



# Same Work, Less Pay

## Virginia's Persistent Gender Gap

By Michael Cassidy and Sara Okos

### Executive Summary

Even though Virginia's workers earn substantially more than their counterparts in most other states, there are striking and persistent differences between the earnings of working men and working women in Virginia that raise important concerns for women in the Commonwealth's labor market.

- **Virginia's gender pay gap is large.** In 2008, Virginia's gender gap in median annual income was nearly \$16,000 — making it the 15<sup>th</sup> largest gap nationwide. The gap in another measure of earnings, the median hourly wage, was \$3.59 — making it the 14<sup>th</sup> highest in the nation.
- **Virginia's gender pay gap doesn't just occur at the median level.** It exists throughout the wage distribution and is more pronounced at higher wage levels. Among the lowest 10 percent of wage earners, Virginia women earn about 87 cents for every dollar earned by Virginia men. For median hourly wages, women earn only 81 cents for every dollar earned by a man. But among the top 10 percent of wage earners, women earn just 76 cents for every dollar earned by men.
- **Virginia's gap has not narrowed.** Although the gender pay gap has been narrowing consistently both nationally and regionally since the early 2000s, Virginia has not experienced this same steady decline.



- **Virginia's gender pay gap still exists when earnings are examined by the educational attainment of workers.** The size of the gap actually grows as education level increases, meaning better educated women earn a smaller share of similarly educated men's pay than their less educated counterparts.

### Background: Virginia is a High Income State

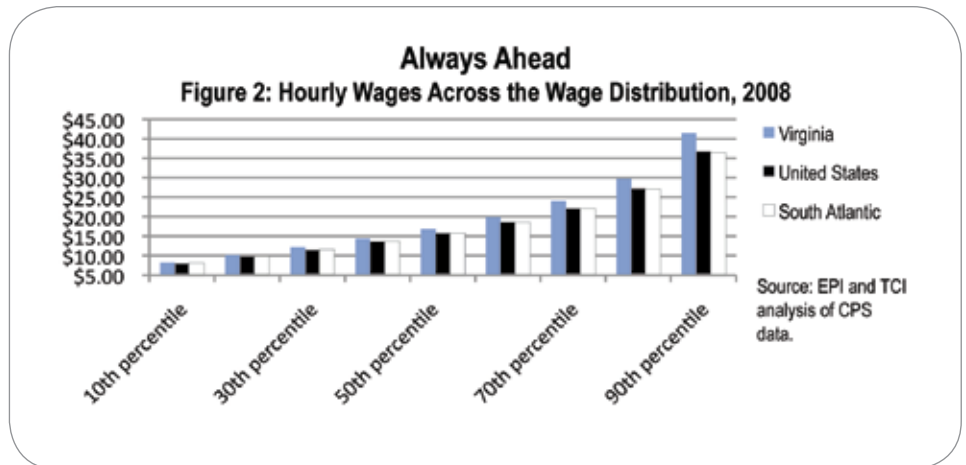
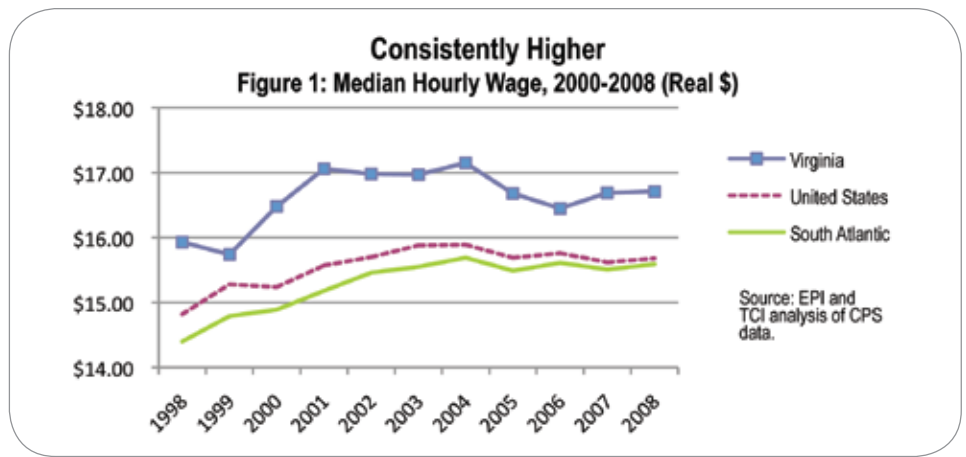
Virginia's workers are some of the country's highest earners. They currently rank at the top among states on multiple measures of earnings, and they have enjoyed this position of above-average pay throughout the past decade. Two measures of workers' earnings are analyzed below: median income and the median wage. The key difference between these two measures is that income is dependent on how many hours a person works a year. Typically, a worker has some choice over the number of hours they work, but



when times are tough and employers are cutting back hours in order to cut labor costs, more and more Virginia workers are working part-time involuntarily.

