Report of the Equal Pay Commission

September 30, 2006

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Table of Contents

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I) Executive Summary

In the ten-month time frame since the appointment of the Equal Pay Commission, the Commission held nine meetings; reviewed a comprehensive literature search, which summarized data on gender-based and race-based wage disparities; received and accepted an offer of assistance from the Institute for Women's Policy Research (IWPR) to conduct a study on wage disparities in Maryland; reviewed information from the staff at the Maryland Human Relations Commission Counsel's office; conducted research into Pay Equity Best Practices; contacted interest and advocacy groups; and considered and discussed Commission findings, data, possible recommendations and report content. Although hampered by a lack of data and limited resources, the Commission's report, with its attachments, creates a foundation on which to build equal pay initiatives in Maryland.

A key finding in the IWPR report captures the extent of the challenge in Maryland:

> "*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.*"

Although these statistics are consistent with the picture on a national basis, they confirm that there are wage gaps based on both gender and race in the State, particularly in the private sector. The Commission was hampered from reviewing the gaps and related factors by time, data and budget limitations. Therefore, the Commission's first three recommendations relate directly to establishing a mechanism for additional study and effective implementation of changes. The final three recommendations provide shorter term strategies that could have an immediate impact on existing wage disparities:

- Create an On Going Commission
- Assign Effective Equal Pay Authority to a State Agency
- Develop and Implement a Consistent and Comprehensive Data Collection System
- Encourage Implementation of Family Friendly Work Policies
- Provide for Effective Administration and Enforcement of Existing Laws
- Gather and Disseminate Best Equal Pay Practices

II) Background

The 2004 Maryland General Assembly passed **SB 250, Labor and Employment – Equal Pay Commission**, for the purpose of establishing an Equal Pay Commission to study certain issues relating to equal pay and to report preliminary and final findings to the Governor, the Senate and the House. The Commission was to be staffed by the Department of Labor, Licensing and Regulation and the bill was to take effect on October 1, 2004.

On May 25, 2004, Governor Robert L. Ehrlich, Jr. vetoed Senate Bill 250 for policy reasons, in accordance with Article II, Section 17, of the Maryland Constitution. On January 11, 2005, the General Assembly overrode the Governor's veto and the bill became law in accordance with Maryland's Constitution. The Governor appointed the Commission in November, 2005. The Commission provided a preliminary report in March 2006 and is herein submitting its final report on September 30, 2006. Due to the delays in implementation, the Commission conducted its work in a ten month timeframe, in nine meetings; as opposed to a twenty-four month time frame.

III) Commission

A) Commission Membership. The Governor appointed the following members (See Appendix A) for the noted positions:

1) Business Representatives: Phyllis M. Burlage, Chairperson, and Ellen H. Levi
2) Labor Representatives: Evelyn McCarter and Vincent Canales
3) Organizational Representatives: Glendora Hughes, Esq. and L. Tracy Brown, Esq.
4) Higher Education Representatives: George Georgiou, Ph.D.; George LaNoue, Ph.D.; and Gena Proulx, Ph.D.

B) Commission Meeting Schedule. The Commission held its first meeting on December 8, 2005 in Baltimore, Maryland and agreed to meet monthly on the third Wednesday of the month. Meeting dates were: January 18, February 15, March 15, April 19, May 17, June 21, July 19, August 23, and September 20, 2006.

C) Commission Charge. The Commission was charged with studying:

1) "The extent of wage disparities, both in the public and private sectors, between men and women and between minorities and nonminorities;

2) Those factors which cause, or which tend to cause, the disparities, including segregation between women and men and between minorities and nonminorities across and within occupations, payment of lower wages for work in female-dominated occupations, child-rearing responsibilities, the number of women who are heads of households, education, hours worked, and years on the job;

3) The consequences of the disparities on the economy and families affected; and

4) Actions that are likely to lead to the elimination and prevention of the disparities."

D) Commission Process. The Commission relied on a number of different techniques to obtain information for this report. As a starting point, a comprehensive literature search was conducted. Two papers looking at the national picture, which summarized the data on gender-based and race-based wage disparities, were prepared by Commission Staff. The papers are appended to this report (Appendix B and C) and information from them is used in the report. Although national data and literature searches provided an interesting perspective, the Commission agreed that it was critical to have Maryland–specific data on which to base its report and recommendations.

The Commission was fortunate to receive an offer of assistance from the Institute for Women's Policy Research (IWPR). On behalf of the Commission, IWPR conducted a study using the U.S. Census Bureau's American Community Survey Public Use Microdata Files (ACS PUMS), which captures employment-related information both for the previous year and for the week before the survey fielding date and a complete battery of demographic information. Three years of data, from 2002 to 2004, were pooled to get a large enough sample for the analysis. The IWPR study is appended to this report (Appendix D) and data from it are used in the report. It should be noted that in this report when wages are discussed, hourly wages are generally the focus; when earnings are discussed, the focus is on annual earnings.

