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ARE NEW JERSEY PUBLIC EMPLOYEES OVERPAID?

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Executive summary

The research in this paper investigates whether New Jersey public employees are overpaid at the expense of New Jersey taxpayers. This research is timely. The governor and the editorial board of the New Jersey *Star-Ledger*, the state's largest newspaper, claim that public workers earn substantially higher salaries than average workers in the private sector, and the gap in benefits is even wider. Consequently, they are promoting public employee pay freezes, benefits reductions, and major revisions to the rules of collective bargaining as the antidote to the overpayment blight.

The data analysis in this paper, however, indicates that New Jersey public employees, both state and local government employees, are not overpaid. Comparisons controlling for education, experience, hours of work, organizational size, gender, race, ethnicity, and disability reveal no significant difference between the private and public sectors in the level of employee compensation costs on a per hour basis. However, public employees, particularly higher level professional employees, have fewer opportunities to work overtime than those who work in the private sector. Therefore, on an annual basis, full-time state and local employees are under-compensated by 5.88% in New Jersey, in comparison to otherwise similar private-sector workers.

Nonetheless, there are substantially different approaches to staffing and compensation between the private and public sectors. On average, New Jersey public-sector workers are more highly educated than private-sector workers; 57% of full-time New Jersey public-sector workers hold at least a four-year college degree compared to 40% of full-time private-sector workers. New Jersey state and local governments pay college-educated labor on average 10% *less* than private employers. The earnings differential is greatest for professional employees, lawyers,

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and doctors. On the other hand, the public sector appears to set a floor on compensation. The earnings of workers without high school educations, when compared to similarly educated workers in the private sector, are higher for state or local government.

Benefits are also allocated differently between private- and public-sector full-time workers in New Jersey. State and local government employees receive a higher portion of their compensation in the form of employer-provided benefits, and the mix of benefits is different from the private sector. Some benefits are more generous in the public sector, but it is a serious error to imagine that comparability requires that each and every element of compensation is the same. What is important is that considering both the cost of employer-provided benefits and direct pay, public-sector workers in New Jersey have very similar total compensation as they would earn in the private sector.

Public employers contribute on average 34.1% of employee compensation expenses to benefits, whereas private employers devote 30.8% to benefits. Public employers provide better health insurance and pension benefits. Health insurance accounts for 7.4% of private-sector compensation but 11.2% of state and local government compensation. Retirement benefits also account for a substantially greater share of public employee compensation, 8.1% compared to 3.7% in the private sector. Most public employees also continue to participate in defined-benefit plans managed by the state, while most private-sector employers have switched to defined-contribution plans, particularly 401(k) plans. On the other hand, public employees receive considerably less supplemental pay and vacation time, and public employers contribute significantly less to legally mandated benefits.

A standard earnings equation produced a surprising result: full-time state and local employees are under-compensated by 4.05%. Full-time public employees, however, work fewer hours, particularly employees with bachelors, masters, and professional degrees. A re-estimated total compensation equation controlling for work hours of full-time employees demonstrates that there is no significant difference in total compensation between full-time state and local employees and private-sector employees.

Introduction: The challenge to public employee compensation

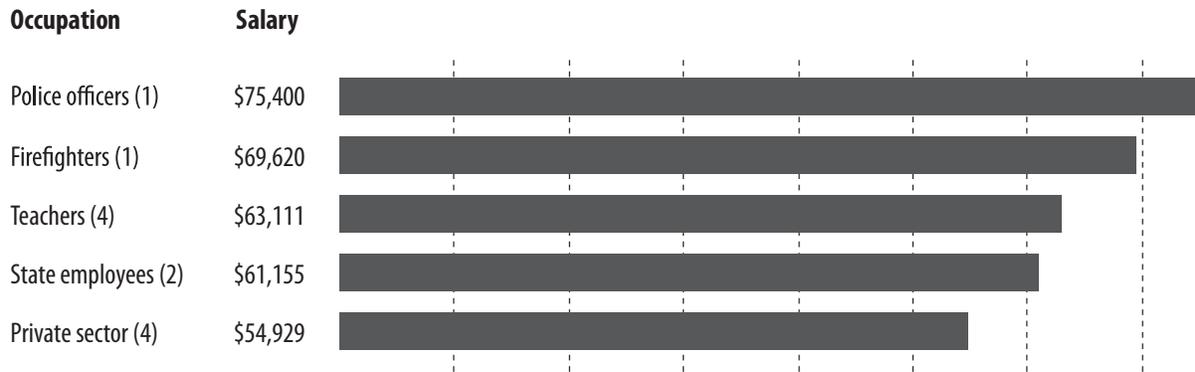
On February 28, 2010, *The Star-Ledger* in a front-page editorial entitled, “It’s time: Freeze N.J. public workers’ pay, change bargaining rules” declared “... it’s time to go nuclear. It’s time to rewrite the rules. It’s time for the showdown with unions that has been brewing for years.” The editorial board of New Jersey’s largest newspaper, in support of the approach of newly elected Governor Christie toward public employees and their unions, recommended a two-step plan. The first step, “freeze public-worker salaries — state, local, and school—for at least one year, and step two “rewrite the bargaining rules.”

