New Jersey Public-Private Sector Wage Differentials: 1970 to 2004[1]

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EXECUTIVE SUMMARY

To my knowledge, published scholarly estimates of New Jersey's public-private sector wage gap do not exist. This lack of information is particularly important given the current policy discussion on the benefits of public sector workers and contract negotiations between the administration and state employees. For example, the lack of evidence leads to the following claim. Based on a simple comparison of New Jersey public and private sector average wages, public sector wages exceed private sector wages, and thus the need to offer benefit packages that are more supportive than those in the private sector loses its rationale. According to this argument, benefits are not needed to attract and retain a stable civil service workforce.

The purpose of this paper is to go beyond a simple comparison of public and private sector wages and provide a rigorous comparison of New Jersey's public-private sector wages. To do this, I analyze micro data from the state's 1970, 1980, 1990 and 2000 Decennial Census files. I compare the inflation-adjusted hourly earnings of men and women between the ages of 25 and 64 that are not enrolled in school. To explore whether the wage gap among recent labor market entrants has changed since the 1970s, I estimate the public-private sector wage gap among workers that have no more than 10 years of potential experience in 1970, 1980, 1990 and 2000. To describe what happens to the public-private wage gap as a cohort ages, I estimate the wage gap for different cohorts as they obtained additional labor market experience. In an effort to provide post 2000 estimates of the gaps, I use the outgoing rotation group files of the Current Population Survey files for 2000 to 2004.

The key findings from the more reliable (based on larger samples) Decennial Census data are summarized as follows:

New Jersey Men:

o In 1970, men that entered state and local public sector employment earned less than private sector workers. State workers earned 14.5 percent less than private sector workers and local workers earned 11.5 percent less than private sector workers. Even as these men aged, their lower relative earnings remained.

o In 2000, state and local workers earn slightly more than private sector workers.

o The emergence of small public sector earnings advantages is due to two trends:

    o The inflation-adjusted wages of low- and moderately skilled private sector workers eroded dramatically from 1990 to 2000. The real hourly wages of low-skilled private sector New Jersey men fell by 10.7 percent, compared to a 3.8 percent decline for low-skilled local public sector men and a 2.3 percent drop for state public sector men. Over the same period, the median wage among private sector workers stagnated compared to 5.1 and 2.7 percent increases in the median wages of local and state workers.

- The inflation-adjusted wages of private sector high school graduates eroded dramatically from 1990 to 2000. This erosion offset the relative growth in the wages of private sector college graduates.

New Jersey Women:

- In 1970, state and local women earned 17.5 percent more than private sector women. In 2000, the advantage for women local public sector workers was 7.7 percent and 12.7 percent for women state workers.

- The narrowing in the wage gap is solely due to the growth from 1980 to 2000 in the wages of private sector high-skilled women, and women with at least BA degrees.

The paper has several major implications. The assertion that public sector employees earn substantially more than private sector male employees is false. The decline in private sector union membership has made it more difficult for organized labor to insulate high school graduate and low-skilled workers from the restructuring and outsourcing that became a major feature of the New Jersey labor market. From the early 1990s to present, New Jersey's private sector unionization rate fell from 24 to 17 percent for men and 13 to 9 percent for women. However, in the public sector, organized labor has been able to play a role in preventing the stagnation and erosion of private sector wages from seeping into public sector wages. Over one-half of state workers are members of unions and over two-thirds of local workers are union members.

The narrowing in the advantage that public sector women face is due to the improvement in wage opportunities for highly educated and high-skilled women in New Jersey's private sector, which is good news; however, even with this improvement in private sector pay, women still comprise a large portion of the local and state workforces. In fact, approximately one-fifth of women work in public sector jobs. Although there have been shifts in the composition of public sector employment (local and state), the overall percentage has held constant since the 1970s. Public sector employment remains an important avenue for reducing the state's 27 percent male-female wage gap. In the short term, since the wage advantage of public sector women has narrowed, the sector contributes less to narrowing the gender pay gap today. In the long term, although the policy changes would be labeled "gender neutral," a major restructuring of public sector benefits (e.g., pensions) could lead to a widening in retirement income between women and men.

I.   Introduction

Numerous studies have been conducted at the national level on the earnings gap between public and private sector workers. Blackaby et. al (1999), Poterba and Reuben (1994) and Borjas (2002) find that men with the highest levels of education and skills in private sector jobs earn more than their counterparts in the public sector, while men with limited education and fewer skills in the private sector earn less than their public sector counterparts.[2] The patterns for women are different. Several decades ago, women in private sector jobs earned substantially less than women in the public sector. Today, their earnings disadvantage has diminished relative to women in the public sector (Borjas, 2002; Poterba and Rueben, 1994).

Studies examining local and state government employment across the country have found mixed results. For example, Borjas (2002) found state workers at a disadvantage in the 1970s but improvement in the relative status of male state and local employees in the 1980s and 1990s. He found a sharp decline in women's pay at the local government level over the same period. He also found more compressed wages in the public sector than in the private sector in the 1990s.[3]

To my knowledge, published scholarly estimates of New Jersey's public-private sector wage gap do not exist. This lack of information is particularly important given the current policy discussion on the benefits of public sector workers and contract negotiations between the administration and state employees.[4] For example, the lack of evidence leads to the following claim. Based on a simple comparison of New Jersey public and private sector average wages, public sector wages exceed private sector wages, and thus the need to offer benefit packages that are more supportive than those in

the private sector loses its rationale.[5] According to this argument, benefits are not needed to attract and retain a stable civil service.[6]

The purpose of this paper is twofold. First, go beyond a simple comparison of public and private sector wages. Second, provide a rigorous comparison of New Jersey's public-private sector wages. To do this, I analyze micro data from the state's 1970, 1980, 1990 and 2000 Decennial Census files. I compare the inflation-adjusted (real) hourly earnings of men and women between the ages of 25 and 64 that are not enrolled in school. To explore whether the wage gap among recent labor market entrants has changed since the 1970s, I estimate the public-private sector wage gap among workers that have no more than 10 years of potential experience in 1970, 1980, 1990 and 2000. To describe what happens to the public-private wage gap as a cohort ages, I estimate the wage gap for different cohorts as they obtained additional labor market experience. In an effort to provide post 2000 estimates of the gaps, I use the outgoing rotation group files of the Current Population Survey files for 2000 to 2004. These files differ from the Census files in several ways. The sample sizes are smaller and the hourly wage is constructed from a different set of earnings and hours information. Yet, the analysis generates results that do not reject the conclusions drawn from the census files.[7]

The key findings from the more reliable (based on larger samples) Decennial Census data are summarized as follows:

New Jersey Men:

- o In 1970, men that entered state and local public sector employment earned less than private sector workers. State workers earned 14.5 percent less than private

sector workers and local workers earned 11.5 percent less than private sector workers. Even as these men aged, their lower relative earnings remained.

o In 2000, state and local workers earn slightly more than private sector workers.

o The emergence of small public sector earnings advantages is due to two trends:

   o The inflation-adjusted wages of low- and moderately skilled private sector workers eroded dramatically from 1990 to 2000. The real hourly wages of low-skilled private sector New Jersey men fell by 10.7 percent, compared to a 3.8 percent decline for low-skilled local public sector men and a 2.3 percent drop for state public sector men. Over the same period, the median wage among private sector workers stagnated compared to 5.1 and 2.7 percent increases in the median wages of local and state workers.

   o The inflation-adjusted wages of private sector high school graduates eroded dramatically from 1990 to 2000. This erosion offset the relative growth in the wages of private sector college graduates.

