

**Private Sector vs. Public Sector
Compensation – A Preliminary
Comparison of Salaries and
Benefits in Rhode Island**



RIPEC

RIPEC Mission Statement

RIPEC is an independent, nonprofit and nonpartisan public policy research and education organization dedicated to the advancement of effective, efficient and equitable government in Rhode Island.

Through in-depth research, program monitoring, advocacy and public information activities, RIPEC:

- Suggests approaches to help improve the effectiveness and efficiency of government agencies;
- Promotes fiscal responsibility and sound management practices;
- Assists elected officials and their staffs in the development of sound policies and programs;
- Enhances understanding between the private sector and state and local governments;
- Provides objective information and conducts educational programs for the benefit of Council members, public officials, and the general public;
- Builds coalitions with other community groups to promote sound public policies; and
- Promotes a public policy agenda to foster a climate for economic opportunity.

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Rhode Island**

Prepared as a public service by the
Rhode Island Public Expenditure Council

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I. Introduction

Employees in both the private and public sectors are provided with a variety of compensation packages – salaries or hourly rates and benefits, which can include the provision of employer-sponsored healthcare, employer contributions to a retirement plan, paid leave and other supplemental forms of compensation. The how and why of employee compensation between the public and private sectors has long been an issue of debate, and has moved to the forefront as state and local budgets continue to be strained. This analysis will provide an overview of wages and benefits of public and private sector employees in order to provide some context to the debate about public sector compensation.

Questions to consider include: how do private sector wages compare with public sector wages with similar job titles? How do employer contributions to healthcare or retirement plans compare between the two sectors? Are there additional factors that mitigate compensation levels between the two sectors, such as education and age? Ultimately, public sector compensation packages must allow state and local governments to attract and retain a quality workforce within the constraints of affordability and equity to taxpayers.

The following RIPEC report – *Private Sector vs. Public Sector Compensation – A Preliminary Comparison of Salaries and Benefits in Rhode Island* – provides the foundational tools for policymakers and stakeholders to begin to answer the above questions and to address the issue of public compensation and benefits in the Ocean State. This report is the first in a series of reports on compensation differences in the public and private sector. The following publication provides data on and analysis of demographics and compensation, including salaries and benefits, in each sector vis-à-vis the national average and the New England region. This publication is designed to serve as a research tool to begin to evaluate the differences between public sector and private sector employee compensation and how this may affect policymaking decisions on behalf of stakeholders.

In addition to this Introduction, the report is divided into seven parts:

- *Executive Summary* – Summarizes the analysis performed and provides an overview of the differences in compensation between the public and private sectors;
- *Workforce Overview* – Provides a snapshot of the workforce that consists of statewide data on educational attainment levels and the distribution of workers by age. This section explores the demographic makeup of the workforce in Rhode Island and draws regional comparisons of a variety of skill sets, educational attainment, and average age across sectors;
- *Wage Analysis* – Focuses on compensation in the form of average wage and salary for the selected occupations within both the private and public sectors. Comparisons between private and public sector occupations are made using variables such as educational attainment and average age within selected occupations;
- *Benefits Analysis* – Examines differences in benefit levels and structures between public sector and private sector workers. Variables include employer-sponsored health insurance, employer-offered pension or retirement plans, and employer contributions to healthcare;

- *Selected Occupations* – Examines eight individual occupations that provide a broad overview of the workforce in Rhode Island as well as a range of compensation, education and skill levels within both sectors. These occupations include: nurses, teachers, engineers, maintenance and janitorial staff, social workers, lawyers, office and administrative staff, and IT technicians. This section also includes occupational profiles of individuals in Rhode Island employed in both the private and public sector – comparing average salary, percentages of workers with employer-sponsored healthcare and retirement plans, and salary by education level;
- *Appendix* – Details the methodology used to perform the analysis and provides additional information on data collected. Includes a glossary of the Standard Occupational Classification system used by the Bureau of Labor Statistics to distinguish job titles; and
- *Literature Review* - Provides a background detailing the various approaches that scholars and analysts have taken to assess compensation and benefits packages within the public and private sectors and serves as a guide for the remainder of the study.

This report was produced in conjunction with the Rhode Island Office of the General Treasurer and the Department of Administration. RIPEC would also like to thank Jack Combs and David Blanding of Brown University for their assistance with data collection. This project aims to contribute to the ongoing debate regarding public sector employment and the issue of pensions.

The report will also be available on RIPEC's website: www.ripec.org

II. Executive Summary

The “Great Recession” has left a lasting imprint on all levels of government. As state and local governments work to respond to historic revenue declines, and adjust their spending accordingly, the question of public sector compensation has become an area of renewed focus and debate. Employee compensation – the combination of salaries or wages and benefits – represents one of the largest and fastest-growing government expenditures. Data indicates that average public sector salaries tend to be higher than average private sector salaries. Moreover, rapidly increasing health insurance and pension costs are of growing concern, particularly as public sector coverage for these two benefits outpaces private sector access. At the same time, there are a number of demographic differences between the two sectors that complicate direct comparisons of average salaries.

The demographic composition of the public and private sectors vary on a number of accounts, many of which affect compensation. There are a number of private sector occupations – such as retail salespersons and cashiers – that do not have an analogue in the public sector. Outside of the diffusion of jobs that exist in the private sector, these jobs also tend to be on the lower end of the pay scale, require lower levels of education, and, in general, attract younger workers. All of these factors combine to dampen average private sector pay. In contrast, the largest share of state and local employees is engaged in teaching, which requires higher levels of education, and generally has higher levels of pay, increasing the average pay for the public sector.

In addition to the types of occupations prevalent in each sector, demographic factors also affect pay between the two sectors. Data indicates that the public sector tends to be better educated than the private sector. On average, public sector workers were found to be almost twice as likely as their private sector counterparts to hold at least a bachelor’s degree. Age is another factor which appears to have an effect on employee compensation. That is, older employees are generally better compensated than younger employees, and the older the workforce, on average, the higher the pay. The graying of the public sector workforce may be one contributing factor to that sector’s higher wages.

At the same time, benefits tend to be richer in the public sector, both in cost and access. Data from the Bureau of Labor Statistics indicates that benefits account for 35 percent of public sector employee compensation, compared to 30 percent in the private sector. The major drivers of the differential between the two sectors were health insurance and retirement benefits. Combined, these two factors accounted for 20 percent of public sector compensation, compared to 11 percent in the private sector. Further, employees in the public sector are more likely to be the recipients of these benefits; in 2010, 51 percent of the private sector participated in an employer’s health insurance program, compared to 78 percent of the public sector. Similarly, 84 percent of private sector employees participated in an employer-sponsored retirement program (defined benefit or defined contribution), compared to 96 percent of public sector employees.

Undoubtedly, the issue of public v. private sector compensation will continue to be a large part of the public policy discussion around the appropriate level of government services and expenditures. The long-term sustainability of public sector benefits, in particular, will be an issue of increasing importance as market losses are phased into pension investment returns, and

as healthcare costs continue to rise faster than inflation and wages. At the same time, the ability of governments to attract and retain high-quality employees – particularly as the current public sector workforce ages – is paramount to ensure the effective delivery of government services.

Overview of Findings

Based on data from the BLS, average salaries for both public (state, local and federal) and private sector workers increased in all New England states between 2001 and 2010; however, in all cases, public sector wages increased faster than average private sector wages during the time frame, as shown on tables 1 and 2. Public sector workers had higher levels of compensation when compared to private sector workers in Maine, Rhode Island and Vermont, while private sector workers in Connecticut, Massachusetts and New Hampshire had higher levels of compensation.

Table 1							Table 2						
Public Sector* Pay 2001-2010							Private Sector* Pay 2001-2010						
	2001		2010		Change 2001-10			2001		2010		Change 2001-10	
	Salary	Rank	Salary	Rank	Salary	Rank		Salary	Rank	Salary	Rank	Salary	Rank
CT	\$42,493	5	\$54,256	6	27.7%	43	CT	\$47,733	1	\$60,394	2	26.5%	39
ME	30,960	37	40,996	35	32.4%	21	ME	28,397	38	36,581	45	28.8%	28
MA	40,928	7	53,925	7	31.8%	27	MA	45,561	3	58,319	3	28.0%	33
NH	32,301	28	44,016	25	36.3%	10	NH	35,955	15	46,281	15	28.7%	29
RI	42,620	4	58,276	3	36.7%	7	RI	32,179	24	42,532	20	32.2%	15
VT	31,899	32	43,075	28	35.0%	16	VT	29,918	32	38,644	36	29.2%	26

* Includes local, state and federal government employees
Source: BLS and RIPEC calculations

*Includes private sector pay only
Source: BLS and RIPEC calculations

In addition:

- Rhode Island ranked 20th in private sector pay and 3rd in public sector pay when compared to the US in 2010. This gap between pay for workers of different sectors is larger in Rhode Island than in any other New England state;
- Public sector pay in Rhode Island increased 36.7 percent from 2001 to 2010, the 7th highest rates of growth in the country. Public sector salaries within Rhode Island grew at a greater rate than any state in New England;
- The state's private sector pay, by contrast, grew by 32.2 percent, and was the 15th highest rate of growth in the nation. Despite a slower rate of growth in private sector salaries, compared to the public sector, private sector salary growth in Rhode Island was higher than any other New England state.
- While both Connecticut and Massachusetts also rank in the top ten states for public sector pay, private sector salaries in both states also ranked in the top ten. By contrast, Rhode Island's private sector pay ranked 20th highest in the country in 2010, while public sector pay ranked 3rd highest.

Although broad averages provide a starting point, there are a number of factors that contribute to the pay differentials between the two sectors that aren't taken into account in the table above. Of note, the above tables include federal pay, which tends to be higher than state and local government pay.¹ Adjusted wage data from 2007-2010, which excludes federal government employees, indicates that differences in total compensation do exist between public and private sector workers in the US, New England, and Rhode Island when age and education are not counted as independent variables. However, the disparity or gap between employees of each sector is greater in Rhode Island than the difference nationally or regionally.

On average, workers in New England are better compensated in the private sector both in terms of benefits and wages. By excluding federal employees, table 3 limits the data to state and local employees – providing a robust look at state and local government employees' pay and benefits. The difference between the public and private sector pay indicates a “wage gap” between the sectors. Rhode Island's wage gap is larger than the other states and regions illustrated in table 3. Public sector employees in Rhode Island make, on average, \$5,422 more than their private sector counterparts. By comparison, average public sector salaries in Connecticut and the United States were \$1,714 and \$1,898 higher than average private sector salaries, respectively. There was effectively no difference between public and private sector salaries in Massachusetts. While there were no significant differences between access to employer-sponsored insurance (ESI) between the two sectors, access to an employer-provided pension (EPP) was notably higher in the public sector when compared to the private in all three states and the US as a whole.

Table 3 Employee Compensation								
	US		CT		MA		RI	
	Public*	Private	Public*	Private	Public*	Private	Public*	Private
Average salary/wages	\$40,944.31	\$39,045.66	\$48,177.16	\$49,891.21	\$34,892.24	\$34,765.37	\$43,961.82	\$38,540.36
% ESI**	96.9%	95.1%	97.6%	95.9%	98.0%	95.4%	98.7%	96.6%
% EPP***	80.7%	51.9%	81.3%	57.4%	78.8%	56.3%	81.7%	53.0%
* State/local government only								
** Employer-sponsored insurance; includes full or partial employer contribution								
*** Employer-provided pension								
Source: 2007-2010 CPS, US Census and RIPEC calculations								

Factors Affecting Wages

Demographic characteristics of the workforce play an important role in the analysis of employee compensation packages. Earnings are often affected by factors such as age and educational attainment. These factors have been stressed by other researchers who take “human-capital” variables into consideration (Lewin et al., 2011, Thompson and Schmitt, 2010, and Bender and Heywood, 2010). Thompson and Schmitt (2010) note the importance of comparing age and education variables between public and private sector employees as a means for controlling for

¹ In addition, the tables above include a broader designation of employees (including self-employed, LLCs, LLPs and LPs), which were excluded from RIPEC's analysis.

demographic considerations. An employee’s level of education can also be a determinant in levels of compensation. Keefe (2010) describes education as being the “single most important earnings predictor” in the public and private sector. Bender and Heywood (2010) suggest that education plays a large role in determining comparability between public sector and private sector positions and, that education goes underestimated by other research on compensation. The current general consensus among compensation researchers is that comparing wages alone is also insufficient as employer-provided benefits are an important component of compensation packages (Keefe, 2010 and Bender and Heywood, 2010).

Table 4
Salary by Educational Attainment

	US		NE		RI	
	Public	Private	Public	Private	Public	Private
Less than HS Diploma	\$16,249	\$18,803	\$17,313	\$16,249	\$15,894	\$18,480
HS Diploma	30,569	30,651	35,673	33,376	33,188	31,234
Some College or Associate's	35,530	34,797	38,854	35,103	40,750	33,996
Bachelor's	43,839	60,106	46,860	63,392	44,340	55,425
Graduate+	59,744	92,437	61,005	98,095	60,004	82,710

Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

BLS data indicate that public sector employees tend to have higher levels of education than their private sector counterparts, but that there is a wage penalty for public sector workers with at least a bachelor’s degree, nationally, regionally and in Rhode Island. On average, public sector salaries for individuals with a bachelor’s degree were 20.0 percent less than private sector workers in Rhode Island (27.1 percent lower nationally, 26.1 percent lower regionally). The gap increased for workers with a graduate degree: public sector salaries were, on average, 27.5 percent lower than private sector salaries in Rhode Island (35.4 percent lower nationally, 37.8 percent lower regionally). Notably, the wage gap between Rhode Island’s public and private sectors was smaller than the wage gap nationally or regionally, both on an absolute and on a percentage basis.

In addition, workers in Rhode Island’s private sector make less than those with comparable education levels in the New England private sector for employees with at least some college or an associate’s degree. Moreover, the wage penalty increases with higher levels of education. Individuals with a graduate or master’s degree in Rhode Island’s private sector earn \$15,385 less than New England private sector workers and \$9,727 less than US private sector workers, respectively. Conversely, public sector workers in Rhode Island tend to be slightly better compensated than their national counterparts, although the difference narrows with higher levels of education. At all levels of education, with the exception of “some college/associate’s”, New England public sector workers have higher average salaries than their Rhode Island peers.

A report by William D. Eggers (2007) on public sector employment trends discusses the challenges in attracting young, talented individuals to the public sector as a “graying” of the public sector workforce occurs. The “graying” refers to an aging workforce – most notably, in the public sector. Eggers (2007) suggests that the gap between “supply of and the demand for skilled government workers” is projected to grow in coming years. A shortage of mid-career talent coupled with traditional hiring practices centered on seniority presents a problem for future generations of public sector employees. The private sector’s ability to outperform the public sector in attracting and retaining top talent will further exacerbate what scholars refer to as the “brain drain” of the public sector workforce (Phillips, 2011). While older workforces represent an area of concern, both with regard to the replacement of workers and the increasing costs of providing retirement benefits, older workers are often more experienced workers who may be more productive due to their experience.

Data indicate that the public sector workforce is slightly older than the private sector are also consistent with previous research. There was a greater share of US workers over 55 in the public sector when compared to the private sector – 21.0 percent to 14.2 percent, respectively. Similarly, the private sector in Rhode Island was generally younger when compared to the public sector – of public sector workers in Rhode Island, nearly 50.0 percent were over the age of 45 compared with 38.0 percent of the private sector. The data on table 5 indicate that mid-career individuals (ages 44-54) tend to have the highest salaries when compared to other age groups in both the public and private sectors. In contrast to national and regional trends, public sector workers in Rhode Island out-earned their private sector counterparts in every age group with the exception of workers under the age of 25 and ages 45-54. Across New England and the nation at large, public sector employees earned less than private sector employees in almost every age range.

Table 5
Average Salary by Age

	US		NE		RI	
	Public	Private	Public	Private	Public	Private
Under 25	\$14,687	\$13,615	\$13,365	\$13,586	\$10,348	\$12,472
25-34	37,327	35,237	42,897	40,801	41,090	34,236
35-44	44,202	47,578	49,172	57,925	47,928	45,944
45-54	45,571	49,382	50,689	59,884	48,812	50,581
55-64	46,435	48,070	50,410	53,310	48,322	48,050
65+	33,679	33,851	35,327	37,090	38,882	37,058

Source: 2007-2010 CPS, US Census and RIPEC calculations

Benefits

Benefits tend to be both more available and more costly in the public sector. The major cost-drivers with respect to benefits in the public sector were health insurance and retirement benefits. When healthcare costs and retirement benefits are combined, they account for 20 percent of public sector compensation, compared to 11 percent in the private sector. Firm size had one of the most significant effects on the cost of benefits as a share of total compensation. Benefits accounted for a smaller share of total compensation for small firms (less than 99 employees) than for larger (500+ employees). Notably, the share of compensation accounted for by benefit costs was similar between large employers and state/local governments, the composition of those benefits varied between the two groups.

Another factor that affects the share of benefits as a percentage of total compensation is occupation. Benefits account for a greater share of compensation for low-wage workers than higher-wage workers in both sectors. This appears to be largely the result of more “fixed cost” benefits such as health insurance that tend to vary less with compensation levels (as shown on table 6). For example, public sector benefits constituted 39.4 percent of the total compensation for office and administrative support workers, compared to 32.1 percent for public sector workers engaged in management and professional services. The difference was smaller in the private sector (30.5 percent v 28.9 percent), but was still present. In both cases, healthcare appeared to be the most significant factor in the difference.

	Office & Admin. Services		Management & Professional	
	Public	Private	Public	Private
Hourly Compensation	\$28.24	\$22.86	\$49.07	\$50.47
% Wages	60.6%	69.5%	67.9%	71.1%
% Benefits	39.4%	30.5%	32.1%	28.9%
% Healthcare	15.6%	10.6%	11.0%	6.8%
% Retirement	7.6%	3.2%	7.9%	3.9%
% Other	16.2%	16.7%	13.2%	18.2%

SOURCE: BLS "Employer Costs for Employee Compensation", 2010

Occupational Analysis

As shown above, there are variations between the public and private sector with regard to their demographic composition and that these differences do appear to affect pay. In order to provide a more in-depth look at various forms and levels of compensation between workers, controlling for differences in age, education, and employment by sector, eight individual occupations were selected and analyzed. These occupations were selected with the assistance of the RI Office of the General Treasurer, and the Rhode Island Department of Administration (DOA). From a list of ten occupations, two were eliminated due to insufficient data. Occupations met the criteria for data analysis if 1) the sample size was sufficient (as determined by the 4-year CPS data set used in this analysis) and 2) the DOA reported a high volume of workers within the public sector with specific job titles analyzed.

