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# Report to the Maryland Equal Pay Commission

from the
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The Institute for Women's Policy Research was asked to provide data analysis exploring relative earnings of women and men in Maryland, as well as earnings differences by race and ethnicity, and by sector of employment. This report presents the results of that analysis.

## Introduction

The Institute for Women's Policy Research constructed a dataset from the 2002 through 2004 American Community Survey Public Use Microdata Files (ACS) for people residing in the state of Maryland.[1] The dataset includes 25,172 wage and salary workers aged 16 to 64. Five mutually exclusive racial/ethnic categories were constructed from detailed self-reported identities: Non-Hispanic White, Non-Hispanic African American, Non-Hispanic Asian American, Hispanic, and All Other. Individuals in the "All Other" category are excluded from the analysis where race and ethnicity are disaggregated, as this group is too small for separate statistical analysis. (See Appendix I for more information about the dataset and analysis.)

## Key findings

- More than one-fifth of the difference in women's and men's earnings cannot be explained by differences in their education, potential work experience, job characteristics, or other measurable factors. A smaller, but still meaningful, portion of earnings differences between whites and workers of color is not explained by observed demographic and job characteristics.

- Men's annual earnings and hourly wages are higher than women's. This is true when comparing all women and men; when evaluating only those working full-time for the whole year (FTFY workers); and when comparing women and men by sector (public and private), within racial/ethnic groups, by level of education, and by occupation. (The only exceptions are wages of African Americans and Hispanics and both earnings and wages of Laborers.)

[1] These are referred to as 2003 data. The ACS data do not report the geographic location of workers' jobs, so it is not possible to limit this analysis to Maryland residents working in Maryland, or to all workers employed in Maryland regardless of residence.

- Asian American men out-earn white, African American, and Hispanic men. Among women, earnings are similar for whites and Asian Americans, but much lower for African Americans and Hispanics.

- Women work nearly as many hours and weeks as men. Among full-time full-year workers, women work 2.6 fewer hours per week than men, and the same number of weeks per year.

- Educational attainment varies enormously among racial and ethnic groups and, to a lesser degree, by gender.

- Women of all races and men of color do better relative to white men in the public sector than in private-sector employment.

- Pay is generally higher in the public sector than in the private sector, reflecting the fact that public-sector workers are older than their private-sector counterparts, have more years of potential work experience, are more concentrated in professional occupations, and have higher educational attainment.

- Occupational segregation by both gender and race/ethnicity is a very strong feature of Maryland's employment.

- Pay differences between men and women employed in the same occupation are large, as are differences between workers of different race/ethnic groups employed in the same occupation.

## PART I. A picture of Maryland's workers

Measuring averages

This study reports median annual earnings and median hourly wages. (Half of all workers earn more than the median, and half work less than the median.) Means are reported for work hours and weeks worked per year. (Since workers cluster at a few specific levels of work hours and weeks – e.g., 40 hours per week – medians cannot give a good picture of the distribution of workers by their hours or weeks of work.)

Gender. Table 1 summarizes annual earnings, hourly wages, and weekly hours worked for men and women. Men on average earn about $10,000 per year more than women, for a gender earnings ratio of 76 percent. The difference is somewhat smaller for full-time full-year workers (FTFY; defined as working at least 50 weeks per year and 35 or more hours per week): Women working FTFY earn on average $8,600 per year less than their male counterparts, for a gender earnings ratio of 82 percent. In hourly wage terms, for every dollar men earn, women earn 87 cents (88 cents for FTFY workers).

Men on average work 4.6 hours per week and one week per year more than women. This difference is smaller for people working full-time full-year: Women average 42.3 hours per

week, compared with 44.9 hours for men, and both groups work on average 51.9 weeks per year. Thus, average levels of work effort are similar across the whole workforce and nearly identical for male and female FTFY workers.

**Table 1: Median Annual Earnings, Median Hourly Wages, and Mean Weeks and Hours Worked, by Sex, Wage and Salary Workers, 2003**

| Work Schedule | Annual Earnings | | | Hourly Wages | | | Mean Hours | | Mean Weeks | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Ratio | Women | Men | Ratio | Women | Men | Women | Men |
| **All Workers** | $33,086 | $43,425 | 76% | $17.69 | $20.23 | 87% | 38.8 | 43.4 | 47.18 | 48.22 |
| **Full-Time Full-Year** | $40,220 | $48,859 | 82% | $18.47 | $20.98 | 88% | 42.3 | 44.9 | 51.9 | 51.9 |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher.

Nearly two-thirds, or 65.3 percent, of women work at least 50 weeks per year for 35 or more hours per week (FTFY), compared with 78.3 percent of men (Table 2). That is, one in five men works less than FTFY, and one of every three women does. More women than men work part-time for the entire year: 9.3 percent of women vs. 2.8 percent of men; 25.3 percent of women and 18.9 percent of men work fewer than 50 weeks per year.

**Table 2: Distribution of Workers by Employment During the Year, by Sex, Wage and Salary Workers, 2003**

| Work Schedule | Women | Men |
|---|---|---|
| **Full-Time Full-Year** | 65.3% | 78.3% |
| **Part-Time Full-Year** | 9.3% | 2.8% |
| **Part-Year** | 25.3% | 18.9% |
| **Total** | 99.9% | 100.0% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
Notes: Columns may not sum to 100.0% due to rounding. The difference between comparator groups' values is statistically significant at the 95 percent level or higher.

The remainder of this report looks only at FTFY workers (with the exception of the regression analysis presented in Table 14). These workers constitute the largest share of the workforce, and it is often assumed that women working FTFY are more similar to men who work FTFY than are women on part-time or part-year schedules.

Potential bias when analyzing only FTFY workers

Focusing only on full-time full-year workers obscures the fact that work schedules are often determined by the types of jobs that people hold and by workers' responsibilities for caring for their families. Any factors that tend to cause more men to work in a particular occupation with certain working hours, or more women to work in another, are hidden when the analysis looks only at full-time full-year workers. Thus, limiting the analysis to FTFY workers understates differences between women and men. For this project, however, narrowing the analysis in this way helps highlight key differences and similarities in characteristics and employment outcomes for demographic groups of particular concern.

Race and ethnicity. Table 3 presents annual earnings, hourly wages, and usual hours worked, by gender and race/ethnicity, and the ratio of each demographic group's earnings and wages to those of white men. In general, whites earn more than African Americans and Hispanics, while Asian Americans earn slightly more than whites. Men have higher earnings and wages than women for all racial/ethnic groups except African Americans and Hispanics, where women's hourly wages are higher (but annual earnings are lower for women, because women work slightly fewer hours). Comparing annual earnings, for every $1.00 a white man earns, an Asian American man earns $1.04, an African American man earns $0.74, and a Hispanic man earns $0.51. The pattern for women is similar: White and Asian American women earn the same amount ($0.76 for every $1.00 white men earn), with African American women earning less ($0.70) and Hispanic women the least by far ($0.50). Ratios of hourly wages are similar to those for annual earnings.

**Table 3: Median Annual Earnings, Median Hourly Wages, Mean Hours, and Earnings and Wage Ratios of Women and Men by Race/Ethnicity, Full-Time Full-Year Wage and Salary Workers, 2003**

| Race/ | Annual Earnings | | Hourly Wages | | Mean Hours | | Earnings Ratio[a] | | Wage Ratio[a] | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethnicity | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **White** | $41,357 | $54,137 | $19.14 | $23.73 | 42.4 | 45.2 | 76% | | 81% | |
| **African American** | $38,001 | $40,173 | $17.42 | $17.40 | 42.2 | 44.3 | 70% | 74% | 73% | 73% |
| **Asian American** | $41,357 | $56,260 | $19.98 | $24.56 | 42.2 | 45.6 | 76% | 104% | 84% | 103% |
| **Hispanic** | $27,144 | $27,372 | $12.86 | $12.43 | 41.8[b] | 43.3[b] | 50% | 51% | 54% | 52% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The ratio is the earnings/wages of the comparator group divided by the earnings/wages of white men.
[b] The difference between women's and men's mean hours is not statistically significant for this group.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher, except where noted.

Private- and public-sector employment. Table 4 shows annual earnings, hourly wages, and average work hours in the public and private sectors, by race, for women and men, and earnings

and wage ratios. Both earnings and wages are higher in the public sector (Panel B) than in the private sector (Panel A); as discussed below, this reflects significant differences in the occupational mix and worker characteristics in the two sectors. The public/private-sector earnings differential is the largest for Hispanic men, who earn on average $39,000 more working in the public sector than in the private sector.[2] The difference for Hispanic women is smaller, but still substantial: $16,000 per year. African American men and women earn about $14,000 more when employed in the public sector. Asian American women earn $11,000 more, and Asian American men over $24,000 more, in the public sector than in the private sector. White women earn $13,000 more and white men $16,000 more per year when employed in the public sector.

Women work nearly identical hours in the public and private sectors, while white and African American men work slightly more in the private sector and Hispanic men work longer hours in the public sector. African American and Hispanic women's earnings are closer to those of white men in the public sector than in the private sector.

**Table 4: Median Annual Earnings, Median Hourly Wages, Mean Hours, and Earnings and Wage Ratios of Women and Men by Race/Ethnicity and Sector of Employment, Full-Time Full-Year Wage and Salary Workers, 2003**

**Panel A: Private Sector**

| Race/ | Annual Earnings | | Hourly Wages | | Mean Hours | | Earnings Ratio[a] | | Wage Ratio[a] | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethnicity | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **White** | $38,214 | $51,697 | $17.86 | $21.87 | 42.5 | 45.7 | 74% | 100% | 82% | 100% |
| **African American** | $32,572 | $36,188 | $15.31 | $16.30 | 42.1 | 44.5 | 63% | 70% | 70% | 75% |
| **Asian American** | $40,323 | $47,768 | $18.86 | $21.76 | 42.2 | 45.6 | 78% | 92% | 86% | 99% |
| **Hispanic** | $24,814 | $26,058 | $11.43 | $12.25 | 41.8 | 43.2 | 48% | 50% | 52% | 56% |

**Panel B: Public Sector**

| Race/ | Annual Earnings | | Hourly Wages | | Mean Hours | | Earnings Ratio[a] | | Wage Ratio[a] | |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethnicity | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **White** | $51,030 | $67,206 | $23.49 | $30.11 | 42.0 | 43.4 | 76% | 100% | 78% | 100% |
| **African American** | $46,527 | $49,891 | $21.77 | $22.11 | 42.2 | 43.6 | 69% | 74% | 72% | 73% |
| **Asian American** | $51,697 | $72,183 | $23.86 | $31.32 | 42.2 | 45.8 | 77% | 107% | 79% | 104% |
| **Hispanic** | $41,357 | $65,145 | $20.08 | $30.82 | 41.7[b] | 44.1[b] | 62% | 97% | 67% | 102% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The ratio is the earnings/wages of the comparator group divided by the earnings/wages of white men.
[b] The difference between women's and men's mean hours is not statistically significant for this group.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher,

[2] The earnings difference between the two sectors for Hispanics may partially be an artifact of smaller sample sizes for Hispanics in the ACS.

except where noted.