New Jersey Women:
o In 1970, state and local women earned 17.5 percent more than private sector women. In 2000, the advantage for women state workers was 12.7 percent and 7.7 percent for women local public sector workers.

o The narrowing in the wage gap is solely due to the growth from 1980 to 2000 in the wages of private sector high-skilled women, and women that hold at least a BA degree.

The remainder of this paper is organized as follows. Section II describes the method and data used to arrive at the previous conclusions. Section III presents the results and Section IV concludes.

II.   Data and Methods

The data come from the New Jersey files of the 1970, 1980, 1990 and 2000 public use 5 percent samples of the Decennial Census. To be included in the sample, an individual must be 25 to 64 years of age, not enrolled in school, working in the public or private sector, have inflation-adjusted (real) earnings between $1.00 and $100.00 per hour, and have a complete set of information on educational attainment, age, marital status, citizenship status, and sex. In 1970, earnings, hours and weeks worked during the previous calendar year are presented in ranges. To construct estimates for these three labor market outcomes, I use the midpoints of the ranges. In all other years, the actual earnings, hours and weeks worked during the previous calendar year are reported. The earnings, hours and weeks correspond to calendar years 1969, 1979, 1989, and 1999. Hourly earnings are constructed by dividing annual wages and salary by the product of weeks worked and usual hours worked per week. The CPI-U is used to deflate hourly wages.

To estimate the public-private sector wage gap (in percent), I regress the logarithm of real hourly earnings on dummy variables for type of public sector employment (state and local), educational attainment, potential experience, citizenship, and marital status. Potential experience equals age minus years of schooling minus 6. In the 1990 and 2000 Decennial Censuses, educational attainment is measured as the highest degree attained. I use the crosswalk developed in Jaeger (1997) to construct estimates of years of schooling, which are then used to create estimates of potential experience.

Tables 1 and 2 present summary statistics for the logarithm of real hourly wages for New Jersey private and public sector workers from 1970 to 2000. Panel A presents men's wages and Panel B presents women's wages. A negative (positive) sign indicates that public sector workers earn less (more) than private sector workers. The simple wage comparisons indicate that private sector men earned slightly more than state and local workers in 1970, but in 2000, state and local men earned more than private sector men. For women, state and local average wages were substantially more than private sector wages in 1970; however, since then, the gap has narrowed.

More specifically, in 1970, private sector men earned 3 and 6 percent more than local and state workers. After 1980, this private sector advantage turned to a disadvantage. In 1990, private sector men earned 4 and 5 percent less than men in local and state jobs. The disadvantage expanded to 14 and 15 percent in the 2000 Decennial Census. Women have a different pattern. In 1970, private sector women earned 41 and 31 percent less than local and state women. The disadvantage narrowed to 25 and 18 percent in 1980. Since then, it has remained in the 20 percent range.

Table 2 compares the wages of the state's public and private sector workers within categories of educational attainment. The patterns in the table partially explain why in Table 1 we see the twisting (movement from private sector advantage in 1970 to a private sector disadvantage in 2000) in the men's public-private sector wage gap. Throughout our period of analysis, male private sector college graduates earned more than their public sector counterparts (10 and 15 percent more than their local and state public sector counterparts in 1970 and 13 percent more than both in 2000), but private sector high school graduates went from earning 12 and 17 percent more than public

sector high school graduates in 1970 to earning 18 and 13 percent less than public sector high school graduates in 2000.

The patterns in Table 2 also partially explain why the narrowing in the wage gap between public and private sector women occurred from 1970 to 2000. Even though some variability existed in 1980 and 1990, it appears that the lower relative earnings of private sector women with high school diplomas remained: in 2000, they were 7 percent lower than those of local women workers and 20 percent lower than state women workers' wages. The chief contributor to the decline in the public-private sector wage gap (Table 1) among women is the dramatic catching up in the wages of highly educated private sector women. In 1970, private sector women with BA and advanced degrees earned 37 and 27 percent less than their local and state counterparts. Over the 30-year period, these disadvantages steadily narrowed. By 2000, private sector women with BA degrees earned 8 percent less than local sector women and 7 percent more than women working in state jobs. The dramatic narrowing is due to the 48 percent increase in the average earnings of women college graduates in New Jersey's private sector that occurred from 1970 to 2000, compared to 16 and 20 percent increases in the wages of state and local women college graduates.[8]

This section confirms that performing a simple comparison of public and private sector average wages indicates that men and women in local and state jobs earn more than private sector workers. However, we also show that the public sector advantage is largely driven by trends in New Jersey private sector wages. Private sector wages among men fell by 3 percent from 1970 to 2000, largely due to the 23 percent drop in the wages of male private sector high school graduates. For women, the rapid increase in the

relative wages of private sector college graduates explains the narrowing in the wage gap between public and private sector women workers.

The estimates in Tables 1 and 2 are the basic comparisons that show up in the press and public conversations; however, as just shown in Table 2 and in the next section, the trends in the simple wage comparisons need to be adjusted for differences in the backgrounds of the two groups: educational attainment, labor market experience, marital status, and citizenship.

III.   Results

The entries in Table 3 report public-private sector wage gaps from regressions that along with dummy variables for an individual's public sector status include measures for educational attainment, potential labor market experience, marital status and citizenship.[9,10] Panel A reports these "regression adjusted" wage gaps for all New Jersey workers, while Panel B reports the wage gaps for recent labor market entrants (no more than 10 years of potential experience). The latter provides information on the relative wages paid in the public and private sectors to new labor market entrants. A "negative" sign in the table indicates that public sector workers earn less than private sector workers who have the same level of education, experience, marital status and citizenship status. Standard errors are in parentheses. The complete regressions are available upon request from the author.[11]

Later I shift to using the 2000 to 2004 Outgoing Rotation Group files of the Current Population Survey. These files have additional information (e.g., union membership) not available in the Decennial Census. I will show that adding other commonly used worker characteristics does not change the conclusions in Table 3.

Panel A of Table 3 reveals that in 1970, private sector men earned 9.3 percent more than public sector men with the same background characteristics and 11.5 and 14.5 percent more than local and state sector men. Since 1970, the advantages narrowed. By 1990, private sector men earned only 5.6 and 5.5 percent more than public sector men. In 2000, the advantage turned to a small disadvantage. Men in local jobs earned 6.2 percent more than private sector men, and men in state jobs earned 3.0 percent more than private sector men. These estimates are not even one-half of the gaps obtained from a simple comparison of public and private sector wages (Table 1).