Virginia's median annual income of \$25,000 in 2008 ties it with two other states as the 9<sup>th</sup> highest income in the nation. This is \$4,000 above the median for the entire United States (and the South Atlantic region), which means that Virginia's workers earned roughly 19 percent more than workers nationally and regionally in 2008. Another measure of compensation, the median wage, paints a similarly positive picture of the Virginia labor market. At \$16.78 an hour, Virginia workers earned the 12<sup>th</sup> highest median wage in the nation in 2008. As shown in Figure 1, this trend of above-average median wages is not new. Virginia's median wage has consistently exceeded the median wage for the nation and the South Atlantic region every single year of the past 10 years.

Although medians are most commonly used to compare earnings across states and within subgroups of the labor market, it also provides insight into the overall wage distribution. As shown in Figure 2, it is not just at the median level that Virginia workers are paid more. Throughout the entire wage distribution, Virginia workers earn more than their regional and national counterparts. In fact, this difference grows as wages grow. For example, among the lowest level of earners (those in the bottom 10 percent of the wage distribution), Virginia workers earn just 22 cents more per hour than workers at this level nationally. Yet, among the highest earners (those in the top 10 percent of the wage distribution), this difference increases to more than \$4.70 per hour. In sum, not only do Virginia workers compare well at the median, but they compare increasingly well at higher levels in the wage distribution. In fact, Virginia workers earning at the 90<sup>th</sup> percentile had the 6<sup>th</sup> highest wages of workers in any state in 2008.



### Gender Disparities: Virginia's High, But Unequal Pay

Despite Virginia's relatively high wages and income levels overall, some striking differences emerge when earnings are examined by gender. In 2008, Virginia's working women earned a median income of \$18,000 per year. This ranks the state's women as the 12<sup>th</sup> highest female earners of any state. In comparison, Virginia's working men earned a median annual income of \$34,000 in 2008 which placed them 10<sup>th</sup> highest nationally.

While this data suggests that both working men and working women are better paid in Virginia than their counterparts in most other states, the substantial pay gap between the genders raises some important equity concerns regarding our labor market. Virginia's \$16,000 raw difference in men's and women's median annual income suggests that Virginia's women earn only

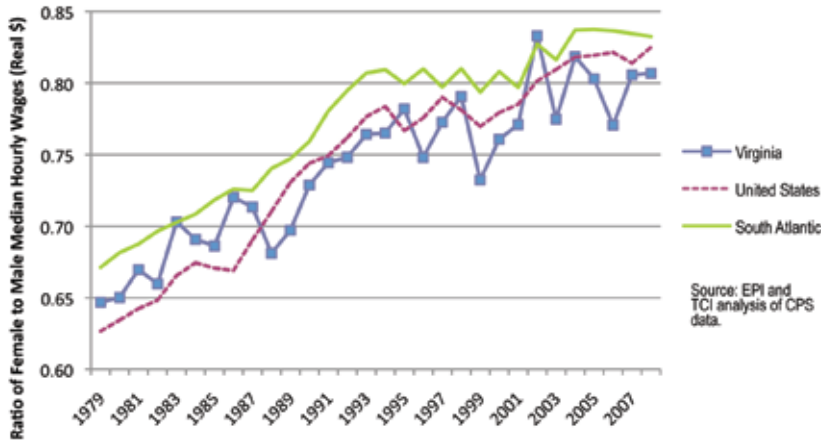
53 cents for every dollar earned by men. This gap was the 15<sup>th</sup> largest nationally, according to 2008 figures.

Although the pay gap is less pronounced at the median hourly wage level than at the median annual income level, this alternative measure of earnings tells the same general story of unequal compensation. As might be expected based upon the findings at the annual income level, Virginia's men and women also rank well in terms of their median wages. In 2008, median wages for Virginia men were the 11<sup>th</sup> highest in the nation, whereas median wages for Virginia women were the 14<sup>th</sup> highest in the nation.

