EPI

ISSUE BRIEF

ECONOMIC POLICY INSTITUTE | ISSUE BRIEF #294 MARCH 10, 2011

DESPERATE TECHNIQUES USED TO PRESERVE THE MYTH OF THE OVERCOMPENSATED PUBLIC EMPLOYEE

BY JEFFREY H. KEEFE

Efforts to roll back public sector wages and benefits and collective bargaining are under way in many states, with proponents claiming that overpaid public sector workers are a drag on state budgets. Our widely disseminated research refuting that claim has been targeted by critics. But as this paper shows, the criticisms leveled against our analyses of public employee compensation[1] are themselves unsound. This paper responds to the criticisms that suggest our results are biased because:

- We exclude part-time workers and part-year employees from the analyses.
- We include organization size controls in our analyses.
- We do not include a compensating wage differential to reflect the relative stability of public employment.
- We do not account for the greater returns earned by defined-benefit plans over defined-contribution plans.
- We do not account for government retiree health benefits.

Most recently, these criticisms have appeared in a Heritage Foundation Working Paper by Andrew Biggs, a resident scholar at the American Enterprise Institute, and Jason Richwine, a senior policy analyst at the Heritage Foundation.[2] Their analysis of California data concludes that California public employees are overpaid by 30%, whereas our research concluded that California public employees are neither overpaid nor underpaid when compared with comparable private sector workers. Additionally, a report written anonymously for the Center for Union Facts (Anonymous at UF), reanalyzed our national data and said that public employees are overpaid by 5%,[3] not slightly underpaid (3.7%) as we reported.

This paper will show that the critics have relied on inappropriate, unreliable, and incorrect empirical techniques to assert that public employees are overpaid. As just one example, Biggs and Richwine claim that public sector workers have more job stability and that because of this, 15% must be added to their reported level of compensation. But they provide no evidence for such a compensating wage premium for employment stability, much less 15%.

Exclusion of part-time and part-year employees

Our research followed the convention of excluding part-time workers because they earn considerably less than comparable full-time workers, are more weakly attached to the labor force, and often lack benefit coverage. Although our studies focus on full-time public and private sector employees, when part-time employees are included in the comparison, the conclusion remains the same: public employees are probably underpaid but certainly are not overcompensated.

To address any concerns about potential bias, we compared private and public sector part-time employees (a population that includes public school teachers, 15.7% of whom work part time). **Table 1** shows that while the part-time workforce is considerably less educated than the full-time workforce, part-time workers in state and local government are still significantly more educated than part-time employees in the private sector; 36% are college educated compared with 19% in the private sector. This follows the pattern of educational attainment of full-time employees in state and local government versus the private sector. The high earnings return to education for part-time workers also follows the pattern of full-time workers, but with even higher returns to education for part-time workers.

TABLE 1

Composition of private and public employment by education in the United States

Highest degree earned	Full-time workers' earnings return to education compared*	Percent of full-time employment		*Part-time workers' earnings return to education compared**	Percent of part-time employment	
		Private employers	*State and local government*		*Private employers*	*State and local government*
Less than high school	0%	6%	2%	0%	20%	8%
High school	28	29	19	64	25	22
Some college	46	19	14	77	25	23
Associate's degree	56	11	10	100	8	8
Bachelor's degree	84	24	28	107	14	22
Professional degree	145	2	2	180	4	13
Master's degree	106	8	21	108	1	1
Doctorate	135	1	3	170	1	2
*Total ** *		100	100		100	100
College and more		35%	54%		19%	36%

* For all U.S. workers, adjusted for gender, race, and other variables in a conventional earnings model. Comparison to 'less than high school'.
** Rows may not add up to 100% due to rounding.

SOURCE: Author's analysis of March Current Population Survey (U.S. Census Bureau, 2010) and Employer Costs for Employee Compensation Survey (Bureau of Labor Statistics, December 2009).

TABLE 2

Public and private pay comparison by education in the United States, unadjusted for other variables

	Annual full-time wage earnings		Difference (public over private)*	
	Private	*Public*	*Dollars*	*Percent*
Less than high school	$29,135	$24,378	-$4,757	-16%
High school	38,269	$36,640	-1,630	-4
Some college	43,152	42,108	-1,044	-2
Associate's degree	47,894	45,247	-2,647	-6
Bachelor's degree	71,781	48,874	-22,906	-32
Professional degree	152,733	88,629	-64,105	-42
Master's degree	93,918	60,263	-33,655	-36
Doctorate	119,878	88,625	-31,253	-26

	Annual part-time wage earnings		Difference (public over private)*	
	Private	*Public*	*Dollars*	*Percent*
Less than high school	$5,225	$6,066	$841	16%
High school	10,845	11,816	970	9
Some college	10,224	9,990	-234	-2
Associate's degree	15,715	14,114	-1,601	-10
Bachelor's degree	19,399	16,791	-2,608	-13
Professional degree	44,653	36,749	-7,903	-18
Master's degree	21,336	22,377	1,041	5
Doctorate	36,219	37,206	987	3

* For a more comprehensive measure of the public sector premium/penalty, see Tables 3 and 4.