The specific occupations included in this report are: lawyers, engineers, teachers, internet technology and network specialists, community and social services workers, registered nurses, office and administrative staff, and janitorial and maintenance workers. Consistent with the findings of other studies, RIPEC found that public sector employees engaged in traditional “white-collar jobs” (high-wage occupations that employ individuals with higher average education) generally had lower salaries compared to the private sector. Alternately, traditional “blue-collar” jobs (lower-wage occupations that employ individuals with lower average education) had, on average, higher total compensation in the public sector. Employer contributions for benefits, such as health care and retirement, constitute a larger share of an employee’s total compensation package for public sector workers. As such, the “all in” public/private compensation gap increases at the lower end of the spectrum. In higher-wage, higher-skill occupations, public sector benefits decrease, but do not close the compensation gap.

Table 7
Employee Benefits and Salaries - Lawyers and Office/Admin. Staff

	US				RI			
	Lawyer Public	Lawyer Private	Office & Admin Public	Office & Admin Private	Lawyer Public	Lawyer Private	Office & Admin Public	Office & Admin Private
Retirement & Savings	\$10,074	\$6,738	\$3,606	\$1,227	\$7,360	\$6,387	\$3,540	\$1,252
Health Insurance	14,027	11,749	7,401	4,065	10,248	11,136	7,266	4,146
Other	16,706	31,445	7,686	6,405	12,115	29,572	7,506	6,493
<i>Total Benefits</i>	<i>\$40,808</i>	<i>\$49,932</i>	<i>\$18,693</i>	<i>\$11,698</i>	<i>\$29,724</i>	<i>\$47,095</i>	<i>\$18,312</i>	<i>\$11,890</i>
<i>Average salary/wages</i>	<i>\$86,715</i>	<i>\$108,385</i>	<i>\$28,752</i>	<i>\$26,655</i>	<i>\$63,444</i>	<i>\$97,324</i>	<i>\$28,267</i>	<i>\$27,221</i>
Total Compensation	\$127,522	\$172,774	\$47,445	\$38,353	\$93,168	\$163,764	\$46,579	\$39,112

Excludes federal employees. Lawyers include self employed, LLPs, LLCs, and LPs

Source: 2007-2010 CPS, US Census, BLS Employer Costs for Employee Compensation, and RIPEC calculations

Comments and Next Steps

This report serves as the first within a series of RIPEC reports on public and private sector compensation, designed to provide additional information and context to the discussion around public sector pay and benefits. Future reports will examine the question of whether public sector workers in Rhode Island experience a “wage penalty” when additional factors, such as education and age are taken into account. While studies have indicated that this is, indeed, the case nationally and regionally, a number of factors in Rhode Island, such as the relatively small gap between public and private sector wages by education or age when compared to the US and New England, indicate that the wage penalty may be smaller in the Ocean State. At the same time, it is clear that there are certain public sector occupations – particularly at the higher end of the wage spectrum – that face a distinct disadvantage in compensation in comparison to their private sector counterparts.

The report's findings present a number of questions and challenges for both the public and private sectors. One of the most significant findings of the report is that, in general, there is a wage penalty for private sector workers in Rhode Island, when compared to New England and, often, the US as a whole. While this finding did not hold in all occupations, the relatively low levels of private sector compensation present challenges that are two-fold:

- First, the fact that private sector wages in Rhode Island are not competitive with New England private sector wages points to a distinct need for the state to examine its economic and workforce development strategies.
- Second, private sector wages must be robust enough to support public services including, but not limited to, competitive wage rates in the public sector that allow governments to attract and retain quality employees.

The shift from a goods-producing economy to a knowledge-based and service-providing economy has resulted in a depletion of blue-collar jobs that traditionally employ individuals with little to no post-secondary education. Between December 2006 and February 2009, the highest percentages of job losses in Rhode Island were concentrated in construction (18.4 percent), manufacturing (25.7 percent), and trade, transportation, and utilities industries (20.8 percent), respectively.² The loss of blue-collar jobs has presented challenges at the national and state levels, as such populations with little to no post-secondary education continue to experience grim employment prospects – as the transition to a service-providing economy fails to create a sufficient demand for the type of work typically performed by blue-collar workers.

Changing economic tides have resulted in a decreased demand for professions that typically required lower levels of education, pointing to a need for the state's education systems to respond to these changes in kind. Strengthening the PK-12 system and integrating a workforce development program that is responsive to the needs of employers are imperative if the state is to attract the type of employer that will be able to support competitive private wages. At the same time, the state must continue to evaluate its tax and regulatory policies with an eye to creating a competitive economic climate. These actions go hand-in-hand with regard to creating a robust private sector workforce.

Another issue raised by the report – consistent with other analyses of public and private sector compensation – is that higher-paid occupations such as lawyers and IT professionals appear to face a larger wage penalty in the public sector, compared to lower-wage occupations. While public sector benefits mediate the impact of this wage gap, it raises larger questions about the state's overall personnel structure. Specifically, in fostering an environment that attracts top talent in the public sector, state and local governments must have a compensation scale that pays employees market value for their skill sets, but in the context of a government that is affordable to the taxpayer. Similarly, compensation packages must be responsive to the demands of the workforce. Data indicate that back-loaded pension plans, such as those in Rhode Island tend to foster longer terms of service, but are less attractive to younger employees who are less likely to desire career employment.

² Harington, et al. "The Labor Market Impacts of the National Economic Crisis in Rhode Island." *Workforce Development Response to National Economic Crisis*, April 2009. p 5.

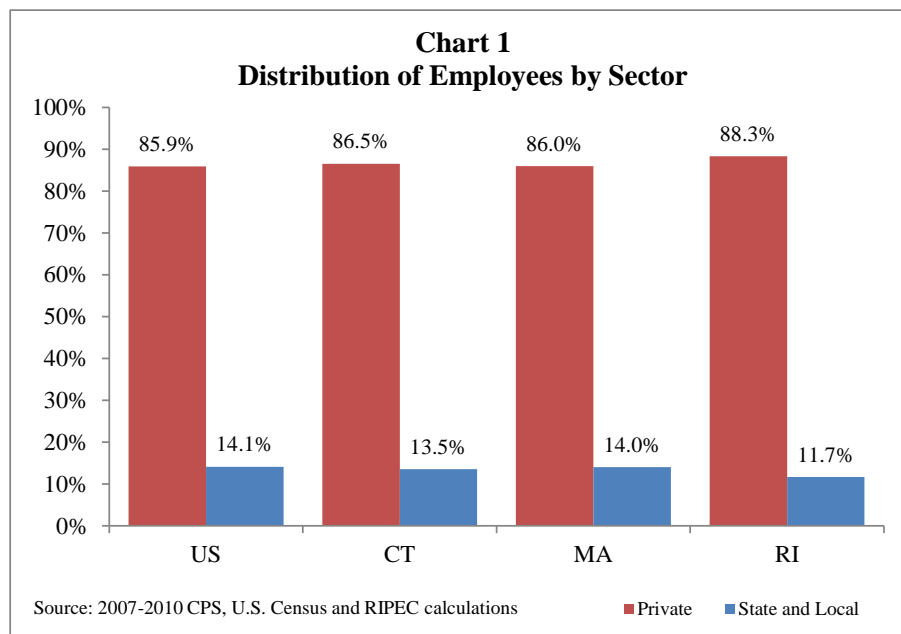
Personnel costs should be an integral, but not exclusive, part of a larger discussion of government restructuring. RIPEC believes that governments at all levels should examine personnel levels and individual jobs functions in an effort to streamline government. They should initiate staffing models that account for long-term personnel needs, beginning with an examination of current staffing levels against anticipated needs based on current policies. Opportunities to streamline operations or job functions should be explored. Moreover, a determination should be made as to whether the service being performed is necessary, or if it could be more effectively performed as part of another agency or level of government. Reevaluating service delivery and government structure is a necessary step towards long-term fiscal sustainability.

III. Workforce Overview

The demographic composition of the workforce should be taken into account when analyzing compensation levels between professions and sectors. Data from national studies indicate that the average age of workers between sectors and average educational levels are related to compensation levels. Demographic characteristics such as education should be taken into account when assessing variation in compensation. Of note, the “public sector” in this report refers specifically to state and local government employees; federal employees and members of the armed forces are excluded from this definition. In addition, self-employed individuals, LLCs, LPs and LLPs are excluded from the definition of private sector. All data in this section is from the Current Population Survey March Supplement (2007-2010) and the Bureau of Labor Statistics and represent the most current information available as of publication.

Public v. Private Employment

Nationally, 85.9 percent of employees worked within the private sector and 14.1 percent work within the public sector. Rhode Island had a smaller share of the workforce employed by state and local governments when compared to the national average and neighboring states. The private sector in Rhode Island employed 88.3 percent of the workforce compared to 11.7 percent in the public sector. The private sector



employed 86.0 percent of the workforce in Massachusetts while the public sector employed 14.0 percent, on par with the national average. Public sector employees in Connecticut constituted 13.5 percent of their total workforce, 1.8 percent more than in Rhode Island.

Private Sector Occupations

Occupations vary between the public and private sectors, which has an effect on overall compensation levels; specifically, the high volume of lower-paying positions in the private sector can weigh down the overall average salary of the private sector as a whole. Moreover, many private sector jobs do not have an analogue in the public sector – for example, manufacturing jobs and retail positions. These two factors complicate comparisons of public v. private sector wages and can skew the results if they are not considered. Table 8 lists the top ten private sector occupations by percentage of total workforce and number of employees as of May 2010.

Nationally, 4.1 million workers, or 3.3 percent of the total private sector workforce, is employed in retail. The second largest occupation in the private sector is cashiers, in which 3.3 million workers, or 2.6 percent of the total private sector workforce, are employed.

Public Sector Occupations

Within the country, 6.2 percent of the state and local workforce (1.4 million employees) was employed as elementary school teachers. Teacher assistants, and secondary school teachers, constitute the second and third largest shares of public sector employment. Teacher assistants represented 4.5 percent of the total public sector workforce (0.9 million employees), while secondary school teachers represented 4.3 percent of the total public sector workforce (0.9 million workers). The 639,520 police and sheriff's patrol officers across the country constituted 2.9 percent of public employees and constituted the fourth largest share of public sector employment. Of note, teachers accounted for 13.3 percent of the total government workforce.

Table 8
Employment percentages of the largest private occupations

Occupation	% of total Workforce	Number of Employees
Retail Salespersons	3.3%	4,155,190
Cashiers	2.6%	3,354,170
Office Clerks, General	2.2%	2,789,590
Combined Food Preparation and Serving Workers	2.1%	2,692,170
Registered Nurses*	2.1%	2,655,020
Waiters and Waitresses	1.8%	2,244,480
Customer Service Representatives	1.7%	2,146,120
Janitors and Cleaners	1.6%	2,058,610
Laborers and Freight, Stock, and Material Movers	1.6%	2,024,180
Secretaries and Administrative Assistants	1.4%	1,841,020

* This occupation has the same title, but not necessarily the same content, as the 2010 SOC occupation

Source: BLS Data, Occupational Employment Statistics (May 2010)

Table 9
Employment percentages of the largest government occupations

Occupation	Workforce	Employees
Elementary School Teachers*	6.2%	1,355,990
Teacher Assistants	4.5%	992,730
Secondary School Teachers*	4.3%	951,690
Police and Sheriff's Patrol Officers	2.9%	639,520
Middle School Teachers*	2.8%	602,480
Office Clerks, General	2.6%	574,120
Teachers and Instructors, All Other	2.5%	542,490
Janitors and Cleaners**	2.4%	533,980
Secretaries and Administrative Assistants***	2.2%	474,760
Registered Nurses	2.1%	471,610

* Excluding Special & Career/Technical Education

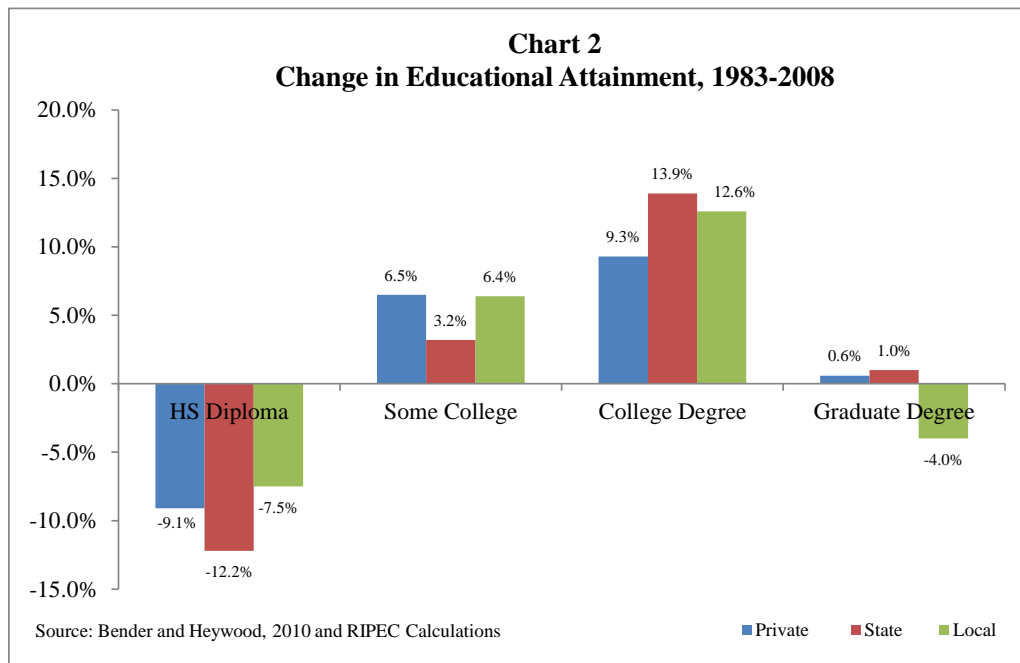
**Excluding Maids and Housekeeping Cleaners

***Excluding Legal, Medical, and Executive Secretaries and Admins.

Source: BLS Data, Occupational Employment Statistics (May 2010)

Educational Attainment

Based on national studies, levels of education appear to influence salary and access to benefits across all sectors. Nationally, educational trends illustrate that, in general, a higher percentage of state and local public sector workers have received college degrees, both undergraduate and graduate level, when compared with those employed in the private sector. National trends indicate that levels of educational attainment have increased in both sectors. The shift from a goods-producing economy to a service-based economy has changed the average educational attainment within a variety of positions, and in turn, led to the shrinkage of certain industries (such as the decrease in manufacturing and production over the last 20 years), which has affected private sector employment and educational levels as shown on Chart 2.

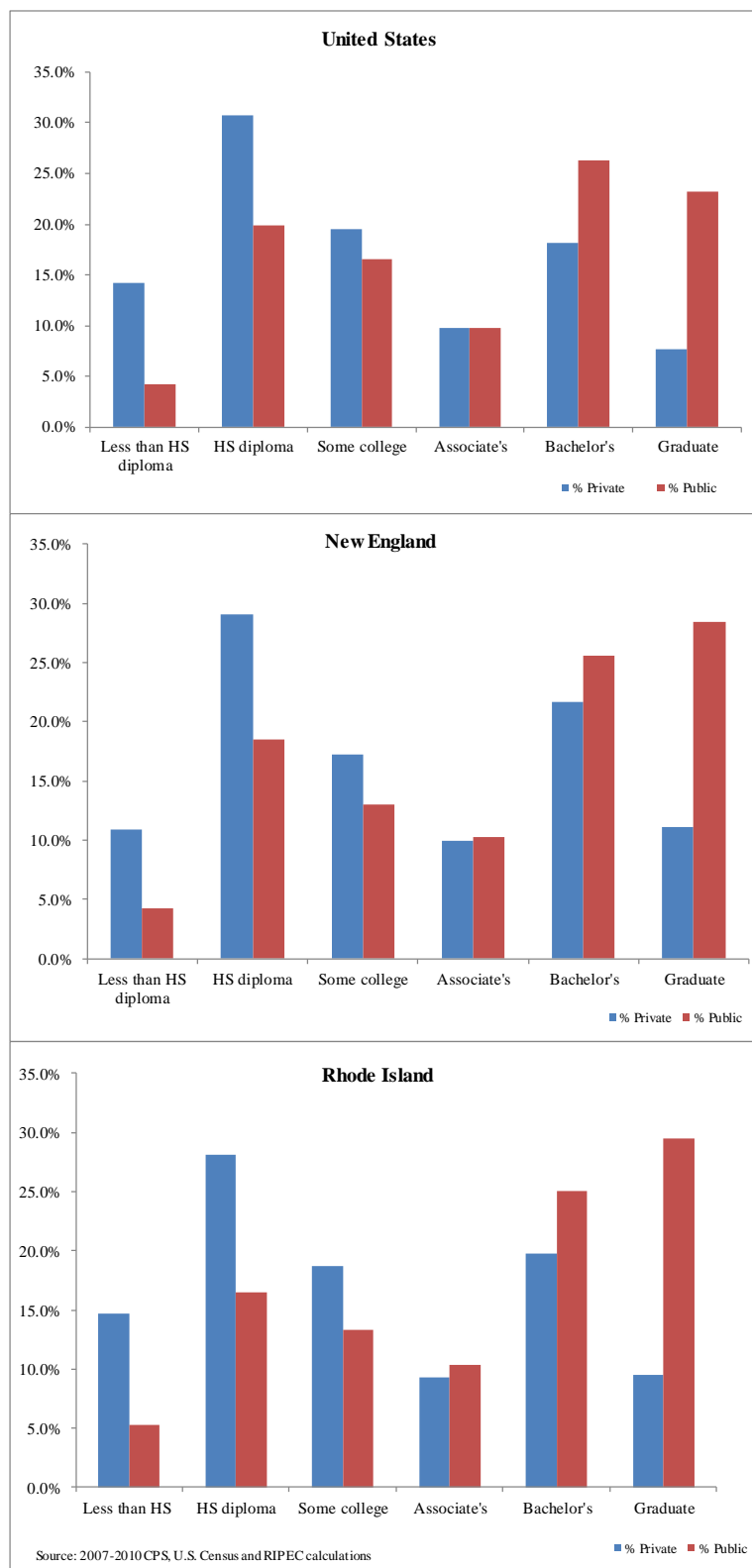


Between 1983 and 2008, the levels of educational attainment had increased in all sectors; however, there still remained a gap between public and private sector workers. Bender and Heywood (2010) performed this analysis of a 25 year period in which educational attainment levels across sectors changed. Some of their findings include:

- For private sector workers, the number of employees with some college increased by 6.5 percentage points and those with a college degree increased by 9.3 percentage points;
- For state workers, the number of employees with some college increased by 3.2 percentage points and those with a college degree increased by 13.9 percentage points; and
- For local workers, the number of employees with some college increased by 6.4 percentage points and those with a college degree increased by 12.6 percentage points.

For all sectors, the number of employees with a high school diploma as the highest level of educational attainment decreased between 7.5 and 12.2 percentage points. The data indicated that workers in both sectors achieved a higher level of education in 2008 compared to workers in

**Chart 3
Education by Sector**



1983. The number of individuals with a college degree (excluding graduate or master's degrees) in the public sector at the state and local level increased at a greater rate than the private sector.