Despite these high rankings, the difference between male and female median wages — roughly \$3.59 per hour in 2008 — was the 14<sup>th</sup> largest gap nationally. This gap implies that Virginia's women earned just 81 cents for every dollar earned by men and

### Room for Improvement

Figure 3: Ratio of Female to Male Median Hourly Wages, 1979-2008



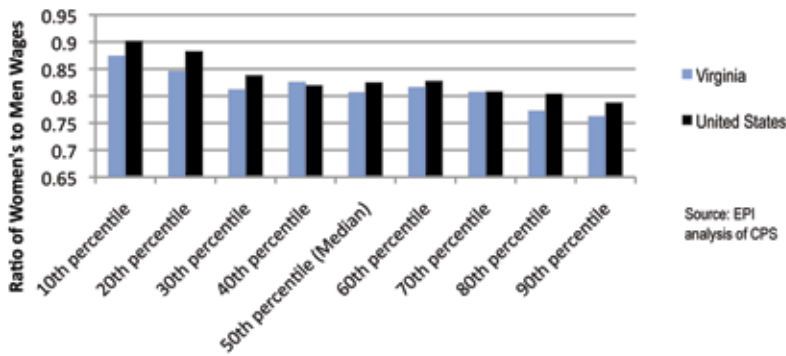
compares to 83 cents earned by women for every dollar earned by men, both nationally and regionally.

Figure 3 illustrates this relationship between men's and women's median hourly wages over time for Virginia, the nation, and the South Atlantic region. Although the gender pay gap has been narrowing consistently both nationally and regionally since the early 2000s, Virginia has not experienced this same decline.

Virginia's gap in pay exists throughout the wage distribution and is more pronounced at higher wage levels. As wages go up for both men and women, women earn a smaller share of men's wages. Among the lowest 10 percent of wage earners, Virginia women earn about 87 cents for every dollar earned by Virginia men. But among the top 10 percent of wage earners, Virginia women earn just 76 cents for every dollar earned by men.

### When Earning More Means Earning Less

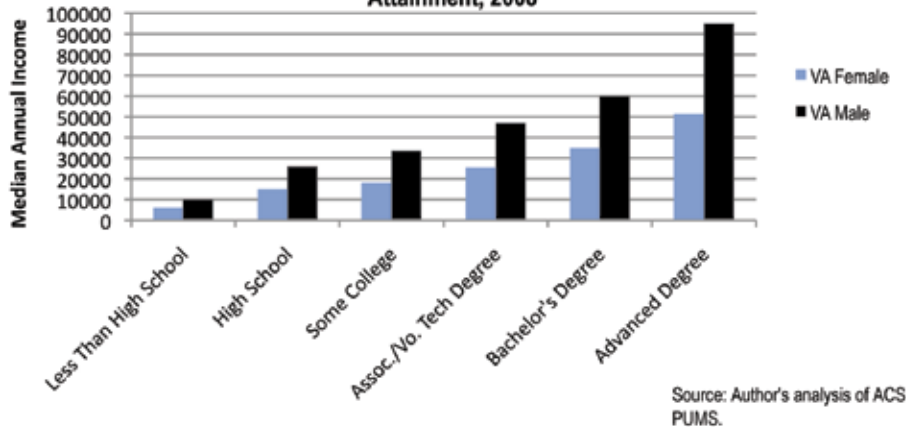
Figure 4: Ratio of Women's to Men's Wages Across the Wage Distribution, 2008



While this pattern is not unique to Virginia, Figure 4 illustrates how Virginia's gender pay gap is larger at the extreme ends of the wage distribution nationally. For example, among the top 10 percent of wage earners (the 90<sup>th</sup> percentile), Virginia's gender gap in pay is the 8<sup>th</sup> largest in the nation.