The public-private sector wage gap among women also exhibits a large narrowing. In 1970, the earnings of women private sector workers exceeded the earnings of public sector women by 17.5 percent. In 1980, the disadvantage fell to 8.8 percent. Since then, the private sector disadvantage has ranged from 5.3 to 12.7 percent. These estimates are one-half the gap obtained when a simple comparison of wages is done (Table 1).

What has been the experience of new or recent public and private sector labor market entrants? In 1970, Table 3 reveals that a young worker starting out in the public sector earned less than a private sector worker. Does a young worker starting a career in the public sector today still earn less than a young private sector worker? To answer this question, Panel B of Table 3 reports the public-private sector wage gaps among recent labor market entrants (no more than 10 years of potential experience) from 1970 to 2000. Young private sector men with the same characteristics as public sector men earn more than young men starting careers in state government jobs and less than young men

starting careers in local sector jobs. New entrant public and private sector women have virtually identical earnings.

More specifically, in 1970, recent male labor market entrants employed in private sector jobs earned 10.9 and 7.8 percent more than men that recently took state and local jobs. The advantage over state worker wages remained over time, but narrowed to 6.6 percent. Relative to local sector men, private sector men saw their 7.8 percent wage advantage in 1970 and 1980 first narrow to 3.6 percent in 1990, and then turn into a modest 5.0 percent disadvantage in 2000.

The wages of new entrant private sector women have caught up to new entrant local and state women workers. In 1970, recent women labor market entrants that joined the private sector earned 22.3 percent less than local sector women workers and 10.5 percent less than women in state public sector jobs. Note that the state comparison is not measured with precision. In 1980, private sector women had cut their disadvantage in half and in 1990, private sector women had achieved parity with new entrant state and local women workers. This parity in earnings existed in 2000.

What explains these trends? Why do public sector men earn slightly more than private sector men? Why has the wage advantage that public sector women experience eroded? Table 4 confirms the results shown in Table 2 that movements in private sector high school and college graduate wages explain the changes in the public-private sector wage gaps. The table reports "regression" adjusted wage gaps by gender and educational attainment: high school graduates and a BA degree or more.

The entries indicate that a primary reason for the emergence of a male public sector pay advantage can be attributed to the emergence of public sector high school

graduates earning more than private sector high school graduates. This advantage to public sector high school graduates offsets the expansion in the advantage that college graduates in the private sector gained. For women, the entries indicate that a major reason for the decline in the public sector wage advantage is due to the substantial increase in the relative wages of women college graduates employed in the private sector.

The table reports that in 1970, male high school graduate local and state public sector workers earned 12.9 and 16.8 percent less than male high school graduate private sector workers. This disadvantage fell to virtually zero in 1990, but reversed as 13.9 and 9.3 percent advantages in 2000. Public sector men with at least a BA degree earned less than private sector college graduates all throughout our 30 years of analysis.

Women with high school degrees working in local and state government earned 8.1 and 17.8 percent more than private sector women with the same background characteristics in 1970. The advantage to state workers remained, while the advantage to women in local jobs fell to 4.4 percent by 2000. Local and state women with college degrees earned 34.5 and 20.9 percent more than private sector women with the same background characteristics in 1970. By 2000, the advantage to local public sector women dwindled to 5.6 percent, and became an 8.6 percent disadvantage for state public sector women with at least a BA degree.

Changes in the returns to skill (e.g., location in the wage distribution) also explain the erosion in men's private sector wages and the increase in women's private sector wages. From 1970 to 2000, the wages of all New Jersey low-skilled men fell; however, those in the private sector saw their wages decline at even faster pace. The median skilled private sector male experienced stagnation in his wages, while state and local men's

wages exhibited modest gains. High-skilled men in both sectors experienced real gains in their wages, with high-skilled local men having the largest wage gains.

For women, two wage trends help to explain the decline in the overall public-private sector pay gap. The wages of high-skilled women in the private sector increased at a modest rate, while the wages of high-skilled state and local women stagnated. At the other end of the skill distribution, all low-skilled women's wages declined, but the decline was largest among local and state government workers.

To illustrate these trends, the 10th (low skilled), median (middle skilled) and 90th (high skilled) percentiles in the residual log real hourly wage distribution of New Jersey public and private sector workers are shown in Table 5. Within each panel, the first four rows report the residual wage at a particular percentile of the skill distribution. The panels report the estimates for private, federal, state and local workers, respectively.

For men, the figures indicate that the inflation-adjusted wages of low and moderately skilled private sector workers eroded. From 1990 to 2000, the wages of low-skilled private sector men fell by 10.7 percent, compared to declines of 3.8 and 2.3 percent for low-skilled local and state workers. Over the same period, the medium-skilled private sector male's wage fell by 0.9 percent compared to modest increases of 5.1 and 2.7 percent for medium-skilled local and state workers. These increases translate into average annual growth rates of 0.5 and 0.3 percent per year.

The table shows that for women, the narrowing in the overall public-private wage gap is partially due to the growth from 1980 to 2000 in the wages of private sector high-skilled women. High-skilled women working in private sector jobs saw their wages rise by 8.3 (2.4 percent + 5.9 percent) percent from 1980-2000. The wages of high-skilled

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women in local and state jobs actually fell by 6.9 and 3.8 percent over the same 20-year period. At the other end of women's skill distribution, wages of the least-skilled private sector workers fell by 3.6 percent, but the wages of low-skilled public sector women fell at even larger rates.

Our final exhibit describes what happens to the public-private sector wage gap as a particular cohort ages. This short section has three goals. First, identify whether public sector men that are close to retirement earned significantly less than private sector men when they joined the public sector in the 1970s and 1980s. Second, assess whether near retirement cohorts of public sector men earned significantly less than private sector men throughout their careers. Third, identify whether the women that entered the public sector in the 1970s and 1980s and are now near retirement earned more than their comparable cohort of private sector women, and the extent to which these advantages persisted throughout their careers.

Table 6 presents "regression" adjusted public-private sector wage gaps for the three experience groups: 10 years or less in potential experience, 11 to 20 years of potential experience, and 21 to 30 years of potential experience. Each column corresponds to a census year. To follow a cohort's public-private sector wage gap, pick a column and move diagonally. For example, in 1970, the male public-private sector wage gap for men with no more than 10 years of experience was 10.4 percent. Public sector men that had just entered the labor market earned 10.4 percent less than private sector workers that had just entered the labor market. Ten years later in 1980 when the cohort had between 11 and 20 years of experience, the wage gap was 9.2 percent. In 1990, when

the cohort had now accumulated 21 to 30 years of experience, the wage gap was 5.9 percent.

The table indicates that men that entered the state's public sector in the 1970s and 1980s earned less than their private sector counterparts. As the cohort aged, the disadvantage narrowed. In particular, the cohort of public sector workers that entered the labor market in the 1980s, in 2000 earned slightly more than private sector men in their cohort. Women that entered public sector employment in the 1970s and 1980s earned more than women in the private sector. The advantage persisted as these cohorts obtained more experience.