Table 5 focuses on annual earnings, hourly wages, and average work hours by education for men and women by sector of employment. For all but the most highly educated groups (those with an advanced degree), annual earnings and wages are higher for people working in the public sector. This difference is the largest for people with a high school diploma. In the public sector, median earnings of a female high school graduate are $27,916 and those of a male high school graduate are $35,154, compared with $38,001 for women and $47,354 for men in the public sector. Women with advanced degrees earn the same in both sectors (although their hourly wages are higher in the public sector); men with advanced degrees earn more in the private sector, but their wages are the same in both sectors.

**Table 5: Median Annual Earnings, Median Wages, Mean Hours, and Earnings and Wage Ratios of Women and Men by Education and Sector of Employment, Full-Time Full-Year Wage and Salary Workers, 2003**

**Panel A: Private Sector**

| | Annual Earnings | | Hourly Wages | | Mean Hours | | | |
|---|---|---|---|---|---|---|---|---|
| **Education** | **Women** | **Men** | **Women** | **Men** | **Women** | **Men** | **Earnings Ratio[a]** | **Wage Ratio[a]** |
| **Less than HS** | $19,645 | $29,722 | $9.50 | $12.85 | 41.8 | 43.6 | 66% | 74% |
| **HS** | $27,916 | $35,154 | $13.05 | $15.51 | 41.3 | 44.5 | 79% | 84% |
| **Some college** | $37,153 | $44,516 | $16.99 | $19.85 | 41.9 | 44.7 | 83% | 86% |
| **College** | $47,768 | $65,145 | $21.63 | $27.34 | 43.2 | 46.2 | 73% | 79% |
| **Advanced** | $65,138 | $92,288 | $28.71 | $38.28 | 45.1 | 48.0 | 71% | 75% |

**Panel B: Public Sector**

| | Annual Earnings | | Hourly Wages | | Mean Hours | | | |
|---|---|---|---|---|---|---|---|---|
| **Education** | **Women** | **Men** | **Women** | **Men** | **Women** | **Men** | **Earnings Ratio[a]** | **Wage Ratio[a]** |
| **Less than HS** | $24,401 | $32,482 | $10.21 | $15.62 | 42.6[b] | 41.5[b] | 75% | 65% |
| **HS** | $38,001 | $47,354 | $17.90 | $20.41 | 41.0 | 43.0 | 80% | 88% |
| **Some college** | $44,584 | $51,697 | $20.88 | $22.97 | 41.8 | 43.1 | 86% | 91% |
| **College** | $54,287 | $70,574 | $26.03 | $30.34 | 42.0 | 43.8 | 77% | 86% |
| **Advanced** | $65,145 | $86,860 | $30.11 | $38.28 | 43.5[b] | 44.4[b] | 75% | 79% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The ratio is the earnings/wages of the comparator group divided by the earnings/wages of white men.
[b] The difference between women's and men's mean hours is not statistically significant within this level of education.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher, except where noted.

Maryland's public- and private-sector workforces differ in some significant ways (Table 6). The private sector has a larger male presence (55.7 percent), while the public sector is slightly more female than male (51.9 percent of public-sector workers are women). Overall, 53.8 percent of workers in Maryland are male.

**Table 6: Comparing Public- and Private-Sector Workers in Maryland, Full-Time Full-Year Wage and Salary Workers, 2003**

| Worker Characteristics | | Private Sector | Public Sector | All |
|---|---|---|---|---|
| **Gender** | | | | |
| | Women | 44.3% | 51.9% | 46.2% |
| | Men | 55.7% | 48.1% | 53.8% |
| | Total | 100.0% | 100.0% | 100.0% |
| **Race/Ethnicity** | | | | |
| | White | 63.7% | 58.5% | 62.4% |
| | African American | 24.7% | 34.7% | 27.2% |
| | Asian American | 6.3% | 2.4% | 5.4% |
| | Hispanic | 4.9% | 4.2% | 4.7% |
| | Total | 99.6% | 99.8% | 99.7% |
| **Education** | | | | |
| | Less than HS | 7.3% | 2.0% | 6.0% |
| | HS | 33.6% | 21.7% | 30.7% |
| | Some College | 26.3% | 26.2% | 26.3% |
| | College | 20.5% | 24.6% | 21.5% |
| | Advanced | 12.4% | 25.6% | 15.6% |
| | Total | 100.1% | 100.1% | 100.1% |
| **Age** | | | | |
| | 16 to 24 | 8.5% | 2.8% | 7.1% |
| | 25 to 54 | 79.8% | 80.0% | 79.8% |
| | 55 and older | 11.7% | 17.2% | 13.1% |
| | Total | 100.0% | 100.0% | 100.0% |
| **Potential Experience**[a] | | | | |
| | up to 10 years | 12.1% | 6.3% | 10.7% |
| | 11 to 20 years | 25.5% | 18.8% | 23.9% |
| | 21 years and over | 62.3% | 74.9% | 65.4% |
| | Total | 99.9% | 100.0% | 100.0% |
| **Average Weekly Work Hours** | | 44.0 | 42.8 | 43.7 |
| **Percent Speaking English at Home** | | 85.2% | 90.8% | 86.6% |
| **Median Wages** | | $18.29 | $24.73 | $19.88 |
| **Median Earnings** | | $41,357 | $54,137 | $43,430 |

| Occupational distribution | Private Sector | Public Sector | All |
|---|---|---|---|
| Managers & Sales Non-Retail | 12.49% | 16.35% | 13.44% |
| Lawyers | 0.84% | 2.05% | 1.14% |
| Health Diagnosis Professionals | 1.05% | 1.40% | 1.13% |
| Accountants & Other Mgmt | 5.88% | 9.11% | 6.67% |
| Sales Representatives & FIRE | 3.24% | 0.16% | 2.49% |
| Science Professionals & Pilots | 6.14% | 11.82% | 7.52% |
| Health Support & Technicians | 2.79% | 1.36% | 2.44% |
| Teachers | 1.48% | 6.74% | 2.77% |
| Arts & Letters | 3.42% | 6.12% | 4.08% |
| Managers & Sales, Retail | 7.48% | 0.34% | 5.74% |
| Blue Collar Supervisors | 2.58% | 1.19% | 2.24% |
| Farm Owners & Managers | 0.03% | 0.00% | 0.02% |
| Business Professionals, Other | 4.97% | 5.39% | 5.07% |
| Precision Craft & Repair | 10.55% | 3.27% | 8.77% |
| Protective Services | 0.22% | 8.28% | 2.19% |
| Clerical | 13.04% | 17.20% | 14.06% |
| Machine Operators & Assemblers | 7.88% | 2.71% | 6.62% |
| Sales | 3.57% | 0.37% | 2.79% |
| Service Workers | 9.52% | 5.35% | 8.51% |
| Laborers | 2.68% | 0.78% | 2.22% |
| Farm Workers | 0.12% | 0.00% | 0.09% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] "Potential experience" is the number of years an adult may have been employed. It is calculated by subtracting years of education from age and deducting an additional 5 years for the pre-school period.
Note: Columns may not sum to 100.0% due to rounding.

The majority of workers in Maryland are white (62.4 percent), followed by African American (27.2 percent), Asian American (5.4 percent), and Hispanic (4.7 percent). The public sector has a much larger African American presence than the private sector (34.7 percent and 24.7 percent, respectively), but has a significantly smaller Asian American representation (2.4 percent vs. 6.3 percent) and a somewhat smaller Hispanic presence (4.2 percent of the public and 4.9 percent of the private).

The public-sector workforce in Maryland has a higher level of educational attainment than the private-sector workforce does. Two of every five private-sector workers have a high school degree or less (40.9 percent), while only a quarter (23.7 percent) of public-sector workers has that little education. One-quarter of public-sector workers in Maryland has an advanced degree (25.6 percent), compared with one in eight private-sector workers (12.4 percent).

The public-sector workforce is slightly older than the private-sector workforce, with a smaller share under 25 (2.8 percent of public-sector workers, and 8.5 percent of those in the private sector) and more 55 or older (17.2 percent vs. 11.7 percent). Combining information about education and age shows that the public-sector workforce has more years of potential work

experience than the private-sector workforce does: 74.9 percent of the former, and 62.3 percent of the latter, have 21 or more years of potential work experience.[3]

The average work week is 44.0 hours in the private sector and 42.8 hours in the public sector, for an average across Maryland of 43.7 hours. English is the main language spoken at home for 85.2 percent of private-sector workers and 90.8 percent of public-sector workers. Hourly wages are 35.2 percent higher in the public sector, and annual earnings are 30.9 percent higher.

White-collar, protective service, and clerical workers are a much larger share of Maryland's public-sector workforce than its private-sector employment. More than half (53.6 percent) of public-sector employees are non-retail managers/salespersons, lawyers, health diagnosis professionals, accountants, science professionals, teachers, or arts-and-letters workers. This set of occupations employs less than a third (31.3 percent) of workers in the private sector. Slightly more than one-third of the private-sector workforce is in craft and repair, machine assembly, sales, service, or laborer positions (34.2 percent), occupations that comprise only one in eight (12.5 percent) public-sector jobs. Protective services occupations are 8.3 percent of public-sector employment, but less than one percent (0.22 percent) of the private sector. Clerical workers are also more prevalent in the public sector, at 17.2 percent, than in the private sector, at 13.0 percent.