Nationally and regionally, the private sector employs a greater percentage of individuals with lower educational attainment levels than the public sector. Based on the 2007-2010 data, at the national level, the public sector employed a higher percentage of individuals with college and advanced degrees (chart 4). Individuals with educational attainment levels lower than an associate's degree (some college, high school diploma, or no high school diploma) constitute a greater share of the private sector than the public sector (57.2 percent of total workers in the private sector with less than an associate's degree compared to 35.7 percent in the public sector).

New England generally has a higher level of educational attainment for both the public and private sectors when compared to national data. The percentage of workers with college degrees was higher in both sectors when compared to the national averages. In New England, 21.7 percent of all private sector workers had attained a bachelor's degree, compared to the national figure of 18.1 percent. New England public sector workers were more

likely to have a bachelor's degree compared to their private sector peers, but less likely to hold a bachelor's degree compared to the national average.

At the same time, a higher percentage of workers in the New England public sector held graduate degrees than public or private sector employees at the national level and private sector employees at the regional level; 28.4 percent of New England public sector workers held some form of a graduate degree (master's, professional, or PhD), compared to 11.1 percent of private sector employees in the region and 23.3 percent of public sector workers nationally. Nationally and in New England, private sector workers were more likely to have some college, hold a high school diploma or have some high school as their highest level of educational attainment when compared to public sector workers.

In Rhode Island, the percentage of workers with a bachelor's degree or higher level of educational attainment is higher in the public sector. State and local employees in Rhode Island were more likely to have some form of a graduate degree compared to their peers nationally and regionally and had similar percentage of employees with a bachelor's degree. Similarly, private sector workers were more likely to have some college, a high school diploma or less than their public sector counterparts in Rhode Island. In Rhode Island, 70.8 percent of all private sector employees had an associate's degree or less, compared to 35.1 percent of the public sector population. At the same time, a larger share of private sector employees had less than an associate's degree compared to their national and regional peers (64.4 percent and 57.2 percent, respectively).

Age

Age generally relates to experience, which is often a factor in determining compensation costs. As such, the average age within a sector is an important demographic to be taken into consideration when analyzing compensation. In addition, the need to recruit workers becomes more important as the workforce continues to age and retire. How compensation packages are structured across the public and private sectors may have an impact on the ability of either sector to attract and retain new employees. Such findings on the "greying" of the public workforce have been echoed by scholars such as William D. Eggers (2007). National trends have indicated that the average ages in both the private and public sectors have increased over recent years, as individuals are living longer and working longer, i.e. the problem with state and local pensions.³

Noteworthy findings on age distribution across the country include:

- The percentage of workers under 25 in the private sector is 16.4 percent, compared to 7.0 percent of workers in the public sector;
- Of the total private sector workforce, 63.6 percent were under 45. By contrast, 51.2 percent of the national public sector was younger than 45; and
- A greater share of workers was over 55 in the public sector compared to the private sector (21.0 percent v. 14.2 percent).

³ Eggers, William D. (2007). "The Graying Government Workforce." *Deloitte Public Sector* (2007): 1-4. Deloitte Research - Public Sector.

In general, New England workers were older in both sectors compared to workers nationally. This was particularly true for public sector workers in New England and across all three southern New England states. Regionally, 59.9 percent of private sector workers were under the age of 45, while 48.7 percent of public sector workers fell in this age cohort. Of the three states, Massachusetts had the smallest share of public sector workers under 45 – just 46.7 percent of public employees in the Bay State were under 45. Moreover, the gap between the public sector and the private sector was larger in Massachusetts than the other states, the region and the national average (14.6 percent, compared to a regional gap of 11.1 percent and a national gap of 12.3 percent).

As shown on chart 5, age distribution patterns in Rhode Island were similar to national and regional averages. However, the 10.2 percentage point age gap between public and private sector workers aged 25 or younger was larger in Rhode Island than it was nationally and regionally. Only Massachusetts had a larger age gap. Rhode Island’s state and local sectors have a similar percentage of workers in the public sector aged 45

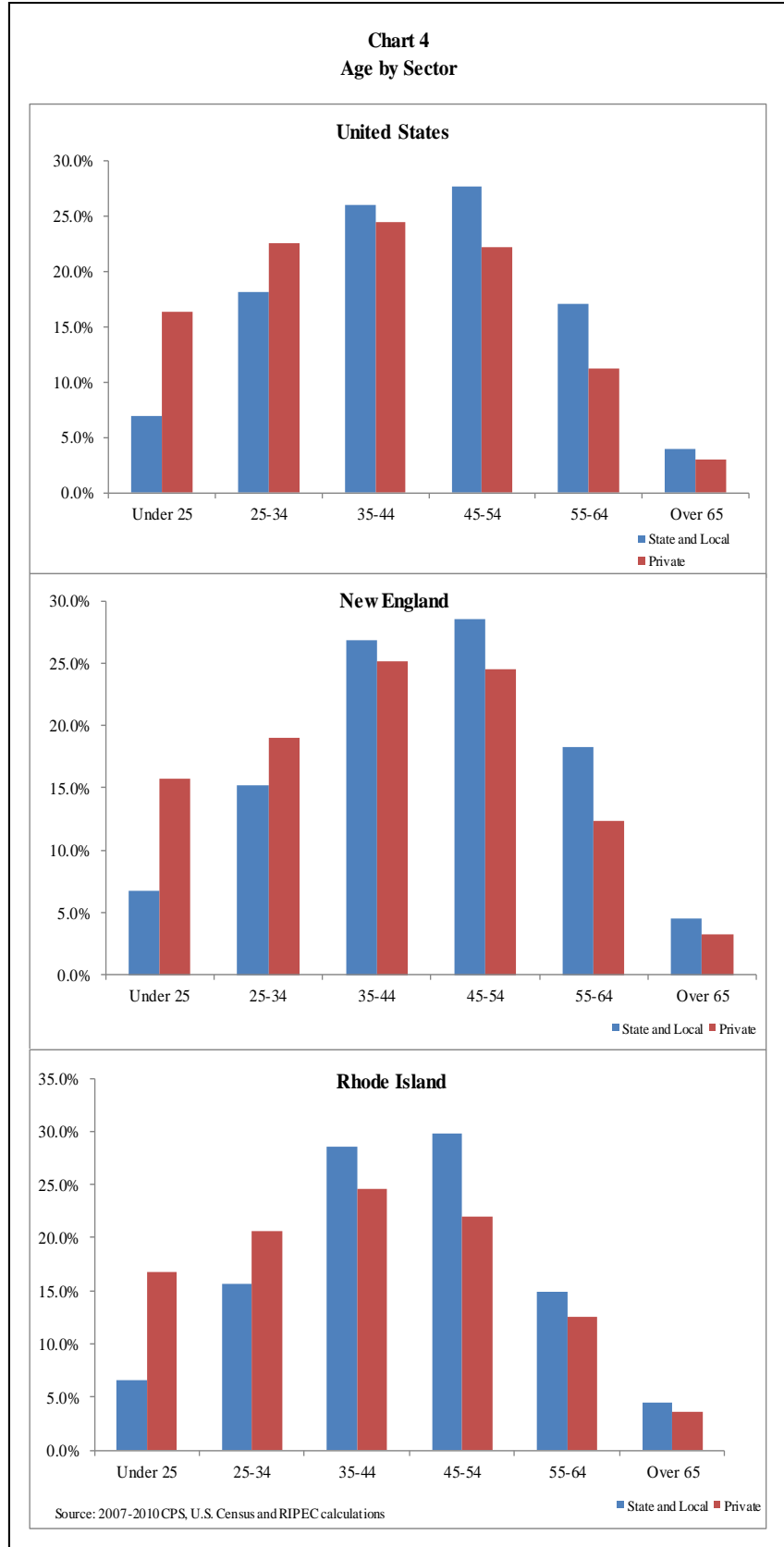
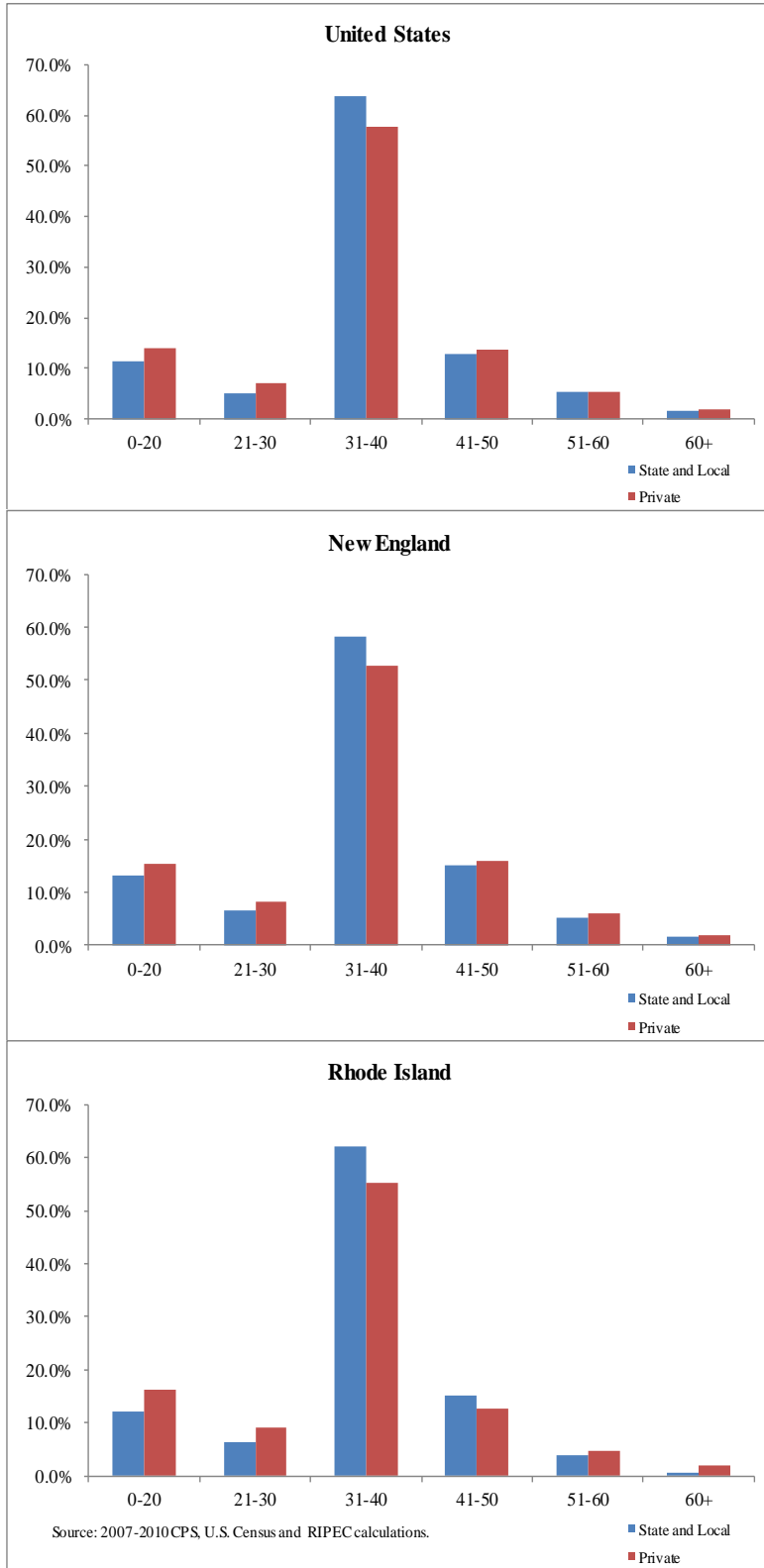


Chart 5
Average Hours Worked per Week by Sector



or under (62.0 percent in Rhode Island compared to 63.6 percent nationally). Within the region, a larger share of the state’s private sector workforce was under 45. Similarly, a larger share of public sector employees was 45 or younger when compared to the region and Massachusetts. At the same time, Rhode Island had a greater percentage of public sector employees ages 65 and older when compared to the US. Within the US, 3.9 percent of all public sector workers were 65 and over whereas in Rhode Island, 4.5 percent of public sector workers were age 65 and over.

Average Hours Worked

The average number of hours worked on a weekly basis can be a determinant in overall compensation costs. This is particularly relevant if a worker is paid hourly rather than salaried. Further, the number of hours worked can impact total compensation as a worker may qualify for certain benefits when employed at a given number of weekly hours. When each sector is examined as a whole, rather than by profession or occupation, public and private sector workers generally work a similar number of hours each week. The only substantial difference applies to workers within the 31 to 40 hours worked per week category; a

larger percentage of public sector employees fall within this category when compared to the private sector.

Data suggests that:

- A higher percentage of public sector employees nationally, regionally and in Rhode Island work an average of 31 to 40 hours weekly when compared to the private sector;
- The private sector has a higher percentage of workers clocking 51 to 60 or more hours a week; and
- Private sector workers constitute a larger share of workers that average 21 to 30 hours a week, but also constitute a higher percentage of workers that put in over 60 hours a week on average.

IV. Wage Analysis

Employees receive a share of their total compensation in the form of wages – earnings typically based on either an annual salaried or hourly rate. Salaries and wages represent the largest share of compensation, regardless of sector, occupation or geographical location. As such, the cost of wages is an important variable to consider when evaluating public and private sector compensation. At the same time, wages vary with a number of factors, such as education, age, sector, and number of hours worked. This section examines wages in the public and private sectors using data from the BLS CPS March Supplement, 2007-2010 using both average salaries and ranges of salaries based on certain demographic factors.

Wages Overview

National data indicate that public sector employees (including state, local and federal), on average, are better compensated than private sector workers. In 2010, the most recent year for which data is available, average public sector salaries of \$48,170 were 3.7 percent higher than average private sector salaries. Public sector salaries tend to be higher in the southern New England states than in Maine, New Hampshire, Vermont or the national average. At the same time, however, average public sector salaries in Rhode Island (which were 3rd highest in the country) outpace public sector salaries in both Connecticut and Massachusetts, who were ranked 5th and 6th highest, respectively.

Moreover, although public sector salaries in Connecticut and Massachusetts also rank in the top ten, private sector salaries in these states also rank in the top ten; in 2010, private sector salaries were the 2nd highest in the country in Connecticut, while salaries in Massachusetts were the 3rd highest. Rhode Island's private sector wages in 2010 of \$42,532 ranked the Ocean State 20th highest in the country – the largest wage gap of the 50 states. It should be noted that table 5 includes federal employees' salary, as the BLS included federal pay into this particular analysis on the public sector.

At the same time, there are a number of factors that affect public and private sector wages such as education, age and occupation. For example, as noted in the previous section, public sector workers tend to be both older and better educated than their private sector counterparts. Private sector employees are more likely to work more than 50 hours a week, as indicated in the workforce overview section. Data has indicated that these two factors have an effect on compensation so, as such, one may expect public sector workers to be better compensated, on average, unless these factors are controlled for in the analysis. Additionally, as shown in the

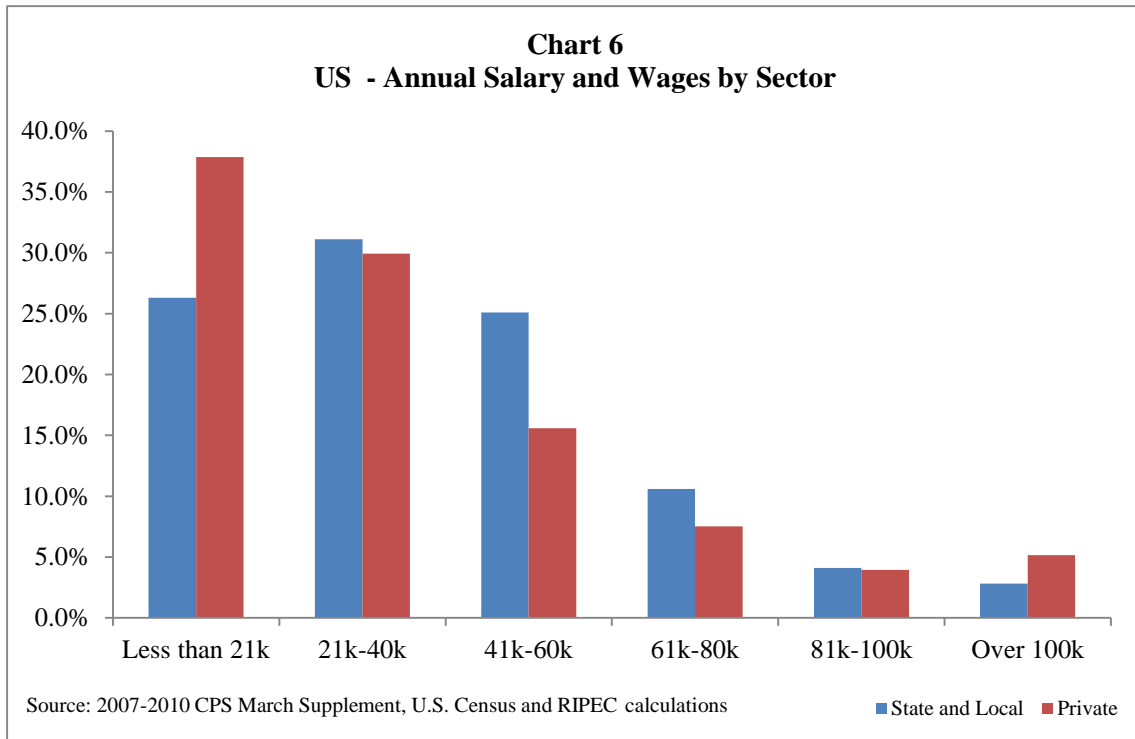
Table 10
Public Sector* v Private Sector Pay, 2010

	Public		Private		Difference	
	Salary	Rank	Salary	Rank	Salary	Rank
US	\$48,170	-	\$46,451	-	3.7%	-
CT	\$54,408	5	\$60,394	2	-9.9%	49
ME	40,816	36	36,581	45	11.6%	12
MA	53,699	6	58,319	3	-7.9%	48
NH	43,865	23	46,281	15	-5.2%	44
RI	57,036	3	42,532	20	34.1%	1
VT	42,494	28	38,644	36	10.0%	11

* Includes local, state and federal government employees

Source: BLS and RIPEC calculations

previous section, a large share of the national workforce is engaged in occupations – such as retail and cashiers – that tend to have low wages, thus skewing public and private sector compensation when just examining averages.



When wages were broken down further (and federal employees were excluded) it was possible to see a pattern of compensation between the two sectors. Although the share of private sector employees with salaries over \$100,000 was roughly double the percentage of public sector employees with salaries in the six figures, a larger share of the private sector receives lower salaries than the public sector: at the lowest end of the wage spectrum, 37.9 percent of individuals working in the private sector earn less than \$21,000 annually compared to 26.3 percent of public employees. More public sector employees were medium-income earners (between \$41,000 annually and \$80,000 annually) than private sector employees. Alternately, there is greater income stratification in the private sector than in the public sector, and the private sector is, generally, heavily skewed toward the lower end of the wage spectrum when compared to the public sector.

Factors Affecting Wages

This section of the report examines wages between the public and private sectors in Rhode Island, New England, and the country as a whole and explores different factors that can contribute to differences in wages amongst workers. Specifically, this section examines how wages are affected by a number of demographic factors such as educational attainment, average age of worker, regional differences, and the types of occupations in each sector.