More specifically, the table shows that men that entered the state's public sector in 1970 earned 10.9 percent less than comparable private sector men. As the cohort aged, the disadvantaged expanded to 15.6 percent when the cohort had 11 to 20 years of experience, but narrowed to 5.6 percent when the cohort had obtained between 21 and 30 years of experience. Women that entered state public sector employment in the 1970s and 1980s earned 10.5 to 5.3 percent more than women in the private sector. As the cohort aged, the advantage persisted, remaining between 11.2 and 13.5 percent. The cohort of women that entered local employment in the 1970s and 1980s earned 22.3 and 13.7 percent more than women that entered the private sector at the same time. The advantage remained, but as the cohort aged, it narrowed.

In an effort to obtain wage gap estimates from data collected after 2000, I explored using the Outgoing Rotation Group files of the Current Population Survey (CPS). Pooling the New Jersey CPS files provided samples large enough to reliably estimate gaps among men and women between the ages of 25 and 64. Table 7 reports

public-private sector wage gaps for 1989 to 1993 and 2000 to 2004. The years correspond to similar points in the business cycle. Three specifications are presented: unadjusted (only public sector dummy variables); the specification used in the 1970 to 2000 Census analysis; and the Census specification plus dummy variables for union membership, industry and MSA location. A "negative" sign indicates that public sector workers earn less. The column labeled "Census + Union, Industry and MSA" adds dummy variables for union membership, industry, and MSA status to the specification estimated with the Census data. These results will differ from the Census estimates because hourly earnings are constructed differently from the census hourly earnings.[12]

The additional information on union membership, industry and MSA residence do not change our earlier conclusions. The evidence in Table 7 is consistent with our earlier findings. The unadjusted (no control variables) wage gaps are similar to the Census estimates presented in Table 1. Both show that public sector wages exceed private sector wages. Even with smaller samples than available in the Census data, the estimates have good precision. The Census specification and specifications that include the additional information (e.g., union status) cause the wage gap to narrow, but still indicate that men's public sector wages are not higher than the wages of men in the private sector. Women earn higher wages in the early 1990s, with and without controlling for our list of characteristics; however, the local higher wage advantage vanished in 2000. State workers maintain a 5 percent advantage in the 2000-2004 period, but the estimate lacks precision.

IV.   Summary and Implications

This paper provides estimates of New Jersey's public-private sector wage gaps from 1970 to 2004. I first show that simple comparisons of inflation-adjusted hourly wages do reveal that over our period of study, public sector (state and local) workers earned more than private sector workers.

Controlling for differences in educational attainment, experience and other factors changes this pattern. For men, the private sector advantage turned into a small public sector wage advantage in 2000. Women in the public sector earned more than private sector women; the advantage is much smaller and it has narrowed since 1970.

New Jersey men that entered local and state public sector employment in 1970 and 1980 earned less than private sector workers. Local workers earned 7.8 percent less than private sector workers and state workers earned 10.9 percent less than private sector workers. Even as these men aged, their lower relative earnings remained. Decennial Census data for 2000 indicate that state and local workers earn slightly more than private sector workers.

The emergence of public sector men earning slightly more than private sector men is due to two trends. First, the inflation-adjusted wages of low- and moderately skilled private sector workers eroded dramatically from 1990 to 2000. The real hourly wages of low-skilled private sector men fell by 10.7 percent, compared to a 3.8 percent decline for low-skilled local men and a 2.3 percent drop for men in state government jobs. Over the same period, the private sector male median wage stagnated compared to increases of 5.1 and 2.7 percent in the median wages of local and state male workers. Second, the inflation-adjusted wages of private sector high school graduates eroded dramatically from

1990 to 2000. These trends were large enough to offset the growth in the relative wages of private sector college graduates.

The story is simpler for women. In 1970, local and state women earned 17.5 percent more than private sector women. In 2000, the advantage for women local public sector workers was 7.7 percent and 12.7 percent for women state workers. The narrowing in the wage gap is solely due to the growth from 1980 to 2000 in the wages of private sector high-skilled women and women with at least a BA degree.

The paper has several major implications. The assertion that public sector employees earn substantially more than private sector male employees is false. The decline in private sector union membership has made it more difficult for organized labor to insulate high school graduate and low-skilled workers from the restructuring and outsourcing that became a major feature of the New Jersey labor market. From the early 1990s to present, New Jersey's private sector unionization rate fell from 24 to 17 percent for men and 13 to 9 percent for women (Appendix A). However, in the public sector, organized labor has been able to play a role in preventing the stagnation and erosion of private sector wages from seeping into public sector wages. Over one-half of state workers are members of unions and over two-thirds of local workers are union members.

The narrowing in the advantage that public sector women face is due to the improvement in wage opportunities for highly educated and high-skilled women in New Jersey's private sector, which is good news; however, even with this improvement in private sector pay, women still comprise a large portion of the local and state workforces. In fact, approximately one-fifth of women work in public sector jobs (Appendix B). Although there have been shifts in the composition of public sector employment (local

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and state), the overall percentage has held constant since the 1970s (Appendix C).[13] Public sector employment remains an important avenue for reducing the state's 27 percent male-female wage gap.[14] In the short term, since the wage advantage of public sector women has narrowed, the sector contributes less to narrowing the gender pay gap today. In the long term, although the policy changes would be labeled "gender neutral," a major restructuring of public sector benefits (e.g., pensions) could lead to a widening in retirement income between women and men.

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Table 1: Mean Logarithm of Real Hourly Wages of
New Jersey Private and Public Sector Workers by Gender

Panel A: Men	Mean Log Real Hourly Wages				Public-Private Log Point Wage Gap			
Variable	1970	1980	1990	2000	1970	1980	1990	2000
Private	2.51	2.48	2.53	2.47	-	-	-	-
Federal	2.52	2.57	2.53	2.49	0.01	0.09	0.00	0.02
State	2.45	2.45	2.58	2.61	-0.06	-0.03	0.05	0.15
Local	2.48	2.43	2.57	2.60	-0.03	-0.05	0.04	0.14
Panel B: Women								
Private	1.92	1.92	2.11	2.18	-	-	-	-
Federal	2.20	2.16	2.25	2.34	0.28	0.24	0.14	0.17
State	2.23	2.10	2.31	2.41	0.31	0.18	0.20	0.23
Local	2.33	2.17	2.31	2.42	0.41	0.25	0.21	0.24

Notes: Author's calculations from the 5% samples of the New Jersey Public Use Micro Data sets of the Decennial Census. To be included in the sample, the individual must be 25 to 64 years of age, not enrolled in school, a public or private sector worker, have earnings between $1.00 and $100.00 per hour in 1982-84 dollars, and have complete set of information on educational attainment, age, marital status, and citizenship status. In 1970, earnings, hours and weeks worked are bracketed. To construct estimates, I use the midpoints of the brackets. In all other years, the actual earnings, hours and weeks worked are reported. The earnings, hours and weeks correspond to calendar years 1969, 1979, 1989 and 1999. Hourly earnings are constructed by divided annual wages and salary by weeks worked and usual hours worked per week. The CPI-U is used to deflate hourly wages. The entries in columns below "Public-Private Log Point Wage Gap" measure the wage gap between public and private sector workers in a particular year. A "negative" (positive) sign in the last four columns indicates that public sector workers earn less (more) than private sector workers.