In addition, the Commission looked at Equal Pay and Maryland Human Relations Commission Complaints. Reports prepared by the Maryland Human Relations Commission Counsel's Office are attached (Appendix E and F) and excerpted in this report.

In its review of Maryland data, the Commission believes that there is a great need to gather relevant data from public and private employers to capture an accurate picture of if and why diverse groups of Maryland employees are not being paid equally. The Commission also found a severe lack of data specifically applicable to Maryland employers and employees as it relates to the Equal Pay Act. If Maryland wants State-based statistics to compare itself nationally, it needs to create a data base and institute a better data collection methodology for obtaining this information. Attempts to obtain Maryland-specific wage disparity data from federal agencies such as the Equal Employment Opportunity Commission (EEOC) and the Department of Labor (DOL) did not yield the type of information needed.

Commission staff conducted research into Pay Equity Best Practices on an international, national and local level and looked at data on the economic impact of the wage gap. In addition, a number of interest and advocacy groups were contacted and provided the opportunity to provide input to the Commission. The materials submitted were considered by Commission members in formulation of the report. A list of the organizations from which materials were reviewed is Appendix G. At its last three meetings, the Commission considered and discussed possible recommendations and report content.

IV) Findings

A) Extent of Disparities and Factors. In considering the questions of:

1) "The extent of wage disparities, both in the public and private sectors, between men and women and between minorities and nonminorities, and

2) Those factors which cause, or which tend to cause, the disparities, including segregation between women and men and between minorities and nonminorities across and within occupations, payment of lower wages for work in female-dominated occupations, child-rearing responsibilities, the number of women who are heads of households, education, hours worked, and years on the job;"

on the basis of the research conducted, this is what we know:

a) Nationally – Wage Gap - Gender-Based

According to a study on gender-based wage disparities conducted by the United States General Accounting Office, without adjusting for certain relevant factors that affect wages, women in the U.S. earned 44% less than men during the period of the 1983-2000 (GAO, 44). However, once certain relevant factors were incorporated into the equation, the gap dropped to 21%. Among the significant factors were work patterns, choice of industry, choice of occupation, race, marital status, and job tenure. The two major factors seemingly affecting wages are the differences in industries and occupations females and males choose, and the work patterns they have at those jobs (GAO, 10). The differentiation that occurs in terms of education and the differences in choice of industry and occupation and in work patterns are explored below.

Education

Differences in career choices between men and women are documented at the college level. Men more often choose majors that are hard sciences; while women choose those involving humanities and education. In 2000, women earned only 36% of all physical science degrees, 27% of all degrees in computer and information sciences, and a mere 17% in engineering (BPWF, 6).

Choice of Industry and Occupation

Gender roles are still clearly visible within the job market as women and men are often concentrated into occupations and job titles that they do not share with the opposite sex. So called "women's jobs" and "men's jobs" still exist within the market, and typically those traditionally held by men tend to pay more than those traditionally held by women.

In "Still a Man's Labor Market," Rose and Hartman look at the job market in terms of three tiers - elite, good, and less-skilled jobs. They find that in the elite tier, women are concentrated in teaching and nursing; while men are business executives, scientists, doctors, and lawyers. In middle tier jobs, women are secretaries, while men are blue collar workers; and in the lower tier, women are sales clerks, while men work in factory jobs. Within each of the six gender-tier categories, at least

75% of the workers are of one gender; and in each tier, women's jobs pay significantly less than those of male counterparts (Rose, iv).

Whether the differences in the choices made by men and women are a result of conforming to societal norms or are free choices cannot be definitively concluded, but they exist. Still, the question of why professions typically chosen by women pay less remains. Rose and Hartman's "Still a Man's Labor Market" suggests that jobs chosen by men within each tier of the labor force are typically more skilled or onerous than those chosen by women.

Work Patterns

The other major factor affecting earning differences between men and women is work patterns including the number of hours worked per year, years of experience in the labor force, and the amount of leave taken. The GAO study found that women on average have fewer years of work experience than men (men have 16 years of experience, while women have 12), work fewer hours per year (men work 2147, while women work 1675 – a difference of 472 hours per year), are less likely to work a full-time schedule, and leave the labor force for longer periods of time than men (GAO, 11-12). Taking these differences into consideration, may partially explain why women earn less than men, since they work fewer hours than men.