Sector and Occupation

Tables 11 and 12 show the top ten largest occupations measured by their share of total sector employment and their average salaries as calculated by the BLS. Differences in the types of occupations in each sector will have an impact on average compensation. That is, if a higher percentage of employees in a given sector are employed in lower-paying professions, average salary will be lower than if a larger share of workers is employed in higher-paying professions, all things being equal.

As shown on the tables to the right, average salaries were lower for the 10 largest occupations in the private sector when compared to the public sector. Of the top ten largest private occupations, only one (registered nurses) had a salary of over \$50,000 in 2010. By contrast, five of the ten largest public sector occupations had salaries over \$50,000. Together, elementary, middle and secondary school teachers accounted for 13.3 percent of total state and local employment in 2010 and all three occupations had average salaries of over \$50,000.

Table 11
Employment & wages of the largest private occupations

Occupation	% of Total Workforce	Average Salary
Retail Salespersons	3.3%	\$25,000
Cashiers	2.6%	19,810
Office Clerks, General	2.2%	28,240
Combined Food Preparation & Serving Workers	2.1%	18,610
Registered Nurses*	2.1%	67,720
Waiters & Waitresses	1.8%	20,790
Customer Service Representatives	1.7%	32,780
Janitors & Cleaners	1.6%	24,560
Laborers & Freight, Stock, & Material Movers	1.6%	25,710
Secretaries & Administrative Assistants	1.4%	32,000

* This occupation has the same title, but not necessarily the same content, as the 2010 SOC occupation

Source: BLS Data, Occupational Employment Statistics (May 2010)

Table 12
Employment & wages of the largest state and local occupations

Occupation	% of Total Workforce	Average Salary
Elementary School Teachers*	6.2%	\$55,350
Teacher Assistants	4.5%	25,330
Secondary School Teachers*	4.3%	56,600
Police & Sheriff's Patrol Officers	2.9%	55,670
Middle School Teachers*	2.8%	55,510
Office Clerks, General	2.6%	29,990
Teachers & Instructors, All Other	2.5%	37,200
Janitors & Cleaners**	2.4%	28,930
Secretaries & Administrative Assistants***	2.2%	34,320
Registered Nurses	2.1%	67,040

* Excluding Special & Career/Technical Education

**Excluding Maids & Housekeeping Cleaners

***Excluding Legal, Medical, & Executive Secretaries & Admins.

Source: BLS Data, Occupational Employment Statistics (May 2010)

Of note, three positions were common between the two sectors: registered nurses, janitors and cleaners, and secretaries and administrative assistants. Of these three, only nurses had higher wages in the private sector compared to their public sector counterparts. Nursing salaries were \$680 higher in the private sector, while salaries for janitors and cleaners were \$4,370 higher in the public sector and secretarial and administrative assistant salaries were \$2,320 higher in the public sector.

Retail salespersons, who accounted for the largest share of private sector employment (3.3 percent), had average salaries of \$25,000. The second largest share of private sector employment – cashiers – accounted for 2.6 percent of employment and had average annual salaries of \$19,810. Conversely, the largest occupational category in the public sector was elementary school teachers, who accounted for 6.2 percent of employment and had average annual salaries of \$55,350. Teacher assistants, the second largest share of public sector employees, accounted for 4.5 percent of the population and had average annual salaries of \$25,330 in 2010. It should be noted, however, that teachers and teacher assistants are compensated differently than other occupations because the number of days worked per year is less when the summer term is factored in.

Educational Attainment

Research suggests that educational attainment is a demographic factor that may affect compensation. The average earnings for workers with a bachelor’s degree are generally higher than workers with a lower level of education. Data from a 2002 US Census Bureau study indicate that workers with a college degree earn, on average, \$0.9 million more over their lifetime than individuals with just a high school diploma. The same study indicated that those with a master’s degree will earn \$1.3 million more over their lifetime than workers with a high school diploma. Although more recent data indicate that the gaps may be smaller when other factors – such as the cost of debt – are taken into account, there does appear to be a correlation between educational attainment and pay.

Table 13
Average Salary by Educational Attainment

	US		NE		RI	
	Public	Private	Public	Private	Public	Private
Less than HS diploma	\$16,249	\$18,803	\$17,313	\$16,249	\$15,894	\$18,480
HS diploma	30,569	30,651	35,673	33,376	33,188	31,234
Some college or	35,530	34,797	38,854	35,103	40,750	33,996
Bachelor's	43,839	60,106	46,860	63,392	44,340	55,425
Graduate or master's	59,744	92,437	61,005	98,095	60,004	82,710

Source: 2007-2010 CPS, U.S. Census and RIPEC calculations.

Table 13 shows salaries for public and private sector employees by education for Rhode Island, New England and the United States. The data indicates that, on average, in Rhode Island and

New England, individuals with less than a bachelor’s degree earn more in the public sector at the state and local level. However, at higher levels of education (bachelors or higher), private sector pay is higher for Rhode Island, New England, and the US as a whole. For the US as a whole, public sector workers with less than a high school diploma make less than private sector workers. Pay between the sectors was relatively the same for workers with a high school diploma and some college or an associate’s degree. Additional findings for workers in Rhode Island include:

- Public sector workers with some college (including an associate’s degree) earn approximately 16.6 percent more than their private sector counterpart in Rhode Island;
- Wages for Rhode Island public sector workers with a bachelor’s degree, on average, are 25.0 percent less compared to a private sector worker with a bachelor’s degree; and
- The gap between private and public sector workers in Rhode Island is greatest when individuals with a master’s or graduate-level degree are assessed on the basis of educational attainment. When compared as a whole, private sector workers earn approximately 27.5 more than a comparable public sector worker who possesses a master’s or graduate level degree.

Age

The average age of workers within a given profession may affect compensation, because age often translates into number of years of experience; theoretically, an older workforce generally has more experience and is, therefore, better compensated. Data from the BLS on median weekly earnings of full-time workers notes that wages varied by age. Men aged 45-54 and 55-64 had the highest median weekly earnings (\$974 and \$1,001, respectively), while usual weekly earnings were highest for women aged 35-64 (for ages 35-44: \$742; ages 45-54: \$742; and ages 55-64: \$753). Table 14 shows the average salaries as grouped by age ranges for the public and private sectors.

Table 14
Average Salary by Age

	US		NE		RI	
	Public	Private	Public	Private	Public	Private
Under 25	\$14,687	\$13,615	\$13,365	\$13,586	\$10,348	\$12,472
25-34	37,327	35,237	42,897	40,801	41,090	34,236
35-44	44,202	47,578	49,172	57,925	47,928	45,944
45-54	45,571	49,382	50,689	59,884	48,812	50,581
55-64	46,435	48,070	50,410	53,310	48,322	48,050
65+	33,679	33,851	35,327	37,090	38,882	37,058

Source: 2007-2010 CPS, US Census and RIPEC calculations

The data indicate that workers in the public sector earn more than their private sector counterparts in certain age groups, and vice-versa in others. In general, public sector earnings are higher than private sector earnings for employees in the middle age ranges (25-44) while private

sector earnings are higher at the early and later years of employment. On average, the Rhode Island public sector earns more than the private for employees between the ages 25 and 44, and for employees between the ages of 55 and 64. In New England, the private sector outpaces the public sector, on average, for all age cohorts except for the 25-34 age range, while nationally, the private sector has higher average salaries for all age ranges except for the under 25 and 35-44 age group. Additional findings for Rhode Island include:

- In Rhode Island, a worker in the public sector between the ages of 35 and 44 earns, on average, \$47,928 while the same age group in the private sector in Rhode Island earns \$45,944, on average;
- Private sector workers in Rhode Island under 25 years of age earn \$2,124 more annually than then public sector workers under the age of 25; and
- As with education, Rhode Island private sector workers generally earn less than their age cohorts in the public sectors, less than New England and US workers on average.

V. Benefits Analysis

In addition to wages, most employees receive additional compensation in the form of benefits such as health insurance, retirement/savings plans and paid leave. Benefit costs have become an increasingly large share of total compensation – and employer costs – as growth in the cost of health insurance and pension obligations outpace wage growth. Traditionally, public employees have had greater access to benefits, and are more likely to participate in defined benefit pension plans, which tend to have higher employer costs than defined contribution plans. As such, the cost of benefits is an important variable to consider when evaluating public and private sector compensation. This section examines the availability of benefits in the public and private sectors using data from the BLS CPS March Supplement, 2007-2010. In addition, this section provides a wage adjustment using national data from the BLS Employer Costs for Employee Compensation and the Employee Benefits Survey.

Employer-Provided Pension and Retirement Plans

There are a number of different retirement or pension plans that may be offered by an employer. Employer-provided pensions (EPPs) are arrangements between employers and employees that provide an income after the employee retires. Generally, there are two types of retirement plans: defined benefit and defined contribution.

- A defined benefit (DB) plan promises a specified dollar amount upon retirement. Usually, this amount is calculated as a percent of average highest salary for a certain number of years of service (i.e., the average of the highest-earning years). In a defined benefit plan, employees generally make a set contribution as a share of their pay and the employer bears the risk (or reward) of the investment.
- Defined contribution (DC) plans, in contrast, do not promise a specific amount of benefits at retirement. Instead, employers make a set contribution (e.g., five percent of annual earnings), which is then invested on the employee’s behalf. In a defined contribution plan, the employee bears the market risk of their investment. Examples of defined contribution plans include 401(k) plans, 403(b) plans, employee stock ownership plans, and profit-sharing plans.

Although the existence of a retirement plan does not mean all employees are eligible to participate, DB plans tend to be more common in the public sector. As the data on table 15 indicates, DB plans are twice as common in the public sector compared to the private sector, while the inverse relationship exists with respect to DC plans in the private sector. Similarly, of the 87 public sector retirement plans examined in the Wisconsin Legislative Bureau’s 2010 report “2008 Comparative Study of Major Public Employee Retirement Systems”, only four were not DB plans. As shown on table 15, an estimated 79

Table 15
Retirement Plan Participation by Sector

	Defined Benefit		Defined Contribution	
	Public	Private	Public	Private
2007	79%	32%	18%	53%
2008	79%	33%	18%	55%
2009	79%	32%	17%	55%
2010	79%	30%	17%	54%

* Companies with 100+ employees

SOURCE: BLS Employee Benefits Survey

percent of public employees participated in a DB plan in 2010, compared to 30 percent in the private sector. That same year, 17 percent of public employees and 54 percent of private employees participated in a DC plan.

Table 16 shows the percentage of employees with access to, though not necessarily participation in, retirement plans (DB or DC) in Rhode Island, Connecticut, Massachusetts, New England, and the US. As shown on the table, and consistent with findings above, state and local workers are more likely to have access to an employer-sponsored retirement plan than their private sector counterparts. Nationally, 80.7 percent of public sector workers had access to a pension plan, compared to 51.9 percent in the private sector. Ratios were similar in New England, and in Connecticut, Massachusetts and Rhode Island; however, New England private sector employees were more likely to have access to retirement plans than the US as a whole – 56.8 percent compared to 51.9 percent. Current Population Survey data provides information on access to employer-provided pension plans but does not distinguish between participation in a DB or DC

plan. At the same time, as noted above, DB plans tend to be more scarce in the private sector where employees are more likely to participate in a DC plan, while public sector workers, in general, participate in DB plans.

	US	NE	CT	MA	RI
Private	51.9%	56.8%	57.4%	56.3%	53.0%
State and Local	80.7%	80.4%	81.3%	78.8%	81.7%

Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

Employer-Sponsored Health Insurance

Employer-sponsored insurance (ESI) is one of the largest – and fastest-growing – benefit costs; between FY 2002 and FY 2012, state spending on medical insurance increased by 53.5 percent (unadjusted), more than double the rate at which net salaries increased. Table 17 shows public and private sector ESI participation and the average employee contribution for a single and a family plan between 2007 and 2010. In both sectors, participation rates have increased; however, public sector employees were between 22 and 27 percent more likely to participate in ESI compared to private sector workers.

	Participation		Ave. Employee Contribution*			
	Public	Private	Single		Family	
			Public	Private	Public	Private
2007	72%	49%	\$73.25	\$81.30	\$320.15	\$312.70
2008	73%	53%	73.34	87.69	328.01	330.99
2009	73%	52%	77.67	92.43	342.50	349.30
2010	78%	51%	85.18	99.07	354.66	383.12

* Average flat monthly employee contribution
SOURCE: BLS Employee Benefits Survey, National Compensation Survey

Private sector employee contribution amounts were higher than public sector employee contribution amounts for both the single and family plan (with the exception of the 2007 family plan). Between 2007 and 2010, premiums increased across the board, although the rate of growth was slower for the public plans. Employee contribution amounts to health insurance for single plans increased by 16.3 percent for public sector workers and 21.9 percent for private sector workers. The difference in the rate of growth was more significant for family plans: private sector family employee contribution amounts increased more than twice as fast as public sector family employee contribution amounts (22.5 percent v 10.8 percent).

Table 18 outlines the access to employer-sponsored health insurance for Connecticut, Massachusetts, Rhode Island, New England and the US. In general, workers in both the public and private sector have access to ESI.⁴ As shown on the table, approximately 95 percent of private sector workers have some level of access to ESI, while approximately 98 percent of state and local workers have access to ESI. At the same time, state and local employees are more likely to have access to some form of employer-sponsored health insurance than workers in the private sector across the board. The percent of private sector workers with no ESI was approximately twice as large as the percent of public sector workers with no access to ESI, although the gap was smaller at the national level than in New England or any of the three surveyed states. State and local workers were, in general more likely to have access to a plan

where all of their insurance was covered by their employer, although the difference was small in both Rhode Island (16.0 percent in the private sector verses 16.7 percent in the public sector) and in New England (13.8 percent for the private sector and 13.7 percent for the public sector).

Table 18
Access to Health Insurance Paid by Employer

	Private			State and Local		
	All	Some	None	All	Some	None
Connecticut	14.0%	81.9%	4.1%	10.1%	87.5%	2.4%
Massachusetts	15.1%	80.3%	4.6%	23.6%	74.4%	2.0%
Rhode Island	16.0%	80.6%	3.5%	16.7%	82.0%	1.3%
New England	13.8%	82.3%	3.9%	13.7%	84.4%	1.9%
United States	17.5%	77.6%	4.9%	23.1%	73.8%	3.2%

Source: 2007-2010 CPS March Supplement, U.S. Census and RIPEC calculations

Benefit Markup Adjustments to Compensation

Quantifying the value of benefits across sectors is an important component of determining how compensation varies across the public and private sectors. As noted above, there is variation with regard to access, cost and type of benefit offered between the two sectors, which would be expected to have an effect on total compensation costs and should be taken into account when evaluating public and private sector compensation. However, there is little state-level data on

⁴ NOTE: the sample set excludes individuals who worked less than full time, which may explain the higher incidence rate of access to ESI.

benefits due, in part, to the complexity of data collection. The BLS Employer Cost of Employee Compensation (ECEC) calculates the relative importance of employer costs for employee compensation, assigning a share of benefit costs to overall compensation at the national level. This data can be used to adjust wages to calculate an “all in” cost of an employee.

As shown on table 19, benefits play a larger role in overall compensation at the state and local level than in the private sector. At the same time, it appears that firm size has an effect on the percent of total compensation accounted for by benefit costs. Firm size can affect the share of compensation costs – smaller businesses tend to absorb a larger share of wages as a share of total compensation. Table 19 illustrates that in the private sector, as firm size increases, so does the share of benefits as a percent of total compensation. For firms with less than 99 employees, benefits accounted for just 26.0 percent

	Private by Firm Size			State & Local
	<99	100-499	500+	
Wages	74.0%	69.9%	66.2%	65.5%
Total Benefits	26.0%	30.1%	33.8%	34.5%
Paid Leave	5.6%	6.9%	8.6%	7.5%
Vacation	2.8%	3.6%	4.5%	2.8%
Holiday	1.9%	2.2%	2.5%	2.2%
Sick	0.7%	0.9%	1.1%	1.9%
Personal	0.3%	0.3%	0.4%	0.5%
Supplemental Pay	2.2%	2.6%	3.7%	0.8%
Overtime	0.8%	1.0%	0.9%	0.4%
Shift Differential	0.1%	0.2%	0.5%	0.1%
Nonproduction Bonuses	1.4%	1.3%	2.2%	0.3%
Insurance	6.6%	8.9%	9.4%	12.0%
Life	0.1%	0.2%	0.2%	0.2%
Health	6.3%	8.4%	8.7%	11.7%
Short-term Disability	0.1%	0.2%	0.2%	0.1%
Long-term Disability	0.1%	0.1%	0.2%	0.1%
Retirement & Savings	2.5%	3.6%	5.1%	8.2%
Defined Benefit	0.9%	1.4%	2.5%	7.4%
Defined Contribution	1.6%	2.1%	2.6%	0.8%
Legally-Required Benefits	9.0%	8.2%	7.1%	6.0%
Social Security	4.9%	4.6%	4.5%	3.6%
Medicare	1.2%	1.1%	1.1%	1.0%
Federal Unemployment Ins	0.2%	0.1%	0.1%	0.0%
State Unemployment Ins	0.9%	0.7%	0.4%	0.2%
Workers' Compensation	1.8%	1.5%	1.0%	1.1%

SOURCE: BLS "Employer Costs for Employee Compensation", March 2011

of total compensation, compared to 30.1 percent in firms with 100-499 employees and 33.8 percent for firms with over 500 employees. Benefits accounted for 34.5 percent of total employee compensation at the state and local level in the 2011 survey. In general, benefits as a share of compensation were the most similar between firms of 500 or more employees and state/local governments.

Findings include:

- Benefit costs as a share of total compensation were most similar between state and local governments and firms with 500+ employees, although the specific mix of benefit costs varied between the two groups;
- Insurance, specifically health insurance, accounted for the largest share of benefits at all levels, but was the largest for state and local employees. Health insurance costs for state and local employees was 11.7 percent of total compensation, compared to 6.3 percent for firms with less than 100 employees, 8.4 percent in firms with 100-499 employees and 8.7 percent for firms with over 500 employees;
- Retirement and savings costs were also a more significant benefit cost for state and local governments when compared to the private sector. These costs were 8.2 percent of total compensation for public sector employees, compared to 2.5 percent for employees in firms with less than 99 employees, 3.6 percent for firms with 100-499 employees and 5.1 percent for firms with 500 or more employees;
- The majority of DB-related retirement costs were the private sector (7.4 percent). In the private sector, smaller firms were more likely to have more costs for DC plans compared to DB plans, but firms with 500+ employees DB and DC costs were roughly equal; and
- Paid leave, supplemental pay, and costs associated with legally-required benefits (e.g. Social Security and Medicare) accounted for a greater share of overall compensation for private firms of all sizes compared to state/local governments. Legally-required benefit costs were likely to have a greater impact on compensation costs in small firms, where they accounted for 9.0 percent of compensation, compared to 6.0 percent for the public sector.