Table 2: Mean Logarithm of Real Hourly Wages of NJ Private and Public Sector Workers by Education and Gender

Panel A: Men	Census Year				Public-Private Log Point Wage Gap			
High School Graduate	**1970**	**1980**	**1990**	**2000**	**1970**	**1980**	**1990**	**2000**
Private	2.49	2.41	2.37	2.26				
Federal	2.46	2.51	2.42	2.33	-0.02	0.10	0.05	0.07
State	2.32	2.31	2.36	2.38	-0.17	-0.10	-0.01	0.13
Local	2.37	2.32	2.38	2.44	-0.12	-0.09	0.01	0.18
BA Degree Plus								
Private	2.89	2.78	2.83	3.05				
Federal	2.87	2.78	2.72	2.72	-0.02	0.00	-0.11	-0.33
State	2.74	2.67	2.79	2.92	-0.15	-0.10	-0.04	-0.13
Local	2.79	2.67	2.82	2.92	-0.10	-0.11	-0.02	-0.13
Panel B: Women								
High School Graduate	**1970**	**1980**	**1990**	**2000**	**1970**	**1980**	**1990**	**2000**
Private	1.94	1.90	1.98	1.97				
Federal	2.22	2.15	2.14	2.22	0.28	0.25	0.16	0.25
State	2.13	1.96	2.10	2.17	0.18	0.06	0.12	0.20
Local	2.01	1.88	1.96	2.04	0.07	-0.01	-0.02	0.07
BA Degree Plus								
Private	2.32	2.19	2.41	2.80				
Federal	2.36	2.32	2.47	2.89	0.04	0.14	0.06	0.09
State	2.58	2.45	2.60	2.74	0.27	0.26	0.19	-0.07
Local	2.69	2.50	2.63	2.89	0.37	0.32	0.22	0.08

Notes: Author's calculations from the 5% samples of the NJ Public Use Micro Data sets of the Decennial Census. To be included in the sample, the individual must be 25 to 64 years of age, not enrolled in school, a public or private sector worker, have earnings between $1.00 and $100.00 per hour in 1982-84 dollars, and have complete set of information on educational attainment, age, marital status, and citizenship status. In 1970, earnings, hours and weeks worked are bracketed. To construct estimates, I use the midpoints of the brackets. In all other years, the actual earnings, hours and weeks worked are reported. The earnings, hours and weeks correspond to calendar years 1969, 1979, 1989 and 1999. Hourly earnings are constructed by divided annual wages and salary by weeks worked and usual hours worked per week. The CPI-U is used to deflate hourly wages. The entries in columns below "Public-Private Log Point Wage Gap" measure the wage gap between public and private sector workers in a particular year. A "negative" (positive) sign in the last four columns indicates that public sector workers earn less (more) than private sector workers.

Table 3: Adjusted Public-Private Log Real Hourly Wage Gaps, 1970 to 2000
(Standard Errors in Parentheses)

Panel A: All Workers	Men				Women			
Category	1970	1980	1990	2000	1970	1980	1990	2000
Public	-0.093	-0.072	-0.057	0.024	0.189	0.102	0.076	0.099
	(0.012)	(0.005)	(0.005)	(0.006)	(0.020)	(0.006)	(0.006)	(0.006)
Federal	-0.033	0.051	-0.063	-0.061	0.260	0.193	0.118	0.141
	(0.020)	(0.009)	(0.010)	(0.012)	(0.046)	(0.015)	(0.014)	(0.014)
State	-0.145	-0.114	-0.055	0.030	0.176	0.089	0.107	0.127
	(0.027)	(0.011)	(0.010)	(0.011)	(0.042)	(0.012)	(0.010)	(0.010)
Local	-0.115	-0.125	-0.056	0.062	0.175	0.087	0.053	0.077
	(0.017)	(0.007)	(0.007)	(0.008)	(0.023)	(0.007)	(0.007)	(0.007)
Panel B: New Entrants								
Public	-0.104	-0.037	-0.054	-0.023	0.172	0.115	-0.007	0.003
	(0.031)	(0.011)	(0.014)	(0.017)	(0.065)	(0.013)	(0.013)	(0.015)
Federal	-0.160	0.102	-0.071	-0.130	0.037	0.110	-0.001	0.008
	(0.059)	(0.021)	(0.025)	(0.033)	(0.174)	(0.032)	(0.029)	(0.039)
State	-0.109	-0.106	-0.066	-0.066	0.105	0.053	0.003	-0.007
	(0.061)	(0.022)	(0.025)	(0.032)	(0.110)	(0.025)	(0.023)	(0.026)
Local	-0.078	-0.077	-0.036	0.050	0.223	0.137	-0.015	0.007
	(0.040)	(0.015)	(0.020)	(0.023)	(0.075)	(0.015)	(0.018)	(0.019)

Notes: The data come from the 1970, 1980, 1990 and 2000 5% samples of the U.S. Decennial Census. The entries in the table represent regression "adjusted" wage gaps between public and private sector NJ workers. A "negative" sign indicates that public sector workers earn less. Along with dummy variables for public-private sector status, the regressions include the following variables: potential experience, potential experience squared, educational attainment, citizenship, and marital status. Potential experience equals age minus years of schooling minus 6. In 1990 and 2000, the Decennial Census switched from years of schooling as its education measure to highest degree attained. I use a crosswalk developed in Jaeger (1997) to construct estimates of years of schooling, which are then used to create estimates of years of schooling. The complete regressions are available upon request from the author.

Table 4: Adjusted Public-Private Log Real Hourly Wage Gaps by Educational Attainment, 1970 to 2000
(Standard Errors in Parentheses)

	High School Graduate				BA Degree Plus			
Panel A: Male	**1970**	**1980**	**1990**	**2000**	**1970**	**1980**	**1990**	**2000**
Public	-0.097	-0.043	-0.021	0.0999	-0.085	-0.118	-0.138	-0.1846
	(0.020)	(0.009)	(0.010)	(0.011)	(0.026)	(0.009)	(0.009)	(0.044)
Federal	-0.038	0.072	-0.007	0.0249	-0.025	-0.015	-0.141	-0.3054
	(0.030)	(0.014)	(0.017)	(0.020)	(0.049)	(0.017)	(0.018)	(0.152)
State	-0.168	-0.105	-0.027	0.0927	-0.130	-0.121	-0.127	-0.1670
	(0.048)	(0.020)	(0.020)	(0.021)	(0.052)	(0.017)	(0.016)	(0.053)
Local	-0.129	-0.110	-0.026	0.1393	-0.094	-0.158	-0.143	-0.1938
	(0.029)	(0.012)	(0.013)	(0.014)	(0.033)	(0.011)	(0.012)	(0.072)
Panel B: Female								
Public	0.146	0.043	0.038	0.1192	0.326	0.254	0.145	-0.0359
	(0.028)	(0.009)	(0.010)	(0.011)	(0.052)	(0.012)	(0.009)	(0.052)
Federal	0.275	0.235	0.156	0.2490	0.087	0.125	0.052	0.0488
	(0.053)	(0.020)	(0.022)	(0.025)	(0.278)	(0.039)	(0.028)	(0.231)
State	0.178	0.050	0.109	0.1865	0.209	0.210	0.132	-0.0860
	(0.062)	(0.017)	(0.018)	(0.018)	(0.103)	(0.024)	(0.017)	(0.061)
Local	0.081	-0.018	-0.030	0.0440	0.345	0.271	0.159	0.0555
	(0.036)	(0.011)	(0.012)	(0.014)	(0.054)	(0.013)	(0.010)	(0.080)