The reason offered for this drastic approach to public employees and their labor organizations, according to *The Star-Ledger* editorial board, is that “Police officers, teachers, and state workers all earn substantially higher salaries than the average worker in the private sector. And the gap in benefits is even wider.” To support its contention that public employees are over compensated, *The Star-Ledger* compared several occupations with the average private-sector employee annual labor earnings, reproduced in **Figure A**.

As the data reported in the chart indicate, New Jersey employees, both private and public, rank among the most highly compensated in the country, which helps to make New Jersey the highest income state in the nation. What this report will demonstrate, however, is that *The Star-Ledger* failed to make an appropriate comparison of public and private employee compensation before declaring that public employees are over compensated. The editorial board, rushing to reach its conclusion, selectively omitted local government employees in their graphic comparison. Using *The Star-Ledger’s* data source,¹ we find that New Jersey local government employees were paid \$54,245 annually on average, some \$684 dollar less than the average private-sector employee. A critical oversight, since local government employees account for 75% of New Jersey public employment. This omitted fact, important as it may be for a balanced assessment, however, did not support the Board’s preferred “nuclear option” for public employment. *The Star-Ledger’s* board is not alone in cherry-picking data to reach their desired conclusion in

FIGURE A

Public vs. Private from the *Star-Ledger*
Average wages for New Jersey workers



NOTE: National rank in parentheses.

SOURCE: NJEA, U.S. Bureau of Labor Statistics, and *The Star-Ledger*.

this debate.² Nevertheless, are they right? Are New Jersey public employees overpaid? What does a balanced, systematic evaluation show? Are state and local government employees overpaid to the detriment of New Jersey taxpayers? This research seeks to make systematic and deliberate assessment of public employee pay to answer whether public employees overpaid.

Making a comparison: Are New Jersey public employees overpaid?

To answer whether New Jersey public employees are overpaid, we need to ask two simple related questions: compared to whom? And compared to what? The standard of comparison for public employees is usually similar private-sector workers, with respect to education, experience, and hours of work. This standard is enshrined in the New Jersey Public Employee Relations Act as a factor to be relied upon by arbitrators in resolving interest arbitration disputes for police, fire, and corrections employees [34:13A-16 (g) (2) (a)].

Ideally, we would compare workers performing similar work in the public sector with the private sector, but this is not always possible. There are too many critical occupations in the public sector—for example, police, fire, and corrections—without appropriate private-sector analogs. Even private and public teaching is significantly different.

Public schools accept all students, while private schools are sometimes highly selective and may exclude or remove any poor performers, special needs, or disruptive students. Consequently, comparing workers of similar “human capital” or fundamental personal characteristics and labor market skills is considered the best alternative. These analyses based on personal characteristics comparisons capture most of the important and salient attributes observed in the comparable work studies.

Prior research reveals that education level is the single most important earnings predictor. Education helps create work-relevant skills. People invest heavily in their own and their children’s education, by buying homes in communities with good schools and by paying or taking on debt to attend schools, colleges, and universities. Empirically, education is followed by experience in advancing earnings. People learn by doing and by working in a variety of job tasks as they advance through occupational levels. Most occupations reward experience, since experience is associated with more competent and complex performance, arising from on-the-job learning.

Other factors widely found to affect compensation include gender, race, ethnicity, and disability, although here productivity-related human capital differences are intermingled with labor market disadvantages stemming from historical patterns of discrimination. We control for

all these factors in our study. When analyzing hours of work most studies exclude part-time workers, since their hours vary, they earn considerably less than comparable full-time workers, they are more weakly attached to the labor force, and they often lack benefit coverage. This study follows standard practice by focusing on full-time public- and private-sector employees, who represent over 80% of the state's labor force, and we will control for hours worked per year.

