	3.5%
Florida	378	385	8	2.0%
Illinois	377	392	15	4.0%
Massachusetts	355	374	18	5.2%
New Jersey	407	383	(24)	-5.9%
New York	483	488	5	1.1%
Pennsylvania	308	315	7	2.4%
Texas	450	451	1	0.3%
U.S.	384	398	14	3.7%

Table 7 illustrates the allocation of state and local government employment across the components for both years. Consistent with the picture in Tables 5 and 6, most of the states and the nation as a whole saw the local component of state and local government employment increase over the period. New York State and Illinois saw the biggest shift,

with movement at twice the national average. Massachusetts and New Jersey saw the state portion of their government workforce increase.

Table 7: Breakdown of State & Local FTE				
	State	Local	State	Local
	1994	1994	2001	2001
California	22.6%	77.4%	21.5%	78.5%
Connecticut	37.0%	63.0%	36.3%	63.7%
Florida	24.5%	75.5%	23.4%	76.6%
Illinois	23.3%	76.7%	21.1%	78.9%
Massachusetts	27.7%	72.3%	28.6%	71.4%
New Jersey	25.1%	74.9%	29.8%	70.2%
New York	23.7%	76.3%	21.4%	78.6%
Pennsylvania	28.8%	71.2%	28.4%	71.6%
Texas	24.0%	76.0%	22.2%	77.8%
U.S.	28.2%	71.8%	27.1%	72.9%

Having dissected employment levels and changes during the 1994-2001 period, the Census Bureau data allow us to further investigate the composition of state and local government employment by function. Thirty-two functional categories are included, ranging from elementary and secondary school instruction (the largest category) to employees of state liquor stores (the smallest category).

Table 8 provides a glimpse of the eight largest functional categories for the nation as a whole. Together, they comprised seventy percent of the state and local government workforce in the United States during 2001. Employment changes in these categories grew approximately forty percent faster than for the total of all the categories (3.2% v. 2.3%). Increases in elementary and secondary education and public protection (police and corrections) are partially offset by reductions in hospitals.

Table 8: Largest Functions of U.S. State & Local FTE/10,000 Population				
	1994	2001	Chg	% Chg
Police Protection-Officers	22	24	2	9.3%
Correction	22	25	3	11.2%
Streets & Highways	21	20	(1)	-6.2%
Hospitals	41	33	(8)	-19.1%
Elem & Sec Sch-Instruc	142	153	11	7.8%
Elem & Sec Sch-Other Tot	62	65	3	5.3%
Higher Education-Instruc.	22	22	0	0.5%
Higher Education-Other	39	41	2	4.8%
Total of Largest Functions	370	382	12	3.2%
% of Entire Workforce	69%	70%		

Within this subset, there were some interesting differences across the states. First, the states exhibited significant variation in the levels of Elementary & Secondary School-Instruction employment, ranging from a high of 191 FTE/10,000 population in Texas to a low of 121 in Florida. Both are fast growing, sunbelt states with a large immigrant population so an explanation to this difference is not immediately obvious. Florida's large retiree population might have something to do with this but residents also recently passed a referendum to reduce overcrowding in their schools. New York State saw significant growth in this category during the 1994-2001 period, taking it from at the national average in 1994 (144 NY v. 142 U.S.) to above the national average in 2001 (173 NY v. 153 U.S.).

In the area of Police Protection-Officers, New York state and local governments employed significantly more than other states in both years (39 in NY in 2001). Massachusetts was the next closest state at 32 FTE/10,000 population. In addition to having the highest level of employment, only Massachusetts had a greater growth rate than New York State during the 1994-2001 period (17.9% in NY v. 28.9% in MA). During this period, crime rates dropped significantly so defenders of the level and growth in police protection employment might argue that increasing the ranks was a worthwhile investment. Others might ask why employment levels and growth rates were lower in states that saw similar reductions in crime.

In the area of Hospitals, each state saw reductions over the 1994-2001 period, ranging from fifteen percent in California to fifty-seven percent in Massachusetts. The twenty-six percent reduction in New York State falls more or less in the middle of this range. What stands out is the level of Hospital employment in New York State. At 51 FTE/10,000 population in 2001, it is thirty-eight percent higher than Texas (the next closest state in the sample) and nearly four times higher than in Massachusetts (13 FTE/10,000 population).

Conclusion and Next Steps

New York State and its local governments employed significantly more people than the average of all fifty states and any of the states used for comparison. While the difference in 1994 was reduced in 2001, the reduction was not of a sufficient magnitude to bring New York close to the national average or those of the subset of populous or northeastern states.

Given the richness of this data set, a significant amount of research could be performed to help us understand what drives state and local government employment in the United States. One obvious extension would be to utilize the data on all fifty states. Given that the level of state and local government employment in New York State did not seem to match those of other populous states or those located in the northeast it would be interesting to see which states had levels and changes that were similar to New York over this period.

As much of the theoretical work on government employment described above focuses on national governments, a logical extension would involve testing the hypotheses on state and local governments. Lichtenberg's finding that new administrations purge the agencies early on but then add employees in the later years does not appear to hold at the state level in Florida, New York and Texas. Did these and others that saw declines at the state level make reductions or did they merely shift responsibilities to local governments who then added employment? Future work would have to control for differences in service delivery.

Public choice theorists argue that government employment is a form of rent seeking. Future work could involve testing this hypothesis by developing a measure of union strength and investigating whether this variable significantly explains the levels of state and local government employment.

Finally, as states adopt and implement deficit-closing strategies, researchers should pay attention to see if the historical resiliency state and local government employment has shown continues (Boyd 2002).

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