In addition to variation between public- and private-sector workers in demographic and human capital characteristics and occupations, differences in hiring and wage-setting practices and in unionization between the two sectors likely contribute substantially to wage and earnings differences between them.[4]

When comparing women and men by level of education (Table 5), women's earnings are closer to men's in the public sector than in the private sector, with women lacking a high-school degree experiencing the biggest difference between the two sectors. For every dollar men with less than a high school degree earn, women earn 75 cents in the public sector and 66 cents in the private sector. For every dollar a man with a high school degree earns, a woman with the same level of education earns 80 cents in the public sector and 79 cents in the private sector. A woman with some college education but no degree earns 86 cents in the public sector and 83 cents in the private sector for every dollar a man with the same level of education earns. The difference for workers with college education is 77 cents (public sector) vs. 73 cents (private sector), and for workers with an advanced degree it is 75 cents (public sector) vs. 71 cents (private sector).

Part of the difference in women's relative pay between the public and the private sectors can be explained by work hours. Data in Table 5 show that the difference in usual hours worked between men and women is greater in the private sector than in the public sector. Private-sector women work slightly more hours than women in the public sector. Among men, the difference in work hours between the two sectors is larger.

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[3] "Potential experience" is the number of years an adult may have been employed. It is calculated by subtracting years of education from age and deducting an additional 5 years for the pre-school period.

[4] Nationally, 40.5 percent of public-sector workers are unionized, while only 8.5 percent of private-sector workers are (U.S. Department of Labor 2006).

Education. Median annual earnings and hourly wages for workers with different levels of educational attainment are presented in Table 7 by race and ethnicity. For African Americans, gaining more education helps bridge the race/ethnicity earnings gap, except for those with an advanced degree. The African American/white earnings ratio is 82 percent of those with less than a high school degree, 90 percent for workers with some college education, and 81 percent for those with an advanced degree. Asian American/white earnings ratios are similar across educational achievement, ranging from a low of 85 percent for college-educated workers to a high of 89 percent for those with just a high-school degree. College makes the biggest difference for Hispanics: The Hispanic/white earnings ratio is 65 percent for workers who failed to complete high school, and 67 percent for those with some college, but 82 percent and 85 percent, respectively, for workers with a college or advanced degree.

**Table 7: Earnings and Wages by Education and Race/Ethnicity, Full-Time Full-Year Wage and Salary Workers, 2003**

**Panel A: Median Annual Earnings and Earnings Ratios**

| Education | White | African American | African American/ White Ratio[a] | Asian American | Asian American/ White Ratio[a] | Hispanic | Hispanic/ White Ratio[a] |
|---|---|---|---|---|---|---|---|
| **Less than HS** | $31,845 | $26,058 | 82% | N/A | N/A | $20,679 | 65% |
| **HS** | $35,830 | $31,018 | 87% | $31,845 | 89% | $25,848 | 72% |
| **Some college** | $44,459 | $40,173 | 90% | $39,290 | 88% | $29,984 | 67% |
| **College** | $60,802 | $52,116 | 86% | $51,697 | 85% | $49,629 | 82% |
| **Advanced** | $82,715 | $66,875 | 81% | $72,183 | 87% | $70,308 | 85% |

**Panel B: Median Hourly Wages and Wage Ratios**

| Education | White | African American | African American/ White Ratio[a] | Asian American | Asian American/ White Ratio[a] | Hispanic | Hispanic/ White Ratio[a] |
|---|---|---|---|---|---|---|---|
| **Less HS** | $14.30 | $11.90 | 83% | N/A | N/A | $9.70 | 68% |
| **HS** | $15.90 | $14.30 | 90% | $13.90 | 87% | $12.20 | 77% |
| **Some College** | $20.10 | $17.50 | 87% | $17.90 | 89% | $14.60 | 73% |
| **College** | $26.50 | $23.50 | 89% | $24.40 | 92% | $22.40 | 85% |
| **Advanced** | $36.20 | $29.80 | 82% | $32.60 | 90% | $31.80 | 88% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The ratio is the wages of the comparator group divided by the wages of white men.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher.

Hispanics face the lowest earnings ratios, when compared with whites, of any race/ethnic group, at almost all levels of education. Among those with advanced degrees, however, African Americans have the lowest annual earnings and hourly wage ratios with whites.

Table 8 shows educational attainment by gender and race/ethnicity. There are no clear patterns across racial/ethnic groups; each has a unique distribution among the five levels of education. Asian Americans have the highest level of college and advanced-degree completion, although they also have the second-highest proportion of workers lacking a high school degree. (This likely reflects the diversity in the Asian American community by country of birth and, for immigrants, age of arrival in the U.S.) Hispanics are the least likely to have finished high school, with Hispanic men particularly at risk of failing to graduate from high school. Among African Americans, women have higher educational attainment than men, but both women and men have the lowest completion of advanced degrees of the four racial/ethnic groups.

**Table 8: Distribution of Women and Men by Race/Ethnicity and Education, Full-Time Full-Year Wage and Salary Workers, 2003**

| Race/ Ethnicity | Less HS | | HS | | Some College | | College | | Advanced | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Women | Men | Women | Men | Women | Men | Women | Men | Women | Men |
| **White** | 2.6% | 4.4% | 28.4% | 30.0% | 29.8% | 22.7% | 22.9% | 23.8% | 16.3% | 19.1% |
| **African American** | 3.8% | 6.0% | 31.2% | 38.6% | 35.9% | 28.3% | 19.0% | 17.5% | 10.1% | 9.7% |
| **Asian American** | 7.4% | 6.7% | 13.6% | 12.7% | 16.4% | 11.3% | 30.3% | 28.2% | 32.3% | 41.0% |
| **Hispanic** | 21.0% | 31.3% | 25.2% | 26.4% | 24.8% | 17.9% | 16.4% | 12.4% | 12.6% | 11.9% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

Roughly half of all Hispanic workers have a high school degree or less: 25.2 percent of women and 26.4 percent of men have only a high school diploma, while 21.0 percent of women and 31.3 percent of men do not have a high school diploma. African Americans are much less likely to lack a high-school degree (only 3.8 percent of women and 6.0 percent of men do), but are similar to Hispanics in the likelihood of having a baccalaureate or advanced degree (29.1 percent of African American women, and 27.2 percent of African American men, have this level of educational achievement, compared with 29.0 percent of Hispanic women and 24.3 percent of Hispanic men). A greater share of African Americans has only some college than is true for any other group; whites and Asian Americans are more likely to have completed college or an advanced degree, and in general Hispanics have less education. Asian American women and men have the highest education achievement. Nearly one-third (32.3 percent) of Asian American women have an advanced degree, compared with 16.3 percent of white women, 12.6 percent of Hispanic women, and 10.1 percent of African American women. Among men, 41.0 percent of Asian Americans have an advanced degree, compared with 19.1 percent of white men, 11.9 percent of Hispanic men, and 9.7 percent of African American men.

Among whites, women are more likely to have some college experience (but no degree) than men, but less likely to have completed college or an advanced degree. African-American women have higher educational attainment than African American men, while Asian American men have lower rates of low educational achievement (less than high school or high school only) than Asian American women, are less likely to have some college or a college degree only, but much more likely to have completed an advanced degree. A greater share of Hispanic women than Hispanic men have some college, a college degree, and advanced degrees.

Occupation. Tables 9 through 13 present an occupation-level view of wages and earnings. This analysis defines twenty-one occupational categories based on a classification developed by Dr. Stephen Rose and discussed in Rose and Hartmann (2004) that takes into account the level of education and training that job incumbents typically have. The detailed list of occupations by broader occupational categories is presented in Appendix III.

**Table 9: Occupations by Percent Female and Number of Women and Men Employed, Full-Time Full-Year Wage and Salary Workers, 2003**

| Occupation | Percent Women | Number of Women | Number of Men |
|---|---|---|---|
| Health Support & Technicians | 86% | 31,196 | 4,930 |
| Clerical | 79% | 163,849 | 44,245 |
| Teachers | 64% | 26,262 | 14,694 |
| Service Workers | 59% | 74,645 | 51,240 |
| Accountants & Other Mgmt | 59% | 58,420 | 40,275 |
| Arts & Letters | 59% | 35,337 | 25,067 |
| Business Professionals, Other | 52% | 38,822 | 36,273 |
| Sales | 50% | 20,622 | 20,683 |
| Managers & Sales Non-Retail | 49% | 97,601 | 101,265 |
| Farm Owners & Managers | 49% | 175 | 181 |
| Health Diagnosis Professionals | 40% | 6,685 | 10,106 |
| Managers & Sales, Retail | 39% | 33,502 | 51,433 |
| Lawyers | 39% | 6,552 | 10,258 |
| Sales Representatives & FIRE | 38% | 13,903 | 22,957 |
| Science Professionals & Pilots | 30% | 33,475 | 77,885 |
| Protective Services | 27% | 8,740 | 23,694 |
| Farm Workers | 23% | 318 | 1,057 |
| Machine Operators & Assemblers | 19% | 18,962 | 79,005 |
| Laborers | 14% | 4,649 | 28,157 |
| Blue Collar Supervisors | 12% | 3,848 | 29,354 |
| Precision Craft & Repair | 4% | 5,700 | 124,098 |
| **All Full-Time Full-Year Workers** | **46%** | **683,264** | **796,858** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

Table 9 presents proportions of men and women employed in different occupations. The most female-dominated occupations are Health Support and Technicians and Clerical. Health Support and Technicians includes registered nurses, physician assistants, nutritionists, pharmacists, and

medical therapists. More than 86 percent of all workers employed in this category are female. More than 79 percent of workers employed in clerical occupations are female as well. Among the occupations held mainly or almost exclusively by men are Science Professionals and Pilots (70 percent male), Protective Services (73 percent male), Machine Operators and Assemblers (81 percent male), Laborers (86 percent male), Blue Collar Supervisors (88 percent male), and Precision Craft & Repair workers (96 percent male). Nearly equal proportions of men and women work as Other Business Professionals and Non-Retail Managers and Salespersons, among others.