### Education Raises Pay- And the Gap

Figure 5: Median Income for Males and Females by Educational Attainment, 2008

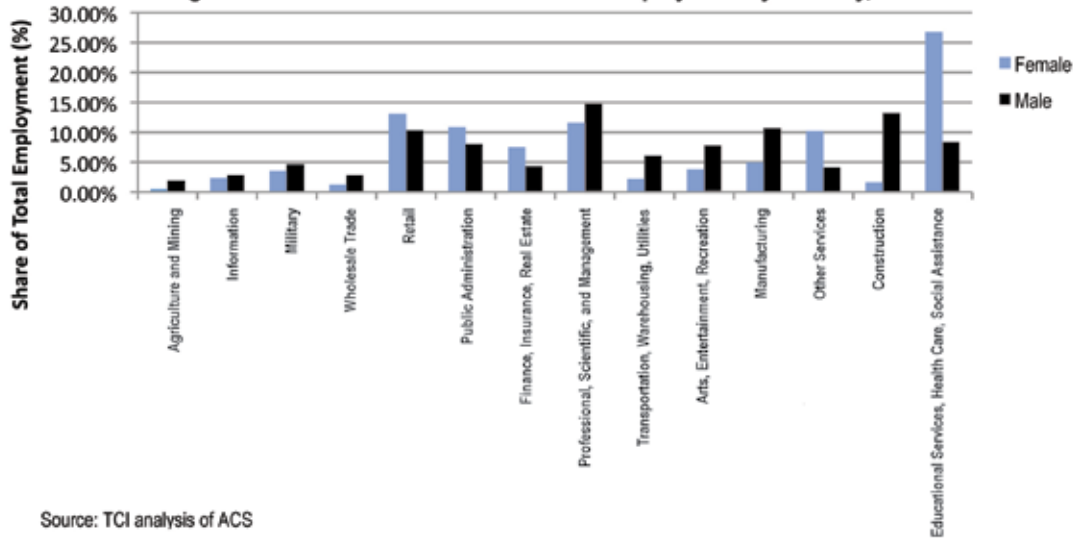


### Explaining Virginia's Gender Pay Gap

Economists have invested a great deal of time in attempting to explain the observed gender pay differences. One common theory contends that the labor market rewards certain characteristics of workers such as experience and education. Under this theory, differences in the educational attainment of men and women, the types of jobs they select, and their attachment to the labor force, along with various other factors related to skill and preference, should explain the bulk of the observed gender pay gap. Once these differences have been accounted for, any remaining difference in pay is thought to be the result of discrimination in the labor market.

## Gender Differences in Employment

Figure 6: Share of Total Female and Male Employment by Industry, 2008



Source: TCI analysis of ACS

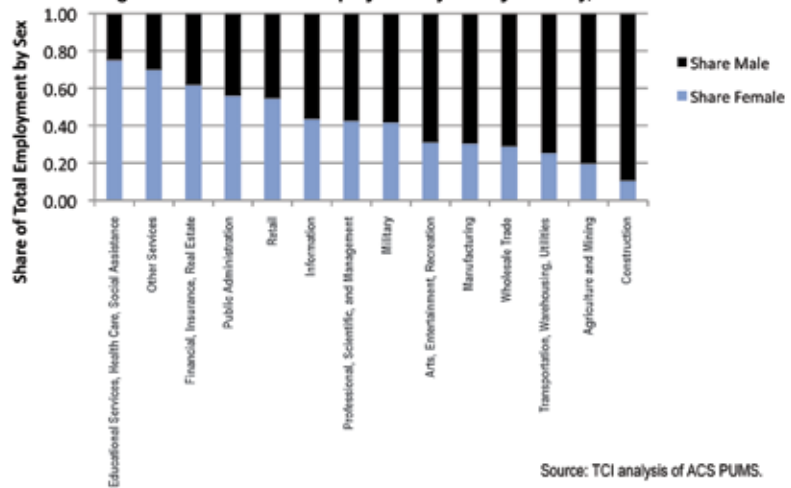
Judging from Virginia's above-average size gender pay gap, it would seem that men and women would be very different in terms of the skills they bring to the labor market. But in reality, Virginia's men and women represent some of the most productive and educated workers in the nation. In 2008, for example, 24 percent of both the state's men and women held a bachelor's or graduate degree. This compares to just 20 percent regionally and nationally.

Because raw differences in the median income of men and women do not take into account workers' education, it makes more sense to compare the income levels of men and women with similar educational attainment. As shown in Figure 5, Virginia's gender pay gap exists at each level, and, surprisingly, it grows as education level increases. For example, income by gender is most similar at the lowest level of educational attainment where women earn roughly 60 cents for every dollar earned by men. It is least similar among men and women with advanced degrees, where women make 54 cents for every dollar earned by men. This pattern is not mirrored nationally, or regionally, where unlike Virginia, higher levels of education appear to actually reduce the gender pay gap.