SOURCE: Author's analysis of March Current Population Survey (U.S. Census Bureau, 2010) and Employer Costs for Employee Compensation Survey (Bureau of Labor Statistics, December 2009).

Table 2 provides comparisons of annual wage earnings by level of education of full- and part-time workers in the private sector and state and local government. It is advantageous to be a part-time worker without or with just a high school diploma in state and local government, but the premium becomes a penalty at higher levels of education, except at the master's and doctoral level, where there is a modest premium. But overall, there are no substantial earnings advantages for public employees.[4]

Table 3 reports a series of standard hourly wage equation results. The first two columns restate our earlier findings with the top of column two showing that full-time public employees in the United States earn 3.74% less in total compensation than comparable private sector employees, controlling for education level, experience, gender, race, citizenship, disability, and organization size. The third column compares private and public employee part-time wages with the same controls. Regardless of the dependent variable the results are statistically not different from zero. There is no measurable difference between private sector and state and local government part-time earnings. Finally, column four reports a total compensation equation for both full- and part-time workers that treats the part-time workers as if they

TABLE 3

State and local government employee earnings compared with private sector

	Full-time employees' hourly wages		Full-time employees' hourly total compensation		Part-time employees' hourly wages	Part- and full-time employees' hourly total compensation	
Public employee (state and local)	-11.47%	***	-3.74%	***	0.11%	-2.20%	***
State government employee	-15.57	***	-7.55%	***	3.13	-5.51	***
Local government employee	-9.46	***	-1.84%	*	-1.44	-0.44	
prob 0<.0001 *** <.01 ** <.05 *							

Observations = 44,280.

NOTE: Differential between all state or local public employees and private sector after controlling for demographic characteristics (education, years of experience, gender, race, citizenship, and organizational size).

SOURCE: Author's analysis of March Current Population Survey (U.S. Census Bureau, 2010) and Employer Costs for Employee Compensation Survey (Bureau of Labor Statistics, December 2009).

received the same benefits as full-time workers. Of course, they do not. Nevertheless, even this latter, generous estimate of total compensation reinforces our finding that state and local government employees are slightly underpaid—and are definitely not overpaid.

To summarize: the exclusion of part-time and part-year employees did not bias the results of our research. We will now turn to the issue of whether variables controlling for organizational size belong in our analysis.

Organizational size

Anonymous at UF criticizes our research, claiming that our "study inappropriately assumes that any state government employee would be just as likely employed in the largest-size private sector firm if they weren't working in the public sector." It should be noted that Biggs and Richwine do use organizational size in their research.

Using organizational size variables in our research helps us compensate for unobserved productive characteristics. In the United States, large organizations, both public and private, spend considerable resources recruiting and selecting employees. Through their human resources departments, large firms and government entities recruit applicants and then follow elaborate procedures that may include conducting or commissioning aptitude and capability tests, physical evaluations, drug tests, medical screenings, background and reference checks, reviews of licenses and certifications, structured assessments and simulations, and a variety of other evaluations. In the public sector, large organizations sometimes undertake not only these assessments but also additional reviews required by civil service regulations. In the United States in 2009, there were 198,190 employment, recruitment, and placement specialists employed either on the demand side or supply side of the labor market—that's in addition to 61,000 human resource managers that have some demand side responsibility for staffing their organizations, according to the Bureau of Labor Statistics' Occupational and Employment Statistics. This investment in employee selection demonstrates the importance that large organizations in the United States place on employing workers with the appropriate specific knowledge, skills, and abilities.

In our research, organizational size variables are a proxy for labor quality not captured by standard human capital variables. Discounting the organizational importance of labor quality, Anonymous at UF statistically reallocates public sector workers across all sizes of private organizations using a selection correction technique that assumes that if public

employees were not employed by government there best alternative employment would require them to accept jobs in a range of size firms in the private sector. By undertaking this deeply flawed reallocation process, Anonymous at UF then estimates a compensation equation suggesting that public employees are overpaid by 5%. This estimate is flawed based on the misapplication of the selection correction technique. If Anonymous at UF thinks that organizational size dramatically biases our results, Anonymous at UF could have and should have re-estimated the equation without organizational size, as we do below.