**Table 10: Median Hourly Wages and Annual Earnings, Wage and Earnings Ratios, and Mean Ages of Women and Men by Occupation, Full-Time Full-Year Wage and Salary Workers, 2003**

| | Hourly Wages | | Annual Earnings | | Ratios[a] | | Mean Age | |
|---|---|---|---|---|---|---|---|---|
| **Occupation** | **Women** | **Men** | **Women** | **Men** | **Wage** | **Earnings** | **Women** | **Men** |
| Lawyers | $40.83 | $57.16 | $93,413 | $128,208 | 71% | 73% | 40.1 | 43.5 |
| Health Diagnosis Professionals | $31.81 | $35.46 | $72,375 | $92,288 | 90% | 78% | 41.6[b] | 42.6[b] |
| Science Professionals & Pilots | $30.73 | $36.19 | $66,875 | $79,614 | 85% | 84% | 41.1[b] | 42.3[b] |
| Health Support & Technicians | $25.52 | $32.31 | $54,287 | $70,574 | 79% | 77% | 43.1[b] | 41.7[b] |
| Managers & Sales Non-Retail | $24.01 | $33.17 | $52,651 | $79,259 | 72% | 66% | 43.6 | 44.5 |
| Accountants & Other Mgmt | $22.98 | $27.67 | $49,629 | $63,691 | 83% | 78% | 41.7[b] | 42.3[b] |
| Protective Services | $21.37 | $23.59 | $45,645 | $52,731 | 91% | 87% | 38.2[b] | 39.3[b] |
| Sales Representatives & FIRE | $20.88 | $26.51 | $43,522 | $63,691 | 79% | 68% | 40.8[b] | 41.9[b] |
| Business Professionals, Other | $20.41 | $26.54 | $43,425 | $58,383 | 77% | 74% | 40.8[b] | 41.1[b] |
| Teachers | $19.88 | $26.13 | $44,902 | $62,973 | 76% | 71% | 41.9 | 46.0 |
| Arts & Letters | $19.63 | $20.88 | $43,012 | $45,601 | 94% | 94% | 43.0[b] | 42.7[b] |
| Blue Collar Supervisors | $16.70 | $21.87 | $38,214 | $52,116 | 76% | 73% | 46.3 | 42.7 |
| Precision Craft & Repair | $16.40 | $17.71 | $34,120 | $38,214 | 93% | 89% | 35.8[b] | 38.7[b] |
| Managers & Sales, Retail | $16.24 | $19.14 | $37,222 | $46,687 | 85% | 80% | 39.8[b] | 39.8[b] |
| Clerical | $15.82 | $17.23 | $33,086 | $37,153 | 92% | 89% | 42.9 | 41.1 |
| Farm Owners & Managers | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Laborers | $11.59 | $11.39 | $24,104 | $25,949 | 102% | 93% | 45.9 | 35.7 |
| Service Workers | $10.94 | $12.25 | $23,353 | $26,538 | 89% | 88% | 40.6[b] | 39.3[b] |
| Machine Operators & Assemblers | $10.44 | $14.62 | $23,780 | $33,658 | 71% | 71% | 42.4 | 39.9 |
| Sales | $9.94 | $14.91 | $20,629 | $31,845 | 67% | 65% | 39.1[b] | 38.3[b] |
| Farm Workers | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **All Full-Time Full-Year Workers** | **$18.47** | **$20.98** | **$40,220** | **$48,859** | **88%** | **82%** | **40.95** | **41.96** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

[a] The ratio is the earnings/wages of the comparator group divided by the earnings/wages of white men.

[b] The difference between women's and men's mean age is not statistically significant within this occupation.

Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher, except where noted.

Table 10 presents median hourly wages and annual earnings of men and women by occupation. Men's wages and earnings are higher than women's in all occupations except in the relatively low-paid Laborers group. Across all other occupations, the hourly wage ratio varies from a low of 67 percent (in Sales) to a high of 94 percent (in Arts and Letters), and the annual earnings ratio ranges from 65 to 94 percent, with Sales and Arts and Letters again showing the lowest and highest relative earnings, respectively. The largest earnings gaps are in Sales, Non-Retail Managers and Sales, and Sales Representatives and FIRE, where for every dollar a man earns, a woman earns between 65 and 68 cents. The earnings gaps are also very large for Lawyers, Teachers, Blue Collar Supervisors, and Machine Operators and Assemblers.

**Table 11: Racial/Ethnic Composition of Occupations, Full-Time Full-Year Wage and Salary Workers, 2003**

| Occupation | White | African American | Asian American | Hispanic |
|---|---|---|---|---|
| Service Workers | 35% | 43% | 7% | 15% |
| Laborers | 40% | 32% | 4% | 24% |
| Machine Operators & Assemblers | 53% | 35% | 4% | 8% |
| Health Diagnosis Professionals | 56% | 16% | 22% | 6% |
| Sales | 59% | 28% | 7% | 6% |
| Clerical | 59% | 35% | 3% | 3% |
| Business Professionals, Other | 63% | 26% | 9% | 2% |
| Arts & Letters | 64% | 29% | 3% | 3% |
| Protective Services | 65% | 33% | 1% | 1% |
| Health Support & Technicians | 66% | 24% | 9% | 1% |
| Accountants & Other Mgmt | 67% | 26% | 4% | 3% |
| Precision Craft & Repair | 67% | 22% | 2% | 9% |
| Managers & Sales, Retail | 68% | 24% | 5% | 3% |
| Science Professionals & Pilots | 70% | 17% | 10% | 3% |
| Teachers | 70% | 23% | 4% | 3% |
| Blue Collar Supervisors | 71% | 21% | 2% | 6% |
| Managers & Sales Non-Retail | 72% | 23% | 3% | 2% |
| Sales Representatives & FIRE | 84% | 10% | 3% | 2% |
| Farm Owners & Managers | 87% | 13% | 0% | 0% |
| Lawyers | 89% | 7% | 2% | 2% |
| Farm Workers | 94% | 0% | 0% | 6% |
| **All Full-Time Full-Year Workers** | **62%** | **27%** | **5%** | **5%** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

Table 11 presents the race and ethnic composition of occupations in Maryland. Services, Laborers, Precision Craft and Repairs, and Machine Operators and Assemblers occupations have a high proportion of Hispanic workers, compared with the proportion of Hispanic workers in the overall population. This result goes along with low average educational attainment of Hispanic workers shown in Table 10. On the other hand, Health Diagnosis Professionals and Science Professionals occupations have a high proportion of Asian American workers, which is also consistent with their high average educational attainment. For instance, the proportion of Health

Diagnosis workers who are Asian American is more than four times the overall representation of Asian American workers in the Maryland workforce. Service Workers, Protective Services, Clerical, Machine Operators and Assemblers, and Laborers occupations employ a high proportion of African American workers. Occupations with high concentrations of white workers include Lawyers, Sales Representatives and FIRE, and Non-Retail Managers and Sales (as well as Farm Owners and Managers and Farm Workers, which are small occupations in Maryland).

Tables 12 and 13 present annual earnings, hourly wages, and average age of workers by occupation and by race and ethnicity.[5] Wages vary widely among workers from different racial/ethnic backgrounds employed in the same occupations. For example, African Americans earn considerably less than whites when employed as Non-Retail Managers and Sales and in Sales Representatives and FIRE occupations. The only two occupations where African Americans earn more than whites are Teachers and Laborers.

**Table 12: Earnings by Occupation and Race/Ethnicity, Full-Time Full-Year Wage and Salary Workers, 2003**

| Occupation | White | African American | Asian American | Hispanic |
|---|---|---|---|---|
| Lawyers | $114,003 | N/A | N/A | N/A |
| Health Diagnosis Professionals | $91,290 | N/A | $61,888 | N/A |
| Science Professionals & Pilots | $77,545 | $66,172 | $76,002 | $68,998 |
| Managers & Sales Non-Retail | $70,060 | $53,076 | $86,860 | $70,574 |
| Sales Representatives & FIRE | $60,802 | $43,430 | N/A | N/A |
| Accountants & Other Mgmt | $56,866 | $52,731 | $48,830 | N/A |
| Health Support & Technicians | $55,199 | $54,287 | $63,691 | N/A |
| Blue Collar Supervisors | $53,076 | $43,425 | N/A | N/A |
| Business Professionals, Other | $53,076 | $47,237 | $62,629 | N/A |
| Protective Services | $52,731 | $49,891 | N/A | N/A |
| Teachers | $49,944 | $52,116 | N/A | N/A |
| Arts & Letters | $46,527 | $41,357 | N/A | N/A |
| Managers & Sales, Retail | $44,516 | $38,214 | $37,222 | N/A |
| Precision Craft & Repair | $40,323 | $38,001 | N/A | $26,538 |
| Machine Operators & Assemblers | $36,188 | $30,401 | $24,415 | $21,713 |
| Clerical | $34,120 | $33,875 | $40,338 | $26,882 |
| Sales | $31,018 | $23,160 | N/A | N/A |
| Laborers | $26,538 | $27,916 | N/A | $19,543 |
| Service Workers | $25,848 | $24,814 | $23,077 | $19,645 |
| **All Full-Time Full-Year Workers** | **$47,768** | **$38,256** | **$47,768** | **$27,144** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher.

[5] Small sample sizes prevent the calculation of earnings and wage statistics for some racial/ethnic groups in certain occupations.