Notes: The data come from the 1970, 1980, 1990 and 2000 5% samples of the U.S. Decennial Census. The entries in the table represent regression "adjusted" wage gaps between public and private sector NJ workers. A negative sign indicates that public sector workers earn less. Along with dummy variables for public-private sector status, the regressions include the following variables: potential experience, potential experience squared, educational attainment, citizenship, and marital status. Potential experience equals age minus years of schooling minus 6. In 1990 and 2000, the Decennial Census switched from years of schooling as its education measure to highest degree attained. I use a crosswalk developed in Jaeger (1997) to construct estimates of years of schooling, which are then used to create estimates of years of schooling. The complete regressions are available upon request from the author.

Table 5: Changes in New Jersey's Residual Log Hourly Wage Distribution

	Men			Women		
Private	**10th**	**Median**	**90th**	**10th**	**Median**	**90th**
1970	-0.493	0.026	0.525	-0.692	-0.026	0.573
1980	-0.593	0.050	0.580	-0.643	-0.034	0.582
1990	-0.643	0.035	0.625	-0.689	0.012	0.606
2000	-0.750	0.026	0.707	-0.725	0.017	0.665
1980-1970	-0.100	0.024	0.055	0.049	-0.008	0.008
1990-1980	-0.050	-0.016	0.045	-0.045	0.046	0.024
2000-1990	-0.107	-0.009	0.082	-0.036	0.005	0.059
Federal						
1970	-0.433	-0.033	0.349	-0.266	0.162	0.640
1980	-0.580	0.027	0.380	-0.533	0.150	0.653
1990	-0.601	-0.009	0.366	-0.434	0.189	0.641
2000	-0.624	-0.009	0.410	-0.494	0.176	0.642
1980-1970	-0.147	0.060	0.031	-0.266	-0.012	0.014
1990-1980	-0.022	-0.036	-0.014	0.099	0.039	-0.012
2000-1990	-0.023	0.000	0.044	-0.060	-0.013	0.002
State						
1970	-0.540	-0.113	0.329	-0.304	0.122	0.823
1980	-0.602	-0.085	0.393	-0.489	0.094	0.606
1990	-0.589	-0.041	0.408	-0.483	0.081	0.591
2000	-0.612	-0.014	0.507	-0.545	0.091	0.568
1980-1970	-0.061	0.028	0.063	-0.185	-0.027	-0.217
1990-1980	0.013	0.044	0.016	0.006	-0.013	-0.015
2000-1990	-0.023	0.027	0.098	-0.062	0.009	-0.023
Local						
1970	-0.534	-0.121	0.291	-0.582	0.136	0.849
1980	-0.568	-0.072	0.334	-0.609	0.099	0.669
1990	-0.549	0.000	0.439	-0.619	0.066	0.606
2000	-0.586	0.051	0.586	-0.734	0.054	0.600
1980-1970	-0.034	0.050	0.043	-0.026	-0.037	-0.179
1990-1980	0.020	0.072	0.104	-0.010	-0.033	-0.063
2000-1990	-0.038	0.051	0.147	-0.115	-0.012	-0.006

Notes: The data come from the 1970, 1980, 1990 and 2000 5% samples of the U.S. Decennial Census. The entries are the residuals at the 10th, median and 90th percentiles constructed from regressions that include variables for public sector status, potential experience, potential experience squared, educational attainment, citizenship, and marital status.

Table 6: Pseudo Cohort Analysis of Adjusted Public-Private Sector
Log Hourly Wage Gaps
(Standard Errors in Parentheses)

All	Men				Women			
Category	1970	1980	1990	2000	1970	1980	1990	2000
10 Years and Less	-0.104	-0.037	-0.054	-0.023	0.172	0.115	-0.007	0.003
	(0.031)	(0.011)	(0.014)	(0.017)	(0.065)	(0.013)	(0.013)	(0.015)
11-20 Years	-0.105	-0.092	-0.066	0.015	0.191	0.103	0.070	0.015
	(0.026)	(0.010)	(0.009)	(0.012)	(0.045)	(0.013)	(0.010)	(0.012)
21-30 Years	-0.092	-0.101	-0.059	0.033	0.179	0.079	0.084	0.120
	(0.023)	(0.012)	(0.011)	(0.011)	(0.034)	(0.013)	(0.011)	(0.010)
Federal								
10 Years and Less	-0.160	0.102	-0.071	-0.130	0.037	0.110	-0.001	0.008
	(0.059)	(0.021)	(0.025)	(0.033)	(0.174)	(0.032)	(0.029)	(0.039)
11-20 Years	-0.067	0.044	-0.070	-0.109	0.202	0.182	0.135	0.067
	(0.048)	(0.019)	(0.017)	(0.022)	(0.115)	(0.031)	(0.025)	(0.027)
21-30 Years	-0.058	-0.020	-0.085	-0.065	0.259	0.204	0.129	0.179
	(0.035)	(0.021)	(0.020)	(0.020)	(0.071)	(0.032)	(0.028)	(0.026)
State								
10 Years and Less	-0.109	-0.106	-0.066	-0.066	0.105	0.053	0.003	-0.007
	(0.061)	(0.022)	(0.025)	(0.032)	(0.110)	(0.025)	(0.023)	(0.026)
11-20 Years	-0.142	-0.156	-0.058	0.013	0.259	0.142	0.108	0.070
	(0.058)	(0.022)	(0.017)	(0.021)	(0.090)	(0.024)	(0.019)	(0.020)
21-30 Years	-0.137	-0.089	-0.056	0.059	0.046	0.053	0.112	0.135
	(0.054)	(0.024)	(0.021)	(0.019)	(0.087)	(0.026)	(0.020)	(0.017)
Local								
10 Years and Less	-0.078	-0.077	-0.036	0.050	0.223	0.137	-0.015	0.007
	(0.040)	(0.015)	(0.020)	(0.023)	(0.075)	(0.015)	(0.018)	(0.019)
11-20 Years	-0.112	-0.136	-0.067	0.082	0.169	0.074	0.040	-0.034
	(0.033)	(0.013)	(0.013)	(0.016)	(0.052)	(0.015)	(0.013)	(0.015)
21-30 Years	-0.107	-0.151	-0.047	0.067	0.179	0.062	0.065	0.102
	(0.034)	(0.016)	(0.015)	(0.015)	(0.039)	(0.015)	(0.013)	(0.012)

Notes: The data come from the 1970, 1980, 1990 and 2000 5% samples of the U.S. Decennial Census. The entries in the table represent regression "adjusted" wage gaps between public and private sector New Jersey workers. A negative sign indicates that public sector workers earn less. Along with dummy variables for public-private sector status, the regressions include the following variables: potential experience, potential experience squared, educational attainment, citizenship, and marital status. Potential experience equals age minus years of schooling minus 6. In 1990 and 2000, the decennial Census switched from years of schooling as its education measure to highest degree attained. I use a crosswalk developed in Jaeger (1997) to construct estimates of years of schooling, which are then used to create estimates of years of schooling. Standard errors are in parentheses. The complete set of regressions are available upon request from the author.