Table 4 reports total compensation estimates with and without organizational size as an independent variable. Removing organizational size as a control actually increases the annual compensation penalty from 6.28% to 8.06% and reduces the hourly penalty from 3.74% to 0.63%. Nonetheless, it does not alter the basic conclusion that public employees are slightly undercompensated in the United States. We remain convinced that the correct specification includes organizational size regardless of its impact on the compensation estimate.

TABLE 4

Full-time state and local government employees' total compensation compared with private sector

	Annual total compensation with organizational size as variable		Hourly total compensation with organizational size as variable		Annual total compensation without organizational size as variable		Hourly total compensation without organizational size as variable	
Public employee (state and local)	-6.28%	***	-3.74%	***	-8.06%	***	-0.63%	*
State government employee	-10.72	***	-7.55	***	-9.35	***	-2.10	***
Local government employee	-4.06	***	-1.84	*	-7.35	***	0.19	
prob 0<.0001 *** <.01 ** <.05 *								

Observations = 44,280.

NOTE: Differential between all state or local public employees and private sector after controlling for demographic characteristics (full-time, education, years of experience, gender, race, and citizenship.

SOURCE: Author's analysis of March Current Population Survey (U.S. Census Bureau, 2010) and Employer Costs for Employee Compensation Survey (Bureau of Labor Statistics, December 2009).

Compensating earnings differential for earnings instability

Both the papers of Biggs and Richwine and Anonymous at UF cite the Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS) data that indicate a private sector worker has a 20% chance of being discharged or laid off in a given year while state and local public employees have a 6% chance of involuntary job loss. Biggs and Richwine build a model that they say shows that this increased job security is equal to a 15% increase in compensation. In the case of California, our results indicate that public employees are paid roughly equal to private sector employees, but if we accepted the Biggs and Richwine job stability compensation earnings penalty, public employees would be overpaid by 15%. However, the extra penalty is based on a miscalculation and we do not accept its validity.

Empirically, if job stability is as highly valued as Biggs and Richwine claim, we should be able to observe its effects on earnings across industries. Using the JOLTS data for 14 private sector industries, we arranged them by their annual rate of discharge and layoff averaged over the years 2001 to 2009. The rankings are reported in **Table 5** along with the annual average rate of layoff and discharge in column one. We use the largest sector, retail, to make our relative

TABLE 5

Predicted versus estimated wage differential if industry job stability were a factor in earnings

	Annual rate of involuntary separations	Estimated compensating instability earnings differentials	Predicted versus estimated differentials
Layoffs and discharges, 2001-2009	***JOLTS average***	***CPS results***	***Variance***
Arts, entertainment, and recreation	49%	5%	-23%
Construction	45	22	-3
Accommodation and food services	22	-22	-25
Real estate and rental and leasing	20	9	9
Retail trade	20	0	0
Nondurable goods manufacturing	17	10	13
Transportation, warehousing and utilities	17	10	13
Durable goods manufacturing	16	14	17
Natural resources and mining	16	26	29
Wholesale trade	15	12	17
Information	13	15	22
Educational services	12	-17	-9
Health care and social assistance	10	5	15
Finance and insurance	9	20	30

SOURCE: Author's analysis of Job Openings and Labor Turnover Survey (Bureau of Labor Statistics) and March Current Population Survey (U.S. Census Bureau).

comparisons. With a 20% annual rate of discharges and layoffs, retail has a rate equal to the entire private sector. If employment stability is as highly valued as Biggs and Richwine claim, there should be an observable compensating wage differential, reflected in a large and observable pay premium, to attract workers to high involuntary turnover industries, while those who work in lower than average involuntary turnover industries should receive a large pay penalty, similar to what Biggs and Richwine predict for government workers. Specific predictions are based on the rankings and rates of involuntary turnover by industry, with those experiencing an involuntary turnover rate greater than 20% expected to have an instability premium, while those with a turnover rate less than 20% expected to have a stability penalty. If there is a meaningful compensating job stability differential, workers in the arts, entertainment, and recreation industry, for example, should have the largest instability premium, since 49% of them experience involuntary turnover per year, whereas workers in finance and insurance should have the largest earnings penalty, since only 9% of them experience involuntary turnover.