**Table 13: Wages and Mean Age by Occupation and Race/Ethnicity, Full-Time Full-Year Wage and Salary Workers, 2003**

| | Hourly Wages | | | | Mean Age | | | |
|---|---|---|---|---|---|---|---|---|
| **Occupation** | **White** | **African Amer-ican** | **Asian Amer-ican** | **Hispanic** | **White** | **African Amer-ican** | **Asian Amer-ican** | **Hispanic** |
| Lawyers | $49.71 | N/A | N/A | N/A | 42.7 | N/A | N/A | N/A |
| Science Professionals & Pilots | $35.79 | $28.72 | $34.06 | $30.62 | 42.8 | 39.8 | 40.7 | 37.8 |
| Health Diagnosis Professionals | $35.46 | N/A | $27.84 | N/A | 43.4 | N/A | 42.4[a] | N/A |
| Managers & Sales Non-Retail | $29.23 | $23.86 | $36.54 | $31.32 | 44.3 | 43.2 | 43.2[a] | 42.2[a] |
| Health Support & Technicians | $26.45 | $25.52 | N/A | N/A | 43.4[a] | 42.4[a] | N/A | N/A |
| Sales Representatives & FIRE | $26.10 | $19.84 | N/A | N/A | 41.7[a] | 40.5[a] | N/A | N/A |
| Accountants & Other Mgmt | $25.52 | $23.86 | $22.67 | N/A | 42.0[a] | 41.5[a] | 44.3[a] | N/A |
| Business Professionals, Other | $24.01 | $20.79 | $29.60 | N/A | 41.1[a] | 40.7[a] | 40.8[a] | N/A |
| Protective Services | $23.49 | $21.94 | N/A | N/A | 39.0[a] | 39.1[a] | N/A | N/A |
| Blue Collar Supervisors | $22.78 | $19.88 | N/A | N/A | 44.0[a] | 43.8[a] | N/A | N/A |
| Arts & Letters | $21.21 | $17.90 | N/A | N/A | 43.3[a] | 42.4[a] | N/A | N/A |
| Teachers | $20.88 | $22.11 | N/A | N/A | 43.0[a] | 44.5[a] | N/A | N/A |
| Managers & Sales, Retail | $18.79 | $16.33 | $15.27 | N/A | 40.1 | 38.0 | 42.2[a] | N/A |
| Precision Craft & Repair | $17.90 | $17.50 | N/A | $12.76 | 38.6[a] | 39.8[a] | N/A | 34.0 |
| Clerical | $16.03 | $15.91 | $18.89 | $14.24 | 43.7 | 40.8 | 43.8[a] | 38.1 |
| Machine Operators & Assemblers | $15.11 | $13.92 | $11.74 | $9.94 | 40.7[a] | 40.9[a] | 40.7 | 35.8 |
| Sales | $13.96 | $10.19 | N/A | N/A | 40.4[a] | 37.8[a] | N/A | N/A |
| Farm Owners & Managers | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Service Workers | $12.25 | $11.48 | $10.21 | $9.44 | 39.9[a] | 40.5[a] | 40.9[a] | 38.6 |
| Laborers | $12.01 | $13.42 | N/A | $8.95 | 39.1[a] | 39.3[a] | N/A | 30.7 |
| Farm Workers | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| **All Full-Time Full-Year Workers** | **$21.23** | **$17.40** | **$21.92** | **$12.53** | **42.0** | **40.9** | **41.5** | **36.8** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The difference between mean age of each race is not statistically significant within each occupation.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher, except where noted.

Hispanic workers earn less than the other demographic groups in all the occupations, except for Science Professionals, and Non-Retail Managers and Sales. This could be partially explained by differences in age and experience between groups of workers. (The Hispanic workforce is younger than others, which translates into lower work experience and lower pay.) Asian American workers earn more than whites when employed in Non-Retail Managers and Sales, Health Support, Clerical, and Business Professional occupations.

Statistical significance: Testing whether differences are meaningful

As is standard practice in statistical analysis of this sort, the observed differences in earnings, wages, and work-hours between the groups presented in this report were tested to determine whether they may have occurred by chance in the ACS sample, while there were no differences between the corresponding groups in the overall population. All differences in annual earnings and hourly wages were shown to be significant with 95 percent confidence or higher. That is, on average, only five out of one hundred comparisons would appear different when the groups being compared were actually the same. Among observed differences in hours, age, and years of education, some were statistically significant, while others were not. The differences that were not shown to be statistically significant are indicated by footnotes in the tables.

## PART II. Statistical analysis of the gender earnings gap

Statistical analysis sheds light on which characteristics of workers contribute to the earnings differences between groups of workers—e.g., education, or occupation of employment. Regression analysis accounts for the ways in which workers themselves differ (by age, for example) and explores whether they are paid the same amount for having the same skills or other job attributes, or whether there is a systematic difference in returns to skill and other human capital characteristics for different groups.

Table 14 presents the results of an earnings decomposition performed using regression analysis. This analysis controls for gender, race, potential labor market experience,[6] education, hours worked per week, full-time full-year working status, sector of employment (public or private), occupation, and whether English is the language spoken in the worker's home. The findings indicate that women in Maryland are predicted to have mean annual earnings of $28,695, but, if they were paid the same as men for their measured human capital, they would earn $34,801. Taking the difference in these two figures and dividing by women's predicted earnings shows that only 78.7 percent of the difference can be explained by measurable differences in Maryland's working women and men. The remaining 21.3 percent cannot be explained by factors included in the ACS dataset used in this study.

[6] Like most research, this analysis does not directly measure workers' actual work experience, because the dataset does not ask respondents for that information. However, a study of proxies for actual work experience finds that the standard procedure, used here, does very well at approximating actual work experience, for both women and men, even though women work slightly fewer years than men do (Filer 1993). The study concluded that accounting for occupation in large part makes up for missing information about actual work experience, because occupations tend to be held predominantly by either women or men (that is, not to be very well integrated), and actual work experience is closely linked to gender. In addition, the analysis presented here controls for potential work experience.

Using statistics to see why workers are paid what they are

Regression analysis is a statistical technique for evaluating the association between a set of factors, or variables, and a key concept of interest. The regression "controls for" each factor, or accounts for its influence on the key concept. Results of a regression analysis come in the form of numbers called "coefficients" that indicate how the variation in each factor contributes to, or "explains," the measured variation in the key concept. When examining earnings received by a group of workers, the coefficient is informally described as indicating how much workers' pay rises (or falls) when a certain characteristic is present, such as a particular race or ethnicity, or some level of education.

In a methodology commonly used in the study of earnings differences, a series of regressions are strung together to conduct an earnings decomposition. The first uses data on individual workers' demographic and job characteristics and their earnings to generate coefficients for each characteristic for the specified group of workers. Then, an equation uses those coefficients to estimate, or "predict," what each worker would be paid if she received the average compensation on each of her own measured characteristics. To see how much a woman worker would earn if she were compensated with the same "prices" on each factor as men are (e.g., if she were paid the same amount of money for having the same level of education), a third equation is calculated, using her own measured characteristics but combining them with coefficients from a wage equation for men. The difference between these two predicted earnings amounts, divided by women's predicted earnings, indicates what portion of the difference between women's and men's compensation cannot be explained by the factors included in the equations.

Any difference between what women are predicted to earn, were they compensated at the same level as men for their own observable characteristics, and what they are estimated to earn is caused by variables that are not in the ACS dataset. Researchers hypothesize about what these variables might be: meaningful qualitative differences, important but unmeasured skill differences, or discrimination.

A similar analysis evaluating earnings differences between whites and (a) African Americans, (b) Asian Americans, and (c) Hispanics finds smaller unexplained differences—7.8 percent, 3.2 percent, and 4.3 percent, respectively. Substantial differences in educational achievement and age likely contribute to the large observed earnings differences along lines of race and ethnicity that do not remain once the earnings decomposition is completed.

**Table 14: Earnings Decomposition, All Workers**

**Panel A: By Gender**

| | Women's Estimated Earnings |
|---|---|
| **Mean earnings as predicted by women's observed returns to women's characteristics** | $28,695 |
| **Mean earnings if women received men's observed returns** | $34,801 |
| **Difference** | 21.3% |

**Panel B: By Race/Ethnicity**

| | Estimated Earnings | | | |
|---|---|---|---|---|
| | White | African American | Asian American | Hispanic |
| **Mean earnings as predicted by group's observed returns to own characteristics** | | $28,362 | $38,129 | $23,911 |
| **Mean earnings if group received whites' observed returns** | $36,438 | $30,586 | $39,354 | $24,928 |
| **Difference** | | 7.8% | 3.2% | 4.3% |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
Note: Complete earnings regressions are available from IWPR upon request. Coefficients and standard errors from this analysis are shown in Appendix Table 2.

A note about interpreting earnings analyses. Regression analysis cannot tell whether some workers are prevented from increasing their human capital because of a lack of financial resources, sex or race discrimination, living too far from educational institutions, or other factors. It does not discern whether caring for family members, such as small children, makes it very difficult for some workers to be successful in jobs with inflexible or unusually heavy work-hour demands. It also cannot indicate whether the workers holding certain occupations were actively discouraged from entering others, or were steered into a particular line of work by counselors or employers on the basis of their sex, race, ethnicity, or other personal attribute. Thus, even the "explained" portion of the earnings difference between women and men, or earnings differences by race and ethnicity, may be created by implicit or explicit discrimination.

## SUMMARY

Gender, race, and ethnicity are strongly associated with differences in workers' wages and earnings in Maryland. Some of the differences between women and men, and among workers of different racial and ethnic identities, can be explained by comparing workers' human capital—the skills and experience that make workers valuable to employers. For instance, Maryland's Hispanic workers are on average younger than others, and have fewer years of education; Asian American workers are more highly educated than whites, African Americans, and Hispanics (Table 15). These differences are especially noticeable when looking at race and ethnicity.

Statistical analysis suggests that other unmeasured factors also play a role in wage-setting. More than 20 percent of the difference between women's and men's earnings remains unexplained after controlling for demographic and human capital differences. This portion of the gender wage gap in Maryland may be caused by discrimination, by factors not measured by the ACS survey (the dataset used here), or by a combination of factors. A much smaller share of earnings differences across race and ethnicity cannot be explained, although, especially for African Americans, the dollar amount of the unexplained earnings difference is substantial (7.8 percent, or $2,224 per year).

**Table 15: Average Age and Years of Education by Race/Ethnicity and Sex, Full-Time Full-Year Wage and Salary Workers, 2003**

| | Mean Age | | Years of Education | |
|---|---|---|---|---|
| **Race/Ethnicity** | **Women** | **Men** | **Women** | **Men** |
| **White** | 42.5 | 41.7 | 14.4[a] | 14.4[a] |
| **African American** | 41.4 | 40.3 | 13.8 | 13.5 |
| **Asian American** | 42.2[a] | 41.0[a] | 15.0[a] | 15.2[a] |
| **Hispanic** | 38.5 | 35.8 | 12.3 | 11.3 |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] The difference between women and men in mean age/years of education is not statistically significant within this race.
Note: The difference between comparator groups' values is statistically significant at the 95 percent level or higher, except where noted.

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## Appendix I: Data

This study uses the U.S. Census Bureau's American Community Survey Public Use Microdata Files (ACS). This survey captures employment-related information both for the previous year and for the week before the survey fielding date, as well as a battery of demographic information. Three years of data are pooled, from 2002 to 2004, to get a total sample size of 25,172 working persons aged 16 and 64, who were not in school in the previous three months, self-employed, working without pay, or in the armed forces. (These are referred to as 2003 data.) There are 12,944 women and 12,228 men in the sample. Appendix Table 1 presents the breakdown of the sample by sex and race/ethnicity.