The employer cost of benefits as a share of total compensation also varies depending on the type of position. As expected, benefits tend to account for a greater share of compensation for lower-wage positions such as office and administrative support staff. Conversely, higher-wage positions, such as managers and professional service providers tend to have benefits constituting a smaller share of total compensation. As shown on table 20, benefits accounted for almost 40 percent of total compensation for public sector office and administrative support staff, compared to 32.1 percent for public sector workers engaged in management and professional services occupations.

	Office & Admin. Services		Management & Professional	
	Public	Private	Public	Private
Hourly Compensation	\$28.24	\$22.86	\$49.07	\$50.47
% Wages	60.6%	69.5%	67.9%	71.1%
% Benefits	39.4%	30.5%	32.1%	28.9%
% Healthcare	15.6%	10.6%	11.0%	6.8%
% Retirement	7.6%	3.2%	7.9%	3.9%
% Other	16.2%	16.7%	13.2%	18.2%
SOURCE: BLS "Employer Costs for Employee Compensation", 2010				

When comparing public to private wages and benefits as a share of compensation, public sector benefits account for an increasingly large share of benefits at the lower end of the pay scale when compared to their private sector counterparts. While the gap between the two occupations is smaller in the private sector, benefits also accounted for a larger share of compensation for office

and administrative support workers. In both cases, benefits accounted for a greater share of compensation for public sector employees, but the gap between the two sectors was larger at the lower end of the wage spectrum. Based on the data in the table above, it appears that healthcare is the primary driver of the difference in benefits as a share of compensation. Health insurance costs as a share of total compensation were roughly four percent higher for both public and private office and administrative workers, compared to management and professional service workers.

Table 21 adjusts total average wages from section IV (Wage Analysis) for the US, New England and Rhode Island, using table 19 as a guide. Total compensation was derived by adjusting average wages by the wage ratio, while benefits were calculated using the benefit ratios. Wages and benefits were then summed to arrive at the total estimated average compensation. Based on these adjustments, average total public sector compensation in Rhode Island is estimated to be \$67,117, compared to average total compensation of \$52,082 for small private firms and \$58,218 for large firms. Consistent with other sections of this report, table 21 excludes data pertaining to federal employees and represents average salaries for full-time private, and full-time state and local employees only.

Table 21
Benefit Costs and Adjusted Total Compensation, US, New England and Rhode Island

	US			New England			Rhode Island		
	Small*	Large**	Public	Small*	Large**	Public	Small*	Large**	Public
Paid Leave	\$2,962	\$5,056	\$4,625	\$3,314	\$5,656	\$4,823	\$2,927	\$4,995	\$5,034
Supplemental Pay	1,170	2,168	493	1,309	2,426	514	1,156	2,142	537
Insurance	3,490	5,527	7,399	3,904	6,184	7,717	3,448	5,461	8,054
Retirement & Savings	1,328	2,993	5,056	1,486	3,349	5,273	1,312	2,957	5,504
Legally Required	4,755	4,172	3,700	5,320	4,667	3,858	4,698	4,122	4,027
<i>Total Benefits</i>	<i>\$13,705</i>	<i>\$19,916</i>	<i>\$21,273</i>	<i>\$15,334</i>	<i>\$22,283</i>	<i>\$22,186</i>	<i>\$13,541</i>	<i>\$19,678</i>	<i>\$23,155</i>
<i>Wages</i>	<i>\$39,007</i>	<i>\$39,007</i>	<i>\$40,388</i>	<i>\$43,642</i>	<i>\$43,642</i>	<i>\$42,121</i>	<i>\$38,540</i>	<i>\$38,540</i>	<i>\$43,962</i>
Total	\$52,712	\$58,923	\$61,661	\$58,976	\$65,925	\$64,307	\$52,082	\$58,218	\$67,117

* Less than 99 employees

** More than 500 employees

SOURCE: BLS "Employer Costs for Employee Compensation", March 2011; CPS March Supplement, 2007-2010; RIPEC calculations

VI. Occupational Analysis

Data was collected and analyzed for eight individual occupations regarding worker compensation and demographics. The profiles in this section provide an overview of the workforce population by occupation. This section includes information on the average annual salary/wages for each occupation. In addition, wages were adjusted using data from the BLS Employer Costs of Employee Compensation (ECEC) to find total compensation, that is, salary plus benefits. This section also includes information on the prevalence of employer-sponsored insurance (ESI) and employer-provided pension plans (EPP). Due to the data collection methodology employed by the CPS March Supplement, this data does not indicate participation in either plan, just whether a plan is offered. Similarly, CPS data does not indicate whether a DB or DC plan is offered. Lastly, this section includes two demographic variables for each occupation: average age and the percent of population with at least a bachelor's degree. Demographic and wage data are derived from the CPS March Supplement for years 2007-2010.

These occupations were selected with the assistance of the Office of the General Treasurer, and, from a list of ten occupations, two were eliminated due to insufficient data. The RI Department of Administration (DOA) also provided input on the occupation selection regarding the types of occupations that are most prevalent at the state level. Occupations met the criteria for data analysis if 1) the sample size was sufficient (as determined by the 4 year CPS data set used in this analysis) and 2) the DOA reported a high volume of workers within the public sector with specific job titles analyzed.

The highlights of our analysis of the eight individual occupations that exist both in the private and public sectors include:

- Workers in low-wage occupations, such as janitorial and maintenance workers, public sector employees receive greater total compensation than private sector workers in the same occupation in Rhode Island, New England, and the United States;
- For high-wage occupations, such as lawyers and engineers, private sector employees receive greater total compensation than public sector workers in the same occupation in Rhode Island, New England, and the United States;
- On average, public sector workers receive a larger percentage of benefits as a share of total compensation than private sector workers. This is more prominent in low-wage occupations such as office and administrative staff; and
- For low-wage occupations, benefits tend to constitute a greater percentage of an employees' total compensation than high-wage occupations.

Methodology

Our analysis focuses on the following occupational categories: lawyers, engineers, teachers, internet technology and network specialists, community and social services workers, registered nurses, office and administrative staff, and janitorial and maintenance workers. For in-depth descriptions of the selected occupations as defined by the US Census Standard Occupational Classification (SOC) system, see the appendix. In some instances, specific professions were combined to increase sample size and improve the reliability of our calculations. For example, the occupation of "engineer," includes civil, environmental, and mechanical engineers to increase the sample size. Such combinations were designed to create an occupational category

broad enough to increase the overall sample size. Individuals who reported as self-employed, unemployed, or classified as unable to work were excluded from the sample. LLCs, LLPs, and LPs were also excluded with the exception of the “lawyers” occupational group.⁵

Average salary, access to employer-sponsored insurance and access to employer-provided pensions were extracted for each occupation and sector using the data from the Current Population Survey for the four-year period between 2007 and 2010. Wage data was not calculated by RIPEC for either sector or for any occupation. In order to provide a more complete picture of total employee compensation—that is, salaries and benefits—average compensation was calculated using data from the Employer Costs for Employee Compensation (ECEC) in a manner similar to other compensation studies. For a detailed account of other compensation studies that draw upon ECEC and BLS data, please refer to the literature review. The ECEC, a product of the National Compensation Survey from the Bureau of Labor Statistics, measures employer costs for wages, salaries, and employee benefits. Benefit costs as a share of total compensation were adjusted for New England and Rhode Island to account for the slight differences in average levels of compensation between the region and the country as a whole.⁶

The following provides a step-by-step description of how total compensation was calculated for public and private sector occupations, using nurses as an example, nationally, regionally, and in Rhode Island:

Step 1: Wage data for the occupations was extracted from the merged 2007-2010 CPS data. As noted previously, no adjustments were made by RIPEC for wage data for either sector. Based on the extracted CPS data, nurses in the US earned \$50,993 in the public sector and \$52,736 in the private sector.

Step 2: The ECEC provides data on wages as a share of total compensation by sector and by occupation or industry. In order to calculate total compensation, the wage ratio, that is, wages as a share of total compensation as provided by the ECEC, was applied to the wage data extracted from the CPS. For example, since wages for private sector nurses nationally accounted for 69.6 percent of total compensation, total compensation was determined by dividing salary by this wage ratio. For US private sector nurses, total compensation was calculated as:

$$\begin{aligned} & \text{CPS wage data (US private nurses)/ECEC wage ratio (US private nurses)} \\ & = \$52,736/69.9\% = \$75,770 \end{aligned}$$

Step 3: Because the share of salary/wages as a percent of total compensation varies by region, total compensation for New England and Rhode Island were adjusted by a regional factor. Wages as a share of total compensation for Rhode Island and New England were calculated by determining the wages as a share of total compensation ratio for New England to the US. Wages

⁵ The lawyers occupational analyses include LLCs, LLPs, and LPs in order to account for the preponderance of lawyers that are self-employed or fall into one of these categories. The BLS estimated that approximately 26.0 percent of lawyers are self-employed, either as partners in law firms or in solo practices.

⁶ Nationally, benefits accounted for 29.6 percent of private sector compensation, compared to 29.5 percent of private sector compensation in New England.

accounted for 70.5 percent of total compensation for the New England private sector, compared to 70.4 percent for the US private sector. Therefore, wages in New England accounted for a slightly higher share of compensation compared to the US as a whole:

$$\text{ECEC NE wages as a \% of compensation} / \text{ECEC US wages as \% of compensation} = 70.5\% / 70.4 = 100.1\%$$

Step 4: By applying the aforementioned ratios, determinations for specific occupations by region can be made. Total compensation for New England private sector nurses was calculated by multiplying the ECEC wage ratio for private sector nurses by the New England to US wages as a share of compensation ratio:

$$\text{ECEC wage ratio} * \text{NE:US wage ratio} = 69.6\% * 100.1\% = 69.7\%$$

Thus, total compensation for private sector nurses in New England was estimated to be:

$$\text{CPS wage data for NE private sector nurses} / \text{NE wage ratio} = \$59,719 / 69.7\% = \$85,717$$

Total compensation for Rhode Island private sector nurses was calculated in the same manner:

$$\text{CPS wage data for RI private sector nurses} / \text{NE wage ratio} = \$53,381 / 69.7\% = \$76,621$$

Step 5: The ECEC does not provide occupation- or industry-specific data for all of the selected occupations for both sectors (that is, public and private). In the event that only private sector data was provided by the ECEC, public sector data was calculated using the ratio of all public sector wages as a share of total compensation to all private sector wages as a share of total compensation. If only public sector data was given (i.e., in the case of teachers), the ratio was calculated in the inverse:

$$\begin{aligned} \text{ECEC public sector wages as a share of compensation for all workers} &= 65.5\% \\ \text{ECEC private sector wages as a share of compensation for all workers} &= 70.4\% \end{aligned}$$

$$\begin{aligned} \text{Public:Private wage ratio} &= 70.4\% / 65.5\% = 107.5\% \\ \text{Private:Public wage ratio} &= 65.5\% / 70.4\% = 93.0\% \end{aligned}$$

Step 6: The ratio calculated in step 5 was then applied to the extracted wage data to calculate the total compensation for the appropriate sector. In the case of nurses, no public sector data for the occupation was provided by the ECEC. Therefore, the wage ratio (wages as a share of total compensation) for US public sector nurses was calculated by applying the public to private wage ratio as shown above to the US private sector nurses wage ratio:

$$\text{ECEC wage ratio (US private nurses)} * \text{Private:Public wage ratio} = 69.6\% * 93.0\% = 64.5\%$$

This wage ratio was then applied to the CPS wage data for US public sector nurses to calculate total compensation for US public sector nurses:

$$\begin{aligned} & \text{CPS wage data (US public nurses)/Public sector wage ratio} \\ & = \$50,993/64.5\% = \$79,082 \end{aligned}$$

Step 7: As noted in step 3, regional differences in compensation patterns were accounted for by calculating the ratio of wages as a share of total compensation for private sector workers in the US and New England. If public or private sector wages as a share of compensation were not provided by the ECEC, and were calculated by RIPEC, the regional adjuster was applied to the calculated wage ratio, as in the case of nurses:

$$\begin{aligned} & \text{US public share of wages} = 69.9\% * 93.0\% = 64.5\% \\ & \text{NE/RI public share of wages} = 64.5\% * 100.1\% = 64.6\% \end{aligned}$$

$$\begin{aligned} & \text{NE public sector nurse total compensation} \\ & = \$47,118/64.5\% = \$73,051 \end{aligned}$$

$$\begin{aligned} & \text{RI public sector nurse total compensation} \\ & = \$60,667/64.5\% = \$94,057 \end{aligned}$$

Total Compensation Calculation Example: Nurses

CPS wage data on US Nurses - \$50,993 in public \$52,736 in the private

Private sector nurses in RI = \$53,381

ECEC wages = 69.9% of total compensation (private sector nurses)

Wage data on public sector nurses not available

ECEC wages = 65.5% (public sector)

New England wages = 70.5% of total compensation

NE:US Ratio = 70.5% :70.4% = 100.1%

$$\text{Total Compensation for US} = \frac{\$52,736}{69.9\%} = \mathbf{\$75,770}$$

$$\text{Share of wages as a \% of comp. for NE} = 69.6\% * 100.1\% = 69.7\%$$

$$\text{Total Comp. for NE private} = \frac{\$59,719}{69.7\%} = \mathbf{\$85,717}$$

$$\text{Total Comp. for RI private} = \frac{\$53,381}{69.7\%} = \mathbf{\$76,621}$$

$$\text{Public: Private} = \frac{70.4\%}{65.5\%} = \mathbf{108\%}$$

$$\text{Private:Public} = \frac{65.5\%}{70.4\%} = \mathbf{93\%}$$

$$\text{Wages as a share of comp. (public)} = 69.6\% * 93.0\% = 64.5\%$$

$$\text{Total Comp. for US Public} = \frac{\$50,993}{64.5\%} = \mathbf{\$79,082}$$

$$\text{Wages as a share of comp. (NE public)} = 64.5\% * 100.1\% = \mathbf{64.5\%}$$

$$\text{Total Comp. for NE public} = \frac{\$47,118}{64.5\%} = \mathbf{\$73,051}$$

$$\text{Total Comp. for RI Public Nurses:} = \frac{\$60,667}{64.5\%} = \mathbf{\$94,057}$$

Total Compensation = Sum of Wages and Benefits

Source: CPS March Supplement 2007-2010, BLS, ECEC, and RIPEC Calculations

Occupational Comparisons

Janitorial and Maintenance Workers

This occupational code includes housecleaners and maids, janitors and building cleaners, and grounds maintenance workers. General duties of this profession include maintaining cleanliness in buildings or outdoor areas. Such workers may perform heavy cleaning duties, such as cleaning floors, but may also include landscaping and grounds-keeping duties. Compensation was calculated using the private sector occupational group data for “natural resources, construction and maintenance”. Public sector compensation was derived from the wage ratio for private sector workers in the occupational group, adjusting for the average difference between all public and all private sector wage ratios.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$26,029	\$19,248	\$25,350	\$16,843	\$23,397	\$16,705
Total salary plus benefits**	\$43,538	\$28,224	\$42,402	\$24,698	\$39,191	\$24,529
% with ESI*	100.0%	91.8%	100.0%	92.2%	95.6%	94.1%
% with EPP*	77.3%	26.8%	70.6%	30.6%	71.1%	27.9%
Average age	48	40	46	40	45	41
% with bachelor's degree+	8.7%	5.4%	4.6%	6.3%	4.8%	4.3%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; ***Adjusted using "nat. resources, construct. & maint." data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

The data on janitorial and maintenance workers indicates that:

- Within all regions, public sector wages and total compensation were higher than public sector wages. However, the pay gap between public and private sector wages was smaller in Rhode Island than in the region or nationally;
- On average, janitorial and maintenance workers in Rhode Island had higher wages and total compensation in both the public and private sectors when compared to their peers in New England or the rest of the country;
- Consistent with other professions, the public sector was more likely to have access to ESI compared to the private sector; however, both sectors were likely to have some form of employer-sponsored insurance;
- Public sector workers in Rhode Island were almost three times more likely to have access to an EPP than private sector janitorial and maintenance workers. Nationally and regionally, public sector workers were roughly 2.5 times more likely to have access to an EPP;
- In all three groups, public sector workers were, on average, older than workers in the private sector. The average age difference in Rhode Island was larger than the average age difference in New England and the US.

Office and Administrative Support Occupations

This occupational code provides a broad array of administrative positions and office workers that provide professional office support or perform secretarial duties. The job titles in this category include, but are not limited to, bookkeeping, data entry, secretarial positions, and administrative workers. As the ECEC includes data for both public and private sector office and administrative support employees, wages and benefits both sectors were adjusted accordingly.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$28,267	\$27,221	\$27,805	\$29,120	\$28,752	\$26,655
Total salary plus benefits**	\$46,579	\$39,112	\$45,817	\$41,839	\$47,445	\$38,353
% with ESI*	96.3%	93.6%	96.2%	95.4%	96.9%	95.1%
% with EPP*	78.6%	54.3%	74.8%	58.2%	80.1%	53.4%
Average age	47	44	46	44	45	42
% with bachelor's degree+	14.0%	21.4%	16.6%	21.1%	17.9%	17.4%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; *** Adjusted using "office and admin" industry data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

CPS data on office and administrative support workers indicates that:

- Public sector salaries were slightly higher than private sector salaries in Rhode Island and the US, but were lower in New England at large although the difference was slight for all three groups;
- When benefits were included, however, public sector compensation was higher for the public sector across the board. ECEC data indicates that benefit costs as a share of total compensation – specifically health insurance and retirement benefit costs – were notably higher in the public sector;
- In general, employees in both the public and private sectors had access to ESI in Rhode Island, New England and the US, although workers in the public sector were slightly more likely to have access than private sector employees;
- Office and administrative support workers in the public sector were roughly 25 percent more likely to have access to an EPP than private sector workers in Rhode Island or the US. The gap is slightly smaller for New England in general; however, public sector workers in New England were less likely to have access to an EPP than other public sector workers while their private sector counterparts were more likely to have access to an EPP; and
- Similar to IT employees, and in contrast to most other occupations included in this study, private sector workers were, on average, more likely to have a bachelor’s degree or higher compared to their public sector peers in Rhode Island and New England.

Community and Social Services Occupations:

Community and social services workers provide support in the form of counseling, case management, mental health consultation, and community involvement. This occupational title includes, but is not limited to, child, family, and school social workers, counselors, mental health advocates, and other community and social service specialists. Total compensation was calculated using the broader industry category of “health care and social assistance” which also includes ambulatory and health care services, hospitals, and nursing and residential care facilities in addition to social assistance.

