

A Statistical Analysis of Public and Non-Public Employees in the RMI

Part One: Educational Attainment and Wages

By Ben Graham

A common and longstanding opinion in the RMI holds that the public sector – rather than the private sector – attracts and employs a disproportionate share of educated people. What causes this? Some attribute the lure of the public sector to job security, overseas travel, and other job-related benefits. Most, however, attribute it to higher salaries offered by government jobs. But surprisingly little analysis has gone into proving or disproving this assumption. Does the public sector really employ a disproportionately large share of the RMI’s educated population and does it pay higher wages to its employees?

We can easily test the validity of this assumption through analysis of RMI census and survey data. If the assumption holds true, then statistics on public employees will show higher levels of both educational attainment and earned wages relative to non-public employees.

This essay, the first in a series focusing on RMI employees, analyzes education and wage characteristics using data from the 1980 and 1999 censuses and the more recent 2002 Household Income and Expenditure Survey (HIES).

Public and Non-public Employees

For the purposes of this analysis, the employed population is divided into two general groupings: public and non-public employees. Public employees include those employed by the national, local and foreign governments, while non-public employees include those employed by private companies, employers, the self-employed, and family workers.

Educational Attainment

Analysis of education data from the 1980 and 1999 censuses reveals, among other things, that:

Educational Attainment of RMI Employed: 1980 and 1999				
Subject	1980		1999	
	Public	Non-Public	Public	Non-Public
Total Employed	1,809	1,885	3,106	7,035
Graduates by level attained				
Elementary school	177	317	309	1,786
High school (includes equivalency)	586	490	1,021	1,893
Associate degree	274	116	433	242
Bachelor degree	116	60	180	112
Master degree or higher	32	9	103	31
Percent HS graduate or higher	58.5	37.9	74.5	39.9
Percent bachelor degree or higher	6.4	3.2	9.1	2.0
Percent master degree or higher	1.8	0.5	3.3	0.4
Notes:				
"Public" includes national, local and foreign government employees				
"Non-public" includes employees of private companies, employers, self-employed, and family workers				
Graduates plus non-graduates (not shown) equal total employed				
Source: Insular Areas Statistical Enhancement Program				

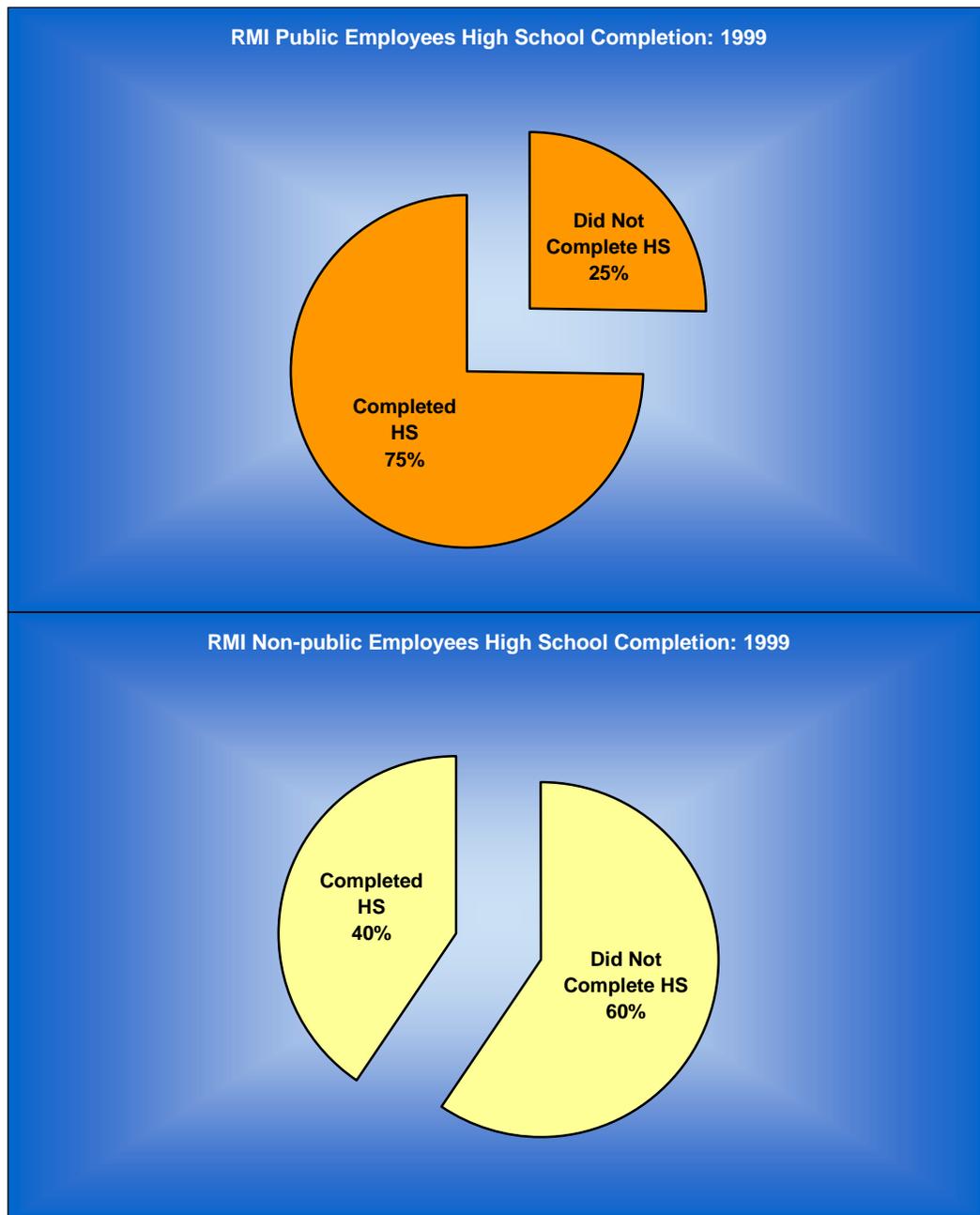
- 1) Educational attainment has been notably higher among public employees than among non-public employees;
- 2) Over time, the public sector increased its percentage of college educated (and, therefore, high school educated) employees, while the non-public sector only slightly increased its percentage of high