We are fortunate to be able to include a control for the organizational size of each sampled full-time worker's employer, which is made possible by the Integrated Public Use Microdata Series of the March Current Population Survey (IPUMS-CPS). An employer's organizational size greatly influences employee earnings. The basic wage gap due to organizational size is 35%. Large firms with more than 500 employees comprise less than one-third of 1% of all firms but provide jobs for nearly half of all private-sector employed persons (Oi and Idson 1999; U.S. BLS 2005). Large organizations employ more educated, experienced, and full-time workers; nonetheless, even after accounting for these factors, large organizations pay a premium (Troske 1999). When we include benefits in the comparison, the compensation premium grows. Whereas the private sector has a relatively small number of large organizations, the public sector has relatively few small organizations. Over 87% of New Jersey public employees work in organizations employing more than 100 employees.

Having decided who will be compared, the other question to be answered is what should be compared. This is a more complex issue than it initially appears. Comparing wages is insufficient, since employee compensation increasingly includes employer-provided benefits. Regardless of how employees are paid—whether in wages or benefits—the essential issue in making a comparison is what does it cost a private- or public-sector employer to employ an employee. Employer costs may include not only wages, but paid time off for holidays, vacations, personal and sick days; supplemental pay including over time and bonuses; insurances, particularly health insurance but also life and disability insurance; retirement plan contributions, whether defined benefit or defined contribution including 401(k) plans; and legally mandatory

benefit contributions such as unemployment insurance, Social Security, Medicare, disability insurance, and workers compensation. Once we conclude that employer costs of employing an employee, rather than just wages, as what needs to be compared, the more difficult issue is finding the appropriate data to make the comparison.

To obtain wage and demographic data this study uses the Integrated Public Use Microdata Series (IPUMS) of the March Current Population Survey (CPS). The CPS is a monthly U.S. household survey conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics. The March Annual Demographic File and Income Supplement is the most widely used source for earnings used by social scientists (King et al. 2009). For the purpose of comparability, the New Jersey data excludes the self-employed and part-time, agricultural, and domestic workers.

There is only one reliable source of benefit information in the United States: Employer Costs for Employee Compensation (ECEC) survey, which is collected by the U.S. Department of Labor, Bureau of Labor Statistics (BLS). The ECEC includes data from both private industry and state and local government employees and provides data for private employers by firm size. Larger employers, over 100 employees, are significantly more likely to provide employees with benefits, in part, because they can spread administrative costs over a larger group and for insurance purposes, they can more readily diversify risks over a larger group. State and local governments resemble larger size private employers. The compensation cost analysis will control for employer size in making comparisons.

The most important factor in earnings: Education level

New Jersey public employees are substantially more educated than their private-sector counterparts. Approximately 57% of New Jersey public employees hold a bachelors degree compared to 40% in the private sector. Higher educational levels are strongly associated with higher earnings in the labor market. **Table 1**, column 1 reports the returns to education in comparison to workers who have not completed high school.³ A high school graduate, all else equal, earns on average 31% more than some without a high school diploma. The

TABLE 1

**Distribution of education and earnings of New Jersey full-time workers:
private sector versus state and local government**

Highest degree earned	Earnings return to education compared	All private employers	Private, 100 or more employees	State and local government	Public to all private	Public to private, 100 or more
<i>Less than high school</i>	0%	9%	6%	2%	-323%	-187%
<i>High school</i>	31	30	27	22	-37	-18
<i>Some college</i>	46	14	15	12	-15	-19
<i>Associates</i>	58	7	8	6	-9	-17
<i>Bachelors</i>	86	26	28	32	20	13
<i>Professional degree</i>	131	3	2	3	4	47
<i>Masters</i>	105	10	12	20	52	70
<i>Doctorate</i>	114	2	2	3	26	12
<i>College plus</i>		40%	44%	57%	30%	23%

SOURCE: Current Population Survey: IPUMS.

education premium jumps to 46% on average if the worker attended some college, and if the worker holds an associate’s degree the return to education increases to 58%. Completing college with a bachelor’s degree yields an 86% premium, and a professional degree (law or medicine) increases average earnings by 131% compared to an individual without a high school diploma. A master’s degree yields an average 105% pay premium, and a doctorate produces a 114% return.

The public sector employs more highly educated workers. As private-sector organizations become larger, they rely substantially more on educated labor. Smaller private-sector organizations employ more workers with a high school and less-than-high-school education than either larger private or state and local government. Only 2% of state and local government workers lack a high school education, whereas 9% of private-sector employees do not have a high school diploma, but the number falls to 6% when we examine private employers with 100 or more employees.