**Appendix Table 1: Sample Sizes by Sex and Race/Ethnicity**

| Gender | Total | White | African American | Asian American | Hispanic[a] | All Other |
|---|---|---|---|---|---|---|
| **Men** | 12,228 | 8,910 | 2,137 | 582 | 546 | 53 |
| **Women** | 12,944 | 9,007 | 2,919 | 537 | 427 | 54 |
| **Total** | **25,172** | **17,917** | **5,056** | **1,119** | **973** | **107** |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.
[a] Hispanics may be of any race. Individuals self-identifying as Hispanic are categorized as such, regardless of their racial identity, and are excluded from the White, African American, Asian American, and Other categories.

In the ACS, individuals' reports of their racial identities are recoded into the categories White, African American, Asian American, Native Hawaiian or Other Pacific Islander, American Indian and Alaska Native, and Other. (These recodes are applied both to individuals reporting a single racial identity and those reporting more than one, and they are not mutually exclusive.) Separately, individuals report Hispanic origin. For this analysis, all workers self-identifying as Hispanic are classified as Hispanic, regardless of racial identity. Next, workers are coded as African American, Asian American, or White, or as All Other if their identity is American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or what the ACS labels "Other Race." Individuals in the "All Other" category are excluded from the analysis where race and ethnicity are disaggregated, as this group is too small for separate statistical analysis.

**Appendix Table 2: Sample Sizes: Full-Time Full-Year Wage and Salary Workers, by Sex, 2003**

| Race/Ethnicity | Women | Men |
|---|---|---|
| White | 5,656 | 7,144 |
| African American | 1,979 | 1,522 |
| Asian American | 353 | 432 |
| Hispanic | 262 | 402 |
| Other | 28 | 38 |
| Total | 8,250 | 9,500 |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

About three-quarters of individuals in the sample (74.6 percent) are employed in the private sector: 9,273 women and 9,512 men. Public-sector employees in the sample include 3,671 women and 2,716 men.

The study focuses primarily on workers employed full-time full-year (FTFY)—those working at least 35 hours per week 50 or more weeks a year. The sample sizes for these workers are presented in Appendix Table 2.

Annual earnings and hourly wages are inflated to 2005 dollars using the CPI-U inflator. ACS personal weights are used to ensure the estimates are representative of the population of the state of Maryland.

Study limitations: While this study accounts for the factors captured by the ACS that affect wages and earnings, other relevant factors, such as actual work experience and job tenure, field and quality of education, and immigration status, are not reflected in the data.

## Appendix II: Coefficients and Standard Errors of Earnings Regression

| Variables | Coefficients | Standard Errors |
|---|---|---|
| Women | -0.180 | 0.012 |
| Black | -0.158 | 0.014 |
| Asian American | -0.019 | 0.030 |
| Hispanic | -0.023 | 0.028 |
| Black*Women | 0.135 | 0.019 |
| Asian American*Women | 0.003 | 0.039 |
| Hispanic*Women | -0.021 | 0.038 |
| Experience | 0.049 | 0.002 |
| Experience Sqrd | -0.001 | 0.000 |
| Less HS | -0.227 | 0.017 |
| Some College | 0.146 | 0.011 |
| College | 0.351 | 0.014 |
| Graduate Degree | 0.525 | 0.016 |
| FTFY | 0.626 | 0.010 |
| Usual Hours | 0.022 | 0.000 |
| Public Sector | 0.099 | 0.011 |
| English at Home | 0.076 | 0.016 |
| Constant | 8.473 | 0.035 |
| **# Observations** | 25164 | |
| **$R^2$** | 0.5527 | |

Source: Institute for Women's Policy Research analysis of the 2002-2004 American Community Survey.

## Appendix III: Occupational Classifications

**Managers and Sales Non-Retail**

Chief Executives
General and Operations Management Legislators
Advertising and Promotions Managers
Marketing and Sales Managers
Public Relations Managers
Administrative Services Managers
Computer and Information Systems
Financial Managers
Human Resources Managers
Industrial Production Management
Purchasing Managers
Transportation, Storage, and Distribution Managers
Construction Managers
Education Administrators
Engineering Managers
Food Service Managers
Medical and Health Services Managers
Natural Sciences Managers
Postmasters and Mail Superintendents
Property, Real Estate, and Community Association
Social and Community Service Managers
Managers, All Other
First-Line Supervisors/Managers of Food Preparation and Serving Workers
First-Line Supervisors/Managers of Gaming Workers
First-Line Supervisors/Managers of Personal Service Workers
First-Line Supervisors/Managers of Non-Retail Sales Workers
First-Line Supervisors/Managers of Office and Administrative Support Workers

**Lawyers**

Lawyers

**Health Diagnosis Professionals**

Medical Scientists
Chiropractors
Dentists
Physicians and Surgeons
Audiologists
Veterinarians
Health Diagnosing and Treating Practitioners, All Other

**Accountants & Other Mgmt**

Accountants and Auditors
Appraisers and Assessors of Real Estate
Budget Analysts
Credit Analysts
Financial Analysts
Personal Financial Advisors
Insurance Underwriters
Financial Examiners
Loan Counselors and Officers
Tax Examiners, Collectors, and Revenue Agents
Tax Preparers
Financial Specialists, All Other
Construction and building inspectors
Agents and Business Managers of Artists, Performers, and Athletes
Purchasing Agents and Buyers, Farm Products
Wholesale and Retail Buyers, Except Farm Products
Purchasing Agents, Except Wholesale, Retail, and Farm Products
Claims Adjusters, Appraisers, Examiners, and Investigators
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation
Cost Estimators
Human Resources, Training, and Labor Relations Specialists
Logisticians
Management Analysts
Meeting and Convention Planners
Other Business Operations Specialists

**Sales Representatives and FIRE**

Advertising Sales Agents
Insurance Sales Agents
Securities, Commodities, and Financial Services Sales Agents
Travel Agents
Sales Representatives, Services, All Other
Sales Representatives, Wholesale and Manufacturing
Real Estate Brokers and Sales Agents
Sales Engineers

**Science Professionals & Pilots**

Computer Scientists and Systems Analysts

Computer Software Engineers
Database Administrators
Network and Computer Systems Administrators
Network Systems and Data Communications Analysts
Actuaries
Operations Research Analysts
Statisticians
Miscellaneous Mathematical Science Occupations, Including Mathematicians
Architects, Except Naval
Surveyors, Cartographers, and Photogrammetrists
Aerospace Engineers
Chemical Engineers
Civil Engineers
Computer Hardware Engineers
Electrical and Electronics Engineers
Environmental Engineers
Industrial Engineers, Including Health and Safety
Marine Engineers and Naval Architects
Materials Engineers
Mechanical Engineers
Nuclear Engineers
Petroleum, Mining, And Geological Engineers
Miscellaneous Engineers, Including Agricultural and Biomedical
Agricultural and Food Scientists
Biological Scientists
Conservation Scientists and Foresters
Astronomers and Physicists
Atmospheric and Space Scientists
Chemists and Materials Scientists
Environmental Scientists and Geoscientists
Physical Scientists, All Other
Market and Survey Researchers
Geological and Petroleum Technicians
Aircraft Pilots and Flight Engineers

**Health Support & Technicians**
Dietitians and Nutritionists
Pharmacists
Physician Assistants
Registered Nurses
Occupational Therapists
Physical Therapists
Radiation Therapists
Recreational Therapists
Respiratory Therapists
Speech-Language Pathologists
Therapists, All Other

**Teachers**
Postsecondary Teachers
Preschool and Kindergarten Teachers
Elementary and Middle School Teachers
Secondary School Teachers
Special Education Teachers
Other Teachers and Instructors
Other Education, Training, and Library Workers

**Arts & Letters**
Economists
Psychologists
Urban and Regional Planners
Miscellaneous Social Scientists, Including Sociologists
Counselors
Social Workers
Miscellaneous Community and Social Service Specialists
Clergy
Directors, Religious Activities and Education
Religious Workers, All Other
Archivists, Curators, and Museum Technicians
Librarians
Library Technicians
Artists and Related Workers
Designers
Actors
Producers and Directors
Athletes, Coaches, Umpires, and Related Workers
Dancers and Choreographers
Musicians, Singers, and Related Workers
Entertainers and Performers, Sports and Related Workers, All Other
Announcers
News Analysts, Reporters and Correspondents
Public Relations Specialists
Editors
Technical Writers
Writers and Authors
Miscellaneous Media and Communication Workers
Photographers

**Managers and Sales, Retail**
Chief Executives
General and Operations Manager
Advertising and Promotions Managers

Marketing and Sales Managers
Administrative Services Managers
Computer and Information Systems Managers
Financial Managers
Human Resources Managers
Purchasing Managers
Transportation, Storage, and Distribution Managers
Engineering Managers
Food Service Managers
Funeral Directors
Gaming Managers
Lodging Managers
Property, Real Estate, and Community Association Managers
Social and Community Service Managers
Managers, All Other
First-Line Supervisors/Managers of Food Preparation and Serving Workers
First-Line Supervisors/Managers of Gaming Workers
First-Line Supervisors/Managers of Personal Service Workers
First-Line Supervisors/Managers of Retail Sales Workers
First-Line Supervisors/Managers of Non-Retail Sales Workers
First-Line Supervisors/Managers of Office and Administrative Support Workers

**Blue Collar Supervisors**

First-Line Supervisors/Managers of Construction Trades and Extraction Workers
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers
First-Line Supervisors/Managers of Production and Operating Workers
Supervisors, Transportation and Material Moving Workers