Table 24
Community and Social Workers

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$51,809	\$31,527	\$44,416	\$36,453	\$41,588	\$33,057
Total salary plus benefits**	\$81,990	\$44,217	\$70,290	\$51,125	\$65,908	\$46,428
% with ESI*	95.8%	96.0%	99.4%	96.0%	97.8%	95.4%
% with EPP*	96.6%	68.4%	88.2%	67.7%	84.4%	63.1%
Average age	45	43	43	39	43	41
% with bachelor's degree+	96.6%	71.8%	81.9%	74.0%	75.0%	64.9%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; *** Adjusted using "health care and social assistance" data

Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

The data on community and social service workers suggests that:

- Public sector salaries, on average, are higher than private sector salaries across the board; however, the average salary of a public sector community and social services worker in Rhode Island is \$20,282 higher than the average salary of a private sector worker, larger than the gap between the public and private sectors in New England and the US average;
- Benefits account for a greater portion of compensation for public sector “health care and social assistance workers” when compared to the private sector, increasing the difference between public and private sector compensation;
- When benefits were included, the gap between the two sectors in Rhode Island was larger than the gap between the sectors in any other profession analyzed except for lawyers; however, this should be interpreted with caution given the lack of occupation-specific data;
- Although access to ESI was similar in both the public and private sectors, a disparity exists in access to EPP between the two sectors in the Ocean State, regionally and nationally; and
- As with most other occupations, public sector community and social service workers have a higher percentage of workers with at least a bachelor’s degree than their private sector counterpart. In Rhode Island, 96.6 percent of public sector workers have a bachelor’s degree or higher compared with 71.8 percent in the private sector.

Nurses

Nurses perform a variety of duties associated with patient health care and the occupation classification encompasses a range of duties and specialties. It should be noted that, although the occupations included in this category are fairly broad and include, for example, geriatric nurses, ambulatory care nurses, hospice and palliative care nurses, and psychiatric/mental health nurses. Similar to teachers, compensation data was available for the private sector, but not for the public sector. As such, total compensation was derived by the wage ratio for private sector nurses, adjusting for the average difference between all public and all private sector wage ratios.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$60,667	\$53,381	\$47,118	\$59,719	\$50,993	\$52,736
Total Salary plus benefits	\$94,057	\$76,621	\$73,051	\$85,717	\$79,082	\$75,770
% with ESI*	100.0%	100.0%	98.0%	97.8%	97.6%	95.4%
% with EPP**	100.0%	81.8%	87.1%	84.1%	85.9%	77.3%
Average age	49	46	47	45	47	44
% with bachelor's degree+	100.0%	61.2%	51.1%	69.2%	64.0%	57.5%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; ***Public sector adjusted using private sector data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

The data shown in table 25 indicates that:

- On average, Rhode Island public sector nurses tend to be better compensated than their private sector counterparts, in contrast to national and regional trends;
- This pattern persists even when benefit costs are included in compensation costs; however, when benefits are included, average public sector compensation nationwide is greater than average private sector compensation;
- Of note, ECEC data indicates that a large share of compensation for nurses in the private sector is from benefits, which appears to be driven, in part, by supplemental pay;
- While the majority of nurses had access to ESI in all three regions, 100 percent of public and private sector nurses in the sample had access to ESI, or a higher percentage when compared to averages in New England and the US;
- The percentage of Rhode Island public sector nurses with access to EPP is higher than the percentage of public sector nurses with access to EPP in New England and nationally by 12.9 percent and 14.1 percent, respectively;
- Of those sampled, Rhode Island had a notably higher percentage of public sector nurses with at least a bachelor's degree compared to New England and the US as a whole; and
- Although the average age of Rhode Island's public sector nursing employees is 49, which was older than national and regional averages, the gap between the public and private sector was similar to the national and regional gaps.

Teachers

Teachers in this analysis include pre-kindergarten through 12th grade teachers, including elementary, secondary, and special education teachers. Teaching aides, school administrative staff, and anyone not directly teaching students was excluded from this analysis as were higher education teachers. Because the ECEC did not include data for private sector teacher compensation, salary plus benefits was calculated using the wage ratio for public sector teachers, adjusting for the average difference between all public and all private sector wage ratios.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$52,889	\$31,794	\$48,006	\$33,039	\$42,477	\$29,411
Total salary plus benefits**	\$74,701	\$41,603	\$67,805	\$43,233	\$60,080	\$38,540
% with ESI*	100.0%	97.4%	98.6%	98.3%	97.5%	95.1%
% with EPP*	92.7%	59.3%	87.6%	59.6%	86.9%	53.4%
Average age	42	41	44	39	43	41
% with bachelor's degree+	99.4%	79.5%	94.5%	73.7%	92.6%	68.7%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; ***Private sector adjusted using public sector data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

CPS data for teachers shows that:

- Teachers in the public sector have higher average salaries than teachers in the private sector in Rhode Island, New England and the US in general; however, the gap between public and private sector teachers is, on average, greater in Rhode Island than in New England or the US average;
- Total estimated average compensation for teachers was \$32,766 higher in the public sector compared to the private sector in Rhode Island, compared to an average gap of \$24,326 in New England and \$21,663 across the country as a whole;
- In general, the majority of teachers in the public and private sectors are likely to have access to ESI although public sector coverage rates were higher in Rhode Island than across the region or country;
- Private sector teachers in Rhode Island are less likely to have access to employer-provided pensions (59.3 percent in the private sector, compared to 92.7 percent in the public sector). This was one of the largest gaps in EPP of all occupations surveyed in this analysis; and
- In general, public sector teachers in Rhode Island (and in New England and the US as a whole) tend to be better educated than their private sector counterparts; the percentage of teachers in Rhode Island’s public sector with bachelor’s degrees or higher is 99.4 percent, compared to 79.5 percent in the private sector. Similar ratios exist at the both the regional and national level.

Engineers

Engineers design, evaluate, and develop solutions to technical problems related, but not limited to, machines, structures, chemicals, and computers. This specific category includes civil, mechanical, electrical, chemical, industrial, and environmental engineers. The engineering specialties chosen are common in both the public and private sectors within Rhode Island, New England, and nationally. As with lawyers and IT professionals, compensation was adjusted using data for the “management, professional and other related occupations” industry.

**Table 27
Engineers**

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$63,250	\$75,754	\$68,280	\$83,779	\$68,815	\$79,830
Total salary plus benefits**	\$92,883	\$106,394	\$100,270	\$117,665	\$101,198	\$112,278
% with ESI*	100.0%	100.0%	100.0%	98.7%	98.1%	98.0%
% with EPP*	100.0%	85.7%	97.0%	82.5%	90.0%	80.4%
Average age	40	42	45	43	45	43
% with bachelor's degree+	100.0%	81.4%	94.2%	76.0%	79.3%	78.5%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; *** Adjusted using "management and professional" data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

The data on engineers suggests that:

- On average, public sector engineers were paid less than their private sector counterparts within the state, region and country. The average salary for private sector engineers was \$12,504 higher than the average salary of public sector engineers in Rhode Island;
- The average salary for Rhode Island engineers in both the public and private sectors was less than the respective sector salary for engineers in New England and nationally;
- When total compensation is considered, the wage gap between the public and private sectors narrow, but average compensation for private sector engineers in Rhode Island remained 14.4 percent higher than public sector compensation;
- All surveyed engineers in Rhode Island and all employees in the public sector in New England, had access to employer-sponsored health insurance. Access to ESI was similar in the New England private sector and the US public and private sectors;
- In contrast to most professions in this study the average age of public sector engineers was lower than the average age of private sector engineers (40 years v. 42 years, respectively). Notably, engineers in Rhode Island were, on average, younger than their peers in the region and US, in contrast to the majority of occupations in this analysis; and
- A lower percentage, 81.4 percent, of engineers in the private sector in Rhode Island have obtained a bachelor’s degree or higher compared to 100.0 percent in the public sector.

Information Technology and Network Specialists

This occupational designation includes a range of computer and information technology professions ranging from computer technicians to computer systems administrators. IT and Network Specialists provide computer services, internet support, troubleshooting of technical problems related to computers, and network expansion. As with lawyers, compensation was adjusted using data for the “management, professional and other related occupations” industry due to a lack of occupation-specific data in the ECEC.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$59,222	\$81,071	\$54,302	\$73,024	\$53,140	\$71,093
Total salary plus benefits**	\$86,968	\$113,862	\$79,743	\$102,560	\$78,146	\$99,991
% with ESI*	100.0%	95.3%	98.2%	97.9%	97.5%	97.0%
% with EPP*	88.9%	69.6%	89.7%	74.0%	86.7%	73.7%
Average age	49	41	45	40	42	39
% with bachelor's degree+	77.8%	71.6%	54.5%	77.2%	55.6%	67.8%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; ***Adjusted using "management and professional" data
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

Based on CPS 2007-2010 data on IT and network specialists it appears that:

- On average, private sector salaries are roughly 25 percent higher at the state, regional, and national levels. Although the inclusion of benefits reduces the difference slightly, private sector compensation outpaces public sector compensation in Rhode Island, New England, and the country at large;
- In Rhode Island, average IT and network specialist salaries and total compensation were higher than their national or regional counterparts in both the public and private sectors;
- When compared to national and regional data, a lower percentage of private sector IT professionals in Rhode Island, on average, have access to either ESI or EPP. However, access to ESI is higher in Rhode Island for public sector workers when compared to employees in New England or the US and a slightly higher percentage of public sector IT/network specialists have access to EPP compared to the rest of the country; and
- The data also indicates that public sector IT and network specialists are generally older than their private sector counterparts in Rhode Island. The age gap between public and private sector IT/network specialists in Rhode Island was not only larger than the gap between the public and private sectors in the region and nationally, it was also one of largest age differences in all occupations surveyed.

Lawyers

In addition to attorneys, this group includes judges, magistrates, and other judicial workers. Lawyers represent clients in criminal and civil litigation and other legal proceeding. Judges and magistrates administer justice in a court of law. Judges decide on court rulings, while magistrates may perform more administrative duties within the court system. Other judicial workers include arbitrators, mediators, and conciliators. LLPs, LLCs and LPs are included in the analysis for this specific occupation to account for the preponderance of “self-employed” lawyers. Because the ECEC data does not include compensation information for lawyers, the total salary plus benefits was adjusted using data for the “management, professional and other related occupations” industry.

	RI		NE		US	
	Public	Private	Public	Private	Public	Private
Average salary	\$63,444	\$97,324	\$83,660	\$118,292	\$86,715	\$108,385
Total salary plus benefits**	\$93,168	\$136,689	\$122,855	\$166,139	\$127,522	\$152,440
% with ESI	100.0%	97.1%	100.0%	92.2%	97.1%	91.6%
% with EPP	100.0%	75.0%	95.0%	71.0%	88.5%	71.2%
Average age	45	44	50	42	46	43
% with bachelor's degree+	100.0%	100.0%	91.1%	97.5%	93.2%	98.2%

*Employer-Sponsored Insurance; ** Employer-Provided Pension; ***Adjusted using "management and professional" data
Includes self-employed, LLCs, LLPs, and LPs
Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

As the data shown on the table above demonstrates:

- On average, public sector lawyers in Rhode Island made approximately \$20,000 less per year when compared to average public sector lawyers in the New England region;
- When comparing within Rhode Island, private sector lawyers earned, on average, \$97,324 annually, 1.5 times more than the average salary for public sector lawyers. The wage gap was greater in Rhode Island than in New England or the US as a whole;
- As noted earlier, wages tend to account for a larger share of salaries at the higher end of the pay scale and the difference between the public and private sector shrinks. However, adjusting for benefits, decreases, but does not significantly change the gap in total compensation between the public and private sector in Rhode Island, regionally or nationally;
- The majority of lawyers had access to ESI in the public and private sectors, although Rhode Island lawyers were more likely to have access to ESI in both sectors compared to the region and the country; and
- As with ESI, the majority of lawyers in all sectors and regions were likely to have access to EPP and lawyers in the Ocean State were more likely to have access to this benefit – regardless of sector – than their regional or national peers.

VII. Appendix

Methodology

In order to provide an overview of the workforce composition in Rhode Island, New England, and the US, data from the US Bureau of Labor and Statistics (BLS) and the US Census Bureau's annual Current Population Survey (CPS) regarding employment benefits, wages, and trends were obtained. Specifically, the March Annual Demographic File and Income Supplement from 2007 through 2010 was used. The CPS is administered jointly by the US Census Bureau and the Bureau of Labor Statistics each month. The March Annual Demographic File and Income Supplement is the most commonly used data source for information regarding earnings among social scientists. Using four years of CPS data (2007 through 2010) allowed for a more robust sample size, consistent with the methodology used in other compensation studies.

Comparing benefits and wages between sectors is challenging as compensation packages vary as a result of geographic location, education, age, union membership, type of employer contribution to health insurance and employer-sponsored retirement plans, and any other number of factors. For consistency purposes, the data used within this report related to workers classified as full-time only or 35 hours or more worked per week. Geographic location was taken into consideration for total compensation adjustments using data from the Employer Cost of Employee Compensation (ECEC). Union membership was not taken into account in this analysis, although the prevalence of employer-sponsored healthcare and retirement plans were examined along with age and education.

Certain observations were excluded from the data analysis to create a more accurate picture of the population relevant to this study. In the public sector, those employed within the armed forces and the federal governments were excluded from the dataset. In the private sector, those who were self-employed, unemployed, or classified as unable to work were excluded from the sample. LLCs, LLPs, and LPs were also excluded.⁷ Those coded as "not in universe" by the CPS include children, those on disability leave, and those, such as retirees, who were out of the workforce at the time of the survey were also not included in this analysis.

The 2007, 2008, 2009, and 2010 CPS March Supplement datasets were merged together using SPSS, a statistical software program, and were then weighted with an average weight of the four years. Weighting the dataset allowed for adjustments for CPS sampling methods and to ensure that the results were more representative of the total population, rather than the sample size. The four datasets were merged in order to increase the sample size for the workforce, which, in turn, improved the reliability and validity of the data. The sample size was 830,766 total observations with 50,823 public employee observations for the complete, merged dataset.

The variables selected to obtain data from the CPS and provide for an overview of the workforce are as follows:

⁷ The lawyers occupational analyses include LLCs, LLPs, and LPs in order to account for the preponderance of lawyers that are self-employed or fall into one of these categories.

- **Demographics, Age (A_AGE):** reports the age of each respondent;
- **Current status, class of worker (A_CLSWKR):** classifies respondents who are within the workforce by sector;
- **Demographics, Educational attainment (A_HGA):** describes the highest level of education attained by individual respondents 25 years of age or older;
- **Geography – FIPS state code (GESTFIPS):** provides locational information, can be used to select observations from within a specific geographic region or state;
- **Health insurance paid by employer (HIPAID):** reports whether or not an observation has access to employer-provided insurance with a yes or no response;
- **Industry and occupation (main job), occupation code (PEIOOCC):** classifies observations on the basis of type of employment by individual occupations or professions;
- **Pension plan provided by employer (PENPLAN):** classifies respondents on the basis of whether or not some form of retirement plan is accessible to a worker through their employer;
- **Total wage and salary earnings amount (WSAL_VAL):** reports the total annual wages or salary of each respondent. This does not include the value of other forms of compensation that can be received by employees.

The aforementioned standard CPS variables were recoded within SPSS for the purpose of this study. Recoding permitted for the selection of information relevant to the study. For example, the FIPS code variable was recoded in order to select information from Rhode Island only and then from New England only for portions of the report. After recoding the standard CPS variables into more pertinent and applicable variables, the cross tabulations, descriptive statistics, and subsequently, and regression analyses were conducted.

Following the collection of data and the preliminary analysis of this information, specific occupations were chosen to be included as one component of this report in order to provide some comparison between workers in the different geographic regions and sectors. RIPEC and the RI Office of the General Treasurer identified occupations in the private and public sector to be further analyzed. The final occupational selection was also based upon data provided by the RI Department of Administration indicating current staffing levels throughout the state.

The occupations selected (nurse, lawyer, social worker, engineer, teacher, janitorial and maintenance staff, office and administrative staff, and internet technologies and network specialist) were intended to provide for both an appropriate comparison of positions present within both sectors and intended to provide a sample of some common occupations in Rhode Island, New England, and the US representing a variety of individuals within the workforce. This cross-section of the workforce includes a sample of individuals of different ages, income levels, and education levels.

As noted above, individuals classified as self-employed, as well as LLCs, LLPs and LPs, were excluded from the data set, including the individual occupations that were analyzed. However, because these individuals account for the majority of private sector lawyers, exclusion of these individuals tended to significantly inflate the mean salary and the inclusion increased the

sample size, data for lawyers organized as LLCs, LLPs, LPs and reporting as self-employed were included.

Wage data was extracted from the merged CPS data set, as were the share of employees with access to employer-sponsored insurance and an employer-provided pension, average ages and the share of workers with a bachelor's degree for both the public and private sectors. In order to account for the relative value of benefits, total compensation (salaries plus benefits) was calculated using data from the ECEC. New England and Rhode Island values for each occupation were adjusted by the ratio of US to New England wages as a share of compensation. Wages as a share of total compensation also vary with occupation or industry. Because the ECEC does not include employer costs for all occupations, and the difference in workforce composition between the two industries, total compensation was calculated as follows:

If data for the occupation or industry was only available for the private sector (e.g. Nurses):

$$1 \quad \text{OcWage} / \left(\frac{\text{PubWage}}{\text{PvWage}} \right) * \text{PvOcWage}$$

If data for the occupation or industry was only available for the public sector (e.g. Teachers):

$$2 \quad \text{OcWage} / \left(\frac{\text{PvWage}}{\text{PubWage}} \right) * \text{PubOcWage}$$

If data for the occupation or industry was available for both sectors (e.g. Office and Administrative Staff):

$$3 \quad \text{OcWage} / \text{PuWage} \quad \text{or} \quad \text{PvWage}$$

OcWage = occupation total wage estimate

PubWage = public sector wage ratio

PvWage = private sector wage ratio

PubOcWage = public sector wage ratio for occupation

PvOcWage = private sector wage ratio for occupation

In some cases, specifically for engineers and lawyers, data did not exist for the occupation or industry in either sector. In this case, wages were adjusted using data for “management and professional occupations” as in example 3 above. Please see page 32 for a detailed explanation on methods used to gain a broader picture of the total compensation package for specific occupations. The methodology employed throughout this report was consistent with similar, previous research concerning comparisons of compensation across sectors, both nationally and regionally.