school educated employees; and,

- 3) The public sector's share of college educated employees remained far higher than that of the non-public sector throughout the entire period.

The majority of public employees had attained at least a high school education in both 1980 and 1999. In 1980, nearly 60 percent of public employees were high school educated and by 1999 the rate had

increased to nearly 75 percent.



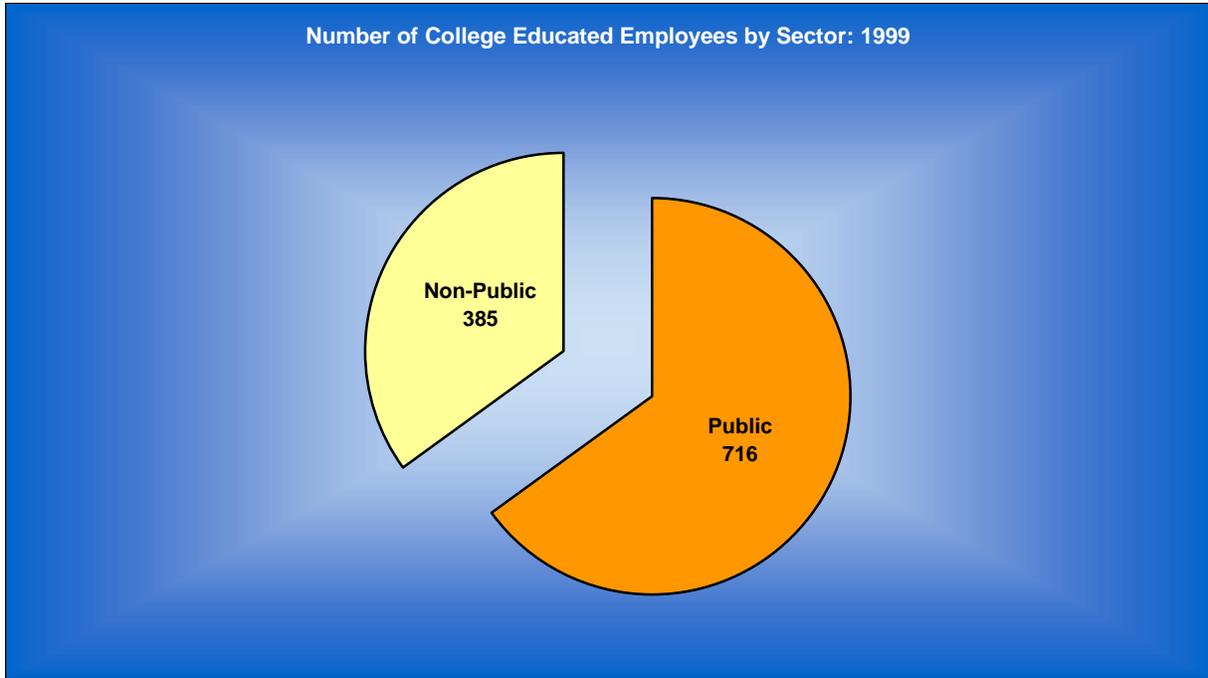
Among non-public employees, however, the majority had not completed high school in both 1980 and 1999. Moreover, the rate of improvement was modest, with the percentage of high school educated increasing only slightly, from 38 to 40 percent.