The returns to education, however, are not equally distributed between the private and public sectors in New Jersey. As a result of the relatively high level of unionization, the public sector has established a floor on earnings,

allowing those with less than a high school education and a high school education to earn considerably more than their private-sector counterparts (Asher and DeFina 1999) (see **Table 2**). On the other hand, college educated private-sector employees earn considerably more than similarly educated public-sector employees.

A full-time worker on average without a high school education earns 38% more when employed by state and local government (\$41,000) compared to the private sector (\$25,238). High school graduates approach earnings equivalency between private and public sector, particularly when we use private employers with 100 or more employees as a basis of comparison, which are most comparable organizations to public employers, particularly local government. High school graduates earn \$44,050 on average working for state and local government compared to \$44,760 for workers employed by private employers with 100 or more employees, and \$39,818 for high school graduates on average working for all private employers.

The earnings advantage reverses when we compare the college-educated labor force, with the private sector paying substantially higher wages. State and local workers with some college earn 4% less than private-sector workers. The private-sector wage premium jumps to 43% for

TABLE 2

**Full-time employee earnings by education level in New Jersey:
All private sector and private-sector firms with 100 or more employees
compared to state and local government employers**

Annual wages by education	All private	Private, 100 or more employees	State and local government	Public/ all private	Public/ private, 100 or more
Average wages	\$61,252	\$69,979	\$56,694	-8%	-19%
Wages by education					
<i>Less than high school</i>	\$25,238	\$27,719	\$41,000	38%	32%
<i>High school</i>	39,818	44,760	44,050	10	-2
<i>Some college</i>	49,539	53,901	47,567	-4	-13
<i>Associates</i>	50,793	56,181	50,916	0	-10
<i>Bachelors</i>	80,911	89,041	56,641	-43	-57
<i>Professional degree</i>	153,553	175,141	79,330	-94	-121
<i>Masters</i>	97,333	107,328	69,171	-41	-55
<i>Doctorate</i>	110,696	108,528	109,482	-1	1

SOURCE: Current Population Survey: IPUMS.

a bachelor’s degree, 94% for a professional degree, and 41% for a master’s degree. When the comparison group is private-sector employers with 100 or more employees, the private-sector wage premium further increases to 13% for some college education, 10% for an associate’s degree, 57% for a bachelor’s degree, 121% for a professional degree, and 55% for a master’s degree. As we shall observe below, better benefits and fewer average work hours in the public sector will largely eliminate these large private-sector wage premiums.

The growing role of benefits in employee compensation costs

Benefits, once referred to as fringe benefits, account for an increasing portion of employee compensation. Benefit growth is partially fueled by the tax deductibility of health insurance payments and pension contributions, allowing employers to compensate employees without either the employer or employee paying income tax at the time of compensation. Sometimes referred to as tax “efficient” compensation, the federal government foregoes \$300

billion annually in income tax revenue to subsidize these benefits (U.S. Congress, Joint Committee on Taxation 2006). Health insurance and pension benefits are particularly attractive to middle- and upper-income employees, who face higher marginal income tax rates.

Organizational size is the single strongest predictor of employee benefit participation and compensation. For example, employee participation in retirement plans varies considerably by organization size. Organizations with 1 to 99 employees have employee pension participation rates of 38%, organizations with 100 to 499 employees have participation rates of 64%, and organizations with 500 or more employees, 81% of employees participation in retirement plans. The pattern is similar for health insurance benefits. Organizations with 1 to 99 employees have employee participation rates in medical insurance of 43%, organizations with 100 to 499 employees have participation rates of 61%, and organizations with 500 or more employees, 71% of employees participate in medical insurance plans. This pattern is replicated for prescription drug and dental care plans (U.S. DOL BLS 2009).

TABLE 3

Distribution of employer costs of compensation for private employers by firm size and for state and local government