Another factor frequently used to explain

## Gender Differences in Industry

Figure 7: Share of Total Employment by Sex by Industry, 2008



Source: TCI analysis of ACS PUMS.

## Gender Disparities Persist

Figure 8: Male and Female Median Annual Income for Most Concentrated Employment Subsectors, 2008

Industry	Male Median	Female	Ratio of Female to Male Median Income
	Income	Median Income	
Construction	30,000	30,000	1.00
Restaurants and Other Food Services	10,100	8,000	0.79
Computer Systems Design and Related Services	89,820	64,000	0.71
Education: Elementary and Secondary Schools	38,000	33,000	0.87
Health Care: Hospital	48,000	35,000	0.73
Education: Colleges and Universities	40,000	25,000	0.63

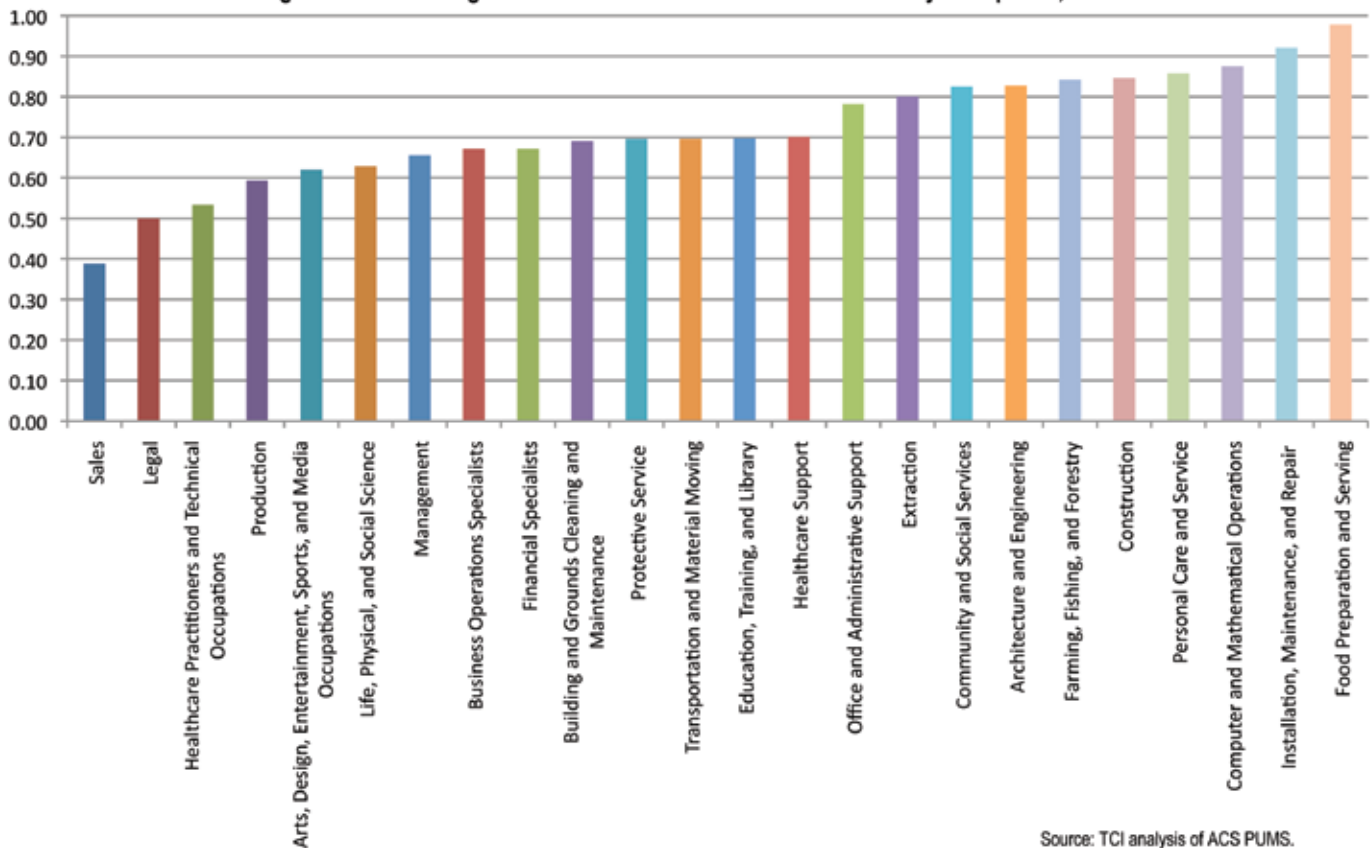
Source: TCI analysis of ACS PUMS.