While the percentage of college educated employees increased in the public sector, it decreased in the non-public sector. The percentage of public employees with bachelor degrees increased from 6 to 9 percent and those with master degrees increased from 2 to 3

percent. Meanwhile, the percentage of non-public employees with bachelor degrees decreased from 3 to 2 percent and master degree holders decreased from 0.5 to 0.4 percent.

More than twice as many employees in 1999 were non-public (7,035) as were public (3,106). At the same time, however, the public sector employed nearly twice as many college graduates (716) as did the non-public sector (385). Of the 1,101 employed college graduates in the RMI in 1999, nearly 70

percent worked in the public sector. Similarly, of the 607 employed college graduates in 1980, again nearly 70 percent (422) were employed by the public sector.



Wages

Individual income data collected in the 1980 census and 2002 HIES (the 1999 census did not collect individual income data) show higher overall wages among public employees relative to non-public employees. The growth rate – not the absolute value – of non-public wages within the period, however, surpassed that of public wages.

Wages of RMI Employed: 1980 and 2002				
Subject	1980		2002	
	Public	Non-Public	Public	Non-Public
Median annual wages	3,369	2,209	8,910	6,505
Mean annual wages	4,417	3,744	10,903	8,476
Non-public to Public median wage ratio	0.66		0.73	

Notes: Figures not adjusted for inflation
 "Public" includes national, local and foreign government employees
 "Non-public" includes employees of private companies, employers, self-employed, and family workers
 Source: Insular Areas Statistical Enhancement Program

The median annual wage of all public employees in 1980 (\$3,369) was 50 percent higher than that of non-public employees (\$2,209). Over the past 22 years, however, non-public wages have gained relative to public wages; the non-public to public wage ratio, which measures the discrepancy in wages between the two sectors (with 1.0 indicating parity or equality in median

wages) increased from .66 in 1980 to .73 in 2002. The median public sector wage was 37% higher than the median non-public sector wage in 2002, still a large discrepancy, but considerably less than that seen in 1980.

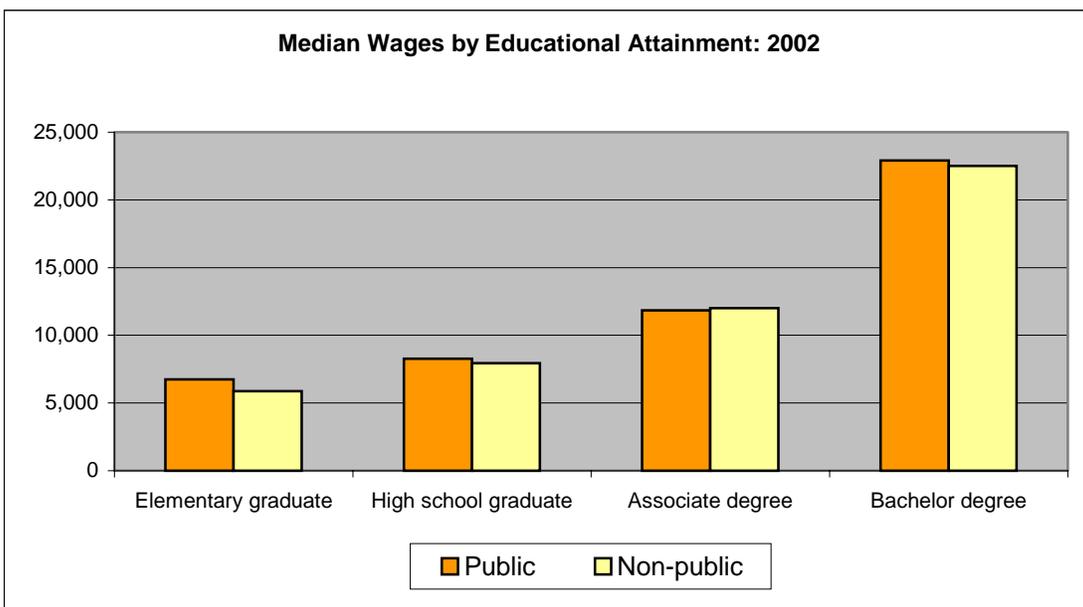
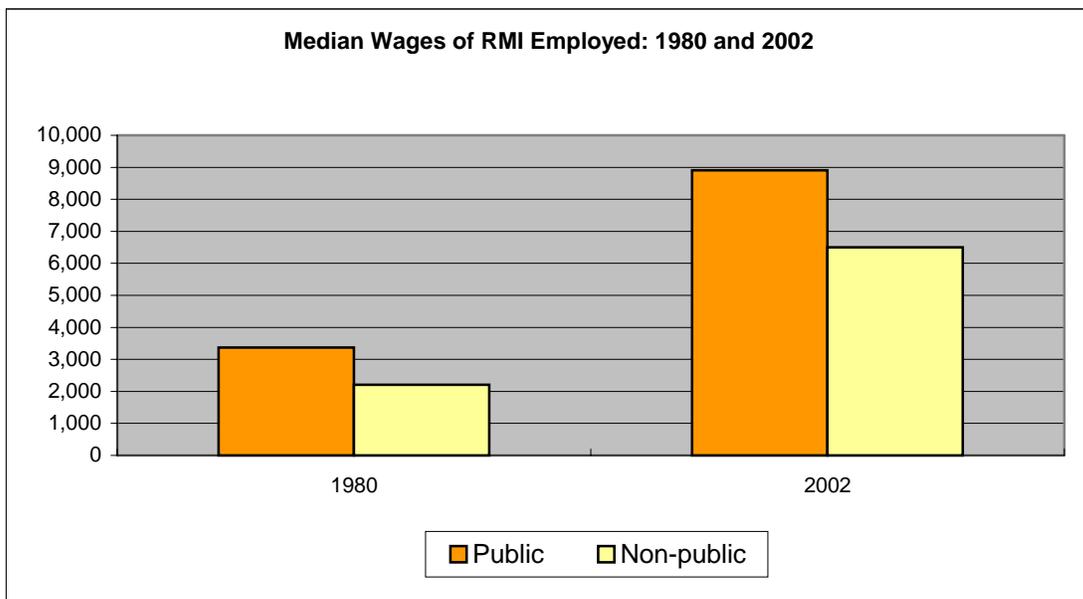
However, while a significant overall difference exists in wage levels between public and non-public employees, wage differentials decrease at higher levels of educational attainment. In other words, the difference between public and non-public wages is more pronounced at lower levels of educational attainment.