Employer costs <i>December 2009 New Jersey, New York, and Pennsylvania</i>	Private employers			State and local government workers
	<i>All</i>	<i>100 or more workers</i>	<i>500 or more workers</i>	
Total compensation	100.0%	100.0%	100.0%	100.0%
<i>Wages and salaries</i>	69.2	68.5	66.9	65.9
Total benefits	30.8	31.5	33.1	34.1
<i>Paid leave</i>	7.4	7.8	8.6	7.6
<i>Vacation</i>	3.6	4.1	4.5	2.9
<i>Holiday</i>	2.3	2.4	2.5	2.3
<i>Sick</i>	1.0	1.0	1.1	1.9
<i>Personal</i>	0.4	0.3	0.4	0.5
Supplemental pay	3.6	3.1	3.6	0.8
<i>Overtime</i>	0.8	1.1	1.0	0.4
<i>Shift differential</i>	0.2	0.4	0.5	0.1
<i>Nonproduction bonuses</i>	2.5	1.7	2.1	0.3
Insurance	8.0	8.8	9.0	11.6
<i>Life</i>	0.1	0.2	0.2	0.2
<i>Health</i>	7.4	8.2	8.3	11.2
<i>Short-term disability</i>	0.3	0.2	0.3	0.1
<i>Long-term disability</i>	0.1	0.2	0.2	0.1
Retirement and savings	3.7	4.1	4.8	8.1
<i>Defined benefit</i>	1.6	1.8	2.2	7.2
<i>Defined contribution</i>	2.2	2.3	2.6	0.8
Legally required	8.2	7.7	7.2	6.0
<i>Social Security</i>	4.7	4.7	4.6	3.6
<i>Medicare</i>	1.2	1.2	1.2	1.0
<i>Federal Unemployment Insurance</i>	0.1	0.1	0.1	
<i>State Unemployment Insurance</i>	0.7	0.4	0.3	0.2
<i>Workers' Compensation</i>	1.5	1.3	1.0	1.1

SOURCE: Bureau of Labor Statistics, Employer Costs for Employee Compensation, December 2009 unpublished detailed compensation data for the Middle Atlantic Census division. (New Jersey, New York, and Pennsylvania).

Public-sector employees received more of their compensation in the form of benefits than private-sector workers. **Table 3** provides the distribution of employer costs of compensation in December 2009.

The Employer Costs for Employee Compensation (ECEC) survey provides the only valid and reliable

estimate in the United States of benefit costs incurred by employers. It is conducted quarterly by the U.S. Bureau of Labor Statistics. The ECEC includes data from both private industry and state and local government employees and provides data for private employers by firm size. This study uses these ECEC sample estimates

to calculate relative benefit costs for private and public employees in New Jersey. (Please see the Data Appendix for more a detailed description).

Benefits costs range from 30.8% for all private employers to 31.5% for private employers with 100 or more employees, and up to 33.1% for private employers with 500 or more employees, compared to 34.1% for state and local government employees. The compensation data reveal considerable variation within the private sector by organization size and between the private sector and state and local government compensation. Public employees not only receive more of their compensation in benefits, but the mix of benefits is different among paid leave, supplemental pay, insurances, retirement security, and legally mandated benefits. While overall paid leave costs are similar, private-sector employees receive more vacation pay while public employees receive greater sick leave compensation. Holiday and personal time compensation is similar. Public employees receive less than 1% of compensation in supplement pay, whereas private-sector employees gain 3.6% of their earnings from supplemental pay, particularly bonuses.

On the other hand, public employees receive considerably more of their compensation from employer-provided health insurance. Health insurance accounts for 7.4% of private-sector compensation but 11.2% of state and local government employee costs. Retirement benefits also account for a substantially greater share of public employee compensation: 8.1% compared to 3.7% in the private sector. As with all benefits, the differences between private and public employees' compensation costs shrink as the private organization comparison increases in size.

Legally required benefits account for a greater share of the small employers' compensation; as organizational size increases, these benefit costs decrease in relative importance. In local and government employment, legally required benefits represent a substantially smaller share of benefit costs for several reasons. First, a nontrivial number of public employees do not participate in Social Security,⁴ which partially explains their higher pension costs. These employees are not eligible for Social Security benefit payments at retirement unless they chose to work in another job elsewhere that is covered by Social Security. Second, the state and local governments do not participate in the

federal unemployment system. Third, since the state and local governments offer more stable employment, they pay lower rates into the state unemployment insurance trust fund because unemployment insurance contribution rates are partially experience-rated.⁵

In summary, state and local government workers receive more of their compensation in employer-provided benefits. Specifically, public employers contribute relatively more toward employee health insurance and retirement benefits costs. Public employee benefit costs, however, are relatively lower for supplemental pay and legally required benefits than those of private-sector employees. To determine whether public employees are overpaid, the specific question that should be addressed is whether higher benefit costs more than offset the lower wages paid to New Jersey public employees. That is the question we turn to next.

Assessing private and public relative pay and benefits

To assess private and public relative employment costs we will use the micro data from the IPUMS-CPS, which provide us with a sample of New Jersey employees with demographic characteristics including full-time status, education level, and years of experience, as a function of age, gender, race, employer organizational size, and industry. Compared to New Jersey private-sector employees, New Jersey state and local government employees on average are more experienced (24 years compared to 22 years); are more likely to be female (56% to 39%); work fewer hours (38.9 to 41.4); are more likely to be black (17% to 11%); are less likely to be Asian (4% to 9%); and are less likely to be Hispanic (8% to 18%). The Employer Cost of Employee Compensation data⁶ allow us to use the statistics on the benefit share of compensation by employer size to calculate total employer compensation costs for each employee in the sample.