**Farm Owners & Managers**

Farm, Ranch, and Other Agricultural Managers

**Business Professionals, Other**

Computer Programmers
Computer Support Specialists
Drafters
Engineering Technicians, Except Drafters
Surveying and Mapping Technicians
Agricultural and Food Science Technicians
Biological Technicians
Chemical Technicians
Other Life, Physical, and Social Science Technicians, Including Nuclear Technicians
Judges, Magistrates, and Other Judicial Workers
Paralegals and Legal Assistants
Miscellaneous Legal Support Workers
Broadcast and Sound Engineering Technicians and Radio Operators; Other Media and Communications Equipment Workers
Television, Video, and Motion Picture Camera Operators and Editors
Clinical Laboratory Technologists and Technicians
Dental Hygienists
Diagnostic Related Technologists and Technicians
Emergency Medical Technicians and Paramedics
Health Diagnosing and Treating Practitioner Support Technicians
Licensed Practical and Licensed Vocational Nurses
Medical Records and Health Information Technicians
Opticians, Dispensing
Miscellaneous Health Technologists and Technicians
Other Healthcare Practitioners and Technical Occupations
Air Traffic Controllers and Airfield Operations Specialists

**Precision Craft & Repair**

Boilermakers
Brick masons, Block masons, And Stonemasons
Carpenters
Carpet, Floor, and Tile Installers and Finishers
Cement Masons, Concrete Finishers, and Terrazzo Workers
Paving, Surfacing, and Tamping Equipment Operators
Miscellaneous Construction Equipment Operators
Drywall Installers, Ceiling Tile Installers, and Tapers
Electricians
Glaziers
Insulation Workers
Painters, Construction and Maintenance
Paperhangers

Pipe layers, Plumbers, Pipe fitters, And Steamfitters
Plasterers and Stucco Masons
Reinforcing Iron and Rebar Workers
Roofers
Sheet Metal Workers
Structural Iron and Steel Workers
Elevator Installers and Repairers
Fence Erectors
Hazardous Materials Removal Workers
Highway Maintenance Workers
Rail-Track Laying and Maintenance Equipment Operators
Earth Drillers, Except Oil and Gas
Explosives Workers, Ordinance Handling Experts, and Blasters
Mining Machine Operators
Computer, Automated Teller, and Office Machine Repairers
Radio and Telecommunications Equipment Installers and Repairers
Electric Motor, Power Tool, and Related Repairers
Electrical and Electronics Repairers: Industrial, Utility, and Transportation Equipment
Electronic Equipment Installers and Repairers, Motor Vehicles
Electronic Home Entertainment Equipment Installers and Repairers
Security and Fire Alarm Systems Installers
Aircraft Mechanics and Service Technicians
Automotive Body and Related Repairers
Automotive Glass Installers and Repairers
Automotive Service Technicians and Mechanics
Bus and Truck Mechanics and Diesel Engine Specialists
Heavy Vehicle and Mobile Equipment Service Technicians and Mechanics
Small Engine Mechanics
Miscellaneous Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
Control and Valve Installers and Repairers
Heating, Air Conditioning, and Refrigeration Mechanics and Installers
Home Appliance Repairers
Industrial and Refractory Machinery Mechanics
Maintenance and Repair Workers, General
Maintenance Workers, Machinery
Millwrights
Electrical Power-Line Installers and Repairers
Telecommunications Line Installers and Repairers
Precision Instrument and Equipment Repairers
Coin, Vending, and Amusement Machine Services and Repairers
Locksmiths and Safe Repairers
Manufactured Building and Mobile Home Installers
Riggers
Other Installation, Maintenance, and Repair Workers, Including Divers and Railroad Switch Operators
Engine and Other Machine Assemblers
Structural Metal Fabricators and Fitters
Bakers
Butchers and Other Meat, Poultry, and Fish Processing Workers
Food Batch makers
Food Cooking Machine Operators and Tenders
Butchers and Other Meat, Poultry, and Fish Processing
Machinists
Model Makers and Patternmakers, Metal and Plastic
Tool and Die Makers
Bookbinders and Bindery Workers
Tailors, Dressmakers, And Sewers
Upholsterers
Cabinetmakers and Bench Carpenters
Furniture Finishers
Miscellaneous Woodworkers, Including Model Makers and Patternmakers
Power Plant Operators, Distributors, and Dispatchers
Stationary Engineers and Boiler Operators
Water and Liquid Waste Treatment Plant and System Operators
Miscellaneous Plant and System Operators
Jewelers and Precious Stone and Metal Workers
Medical, Dental, and Ophthalmic Laboratory Technicians
Etchers and Engravers
Locomotive Engineers and Operators
Railroad Conductors and Yardmasters
Subway, Streetcar, and Other Rail Transportation Workers
Ship and Boat Captains and Operators

**Protective Services**

First-Line Supervisors/Managers of Correctional Officers
First-Line Supervisors/Managers of Police and

Detectives
First-Line Supervisors/Managers of Fire Fighting and Prevention Workers
Supervisors, Protective Service Workers, All Other
Fire Fighters
Bailiffs, Correctional Officers, and Jailers
Detectives and Criminal Investigators
Police Officers
Private Detectives and Investigators

**Clerical**

Communications Equipment Operators, All Other
Bill and Account Collectors
Billing and Posting Clerks and Machine Operators
Bookkeeping, Accounting, and Auditing Clerks
Gaming Cage Workers
Payroll and Timekeeping Clerks
Procurement Clerks
Tellers
Brokerage Clerks
Court, Municipal, and License Clerks
Credit Authorizers, Checkers, and Clerks
Customer Service Representatives
Eligibility Interviewers, Government Programs
File Clerks
Hotel, Motel, and Resort Desk Clerks
Interviewers, Except Eligibility and Loan
Library Assistants, Clerical
Loan Interviewers and Clerks
New Accounts Clerks
Correspondence Clerks and Order Clerks
Human Resources Assistants, Except Payroll and Timekeeping
Receptionists and Information Clerks
Reservation and Transportation Ticket Agents and Travel Clerks
Information and Record Clerks, All Other
Cargo and Freight Agents
Couriers and Messengers
Teacher Assistants
Switchboard Operators, Including Answering Service
Telephone Operators
Dispatchers
Meter Readers, Utilities
Postal Service Clerks
Postal Service Mail Carriers
Postal Service Mail Sorters, Processors, and Processing Machine Operators
Production, Planning, and Expediting Clerks
Shipping, Receiving, And Traffic Clerks
Stock Clerks and Order Fillers
Weighers, Measurers, Checkers, and Samplers, Recordkeeping
Secretaries and Administrative Assistants
Computer Operators
Data Entry Keyers
Word Processors and Typists
Desktop Publishers
Insurance Claims and Policy Processing Clerks
Mail Clerks and Mail Machine Operators, Except Postal Service
Office Clerks, General
Office Machine Operators, Except Computer
Proofreaders and Copy Markers
Statistical Assistants
Office and Administrative Support Workers, All Other

**Machine Operators & Assemblers**

Job Printers
Prepress Technicians and Workers
Printing Machine Operators
Laundry and Dry-Cleaning Workers
Pressers, Textile, Garment, and Related Materials
Sewing Machine Operators
Textile Cutting Machine Setters, Operators, and Tenders
Miscellaneous Textile, Apparel, and Furnishings Workers, Except Upholsterers
Sawing Machine Setters, Operators, and Tenders, Wood
Woodworking Machine Setters, Operators, and Tenders, Except Sawing
Chemical Processing Machine Setters, Operators, and Tenders
Crushing, Grinding, Polishing, Mixing, and Blending Workers
Cutting Workers
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders
Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders
Inspectors, Testers, Sorters, Samplers, and Weighers
Packaging and Filling Machine Operators and Tenders
Painting Workers

Photographic Process Workers and Processing Machine Operators
Molders, Shapers, and Casters, Except Metal and Plastic
Paper Goods Machine Setters, Operators, and Tenders
Other Production Workers, Including Cooling and Freezing Operators
Bus Drivers
Driver/Sales Workers and Truck Drivers
Taxi Drivers and Chauffeurs
Miscellaneous Motor Vehicle Operators, Including Ambulance Drivers
Sailors, Marine Oilers, and Ship Engineers
Parking Lot Attendants
Transportation Inspectors
Other Transportation Workers, Including Bridge and Lock Tenders
Crane and Tower Operators
Dredge, Excavating, and Loading Machine Operators
Hoist and Winch Operators
Industrial Truck and Tractor Operators
First-Line Supervisors/Managers of Landscaping, Lawn Service, And Grounds Keeping Workers
Grounds Maintenance Workers
Agricultural Inspectors
Graders and Sorters, Agricultural Products
Fishing and Hunting Workers
Forest and Conservation Workers
Logging Workers
Miscellaneous Extraction Workers, Including Roof Bolters and Helpers
Helpers--Installation, Maintenance, and Repair Workers
Electrical, Electronics, And Electromechanical Assemblers
Miscellaneous Assemblers and Fabricators
Food and Tobacco Roasting, Baking, And Drying Machine Operators and Tenders
Computer Control Programmers and Operators
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Prd-Machinists
Molders and Molding Machine Setters, Operators, and Tenders, Metal and Plastic
Welding, Soldering, and Brazing Workers
Tool Grinders, Filers, and Sharpeners
Other Metalworkers and Plastic Workers, Including Milling, Planing, and Multiple Machine Tool Operators

**Sales**
Cashiers
Counter and Rental Clerks
Parts Salespersons
Retail Salespersons
Models, Demonstrators, and Product Promoters
Telemarketers
Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
Sales and Related Workers, All Other

**Service Workers**
Nursing, Psychiatric, and Home Health Aides
Occupational Therapist Assistants and Aides
Physical Therapist Assistants and Aides
Massage Therapists
Dental Assistants
Medical Assistants and Other Healthcare Support Occupations
Miscellaneous Law Enforcement Workers
Security Guards and Gaming Surveillance Officers
Crossing Guards
Miscellaneous Protective Service Workers, Except Crossing Guards, And Including Animal Control Workers
Chefs and Head Cooks
Cooks
Food Preparation Workers
Bartenders
Combined Food Preparation and Serving Workers, Including Fast Food
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
Waiters and Waitresses
Food Servers, Non-restaurant
Dining Room and Cafeteria Attendants and Bartender Helpers
Dishwashers
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop

First-Line Supervisors/Managers of Housekeeping and Janitorial Workers
Janitors and Building Cleaners
Maids and Housekeeping Cleaners
Pest Control Workers
Animal Trainers
Non-farm Animal Caretakers
Gaming Services Workers
Ushers, Lobby Attendants, And Ticket Takers
Miscellaneous Entertainment Attendants, Including Motion Picture Projectionists
Funeral Service Workers
Barbers
Hairdressers, Hairstylists, and Cosmetologists
Miscellaneous Personal Appearance Workers
Baggage Porters, Bellhops, and Concierges
Tour and Travel Guides
Transportation Attendants
Child Care Workers
Personal and Home Care Aides
Recreation and Fitness Workers
Residential Advisors
Personal Care and Service Workers, All Other