observed variations in male and female pay deals with the type of work that men and women perform. As shown in Figure 6, there are some clear differences in the distribution of men and women in various industrial sectors of Virginia's economy. For example, the industry that employs the largest share of Virginia's working women is the Educational Services, Health Care, Social Assistance industry. In 2008, this industry employed more than one in every four working women in the state. In contrast, this sector employs just one in every 12 working Virginia men, making it the 5<sup>th</sup> most concentrated male employment sector. The top male employment sector in 2008 was Professional, Scientific, and Management, which employed an estimated 14.7 percent of all working Virginia men. In comparison, just over one in every 10 working women were employed in this sector of Virginia's economy- making it the 3<sup>rd</sup> most concentrated female employment sector in the state.



### Same Job, Different Pay

Figure 9: Ratio of Virginia Female to Male Median Annual Income by Occupation, 2008



Source: TCI analysis of ACS PUMS.

In addition to examining how Virginia's men and women are distributed across the state's different employment sectors, it is also insightful to look at the gender employment division within each industry. As shown in Figure 7, the industry with the most extreme concentration of women is the Educational Services, Health Care, and Social Assistance industry where women make up three-quarters of total employment. The industry with the highest concentration of men is Construction, where more than one in 10 Virginians employed in this sector is male.

Despite being so heavily male-dominated, the Construction industry is one of the few employment sectors in which the median annual income in 2008 was identical for men and women. As shown in Figure 8, it is the only industry among the top three employment subsectors in which pay by gender is equal. Similarly, the median incomes of men and women employed in the Elementary and Secondary Schools subsector of the Educational Services sector are much closer than in other sectors.

In addition to industry, occupations analysis is critical to understanding some of the driving forces behind the state's gender pay gap. As shown in Figure 9, the size of the gender pay gap varies substantially by occupation. In 2008, the gap was largest in the median annual income of Virginia men and women employed in Sales. Total employment in Sales is split roughly 60 percent male and 40 percent female, making it one of Virginia's less dominant male occupational groupings. Yet, despite similar employment levels across the genders, women earned just 39 cents for every dollar earned by men in Virginia's Sales occupations.

At the other end of the spectrum, men and women working in Food Preparation and Serving occupations are paid more similarly than their counterparts in any other occupational grouping. In 2008, Virginia's women employed in these occupations brought in 98 cents for every dollar earned by men. Like Sales, this occupational

## What We Know About the Gender Pay Gap

Issues of the inequality in pay between men and women have been studied extensively by economists. For years, researchers have analyzed income data in an attempt to identify the factors driving the observed gender differences in pay.

While the analytical techniques used to examine the pay gap vary slightly from one study to another, certain variables have emerged as particularly important in accounting for a portion of the difference in male and female earnings. Two of these factors, often referred to as investments in what is known as human capital, are a worker's educational attainment and accumulated experience or on-the-job training.

As economists continue to develop new and innovative ways to think about and analyze the gender pay gap, these human capital variables continue to play a critical role.

grouping is split 60/40 — but unlike Sales, women make up the higher share of total employment.

Part of the reason that education, industry, and occupation do not emerge as useful factors in explaining Virginia's pay gap in the above analysis is because they are being examined independently. Ideally, all of these variables, in addition to others regarding the characteristics of workers that are likely to affect their earnings, must be simultaneously controlled. It is only through this type of analysis that more meaningful conclusions can be drawn about what is driving the observed gender pay gap in Virginia.

### Conclusion

Virginia workers fare well compared to workers in other states on multiple measures of earnings, yet all indicators point to women being paid less than men. In 2008, Virginia's gender pay gap exceeded that of the nation and the South Atlantic region, and was among the largest in the nation. The gap persists when earnings are examined by education, employment sector, and occupation, and it grows at higher positions in the income distribution and at higher levels of educational attainment. Although a portion of this gap can be explained by controlling for a number of characteristics of workers related to their skills and preferences, a piece remains unexplained and points to real gender inequality.

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