Table 4 reports the results of eight standard earnings equations estimating New Jersey state and local government employee earnings compared to similar New Jersey private-sector employees. Columns one and two provide estimates for employee wages. We find in column one that New Jersey public employees (state and local government employees) have wage earnings a statistically significant

TABLE 4

New Jersey public employee wage and total compensation estimated comparisons with New Jersey private-sector employees from standard earnings equations

Annual wages by education	All employees wages	100 or more employees wages	All employees total compensation	100 or more employees total compensation
<i>N.J. public employee</i>	-8.73% ***	-11.07% ***	-4.05% *	-7.48% ***
<i>State government employee</i>	-7.45 **	-7.50 **	-6.14 *	-6.65 **
<i>Local government employee</i>	-9.34 ***	-13.14 ***	-3.05	-7.97 ***

CONTROL VARIABLES: Education, experience, organizational size, gender, race, disability, year. (IPUMS CPS).

* Probability estimate 0 is >.05

** Probability estimate 0 is >.01

*** Probability estimate 0 is >.0001

SOURCE: King et al. (2009) and author’s estimates.

8.73% less than all private-sector employees. In another estimate, separating state and local employees, we learn that state government employees have wage earnings 7.45% less and local government employee 9.34% less than private-sector employees. Column two limits the comparison to employees working in organizations with 100 or more employees. Most New Jersey public employees work in organizations with 100 or more employees. Using this comparison with private-sector employees, we learn

that New Jersey public employees have wage earnings of 11.07% less than private-sector employees. This breaks down into 7.50% less for state government employees and 13.14% less for local government employees.

When we compare total compensation between New Jersey public and private employees, that earnings gap narrows but does not disappear. Columns three and four report the estimates for total compensation. New Jersey public employees total compensation costs are 4.05% less

TABLE 5

Comparison of annual hours of work between New Jersey full-time private and public employees, self-reported in the CPS

Hours of work	Private	Public	Public/ private
Average hours of work	2,187	2,051	- 6%
<i>Less than high school</i>	2,092	2,072	-1
<i>High school</i>	2,124	2,064	-3
<i>Some college</i>	2,135	2,004	-7
<i>Associates</i>	2,139	2,087	-3
<i>Bachelors</i>	2,226	2,007	-11
<i>Professional degree</i>	2,467	2,243	-10
<i>Masters</i>	2,294	2,057	-11
<i>Doctorate</i>	2,362	2,311	-2

SOURCE: King et al. (2009) and author’s estimates.

TABLE 6

New Jersey public employee wage and total compensation estimated comparisons with New Jersey private sector employees from standard earnings equations controlling for annual hours of work

Annual wages by education	All employees wages	100 or more employees wages	All employees total compensation	100 or more employees total compensation
<i>N.J. public employee</i>	-2.25%	-3.58% *	2.43%	0.01%
<i>State government employee</i>	-0.90	0.15	0.41	1.00
<i>Local government employee</i>	-2.89	-5.74 **	0.34	-0.57

CONTROL VARIABLES: Hours of work, education, experience, organizational size, gender, race, disability, year. (IPUMS CPS).

* Probability estimate 0 is >.05

** Probability estimate 0 is >.01

SOURCE: King et al. (2009) and author's estimates.

than comparable private-sector employees. New Jersey state employees receive total compensation of 6.14% less than private-sector employees, while local government employees earn 3.05% less, although statistically insignificant. When the sample is limited to employers with 100 or more employees, the compensation gap widens. New Jersey public employees cost 7.48% less than comparable private-sector workers, working in organizations with 100 or more employees. State government employees cost 6.65% less and local government cost 7.97% less than comparable private employees.

The analysis strongly indicates that New Jersey public employees are under-compensated, earning between 4% to 8% less than comparable private-sector employees. Before concluding New Jersey public employees are under-compensated, however, we need to address hours of work. Most earnings equations, once the sample is limited to full-time employees, do not control for hours of work. In this sample, however, it is apparent that New Jersey full-time public employees work fewer hours than comparable private-sector employees (see **Table 5**). Overall, it is 6% fewer hours, however, among the higher-paid, more-educated workers it is 10% fewer for those with a bachelor's or master's degree, and 11% fewer hours for those with professional degrees.