Table 7: Current Population Survey Outgoing Rotation Group Estimates of the New Jersey Public-Private Sector Log Wage Gap
(Standard Errors in Parentheses)
(Multiply the entries by 100 to place in percent)

1989-93	Men Specification			Women Specification		
	Unadjusted	Census	Census+ Union	Unadjusted	Census	Census+ Union
Federal	0.103	0.053	0.013	0.227	0.230	0.157
	(0.025)	(0.021)	(0.024)	(0.030)	(0.027)	(0.029)
State	0.138	0.047	0.013	0.221	0.159	0.118
	(0.025)	(0.021)	(0.025)	(0.022)	(0.020)	(0.023)
Local	0.073	0.002	-0.042	0.230	0.051	0.059
	(0.018)	(0.015)	(0.021)	(0.014)	(0.013)	(0.019)
2000-04						
Federal	0.076	-0.014	0.005	0.211	0.167	0.118
	(0.046)	(0.042)	(0.046)	(0.060)	(0.055)	(0.061)
State	0.112	-0.019	-0.019	0.210	0.078	0.049
	(0.044)	(0.040)	(0.045)	(0.038)	(0.036)	(0.043)
Local	0.088	0.008	-0.001	0.195	-0.026	-0.023
	(0.030)	(0.027)	(0.034)	(0.024)	(0.023)	(0.033)

Notes: The data come from the 1989 to 1993 and 2000 to 2004 files of the Current Population Surveys Outgoing Rotation Group. The years represent similar points in the business cycle. Three specifications are presented: unadjusted (only public sector dummy variables); the specification used in the 1970 to 2000 Census analysis; and the Census specification plus dummy variables for union membership, industry and MSA location. A "negative" sign indicates that public sector workers earn less. Along with dummy variables for public-private sector status, the Census specifications include potential experience, potential experience squared, educational attainment, citizenship, and marital status. Potential experience equals age minus years of schooling minus 6. The Census + Union, Industry and MSA specification adds dummy variables for union membership, industry, and MSA status. From 1989 to 1993, Union and MSA status and industry categories that are identical to the 2000 to 2004 categories are not available. Hourly earnings are constructed differently from the census hourly earnings. First, identify whether the individual is paid hourly or weekly. If they are paid hourly, then I use the reported hourly wage. If they are paid weekly, then I divide the reported weekly wage by the hours worked per week.

Appendix Table A: Summary Statistics for New Jersey's CPS Outgoing Rotation Group Files, Selected Years

Panel A: Men	State		Local		Private		State-Private		Local-Private	
	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04
Log Real Hourly Earnings	2.48	2.43	2.41	2.41	2.34	2.32	0.14	0.11	0.07	0.09
Union Membership	0.63	0.56	0.70	0.71	0.24	0.17	0.39	0.39	0.46	0.54
White	0.80	0.83	0.86	0.87	0.86	0.82	-0.06	0.01	0.00	0.05
Hispanic	0.04	0.08	0.04	0.06	0.10	0.14	-0.06	-0.06	-0.06	-0.08
Potential Experience	21.7	23.2	23.0	23.8	20.9	21.9	0.77	1.40	2.09	2.00
<12 Years of Schooling	0.08	0.04	0.23	0.15	0.30	0.25	-0.22	-0.21	-0.08	-0.10
12 Years	0.31	0.21	0.21	0.22	0.19	0.17	0.11	0.04	0.02	0.05
13 Years	0.07	0.07	0.10	0.08	0.09	0.05	-0.02	0.02	0.01	0.03
14 Years	0.08	0.12	0.06	0.11	0.07	0.10	0.01	0.02	-0.01	0.01
15 Years	0.02	0.03	0.01	0.02	0.02	0.03	0.00	0.00	0.00	-0.01
16 Years	0.22	0.23	0.19	0.17	0.20	0.22	0.02	0.01	-0.01	-0.06
17 Years	0.01	0.04	0.02	0.04	0.01	0.03	0.00	0.02	0.00	0.01
18 Years	0.21	0.25	0.19	0.21	0.12	0.15	0.09	0.11	0.07	0.06
Married	0.73	0.73	0.71	0.67	0.71	0.71	0.02	0.03	0.00	-0.03
Widowed	0.01	0.00	0.02	0.01	0.01	0.01	0.00	0.00	0.01	0.00
Divorced	0.06	0.06	0.08	0.08	0.06	0.07	0.00	-0.01	0.02	0.01
Separated	0.02	0.01	0.02	0.03	0.02	0.02	0.00	-0.01	0.00	0.01
Never Married	0.19	0.19	0.18	0.21	0.21	0.22	-0.03	-0.03	-0.04	-0.01

Notes: The data come from the 1989 to 1993 and 2000 to 2004 files of the Current Population Surveys Outgoing Rotation Group.

Appendix Table A cont.: Summary Statistics for New Jersey's CPS Outgoing Rotation Group Files, Selected Years

Panel B: Women	State		Local		Private		State-Private		Local-Private	
	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04	1989-93	2000-04
Log Real Hourly Earnings	2.23	2.27	2.24	2.26	2.01	2.06	0.22	0.21	0.23	0.19
Union Membership	0.59	0.62	0.65	0.68	0.13	0.09	0.45	0.53	0.51	0.59
White	0.66	0.67	0.86	0.84	0.83	0.81	-0.17	-0.13	0.03	0.03
Hispanic	0.07	0.08	0.04	0.07	0.09	0.12	-0.02	-0.04	-0.04	-0.05
Potential Experience	22.8	23.7	23.7	23.9	21.0	22.3	1.81	1.38	2.73	1.58
<12 Years of Schooling	0.13	0.05	0.10	0.10	0.23	0.20	-0.10	-0.15	-0.13	-0.10
12 Years	0.32	0.30	0.25	0.16	0.30	0.25	0.02	0.05	-0.05	-0.10
13 Years	0.10	0.06	0.06	0.05	0.10	0.06	0.00	-0.01	-0.05	-0.01
14 Years	0.07	0.11	0.05	0.08	0.09	0.13	-0.02	-0.02	-0.04	-0.05
15 Years	0.02	0.03	0.01	0.01	0.02	0.03	0.00	0.00	-0.01	-0.02
16 Years	0.18	0.15	0.28	0.22	0.19	0.20	0.00	-0.05	0.10	0.03
17 Years	0.02	0.04	0.03	0.06	0.01	0.02	0.01	0.01	0.02	0.04
18 Years	0.16	0.28	0.22	0.32	0.06	0.10	0.10	0.18	0.16	0.22
Married	0.58	0.50	0.71	0.67	0.62	0.62	-0.04	-0.12	0.08	0.06
Widowed	0.05	0.03	0.04	0.03	0.04	0.02	0.01	0.00	0.00	0.01
Divorced	0.13	0.16	0.11	0.12	0.11	0.14	0.01	0.03	0.00	-0.02
Separated	0.06	0.06	0.03	0.02	0.04	0.03	0.02	0.02	-0.01	-0.01
Never Married	0.18	0.26	0.12	0.15	0.18	0.19	0.00	0.07	-0.06	-0.04

Notes: The data come from the 1989 to 1993 and 2000 to 2004 files of the Current Population Surveys Outgoing Rotation Group.