**Laborers**
Construction Laborers
Helpers, Construction Trades
Miscellaneous Construction Workers, Including Septic Tank and Sewer Servicers
Helpers--Production Workers
Service Station Attendants
Cleaners of Vehicles and Equipment
Laborers and Freight, Stock, and Material Movers, Hand
Machine Feeders and Offbearers
Packers and Packagers, Hand
Pumping Station Operators
Refuse and Recyclable Material Collectors
Miscellaneous Material Moving Workers, Including Conveyor Operators and Tenders

**Farm Workers**
First-Line Supervisors/Managers of Farming, Fishing, and Forestry Workers
Miscellaneous Agricultural Workers, Including Animal Breeders

**Military**
Military Officer Special and Tactical Operations Leaders/Managers
Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members
Military, Rank Not Specified

**Manufacturing and Other Non-Retail Industries, Including Military**
Crop Production
Animal Production
Forestry Except Logging
Logging
Fishing, Hunting, and Trapping
Support Activities for Agriculture and Forestry
Oil and Gas Extraction
Coal Mining
Metal Ore Mining
Nonmetallic Mineral Mining and Quarrying
Nonmetallic Mineral Mining and Quarrying
Support Activities for Mining
Electric Power Generation, Transmission and Distribution
Natural Gas Distribution
Electric and Gas, And Other Combinations
Water, Steam, Air Conditioning, and Irrigation Systems
Sewage Treatment Facilities
Not Specified Utilities
Construction
Animal Food, Grain and Oilseed Milling
Sugar and Confectionery Products
Fruit and Vegetable Preserving and Specialty Foods
Dairy Products
Animal Slaughtering and Processing
Retail Bakeries
Bakeries, Except Retail
Seafood and Other Miscellaneous Foods, N.E.C
Not Specified Food Industries
Beverage
Tobacco
Fiber, Yarn, and Thread Mills
Fabric Mills, Except Knitting
Textile and Fabric Finishing and Coating Mills
Carpets and Rugs
Textile Product Mills Except Carpets and Rugs
Knitting Mills
Cut and Sew Apparel
Footwear
Leather Tanning and Products, Except Footwear
Pulp, Paper, and Paperboard Mills
Paperboard Containers and Boxes
Printing and Related Support Activities
Petroleum Refining

Miscellaneous Petroleum and Coal Products
Resin, Synthetic Rubber and Fibers, and Filaments
Agricultural Chemicals
Pharmaceuticals and Medicines
Paint, Coating, and Adhesives
Soap, Cleaning Compound, And Cosmetics
Industrial and Miscellaneous Chemicals
Plastics Products
Tires
Rubber Products, Except Tires
Pottery, Ceramics, and Related Products
Structural Clay Products
Glass and Glass Products
Cement, Concrete, Lime, and Gypsum Products
Miscellaneous Nonmetallic Mineral Products
Iron and Steel Mills and Steel Products
Aluminum Production and Processing
Nonferrous Metal, Except Aluminum, Production and Processing
Foundries
Metal Forgings and Stampings
Cutlery and Hand Tools
Structural Metals, and Tank and Shipping Containers
Machine Shops; Turned Products; Screws, Nuts And Bolts
Coating, Engraving, Heat Treating and Allied Activities
Ordnance
Miscellaneous Fabricated Metal Products
Agricultural Implements
Construction Mining and Oil Field Machinery
Commercial and Service Industry Machinery
Metalworking Machinery
Engines, Turbines, and Power Transmission Equipment
Machinery, N.E.C
Computer and Peripheral Equipment
Communications, Audio, and Video Equipment
Navigational, Measuring, Electromedical, and Control Instruments
Electronic Components and Products, N.E.C
Electrical Lighting, Equipment, and Supplies, N.E.C
Motor Vehicles and Motor Vehicle Equipment
Aircraft and Parts
Aerospace Products and Parts
Railroad Rolling Stock
Ship and Boat Building
Other Transportation Equipment
Sawmills and Wood Preservation
Veneer, Plywood, and Engineered Wood Products
Prefabricated Wood Buildings and Mobile Homes
Miscellaneous Wood Products
Furniture and Related Products
Medical Equipment and Supplies
Toys, Amusement, and Sporting Goods
Miscellaneous Manufacturing, N.E.C
Not Specified Industries
Motor Vehicles, Parts and Supplies
Furniture and Home Furnishing
Lumber and Other Construction Materials
Professional and Commercial Equipment and Supplies
Metals and Minerals, Except Petroleum
Electrical Goods
Hardware, Plumbing and Heating Equipment, And Supplies
Machinery, Equipment, and Supplies
Recyclable Material
Miscellaneous Durable Goods
Paper and Paper Products
Drugs, Sundries, and Chemical and Allied Products
Apparel, Fabrics, and Notions
Groceries and Related Products
Farm Product Raw Materials
Petroleum and Petroleum Products
Alcoholic Beverages
Farm Supplies
Miscellaneous Nondurable Goods
Electronic Markets
Not Specified Trade
Air Transportation
Rail Transportation
Water Transportation
Truck Transportation
Bus Service and Urban Transit
Taxi and Limousine Service
Pipeline Transportation
Scenic and Sightseeing Transportation
Services Incidental to Transportation
Postal Service
Couriers and Messengers
Warehousing and Storage
Newspaper Publishers
Publishing, Except Newspapers and Software
Software Publishing
Radio and Television Broadcasting and Cable

Wired Telecommunications Carriers
Other Telecommunication Services
Internet Service Providers
Libraries and Archives
Other Information Services
Data Processing Services
Banking and Related Activities
Savings Institutions, Including Credit Unions
Non-Depository Credit and Related Activities
Securities, Commodities, Funds, Trusts, And Other Financial Investments
Insurance Carriers and Related Activities
Real Estate
Automotive Equipment Rental and Leasing
Legal Services
Accounting, Tax Preparation, Bookkeeping and Payroll Services
Architectural, Engineering, and Related Services
Specialized Design Services
Management, Scientific and Technical Consulting Services
Scientific Research and Development Services
Veterinary Services
Other Professional, Scientific and Technical Services
Management of Companies and Enterprises
Landscaping Services
Waste Management and Remediation Services
Elementary and Secondary Schools
Colleges and Universities, Including Junior Colleges
Business, Technical, and Trade Schools and Training
Other Schools, Instruction and Educational Services
Offices of Physicians
Offices of Dentists
Office of Chiropractors
Offices of Optometrists
Offices of Other Health Practitioners
Outpatient Care Centers
Home Health Care Services
Other Health Care Services
Hospitals
Nursing Care Facilities
Residential Care Facilities, Without Nursing
Individual and Family Services
Community Food and Housing, and Emergency Services
Vocational Rehabilitation Services
Child Day Care Services
Independent Artists, Performing Arts, Spectator Sports and Related Industries
Museums, Art Galleries, Historical Sites, and Similar Institutions
Religious Organizations
Civic, Social, Advocacy Organizations and Grant Making And Giving Services
Labor Unions
Business, Professional, Political and Similar Organizations
Executive Offices and Legislative Bodies
Public Finance Activities
Other General Government and Support
Justice, Public Order, and Safety Activities
Administration of Human Resource Programs
Administration of Environmental Quality and Housing Programs
Administration of Economic Programs and Space Research
National Security and International Affairs
U.S. Army
U.S. Air Force
U.S. Navy
U.S. Marines
U.S. Coast Guard
U.S. Armed Forces, Branch Not Specified
Military Reserves or National Guard

**Services and Other Retail Industries**

Automobile Dealers
Other Motor Vehicle Dealers
Auto Parts, Accessories, and Tire Stores
Furniture and Home Furnishings Stores
Household Appliance Stores
Radio, TV, and Computer Stores
Building Material and Supplies Dealers
Hardware Stores
Lawn and Garden Equipment and Supplies Stores
Grocery Stores
Specialty Food Stores
Beer, Wine, and Liquor Stores
Pharmacies and Drug Stores
Health and Personal Care, Except Drug, Stores
Gasoline Stations
Clothing and Accessories, Except Shoe, Stores
Shoe Stores
Jewelry, Luggage, and Leather Goods Stores
Sporting Goods, Camera, and Hobby and Toy Stores
Sewing, Needlework and Piece Goods Stores

Music Stores
Book Stores and News Dealers
Department Stores
Miscellaneous General Merchandise Stores
Florists
Office Supplies and Stationary Stores
Used Merchandise Stores
Gift, Novelty, and Souvenir Shops
Miscellaneous Stores
Electronic Shopping and Mail-Order Houses
Vending Machine Operators
Fuel Dealers
Other Direct Selling Establishments
Not Specified Trade
Motion Pictures and Video Industries
Sound Recording Industries
Automotive Equipment Rental and Leasing
Video Tape and Disk Rental
Other Consumer Goods Rental
Commercial, Industrial, and Other Intangible Assets Rental and Leasing
Computer Systems Design and Related Services
Advertising and Related Services
Employment Services
Business Support Services
Travel Arrangements and Reservation Services
Investigation and Security Services
Services to Buildings and Dwellings
Other Administrative, And Other Support Services
Advertising and Related Services
Employment Services
Business Support Services
Travel Arrangements and Reservation Services
Investigation and Security Services
Services to Buildings and Dwellings
Other Administrative, And Other Support Services
Other Amusement, Gambling, and Recreation Industries
Traveler Accommodation
Recreational Vehicle Parks and Camps, and Rooming and Boarding Houses
Restaurants and Other Food Services
Drinking Places, Alcohol Beverages
Automotive Repair and Maintenance
Car Washes
Electronic and Precision Equipment Repair and Maintenance
Commercial and Industrial Machinery and Equipment Repair and Maintenance
Personal and Household Goods Repair and Maintenance
Barber Shops
Beauty Salons
Nail Salons and Other Personal Care Services
Dry-cleaning and Laundry Services
Funeral Homes, Cemeteries and Crematories
Other Personal Services
Private Households