The earnings equations are re-estimated controlling for hours worked. The coefficients estimates are reported in **Table 6**. The compensation results are not different from zero (in terms of statistical significance) is the main finding from these equations, regardless of employer size. Although wages for local government employees remain less than private-sector wages for workers in organizations of 100 more (-3.58), the compensation data, while suggesting the local government compensation is 0.57% less, the estimate is not statistically different from zero.

Conclusion: Are New Jersey public employees overpaid? No

The earnings equation estimates indicate that New Jersey public employees, both state and local government employees, are not overpaid, but neither are they under compensated. When we make comparisons controlling for education, experience, hours of work, organizational size, gender, race, ethnicity, and disability, there is no significant difference between private and public employee compensation costs.

The data analysis, however, reveals substantially different approaches to staffing and compensation between the private and public sectors. On average, New Jersey public-sector workers are more highly educated than

private-sector workforce; 57% of full-time New Jersey public-sector workers hold at least four-year college degree compared to 40% of full-time private-sector workers. For college educated labor, New Jersey state and local government pays on average 10% less than private employers. The earnings differential is greatest for professional employees, lawyers, and doctors. These earnings differences may create opportunities for cost saving by reviewing professional outsourcing contracts to examine what work might be performed by lower-cost public employees.

The public sector appears to set a floor on compensation, particularly improving the earnings of workers without high school educations, when compared to similarly educated workers in the private sector. This result is due in part because the earnings floor has collapsed in the private sector (Lee 1999).

Benefits are allocated differently between private- and public-sector full-time workers in New Jersey. State and local government employees receive a higher portion of their compensation in the form of employer-provided benefits, and the mix of benefits is different from the private sector. Public employers underwrite 34.1% of employee compensation in benefits, whereas private employers devote 30.8% of compensation to benefits. Public employers provide better health insurance and pension benefits. Health insurance accounts for 7.4% of private sector compensation but 11.2% of state and local government compensation, a more than 50% greater share of employer costs. Retirement benefits also account for a substantially greater share of public employee compensation, 8.1% compared to 3.7% in the private sector. Public employees also continue to participate in defined-benefit plans managed by the state (which the state has inadequately funded for over a decade), while private-sector employers have switched to defined-contribution plans, particularly 401(k) plans. On the other hand, public employees receive considerably less supplemental pay and vacation time, and public employers contribute significantly less to legally mandated benefits.

A standard earnings equation produced a surprising result: full-time state and local employees are under-compensated by 4.05%. We observed, however, that public employees work fewer hours, particularly, employees with bachelor's, master's, and professional degrees. A re-estimated

earnings equation controlling for work hours of full-time employees demonstrates that there is no significant difference in total compensation between full-time state and local employees and private-sector employees.

Union status was omitted from this study on earnings comparisons, since it has been a focal point of the compensation controversy. This means that, in essence, we are statistically comparing unionized public-sector workers with all private-sector workers—both union and nonunion—rather than with their union counterparts. Unionized private-sector workers have both better pay and higher benefits, of course, so our standard of comparison is very conservative.

It is alleged that public employee unions and collective bargaining have produced an over-compensated workforce. Eligible public employees are almost completely unionized in New Jersey. It has been alleged by the governor and others that they are the source of excessive compensation. It is an interesting and provocative hypothesis, but its main prediction has been falsified by the research reported in this study—state and local government employees are not excessively compensated. This finding has now been replicated nationally in two other studies (Schmitt 2010; Bender and Heywood 2010).

Alternately, high unionization rates may be a response to monopsony power exercised by government over many critical occupations, where employees have no viable labor-market alternatives to government employment. Additionally it is well known that taxpayers do not want to pay higher taxes and so exert considerable pressure on elected representatives to resist increases in compensation, creating a formidable incentive and opportunity to hold government pay below market. Unionization represents a viable legal response to employer labor market power. The pattern of New Jersey public employee unionization is consistent with broader global patterns of unionization. For example, a study of 27 developed countries found a pattern of public employee unionization consistent with that of New Jersey (Blanchflower 2006). The study reports that union density is found to be negatively correlated with level of education in the private sector and positively correlated in the public sector, as we observe in New Jersey. Possibly, a more important question for policy makers, rather than why highly educated public employees are

unionized, is why relatively less educated and low-paid private-sector employees are inadequately represented by unions.

Public-sector workers' compensation is neither the cause, nor can it be the solution to the state's financial problems. Only an economic recovery can begin to plug the hole in the state's budget. Unfortunately, the state's own current budget balancing efforts may prolong the economic downturn by increasing unemployment and reducing demand for products and services.⁷ Thousands of New Jersey public employees will lose their jobs, and their families will experience considerable pain and disruption. Others will have their wages frozen and benefits cut. Not because they did not do their jobs, or their services

are no longer needed, nor because they are overpaid. They too will join the list of millions of hard-working innocent victims of a financial system run amuck. They do not deserve bullying or our ridicule and condemnation.