Table 30
Educational Attainment by Occupation

	Less than HS diploma	HS diploma	Some college	Associate's	Bachelor's	Graduate Degree
Connecticut						
Lawyer (private)	-	-	1.5%	1.5%	1.5%	95.5%
Lawyer (state and local)	-	-	-	-	-	100.0%
Engineer (private)	-	8.0%	12.6%	6.9%	44.8%	27.6%
Engineer (state and local)	-	-	-	20.0%	40.0%	40.0%
Teacher (private)	-	16.2%	9.5%	6.7%	32.4%	35.2%
Teacher (state and local)	1.2%	2.0%	1.2%	2.0%	22.9%	70.8%
RN (private)	-	.7%	4.1%	26.9%	53.1%	15.2%
RN (state and local)	-	-	-	20.0%	60.0%	20.0%
Community and Social Services (private)	2.9%	11.6%	11.6%	7.2%	33.3%	33.3%
Community and Social Services (state and local)	-	5.0%	1.7%	-	55.0%	38.3%
IT and Network Specialists (private)	.4%	8.3%	4.4%	7.9%	54.8%	24.1%
IT and Network Specialists (state and local)	-	35.7%	28.6%	7.1%	28.6%	.0%
Office and Administrative (private)	5.4%	33.7%	28.3%	15.4%	15.0%	2.2%
Office and Administrative (state and local)	6.0%	33.3%	23.8%	23.8%	8.3%	4.8%
Janitorial/Maintenance (private)	39.4%	33.3%	13.1%	4.2%	8.5%	1.4%
Janitorial/Maintenance (state and local)	17.4%	56.5%	19.6%	-	6.5%	.0%
Massachusetts						
Lawyer (private)	-	6.7%	-	-	-	93.3%
Lawyer (state and local)	-	-	-	-	16.7%	83.3%
Engineer (private)	2.3%	7.0%	4.7%	20.9%	48.8%	16.3%
Engineer (state and local)	-	-	-	-	50.0%	50.0%
Teacher (private)	-	5.6%	6.9%	8.3%	56.9%	22.2%
Teacher (state and local)	-	.8%	3.8%	5.9%	50.6%	38.8%
RN (private)	-	2.2%	1.5%	51.9%	34.1%	10.4%
RN (state and local)	-	-	-	30.8%	38.5%	30.8%
Community and Social Services (private)	1.2%	9.8%	19.5%	4.9%	35.4%	29.3%
Community and Social Services (state and local)	-	3.8%	3.8%	-	38.5%	53.8%
IT and Network Specialists (private)	-	6.7%	17.8%	16.7%	40.0%	18.9%
IT and Network Specialists (state and local)	-	18.2%	27.3%	27.3%	9.1%	18.2%
Office and Administrative (private)	3.2%	35.3%	30.0%	15.9%	15.0%	.6%
Office and Administrative (state and local)	1.4%	22.9%	41.4%	17.1%	17.1%	.0%
Janitorial/Maintenance (private)	26.7%	48.7%	16.7%	3.3%	4.7%	.0%
Janitorial/Maintenance (state and local)	19.2%	57.7%	11.5%	3.8%	7.7%	.0%
Rhode Island						
Lawyer (private)	-	-	-	-	6.3%	93.8%
Lawyer (state and local)	-	-	-	-	16.7%	83.3%
Engineer (private)	-	4.7%	7.0%	7.0%	67.4%	14.0%
Engineer (state and local)	-	-	-	-	100.0%	.0%
Teacher (private)	-	3.6%	9.6%	7.2%	48.2%	31.3%
Teacher (state and local)	-	-	-	.6%	45.2%	54.2%
RN (private)	.8%	.8%	3.3%	33.9%	43.8%	17.4%
RN (state and local)	-	-	-	-	100.0%	.0%
Community and Social Services (private)	2.6%	10.3%	3.8%	11.5%	37.2%	34.6%
Community and Social Services (state and local)	-	-	3.4%	-	31.0%	65.5%
IT and Network Specialists (private)	1.0%	10.8%	7.8%	8.8%	52.9%	18.6%
IT and Network Specialists (state and local)	-	-	11.1%	11.1%	33.3%	44.4%
Office and Administrative (private)	4.9%	36.0%	26.1%	11.5%	17.3%	4.1%
Office and Administrative (state and local)	2.3%	32.6%	34.9%	16.3%	11.6%	2.3%
Janitorial/Maintenance (private)	42.8%	36.1%	10.8%	4.8%	4.8%	.6%
Janitorial/Maintenance (state and local)	34.8%	39.1%	13.0%	4.3%	8.7%	.0%

Source: 2007-2010 CPS, U.S. Census and RIPEC calculations

Table 31
Percentage of Workers with Employer Sponsored Healthcare*

	US	NE	CT	MA	RI
Lawyer (private)	91.6%	92.2%	90.0%	100.0%	91.7%
Lawyer (state and local)	97.1%	100.0%	100.0%	100.0%	100.0%
Engineer (private)	98.0%	98.7%	100.0%	100.0%	100.0%
Engineer (state and local)	98.1%	100.0%	100.0%	100.0%	100.0%
Teacher (private)	95.1%	98.3%	100.0%	97.8%	97.4%
Teacher (state and local)	97.5%	98.6%	96.8%	99.4%	100.0%
RN (private)	95.4%	97.8%	99.1%	96.9%	100.0%
RN (state and local)	97.6%	98.0%	100.0%	100.0%	100.0%
Community and Social Services (private)	95.4%	96.0%	100.0%	98.2%	96.0%
Community and Social Services (state and local)	97.8%	99.4%	100.0%	100.0%	95.8%
IT and Network Specialists (private)	97.0%	97.9%	97.8%	98.7%	95.3%
IT and Network Specialists (state and local)	97.5%	98.2%	100.0%	100.0%	100.0%
Office and Administrative (private)	95.1%	95.4%	94.4%	94.3%	93.6%
Office and Administrative (state and local)	96.9%	96.2%	94.3%	93.5%	96.3%
Janitorial/Maintenance (private)	94.1%	92.2%	94.4%	94.9%	91.8%
Janitorial/Maintenance (state and local)	95.6%	100.0%	100.0%	100.0%	100.0%

Source: 2007-2010 CPS March Supplement, U.S. Census and RIPEC calculations

*Includes employees with partial or full employer contributions.

Detailed Occupational Descriptions

For the purpose of this study, individual occupations within the US Census classifications were combined in order to increase sample size and improve the reliability and validity of the data. Provided below is a description of each occupation included within the report and a list of specific occupations that are included for more broad occupational classifications.

Engineer: Mechanical, chemical, civil, environmental, electrical, and industrial engineers are included within this occupation.

- *Mechanical Engineer (17-2141):* Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of such equipment as centralized heat, gas, water, and steam systems.
- *Chemical Engineer (17-2041):* Design chemical plant equipment and devise processes for manufacturing chemicals and products, such as gasoline, synthetic rubber, plastics, detergents, cement, paper, and pulp, by applying principles and technology of chemistry, physics, and engineering.
- *Civil Engineer (17-2051):* Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water and sewage systems, and waste disposal units. Include architectural, structural, traffic, ocean, and geo-technical engineers. Exclude "Hydrologists" (19-2043).
- *Environmental Engineer (17-2081):* Design, plan, or perform engineering duties in the prevention, control, and remediation of environmental health hazards utilizing various engineering disciplines. Work may include waste treatment, site remediation, or pollution control technology.
- *Electrical Engineer (17-2071):* Design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use. Exclude "Computer Hardware Engineers" (17-2061).
- *Industrial Engineer (17-2121):* Design, develop, test, and evaluate integrated systems for managing industrial production processes including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination. Exclude "Health and Safety Engineers, Except Mining Safety Engineers and Inspectors" (17-2111).

Information Technology and Network Specialist: Computer scientists and systems analysts, computer programmers, computer software engineers, computer support specialists, database administrators, network and computer systems administrators, and network systems and data communications analysts are included within this occupation.

- *Computer Programmers (15-1021):* Convert project specifications and statements of problems and procedures to detailed logical flow charts for coding into computer language. Develop and write computer programs to store, locate, and retrieve specific documents, data, and information. May program web sites.
- *Computer Software Engineers - applications and systems software (15-1031, 15-1032):* Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or

customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. May also research, design, develop, and test operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computing applications. Set operational specifications and formulate and analyze software requirements. Apply principles and techniques of computer science, engineering, and mathematical analysis.

- *Computer Support Specialists (15-1041)*: Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.
- *Database Administrators (15-1061)*: Coordinate changes to computer databases, test and implement the database applying knowledge of database management systems. May plan, coordinate, and implement security measures to safeguard computer databases.
- *Network and Computer Systems Administrators (15-1071)*: Install, configure, and support an organization's local area network (LAN), wide area network (WAN), and Internet system or a segment of a network system. Maintain network hardware and software. Monitor network to ensure network availability to all system users and perform necessary maintenance to support network availability. May supervise other network support and client server specialists and plan, coordinate, and implement network security measures.
- *Network Systems and Data Communication Analysts (15-1081)*: Analyze, design, test, and evaluate network systems, such as local area networks (LAN), wide area networks (WAN), Internet, intranet, and other data communications systems. Perform network modeling, analysis, and planning. Research and recommend network and data communications hardware and software. Include telecommunications specialists who deal with the interfacing of computer and communications equipment. May supervise computer programmers.

Janitorial and Maintenance Workers (37-2011): Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk. Other sub-occupations include:

- *Maids and Housekeeping Cleaners (37-2012)*: Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels, restaurants, and hospitals, in a clean and orderly manner. Duties include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.
- *Landscaping and Groundskeeping Workers (37-3011)*: Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.

- *Pesticide Handlers, Sprayers, and Applicators, Vegetation (37-3012)*: Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation or chemical application on trees, shrubs, lawns, or botanical crops. Usually requires specific training and State or Federal certification. Excludes "Commercial Pilots" (53-2012) who operate aviation equipment to dust or spray crops.
- *Tree Trimmers and Pruners (37-3013)*: Cut away dead or excess branches from trees or shrubs to maintain right-of-way for roads, sidewalks, or utilities, or to improve appearance, health, and value of tree. Prune or treat trees or shrubs using handsaws, pruning hooks, sheers, and clippers. May use truck-mounted lifts and power pruners. May fill cavities in trees to promote healing and prevent deterioration.
- *Grounds Maintenance Workers, All Other (37-3019)*: All grounds maintenance workers not listed separately.

Lawyer: Lawyers; judges, magistrates, and other judicial workers; administrative law judges, adjudicators, and hearings officers; and arbitrators, mediators, and conciliators are included within this occupation.

- *Lawyers (23-1011)*: Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.
- *Judges, Magistrates, and Other Judicial Workers (23-1020)*: Arbitrate, advise, adjudicate, or administer justice in a court of law. May sentence defendant in criminal cases according to government statutes or sentencing guidelines. May determine liability of defendant in civil cases. May perform wedding ceremonies.
- *Administrative Law Judges, Adjudicators, and Hearing Officers (23-1021)*: Conduct hearings to recommend or make decisions on claims concerning government programs or other government-related matters. Determine liability, sanctions, or penalties, or recommend the acceptance or rejection of claims or settlements.
- *Arbitrators, Mediators, and Conciliators (23-1022)*: Facilitate negotiation and conflict resolution through dialogue. Resolve conflicts outside of the court system by mutual consent of parties involved.

Office and Administrative Staff: Bookkeeping, accounting, and auditing clerks; payroll and timekeeping clerks; procurement clerks; court, municipal and license clerks; order clerks; human resources assistants; receptionists and information clerks; secretaries and administrative assistants; computer operators; data entry keyers; word processors and typists; general office clerks, and all other office and administrative support workers are included within this occupation.

- *Bookkeeping, Accounting, and Auditing Clerks (43-3031)*: Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.
- *Payroll and Timekeeping Clerks (43-3051)*: Compile and post employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions. May prepare paychecks.

- *Procurement Clerks (43-3061)*: Compile information and records to draw up purchase orders for procurement of materials and services.
- *Court, Municipal, and License Clerks (43-4031)*: Perform clerical duties in courts of law, municipalities, and governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; record data, administer tests, or collect fees. Include chief clerks with "Managers, All Other" (11-9199).
- *Order Clerks (43-4151)*: Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints.
- *Human Resources Assistants (43-4161)*: Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports on ability, and date of and reason for termination. Compile and type reports from employment records. File employment records. Search employee files and furnish information to authorized persons. Excludes payroll and timekeeping.
- *Receptionists and Information Clerks (43-4171)*: Answer inquiries and obtain information for general public, customers, visitors, and other interested parties. Provide information regarding activities conducted at establishment; location of departments, offices, and employees within organization.
- *Secretaries and Administrative Assistants (43-6011, 43-6012, 43-6013)*:
 - *Executive Secretaries and Administrative Assistants*: Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions, such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.
 - *Secretaries, Legal*: Perform secretarial duties utilizing legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.
 - *Secretaries, Medical*: Perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.
- *Computer Operators (43-9011)*: Monitor and control electronic computer and peripheral electronic data processing equipment to process business, scientific, engineering, and other data according to operating instructions. May enter commands at a computer terminal and set controls on computer and peripheral devices. Monitor and respond to operating and error messages.
- *Data Entry Keyers (43-9021)*: Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.

- *Word Processors and Typists (43-9022)*: Use word processor/computer or typewriter to type letters, reports, forms, or other material from rough draft, corrected copy, or voice recording. May perform other clerical duties as assigned. Include composing data keyers.
- *Office Clerks, General (43-9061)*: Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring limited knowledge of office management systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.
- *Office and Administrative Support Workers, All Other (43-9199)*: All office and administrative support workers not listed separately.

Registered Nurse (29-1141): Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management. Licensing or registration required. Includes Clinical Nurse Specialists. Excludes "Nurse Anesthetists" (29-1151), "Nurse Midwives" (29-1161), and "Nurse Practitioners" (29-1171).

Social Worker: Child, family, and school social workers, healthcare social workers, counselors, mental health and substance abuse social workers, and all other social workers are included within this occupation.

- *Child, Family, and School Social Workers (21-1021)*: Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist single parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers on how to deal with problem children.
- *Healthcare Social Workers (21-1022)*: Provide individuals, families, and groups with the psychosocial support needed to cope with chronic, acute, or terminal illnesses. Services include advising family care givers, providing patient education and counseling, and making referrals for other services. May also provide care and case management or interventions designed to promote health, prevent disease, and address barriers to access to healthcare.
- *Mental Health and Substance Abuse Social Workers (21-1023)*: Assess and treat individuals with mental, emotional, or substance abuse problems, including abuse of alcohol, tobacco, and/or other drugs. Activities may include individual and group therapy, crisis intervention, case management, client advocacy, prevention, and education.
- *Social Workers, all other (21-1029)*
- *Counselors (21-1010)*:
 - *Substance Abuse and Behavioral Disorder Counselors (21-1011)*: Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.

- *Educational, Vocational, and School Counselors (21-1012)*: Counsel individuals and provide group educational and vocational guidance services.
- *Marriage and Family Therapists (21-1013)*: Diagnose and treat mental and emotional disorders, whether cognitive, affective, or behavioral, within the context of marriage and family systems. Apply psychotherapeutic and family systems theories and techniques in the delivery of professional services to individuals, couples, and families for the purpose of treating such diagnosed nervous and mental disorders.
- *Mental Health Counselors (21-1014)*: Counsel with emphasis on prevention. Work with individuals and groups to promote optimum mental health. May help individuals deal with addictions and substance abuse; family, parenting, and marital problems; suicide; stress management; problems with self-esteem; and issues associated with aging and mental and emotional health.
- *Rehabilitation Counselors (21-1015)*: Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement.
- *Counselors, All Other (21-1019)*: All counselors not listed separately.
- *Miscellaneous community and social service specialists (21-1090)*:
 - *Health Educators (21-1091)*: Promote, maintain, and improve individual and community health by assisting individuals and communities to adopt healthy behaviors. Collect and analyze data to identify community needs prior to planning, implementing, monitoring, and evaluating programs designed to encourage healthy lifestyles, policies and environments. May also serve as a resource to assist individuals, other professionals, or the community, and may administer fiscal resources for health education programs.
 - *Probation Officers and Correctional Treatment Specialists (21-1092)*: Provide social services to assist in rehabilitation of law offenders in custody or on probation or parole. Make recommendations for actions involving formulation of rehabilitation plan and treatment of offender, including conditional release and education and employment stipulations.
 - *Social and Human Service Assistants (21-1093)*: Assist professionals from a wide variety of fields, such as psychology, rehabilitation, or social work, to provide client services, as well as support for families. May assist clients in identifying available benefits and social and community services and help clients obtain them. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or adult daycare.
 - *Community and Social Service Specialists, All Other (21-1099)*: All community and social service specialists not listed separately.

Teacher: Pre-K, elementary and middle school teachers, secondary school teachers, and special education teachers are included within this occupation. **Elementary and middle school teachers (25-2020), secondary school teachers (25-2030), and special education teachers (25-2040).**

- *Preschool and Kindergarten Teachers (25-2010):*
 - *Preschool Teachers (25-2011):* Instruct children (normally up to 5 years of age) in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility. May be required to hold State certification. Exclude "Special Education Teachers" (25-2041 through 25-2043).
 - *Kindergarten Teachers (25-2012):* Teach elemental natural and social science, personal hygiene, music, art, and literature to children from 4 to 6 years old. Promote physical, mental, and social development. May be required to hold State certification. Exclude "Special Education Teachers" (25-2041 through 25-2043).
- *Elementary and Middle School Teachers (25-2020)*
 - *Elementary School Teachers, except Special Education (25-2021):* Teach pupils in public or private schools at the elementary level basic academic, social, and other formative skills.
 - *Middle School Teachers, except Special and Vocational Education (25-2022):* Teach students in public or private schools in one or more subjects at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable State laws and regulations.
 - *Vocational Education Teachers, Middle School (25-2023):* Teach or instruct vocational or occupational subjects at the middle school level.
- *Secondary School Teachers (25-2030):*
 - *Secondary School Teachers, except Special and Vocational Education (25-2031):* Instruct students in secondary public or private schools in one or more subjects at the secondary level, such as English, mathematics, or social studies. May be designated according to subject matter specialty, such as typing instructors, commercial teachers, or English teachers.
 - *Vocational Education Teachers, Secondary School (25-2032):* Teach or instruct vocational or occupational subjects at the secondary school level.
- *Special education teachers (25-2041):*
 - *Special Education Teachers, Preschool, Kindergarten, and Elementary School (25-2041):* Teach elementary and preschool school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.
 - *Special Education Teachers, Middle School (25-2042):* Teach middle school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.
 - *Special Education Teachers, Secondary School (25-2043):* Teach secondary school subjects to educationally and physically handicapped students. Include teachers who specialize and work with audibly and visually handicapped students and those who teach basic academic and life processes skills to the mentally impaired.

VIII. Literature Review

This literature review provides a background explaining the various approaches that scholars and analysts have taken to assess compensation and benefits packages within the public and private sectors and serves as a guide for the study. The bulk of the research performed on public and private sector compensation has been at the national level. Given the current fiscal situation facing states and localities in relation to pensions and other employee benefits, it is imperative to take a more robust look at employee compensation in Rhode Island.

Background

Organizations such as the Economic Policy Institute (EPI), the Center for State & Local Government Excellence, the Heritage Foundation, and the National Institute on Retirement Security have published articles comparing public and private sector compensation trends. The research has yielded results as broad as the organizations performing the research. In recent decades, there has been considerable attention paid to the compensation of employees of similar professions in the public and private sectors. As the federal and multiple local and state governments have encountered fiscal challenges, attention on this comparison and any disparities between the two sectors has only increased (Quinn, 1979).

Attention has also been given to public sector employees and compensation packages, as it represents a substantial portion of the national economy. In 2008, it was reported that wages and benefits represented approximately half of all local and state government spending (Edwards, 2008). Empirical evidence has also shown that public sector employees have access to compensation packages that are more generous than those received by similar private sector employees (Quinn, 1979 and Biggs and Richwine, 2011). Public sector employees of federal and state governments typically receive greater fringe benefits and experience greater job stability, which has been classified as one form of compensation by some researchers. In the instance of lower wages for a particular profession, there often exist other forms of compensation that enhance the overall compensation package, thereby offsetting this disparity (Quinn, 1979 and Keefe, 2010).