Appendix B: CES New Jersey Public-Private Sector Employment

Year	Total Nonfarm (1,000s)	Public	Federal	State	Local
1990	3,635.1	15.9%	2.2%	3.6%	10.0%
1991	3,498.6	16.3%	2.2%	3.7%	10.4%
1992	3,457.8	16.5%	2.2%	3.7%	10.6%
1993	3,493.0	16.3%	2.1%	3.6%	10.6%
1994	3,552.7	16.1%	2.0%	3.6%	10.5%
1995	3,600.5	15.9%	2.0%	3.7%	10.2%
1996	3,638.9	15.7%	1.9%	3.6%	10.1%
1997	3,724.5	15.3%	1.8%	3.5%	9.9%
1998	3,801.2	15.0%	1.7%	3.5%	9.8%
1999	3,901.1	14.8%	1.7%	3.4%	9.7%
2000	3,994.5	14.7%	1.7%	3.4%	9.6%
2001	3,997.1	15.1%	1.6%	3.5%	9.9%
2002	3,983.9	15.4%	1.6%	3.5%	10.3%
2003	3,978.8	15.6%	1.6%	3.6%	10.5%
2004	3,999.1	15.8%	1.6%	3.7%	10.6%
2005	4,043.2	15.9%	1.5%	3.7%	10.6%

Notes: Author's tabulations from the New Jersey Current Employer Survey(CES).

Appendix C: The Public and Private Sector Employment Shares by Gender

Year	Private	Public	Federal	State	Local
Panel A: Men					
1970[1]	85.8%	14.2%	4.8%	2.5%	7.0%
1980[1]	81.9%	18.1%	5.7%	3.3%	9.1%
1990[1]	84.0%	16.0%	4.6%	3.7%	7.7%
2000[1]	85.2%	14.8%	3.6%	3.9%	7.2%
2000[2]	84.7%	15.3%	3.8%	3.3%	8.2%
2005[2]	84.4%	15.6%	3.3%	4.2%	8.1%
Panel B: Women					
1970[1]	82.7%	17.3%	2.3%	2.8%	12.3%
1980[1]	78.9%	21.1%	2.6%	4.2%	14.3%
1990[1]	81.9%	18.1%	2.4%	4.3%	11.3%
2000[1]	82.2%	17.8%	2.2%	4.9%	10.8%
2000[2]	81.8%	18.2%	2.2%	4.3%	11.7%
2005[2]	79.5%	20.5%	2.1%	4.8%	13.6%

Notes:

[1]Data come from 5% sample of New Jersey's Public Use Micro data.
[2]Data come from the American Community Survey.

ENDNOTES

[1] I thank Robb Sewell and Elizabeth Nisbet for their helpful comments and suggestions.

[2] The typical study relates inflation-adjusted hourly earnings to a vector of individual, job specific and demographic characteristics: years of schooling (educational attainment), potential experience and its square, health status, marital status, racial and ethnic origin, region of residence, tenure with current employer, size of workplace, union affiliation membership, industry, a constructed sample selectivity term to model sectoral attachment and occupation.

[3] For other studies, see the following. Swenson and Eathington (2005) show that in Iowa, state workers earn more than private sector workers, given their education levels, but private sector work pays better for those with a bachelor's degree or higher. Belman and Haywood (2004) find more variability in state and local than federal premium and find both positive and negative premium. In the early 1990s, Poterba and Rueben (1994) found that state and local government paid more than the private sector. Earlier, Gyourko and Tracey (1988) found that federal public sector wages were high relative to private sector wages, but that the difference between state and local and private sector employees was statistically insignificant or zero. Krueger (1988) found mixed results for state and local hourly wages; depending on the data set and method of analysis they were very slightly higher or less than private sector wages.

[4] See, for example, the report of the New Jersey Benefits Review Task Force to Acting Governor Richard J. Codey, December 1, 2005, State of New Jersey. Most recently, see the report of Public Employee Benefits Reform Committee that was convened during the Special Session on Property Tax Reform (http://www.njleg.state.nj.us/PropertyTaxSession/specialsessionpt_reports).

[5] See, for example, the recent article that contained the following quote, "State workers have long defended their pension benefits as compensation for lower pay, but New Jersey state workers earn an average $54,742, compared with $43,970 in the private sector, according to the New Jersey labor department." (Hennessy-Fiske, 2006).

[6] In October 12th, 2006 testimony to the Joint Legislative Committee on Public Employee Benefits Reform, Christine Stearns, Esq., Vice President Health, Legal Affa irs, and Small Business Issues, New Jersey Business and Industry Association said the following, "Escalating government spending is bankrupting businesses and putting them in a very difficult position. She noted that compensation for public employees, in wages and benefits, exceed those being offered in the private sector. She stated that the health benefits package offered in the public sector should reflect those being offered in the private sector, and cost sharing should be instituted." (http://www.njleg.state.nj.us/PropertyTaxSession/OPI/jcpe_report111506.pdf)

[7] Along with sample size, the Census and Current Population Survey results can differ due to how hourly earnings are constructed. In the Census, hourly earnings is constructed by dividing annual wages and salary by the product of weeks and hours worked. In the Current Population Survey, hourly earnings are constructed by first identifying whether the individual is paid hourly or weekly. If paid hourly, then I use the reported hourly wage. If paid weekly, then I divide weekly wages by hours worked per week.

[8] The increase in the supply of private sector women from 1970 to 2000 must not be large relative to the increased demand for highly educated and high-skilled individuals.

[9] Many other studies will include measures for industry, region of residence, tenure with current employer, size of workplace, union membership, and occupation. I limit the models in Table 3 to education, experience, citizenship and marital status because these variables are available in each census file. However, I show later that including measures for industry, union membership and NJ metropolitan residence do not explain much more of the wage gap between public and private sector workers.

[10] Potential experience equals age minus years of schooling minus 6. In 1990 and 2000, the Decennial Census switched from years of schooling as its education measure to highest degree attained. I use a crosswalk developed in Jaeger (1997) to construct estimates of years of schooling, which are then used to create estimates of years of schooling.