Wages by Educational Attainment: 2002		
Subject	Median wages	
	Public	Non-Public
Educational attainment		
Elementary graduate	6,749	5,874
High school graduate	8,268	7,945
Associate degree	11,832	11,999
Bachelor degree	22,916	22,499

Notes:
 "Public" includes national, local and foreign government employees
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 Source: Insular Areas Statistical Enhancement Program

Elementary school graduates employed in the non-public sector earned a median annual wage of \$5,874 in 2002 while those in the public sector earned 15% more at \$6,729. At the high school level, public employees earned just 4% more than non-public employees. For college graduates (associate and bachelor level), the difference becomes negligible.

Within both sectors, bachelor degree holders earned nearly three times as much as high school graduates and nearly four times as much as elementary graduates.



Conclusion

These statistics provide concrete answers to the original questions.

Does the public sector employ a disproportionately large share of the more educated population?

The answer is a clear “yes.” Since at least 1980, most of the RMI’s college educated workers have gone into the public sector.

Do public sector employees earn notably higher wages than do non-public sector employees?

Not necessarily – while, on the whole, there exists a sharp (but decreasing) discrepancy in public versus non-public wages, the discrepancy diminishes at higher levels of education and is virtually non-existent among college educated employees.

But the answers to these questions raise other interesting questions and topics relating to RMI employees.

If, in fact, the wage discrepancy is negligible between college educated public and non-public employees, why are seven out of ten college graduates still drawn to the public sector? Are there fewer barriers to entry with government jobs? Or perhaps non-wage factors such as job-security, travel, public recognition and vertical mobility come into play.

While this “lopsided” or asymmetric distribution of human talent is not uncommon in developing countries, to what extent has it inhibited private sector and general economic development in the RMI? In an input-output context, this would be considered a less-than-optimal allocation of human resources that is likely to constrain economic growth and vitality. After all, if most of the RMI’s more educated workers are not being channeled into productive (or, at least, potentially productive) sectors of the economy, can there be any real prospects for growth?

Moreover, what possible effects have significant events such as the RMI Public Sector Reform Program (during which hundreds of government employees were laid off) and high levels of out migration had on these and other employment characteristics?

Lastly, is it likely that the non-public to public wage ratio will continue to decrease (i.e., approach parity) over time, and if so, to what extent (if any) might this affect the future distribution of educated workers?

As difficult as some of these questions may be, they are the types of questions that form the basis of RMI planning and development – and they are questions which RMI leaders and planners can more confidently answer through continued statistical collection, processing and analysis.

Special thanks to Dr. Michael Levin

Note: This essay is produced under the auspices of the Insular Areas Statistical Enhancement Program and is not an official RMI or US Census Bureau report. For questions or comments, email: benjamin.m.graham@census.gov