We estimated an earnings equation for the private sector so as not to confound the results with government earnings. Our industry omitted variable is retail, so the results reported in column two are in relation to the retail sector. As apparent, without the need for any statistical tools, the predictions are uncorrelated with the results. Column three reports the variance of the estimates with the prediction. There is no obvious industry-level compensating wage differential for employment instability. The finance and insurance industry, which should have the largest job-stability penalty, has the third largest premium, whereas the accommodation and food services industry, which should have a large instability premium, in fact, has the largest penalty. It is not surprising that the estimates for a compensating wage differential premium/penalty failed. Compensating differentials are notoriously difficult to capture. While most labor economists believe that compensating wage differentials do exist, there are many offsetting factors. Jobs are bundles of tasks and

attributes that make them simultaneously both attractive and unattractive. Stability may be offset by a lack of control, autonomy, authority, or flexibility.

There is no observable job stability compensating wage differential. As a consequence, we reject Biggs' and Richwine's assertion that there is a 15% stability premium earned by public employees, causing California public employees to be overpaid by 15%. We will now turn to retiree health benefits and defined-benefit pension plans, which, according to Biggs and Richwine, add another 15% premium to public employee labor costs.

Public employee defined-benefit pensions

Comparing private and public employee earnings requires comparing employer costs for total hourly compensation controlling for a variety of human capital attributes (education, experience, etc.). Compensation packages of equal cost are equal regardless of how compensation is allocated across wages and benefits. In discussing defined-benefit pension plans, however, Biggs and Richwine lose their focus. They incorrectly assert that "employer contributions to pensions are only a proxy by which we infer the value of an actual future pension benefit." This is blatantly wrong. The employer contributions are the cost of the employees' compensation whether they are invested poorly or wisely. We account for employer contributions to pensions in our benefits markup based on the Employers Cost of Employee Compensation survey data, which is collected by the Bureau of Labor Statistics. Instead of focusing on employers' costs of providing pensions, Biggs and Richwine want us to consider the implicit rate of return paid on those contributions from the time of payment to the plan through the time the benefit is received. In other words, because the California Public Employees' Retirement System (CALPERS) provides a better lifetime investment than what the typical private sector employee earns in a 401(k) plan, they argue that California public employees earn a 4% compensation premium, even when the employer's costs are equal. While they make a powerful argument for the reinstatement of defined-benefit pension plans in the private sector, their analysis is misguided. Although they argue that our "study erroneously conflated what governments pay into defined-benefit plans with what workers will eventually receive in retirement," they are the ones who are befuddled. The task is to compare employer costs of compensation, not what employees do or what others do on behalf of the employees *with* their compensation. We are comparing employer (taxpayer) costs.

Retiree health benefits

Most states have pay-as-you-go retiree health care financing. This means that each year a state must allocate funds from its operating revenue to pay for retiree health care. The Employer Cost of Employee Compensation survey is not structured to capture these costs. The ECEC focuses on the employer costs incurred by employing current workers—not former retired employees. Therefore it does not collect information about retiree health care costs when such costs are not prefunded during the workers' active employment. While many states are debating whether they should begin prefunding these benefits, few have yet moved in that direction.

According to Biggs and Richwine, California actuarial reports show that the annual cost of California retiree health benefits could top 8% of total compensation. That is unlikely: It could occur only if California went to full and rapid prefunding, which is not going to happen in this difficult budget environment. Prefunding would require the state to continue to pay health insurance costs for current retirees while building a reserve to fund future retiree health benefits. Rather than speculate about what California might do at some unforeseeable date in the future, we instead base our analysis on what California actually does to fund retiree health benefits, which leads to a starkly different conclusion than Biggs and Richwine. The state of California spends $1.44 billion annually for retiree health care.[5] When we divide that amount by the number of current state and local government employees in California, the state spends $821 per year per active public employee. That translates into a 1% addition to total compensation for the state and local governments of California. When we ran the regressions with this adjustment to total compensation, we found that it did not significantly change our finding that public employees in California are neither overpaid nor underpaid.

In contrast, Biggs and Richwine incorrectly conclude that government workers in California are compensated up to 30% more generously than are similar employees in large private firms. And they gratuitously add that the California experience is similar to that of other large states with powerful public unions. On only the latter, we agree. In the states that we have studied that have high levels of public sector unionization, public employees are compensated at parity; where there are no unions or weak unions, public employees are undercompensated.