Fogel and Lewin (1974) present evidence that public sector clerical, data processing, and manual laborers received higher wages than their private sector counterparts. This data was representative of municipalities in 11 large urban areas surveyed by the US Bureau of Labor Statistics (BLS). With respect to job stability and job security, Fogel and Lewin (1974) found that there tend to be lower rates of employee turnover in the public sector, especially within state and local governments. In 1972, employee turnover totaled 19.0 percent within state and local government positions and 22.0 percent in the federal government. More recent data also suggests that there existed a greater proportion of low-wage employees in the private sector, arguably a factor of the supply unskilled, immobile workers (Keefe, 2010). Presumably, both factors have contributed to the attractive nature of public sector employment.

For a broad historical overview, between 1950 and 1980, average total compensation, which includes wages and benefits, were similar for full-time employees in both the public and private sectors. Post-1980, however, growth in public sector compensation began to outpace private

sector compensation. The gap narrowed during the late 1990s, but increased again during the 2000s. It has been reported that this disparity was primarily a factor of maintained benefits, such as defined-benefit pension and health insurance plans (Edwards, 2010 and Hacker, 2002).

Trends in Compensation Research

Over time, the focus of compensation analysis has varied substantially. Beginning in the 1970s, much of the focus centered on whether or not there was a disparity in wages between public and private sector employees. Little discussion occurred between scholars over benefits, both the type and level offered. Excluding benefits from analyses of compensation does not allow for a complete picture of the total compensation received by all workers, regardless of sector or occupation. The current general consensus among compensation researchers is that comparing wages alone is also insufficient as employer-provided benefits are an important component of compensation packages (Keefe, 2010 and Bender and Heywood, 2010). Presently, the BLS engages in more in-depth surveying and reporting of employment trends and issues, thereby providing researchers a greater variety of data and an ability to compare most types of compensation. Most of the available data on benefits for public sector employees, however, is available at the national level (Bender and Heywood, 2010). Although the Bureau of Labor Statistics combines federal workers into the public sector group as a whole, it becomes challenging to separate federal from state and local when analyzing this particular data set.

More current research has examined trends in benefit structures, levels, and packages offered to workers. Although benefits constitute a greater share of employee compensation in the public sector than in the private sector, scholars are divided on which sector tends to have employees with higher overall compensation. For example, Bender and Heywood (2010), in a joint publication put forth by the Center for State & Local Government Excellence, and the National Institute on Retirement Security argue that state and local employees have a lower total compensation than their private sector counterparts when education is used as a definitive variable for determining compensation levels.

Wages Analysis

In 1962, the US Congress passed the Federal Salary Reform Act, which mandated that “federal pay rates be comparable with private enterprise pay rates for the same level of work.” Despite a number of challenges with this type of approach, it has been common practice for wages in the public sector to be determined, in part, by their private sector counterpart (Quinn, 1979). This approach is commonly referred to as the “prevailing wage” principle (Fogel and Lewin, 1974).

The US Department of Labor’s Bureau of Labor Statistics (BLS) released data in 1996 indicating that some workers, including professional and administrative workers, typically earn more in the private sector. When all workers were analyzed, BLS found that the average wage is higher amongst state and local government workers. If workers are categorized by wage, low-wage workers typically earn more in the public sector whereas high-wage workers tend to earn more in the private sector (Miller, 1996). Better-educated and older workers theoretically earn more than younger and less-educated workers; pay-scale comparisons between sectors should take these demographics into consideration when performing compensation analysis (Thompson and

Schmitt, 2010). Thompson and Schmitt (2010) stress the importance of comparing age and education variables between public and private sector employees – and assert that when this type of analysis is performed properly, the data will show that state and local workers earn less, on average, than their private sector counterparts. In New England, more than half of the state and local employees have a bachelor’s degree, and almost 30.0 percent have an advanced degree. This contrasts with the lower percentages in the private sector – 37.9 percent with a bachelor’s degree and 13.3 percent with an advanced degree (Thompson and Schmitt, 2010).

Lewin et al. (2011) argued that public employees, on average, earn 11.5 percent less in wages and salaries when taking education and other human-capital variables (such as age) into consideration. Most public employees are not receiving higher compensation than private employees when considerations are made for education and training. Generally, public employees are required to have higher levels of education, especially at the local and state levels, because of specialized state services. In recent years, public employees have chosen to maintain benefits, such as healthcare and defined-benefit pensions, in exchange for deferred (or eliminated) raises with regard to wages and salaries (Lewin et al., 2011).

The Center for Economic and Policy Research at the University of Massachusetts Amherst Political Economy Research Institute also purports that although state and local government workers, on average, earn higher wages, they are typically better educated and older. If workers are compared on the basis of education and age, public sector employees fare worse and earn less than their private sector counterparts. Thompson and Schmitt (2010) describe public sector employees as incurring a “wage penalty” in comparison to their private sector counterparts. Data also suggests that high school graduates experience a wage penalty totaling 1.6 percent, and those with a bachelor’s degree experience a wage penalty totaling 7.0 percent. If wages are compared, public sector low-wage workers in New England receive a 5.0 percent penalty and high-wage workers make about 13.0 percent less (Thompson and Schmitt, 2010).

In contrast, the Center for Union Facts dismisses previous research and argues that public sector employees receive greater wages and salaries. Following an analysis of the EPI’s compensation study, the Center for Union Fact disputes the methods used by the EPI that discounts certain workers, including part-time and part-year workers. The Center also addresses the approach used by the EPI in order to calculate teachers’ wages and salaries in the public sector that prorates the annual teachers’ salary from the school year to the calendar year or from 36 weeks to 52 weeks, thereby deflating the monthly total wage amount. Making adjustments for the EPI’s method, the Center for Union Facts states that public sector employees receive greater base pay (Center for Union Facts, 2010).

Employee Benefits

Retirement Benefits

With respect to benefits, many employees in the private sector have transitioned to defined-contribution (DC) from defined-benefit (DB) retirement plans. Such plans are more portable, and typically attractive to younger workers as opposed to a traditional pension plan; however, DC plans require the employee to bear more of the risk with respect to investments and this may alleviate the employer from a larger financial obligation (Hacker, 2002). In 1989, Mitchell and

Smith reported that more than 95.0 percent of public sector employees who had access to an employer-sponsored retirement plan were part of a defined benefit plan. When comparing public to private compensation levels, benefits seem to have become a focal point for many researchers examining this topic. In a publication on other post-employment benefits (OPEB), Poulson and Hall (2011) discuss the need for states to shift from DB to DC plans for public employees. Poulson and Hall (2011) ask why “more tax dollars are being used to finance pensions and health benefits for public sector retirees that are more generous to those available to employees in the private sector?” There are a limited number of institutions that provide state-level data to assist policymakers with determining appropriate benefits and wages for public workers.

Employer-Sponsored Healthcare

Healthcare benefits have traditionally been provided by employers on a fee-for-service basis, meaning that the employee receives treatment on their own and is reimbursed for the cost of that service through the benefit plan. Beginning in the 1980s, the fee-for-service employer-provided healthcare plans started to integrate cost containment measures such as managed care (which can restrict access to certain healthcare services or direct costly services to less costly locations) into the benefits package (Burke and Jain, 1991). Crimmel (2011) outlines three basic employer-sponsored health insurance coverage options: single coverage (solely for employee), employee-plus-one coverage (for the employee and one family member), and family coverage (for the employee and one or more family members). Healthcare benefits provided by the employer provide workers with access to healthcare for a variety of reasons: to promote productivity by encouraging health, to protect themselves from financial losses that occur when a worker becomes ill, and to recruit prospective employees (EBRI, 2009).

Crimmel (2011) specifically focuses on private sector employer-sponsored healthcare, citing the percentage increase in employee contributions by coverage type for employer-sponsored health insurance in the private industry between 2001 and 2009. Following an assessment of all three coverage types in the private sector, Crimmel (2011) found that changes in employee contributions to healthcare plans were much greater than the changes in premiums.

The Employee Benefits Research Institute (EBRI) performed an analysis on public sector employer-provided healthcare benefits using Current Population Survey (CPS) - March 2006 Supplement - data. The EBRI (2009) found that in 2005, 76.5 percent of federal workers, 74.9 percent of state government workers, and 73.9 percent of local government workers received an employer-sponsored healthcare plan. These coverage percentages can be contrasted with 54.0 percent of private-sector workers covered that same year. EBRI (2009) identifies one salient characteristic of public-employee group health plans as the employees attain eligibility to participate in such healthcare plans upon hiring. In 2002, long-term care insurance became available to federal employees, annuitants, and their families (such as coverage of nursing home care, assisted living facility care, hospice, etc.) who are unable to care for themselves (EBRI, 2009).

It is also noted that healthcare costs have continued to rise for both public and private employers, even when managed care arrangements are implemented (EBRI, 2009 and Hacker, 2002). Public sector group health plans often encourage employees to opt for HMOs (health maintenance organizations) by providing financial incentives for them to do so (EBRI, 2009). The EBRI brief

(2009) concludes with stating that most public-sector employment-based group health plans have “ceased to offer traditional indemnity coverage altogether, relying instead on managed care arrangements.” Traditional indemnity is another term for the “fee-for-service” model, essentially referring to a healthcare plan in which payments are immediate and oversight is limited.

Time-Off

The BLS (1992) reported that large private firms and governments tend to offer more generous provisions for employee leave. The survey data was collected from full-time employees only and specifically looked at formal time-off plans with the understanding that smaller establishments may offer time-off on a more informal, discretionary basis. Other notable findings include:

- Public sector workers receive more time-off for formal personal leave plans;
- Leave benefits are costly to employers; it was estimated that in March 1991, 3.4 percent of total compensation for employees in private industry was directly due to paid vacation benefits and an additional 2.3 percent was due to paid holidays, while 0.3 percent was due to other paid leave benefits;
- Public sector employees were more likely to have access to paid military leave than private sector employees; and
- The incidence of unpaid parental leave was more frequent for public employees. The incidence of paid parental leave was more frequent for employees in medium and large private sector firms, but representative of a small percentage of employees. The BLS 1991 estimates indicated that paid maternity leave was offered to 3.0 percent of employees and paid paternity leave was offered to 1.0 percent of its employees.

Methodology

Researchers traditionally use the Current Population Survey (CPS), a monthly survey of 50,000 to 60,000 households conducted by the BLS, to extract employment statistics data. It is important to note that the conclusions drawn by different researchers may be linked to methodology. Generally, researchers use human capital studies or comparability analyses to compare the two sectors. The cross-sectional human capital method is often used to compare public sector workers to private sector workers with similar skill sets and demographic factors such as sex, age, race, and education. Results can vary from study to study depending on factors such as sample size and cross-sectional human capital parameters. Comparability analyses assess differences in the average pay of workers in the same occupation between sectors. Results can also vary with this methodology if researchers do not use the same factors to calculate the average wage rates used in the study.

Keefe (2010) utilized the Integrated Public Use Microdata Series (IPUMS) of the March Supplement to the CPS for a compensation study performed by the Economic Policy Institute (EPI). Other researchers have examined the Bureau of Economic Analysis (Edwards, 2010), which breaks down the term “employee compensation” into a few different categories: wages and salaries, paid leave, supplemental pay, health insurance, other insurance, defined benefit retirement plan, defined contribution retirement plan, and legally required benefit. Using such subcategories, Edwards (2010), referred to BLS statistics to draw conclusions regarding total employee compensation using a limited scope of public and private sector occupational titles:

“management and professional,” “sales and office,” and “service.” Edwards (2010) found that BLS data showed higher average public sector compensation than the BEA data.

Bender and Heywood (2010) found that public employees receiving 11.0 percent to 12.0 percent less than their private sector counterparts while utilizing a “standard comparability exercise” with CPS data. While holding education and other demographic characteristics, such as age, the same, the initial findings of higher wages in state and local government was demystified (Bender and Heywood, 2010). Researchers will often adjust certain measurements that are seemingly “intangible” to argue a specific point – as in the case of Biggs and Richwine (2011). As a result of implementing a 6.0 percent baseline value for public sector job security, Biggs and Richwine (2011) found that state and local compensation levels can be up to 30.0 percent higher than private sector compensation levels. The theory behind creating a value for job security is based on a labor economics theory that workers with a “comparatively low probability of being discharged should accept lower wages than workers with a greater chance of being discharged” (Biggs and Richwine, 2011). Biggs and Richwine (2011) included the job security measurement under the assumption that job security is much higher in the public sector than the private sector. For example, in the case of public sector employees in California, Biggs and Richwine (2011) provided an additional 15.0 percent of the original compensation to factor in job security. The basic assertion in this study is that public employees are afforded a higher risk aversion, but state that “perhaps the 15.0 percent is too high or too low – we are open to alternative estimates” (Biggs and Richwine 2011).

Another compensation study by Richwine (2011) examined workers who had transitioned from private to federal employment and found average pay increases ranging from 10.0 percent to 20.0 percent. Richwine (2011) argues that cross-sectional human capital methodology only looks at a single point in time, which can create misleading results, such as in the case of Keefe’s compensation study (2010). One of the flaws with this particular methodology is unilateralism of the career path. If the only cohort being studied is the group of individuals moving from the private sector into the public sector (and only at the federal level), then factors such as years of experience and salary requirements may be left out of the equation. Richwine (2011) states that “when a person switches jobs, he may do so because he received a new training or moved to a new location, but his underlying personality traits likely remain the same.” This was the method employed by Richwine (2011) for controlling demographic characteristics – by assuming that they remain the same.

The varying methodology between Keefe (2010) and Richwine (2011) illustrates the differing approaches to compensation and the contentions between policy-minded organizations. Benefits tend to be the most difficult part of compensation to measure accurately and place value upon. Benefits are not only complex and individualized, but some argue that there is no true way of comparing public and private benefits. A single benefit, such as job security, may not have a measurable (let alone comparable) value. Specifically, Richwine states that Keefe’s methodology was flawed in the sense that it failed to include retiree health benefits, undervalued pensions, and did not account for job security as a factor in total compensation. This report argues that job security alone is approximately 15.0 percent more compensation for a public sector employee in California – however the valuation of job security is not entirely clear. This assumption is drawn from labor economics based upon the theory that employees will accept a

lower level of pay for a lower probability of being discharged from their occupation. Scholars such as Keefe (2010) and Bender and Heywood (2010), who use cross-sectional human capital methodology, would argue that the more accurate measurements lie in demographics rather than an inclusion of a valued “job security.”

Thompson and Schmitt (2010) used a slightly different methodology in their study on New England “wage penalties” incurred by local and state government workers. Using “quantile regression analysis,” the effect of being classified as a state or local government employee on wages for workers was applied across a set wage distribution. The wage distribution was classified in percentiles, and showed that the lowest-wage workers (those in the 10th percentile of the wage distribution) working in state and local governments in New England were paid almost 5.0 percent less relative to their private sector counterparts (Thompson and Schmitt, 2010). The wage differential approach is unique and rarely used by compensation analysts. Because it gives a clear illustration of how wages relate to one another between sectors, it has the potential to be a very valuable determinant of public and private sector compensation.

Whether one is examining compensation at the federal level or the state/local level can also drastically impact research. Federal employees can reach the highest levels of career advancement within the government, and, therefore, have access to the highest paying government jobs. Because of this, federal employment comparison is more appropriately compared to individuals in the private sector working for large, national corporations. Such comparisons are challenging due to the nature of the positions and the disparities between occupations and industries, especially in an economic downturn. Compensation of public employees compared to private employees should be examined at the state and local level for the most accurate apples-to-apples comparison (Keefe, 2010).

Demographic Considerations

Comparing public to private sector compensation alone can also be misleading if demographics, such as education and age, are not taken into consideration. For example, public sector workers tend to generally have higher degrees and are older (which translates into more years of experience in a given field) than the private sector as a whole both nationally and at the state-level. Keefe (2010) describes education as being the “single most important earnings predictor” in both the public and private sectors. Bender and Heywood (2010) suggest that the education variable plays a large role in determining comparability between public sector and private sector positions – and that this variable is vastly underestimated by other researchers performing analysis on compensation. They note that employees in state and local government are twice as likely as private sector counterparts to have a college degree or an advanced degree, and that factor alone can be a major determinant in explaining the compensation differences between the two sectors. Bender and Heywood (2010) use educational variables in their analysis of public and private sector compensation in their determination that, “while public sector employees experience a greater share of benefits of their compensation packages, they still experience lower overall compensation compared to the private sector.”

A 1995 study examining college graduates employed with jobs that they are overqualified for found that (Tyler, et al. 1995) in the 1980s, a wage gap between those with high school diplomas and those with college degrees had widened substantially. Tyler, et al. (1995) concluded that

there will inevitably always be college graduates working in jobs that only require a high school education, and the growing college labor supply is indicative of this fact. In the 1980s, the college labor supply grew by 60.0 percent. Following such demographic trends in education such as a growing percentage of college graduates is necessary to understand historical changes in the labor market. Hecker (1995) refuted the study by Tyler, et al. (1995), calling for a focus on the comparison between bachelor's degrees, associate's degrees, post-high school certification and other educational programs. Median earnings of college graduates are higher than high school graduates, but Hecker (1995) asserts that there are other factors at play, such as school attended, fields of study, and other college-related factors.

A report by William D. Eggers (2007) and published by Deloitte on public sector employment trends discusses the challenges in attracting young, talented individuals to the public sector as a “graying” of the public sector workforce occurs. The “graying” refers to an aging workforce – most notably, in the public sector. Eggers (2007) suggests that the gap between “supply of and the demand for skilled government workers” is projected to grow in coming years. The high volume of individuals of the baby boomer generation in government means that the number of retirees is expected to rise rapidly.

The government is projected to lose a number of senior-level executives, resulting in a lack of leadership across top levels of government. Eggers (2007) refers to this as an “impending talent gap” in which changing job expectations between generations and the need for new skill sets will create workforce challenges for the public sector. A shortage of mid-career talent coupled with traditional hiring practices centered on seniority presents a problem for future generations of public sector employees. The private sector's ability to outperform the public sector in attracting and retaining top talent by adapting to the changing demands of new workers (who tend to prefer a work/life balance and job flexibility over competitive salaries and long hours in the office) will further exacerbate what scholars refer to as a “brain drain” in the public sector (Phillips, 2011).

Conclusion

Although research appears to be divided on a few noteworthy issues – appropriate compensation comparisons between sectors, educational variables, and total compensation packages – there are some areas of research that seem to have common ground. Most of the scholars studied for this literature review agree that benefits constitute the majority of compensation packages for public workers, that unions influence the process of determining compensation, and that the private sector tends to be more successful with regard to attracting and retaining younger talent. This literature review provides a substantive background on previous research performed on compensation between sectors and aims to serve as a basis for state-level compensation research to be conducted by RIPEC.

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