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Data Appendix

This study uses the Integrated Public Use Microdata Series (IPUMS) of the March Current Population Survey (CPS). The CPS is a monthly U.S. household survey conducted jointly by the U.S. Census Bureau and the Bureau of Labor Statistics. The March Annual Demographic File and Income Supplement is the most widely used source for earnings used by social scientists (King et al. 2009). This sample provides organizational size, a critical variable for our analysis of benefits. The sample is restricted to New Jersey employees and excludes the self-employed and part-time, agricultural, and domestic workers. The IPUMS-CPS identifies an employee's full-time status, education level, experience level as a function of age minus years of education plus five, gender, race, employer organizational size, and industry. To ensure stable estimates, the sample was extended to include observations from 2004 to 2009. Earnings data were adjusted for inflation by the Consumer Price Index (CPI). The earnings equation estimates reveal no evidence of structural change.

The IPUMS-CPS sample was selected for this analysis because the March CPS Annual File provides information on organizational size, not provided by the larger CPS sample in the Merged Outgoing Rotation Groups (MORG).

The Employer Cost of Employee Compensation (ECEC) for the Middle Atlantic Census Division (New Jersey, New York, and Pennsylvania) data was used to calculate total compensation costs. Because survey's method of data collection is expensive, the sample is not sufficiently large enough to provide reliable state level benefit cost estimates. The BLS did share their unpublished sample

estimates for New Jersey, New York, and Pennsylvania with assurances that there is not significant differences in the relative distribution of benefits across the three states. This study uses these ECEC sample estimates to calculate relative benefit costs for each private and public employee in the New Jersey sample. The calculation was done by calculating the relative benefit mark-up for each private-sector employee based on the size of organization that employs the individual. State and local government employees wages were similarly marked up using a benefit weight calculated using the ECEC data. It is assumed that when employees share information about their earnings they do not distinguish paid time off from time worked in salary data. Therefore paid time off is not included in the mark-up. CPS wages also include supplemental pay.

The mark-up used in this study for benefits does not include paid leave or supplemental benefits. The mark-up for state and local government was by 0.38958, private-sector employers with less than 100 employees by 0.24830, private sector employers with 100 to 499 by 0.26162, and private sector employers with 500 or more by 0.25748 (see **Table A1**).

To ensure adequate sample size the IPUMS CPS samples for 2005 to 2009 were used for the estimates. Wages were adjusted for inflation using the CPI. There was no significant year earnings trend for the combined sample. The sample size for the total sample was 10,290 total observations and 1506 public employee observations. The sample of employees working for organizations of 100 employees was 6,188.

TABLE A 1

Mark-up adjustments to wages for benefits

Mid-Atlantic pay benefit ratios Adjustment to wages	All private employees	Private employees, organizations with 100 plus employees	Private employees, organizations with 500 plus employees	State and local employees
<i>Without paid leave and supplemental pay</i>	0.24830	0.26162	0.25786	0.38958
<i>Without paid leave</i>	0.30637	0.32790	0.33869	0.40662
<i>All benefits</i>	0.44506	0.49166	0.52905	0.58566

SOURCE: Author's calculations based on U.S. Department of Labor (2010).

Endnotes

1. Although not cited, the *Star-Ledger* obtained their state government and private-sector earnings data from the 2008 annual data collected by the U.S. Department of Labor, reported in the Quarterly Census of Employment and Wages (QCEW) program.
2. For example, the debate about New Jersey taxes has produced a dispute over the taxation “facts,” see for example, *Property Tax Cap Wouldn't Improve New Jersey Policies: A Response to the Manhattan Institute*. Iris J. Lav. Center on Budget and Policy Priorities. June 2010.
3. A standard earnings equation using CPS data for full-time workers in New Jersey was estimated to produce the estimates of the returns to education.
4. The Social Security Act of 1935 excluded state and local workers from mandatory coverage. Legislation in the 1950s allowed states to elect voluntary coverage for their employees (Munnell and Soto 2007).
5. The less an employer's former employees use unemployment, the lower the rates and vice versa.
6. The Data Appendix provides details on the merged data set and the methods used to create it.
7. New Jersey's public financial crisis has been further strained by both parties mismanagement as they pursued more than decade long irresponsible effort to raid and forego contributions to the public employee pension system.

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