It should be noted that Biggs and Richwine assert without any evidence that "almost 90% of state and local governments offer retiree health benefits to employees" whereas retiree health benefits are disappearing from the private sector.[6] In fact, according to U.S. Department of Health and Human Services data, only 36.4% of state and local governments provide health insurance to retirees under age 65, with 25.4% providing health insurance to retirees age 65 and older. While it's true that most state governments (all of which are large employers) offer these benefits, many large private sector firms also continue to provide health benefits to retirees: 34.5% of private firms with more than 1,000 workers provide such benefits to those under age 65 and 31.8% of such firms provide them to those age 65 and older.[7]

Conclusion: Public employees are *not* overcompensated

Our original earnings equation estimates indicate that public employees, both state and local government employees, are not overpaid and may be slightly undercompensated. These findings remain sound. When we make comparisons controlling for education, experience, hours of work, organizational size, gender, race, ethnicity, citizenship, and disability, the public employment compensation penalty is relatively small but there remains a significant difference between private and public employee compensation costs.

Our research also revealed substantially different approaches to staffing and compensation between the private and public sectors. On average, state and local public sector workers in the United States are more highly educated than the private sector workforce; 54% of full-time state and local public sector workers have at least a four-year college degree, compared with 35% of full-time private sector workers. For college-educated labor, state and local governments pay salaries that are on average 32% lower than those paid to such workers by private employers. When we examine total compensation costs, private sector employees with a college degree receive 25% more in compensation than similarly educated public employees.[8] The earnings differential is greatest for professional employees, such as 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.

Benefits are allocated differently between private and public sector full-time workers. 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 than in the private sector. Public employers devote 34.1% of employee compensation to benefits, whereas small private employers (1–99 employees) devote 26.3% of their compensation to benefits, and large private employers (500 or more employees) devote 33.1% 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 employee compensation, a 50% greater share of employer costs. Retirement benefits also account for a substantially greater share of public employee compensation, 8.1% compared with 3.7% in the private sector. Public employees also continue to participate in defined-benefit plans managed by the states (plans which many states have inadequately funded), 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 less vacation time, and public employers contribute significantly less to legally mandated benefits.[9]

Our earnings equation controlling for work hours of full-time employees demonstrates that there is 3.7% penalty in total compensation for full-time state and local employees when compared with similar private sector employees in the United States.

Endnotes

1. Sylvia Allegretto and Jeffrey H. Keefe, *The Truth About Public Employees in California: They Are neither Overpaid nor Overcompensated.* October 2010. Center on Wage and Employment Dynamics, Institute for Research on Labor and Employment, University of California, Berkeley; Jeffrey H. Keefe. *Debunking the Myth of the Overcompensated Public Employee: The Evidence*, Economic Policy Institute, Briefing Paper, September 2010.
2. Andrew Biggs and Jason Richwine, "The Public Worker Gravy Train: Many government employees are paid up to 30% more than those in the private sector," *Wall Street Journal* Opinion, February 24, 2011, http://online.wsj.com/article/SB10001424052748704657704576149941061124736.html#printMode; Jason Richwine and Andrew Biggs, "Are California Public Employees Overpaid?" Heritage Foundation Working Paper, February 2011.
3. Anonymous, "The Economic Policy Institute is Wrong: Public Employees ARE Overpaid," the Center for Union Facts, February 2011.
4. All references to public employees refer to state and local government workers, not federal government workers.
5. "State of California Retiree Health Benefits Program," Gabriel Roeder Smith & Company, October 23, 2009, at http://www.sco.ca.gov/Press-Releases/2010/OPEB_February_2010.pdf (February 27, 2011).
6. Andrew Biggs and Jason Richwine, "The Public Worker Gravy Train."
7. U.S. Department of Health and Human Services, Medical Expenditure Panel Survey, Insurance Component National Level Summary Tables, 1 and 3, 2009; http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/national/series_1/2009/tia2e.pdf. http://meps.ahrq.gov/mepsweb/data_stats/summ_tables/insr/national/series_3/2009/tiiia2e.pdf.
8. Jeffrey H. Keefe. *Debunking the Myth of the Overcompensated Public Employee: The Evidence*, p. 6.
9. Jeffrey H. Keefe. *Debunking the Myth of the Overcompensated Public Employee: The Evidence*, p. 7 and Bureau of Labor Statistics, Employer Costs for Employee Compensation, December 2009 unpublished detailed compensation data by employer size.

Jeffrey H. Keefe *is associate professor of labor and employment relations at the School of Management and Labor Relations, Rutgers University, where he conducts research on labor markets, human resources, and labor-management relations to inform public policy. He teaches courses on collective bargaining, negotiations, financial analysis, benefits and social insurance, and strategic research. He received his Ph.D. from Cornell University.*