A fifteen-year longitudinal study conducted by the IWPR and summarized in "Still a Man's Labor Market" found that women who spent most of the study period married earned less because they had more years out of the labor force; whereas, women who were only married for a few years spent more time in the work force. Along the same lines, women who had children present for ten to fifteen years during the study period had the lowest earnings, while women who had children for two years or less earned nearly $9,000 more per working year on average.

National research conducted by IWPR showed that 52% of women have at least one complete calendar year without any earnings in comparison to only 16% of men. A career interruption of one year or more can have a serious impact on one's career and earnings regardless of whether it is a man or a woman (Rose, iii). In addition, the demands of motherhood lead women to make other choices that affect their careers. According to Furchtgott-Roth and Stolba in "Women's Figures," in order to accommodate familial needs, women tend to choose occupations where job flexibility is high, salaries are lower, and job skills deteriorate at a slower rate than others ((Furchtgott-Roth, 13).

In research conducted by the Maryland Federation of Business and Professional Women, results showed that 77.85% of working women reported that flexible work schedules are of moderate or major importance to them, while half of those women reported that having opportunities to work part-time is of moderate or major importance to them (BPWF, 5).

To sum up, women in many professions are making decisions to balance work and family priorities and those decisions result in fewer women reaching the top of their fields. The fact that women work fewer hours per year, are less likely to work a full-time schedule, and leave the labor force for longer periods of time than men, affects both the amount of money women make and the perception of their value in the work force.

Unexplained Disparity

In the GAO report, once measurable factors such as choice of industry, choice of occupation, and work patterns were added into the equation, the 44% difference between the earnings of men and women dropped to 21% (GAO, 29). Other studies have found approximately the same results. So, how can the other 21% be explained? Simply, not all factors that could possibly affect wage disparity are measurable. Moreover, it is virtually impossible to come up with every factor that could possibly affect wages (GAO, 19-20). Certainly, other factors exist that have yet to be studied and tested. In addition, there is the possibility of discrimination ("just because you are a woman, I will pay you less"). However, measuring that possibility by examining statistical aggregates, either nationally or in a particular state, is complicated because of the number of variables involved.

b) Nationally – Wage Gap- Race/Ethnicity Based

Just as a wage gap can be found in earnings of men and women, a wage gap exists among some racial and ethnic groups in America. In some instances, research suggests various answers as to what factors impact the wage gap – education, differences in work patterns, differences in choice of industry/occupation, skill disparity, language disparity, economic changes and discrimination. Each of these possibilities has different policy implications.

Education

Enrollment and Completion Rates

Level of education plays an important role in how much one earns and will earn in the future. U.S. rates of enrollment are very similar among all groups for high school; however Hispanics' and blacks' rates of high school completion are lower than those of whites and Asians. In terms of college enrollment, college enrollment of whites is at 23%, of blacks is at 20%, of Hispanics is at 16%, and of Asians is at 35%. For full time college enrollment, whites' is at 16%, blacks' at 13%, Hispanics' at 10%, and Asians' at 26% (U.S. Census - 2). As demonstrated below, in data from the Integrated Postsecondary Education Data System (IPEDS) Graduation Rate Survey published in 2003, rates of enrollment do not tell the whole story; completion rates provide insight into educational differences:

Table 1: Group Completion Rates

Race/Ethnicity	High School*	College**
White	91.8%	59%
Black	83.7%	40%
Hispanic	64.1%	42%
Asian	94.6%	64%

* 18- through 24-year-olds who had completed high school, by race/ethnicity: October 2000
** First-Time-In-College, Bachelor-Degree-Seeking Students Enrolled fall 1997 Who Graduated from the same College or University by August 2003, IPEDS GRS.

A gap exists also in advanced degrees. According to the U.S. Census Survey of Income and Program Participation of 2001, out of the total 16,180,000 advanced degrees held by people in America, 82.4% were held by whites, 6% were held by blacks, 3.6% were held by Hispanics, and the rest by other minorities (U.S. Census – 1). As the data reveals, at practically all levels of education, blacks and Hispanics have a lower level of participation and completion.

Education - Outcomes

According to various research, level of education and earnings have a positive correlation. A study conducted by the U.S. Census Bureau and published in "The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings" displayed this correlation. Although blacks and Hispanics earn less than whites of roughly the same level of education, there is a great return on education for all racial and ethnic groups. In fact, the return on education is greater for blacks and Hispanics, because in calculating the increase in earnings of a person who starts out without even a high school degree and then works his way up to an advanced degree, the increase in earnings for whites is 280%, while for blacks and Hispanics it is 315%. While various data demonstrate that blacks and Hispanics have less education than whites and Asians when measuring by degrees earned, the question that remains is why an earnings gap remains for people of roughly the same level of education but of different racial or ethnic groups. One explanation is that the data available often does not control for both level of education and years of experience, nor does it control for quality of education.

Education - Parents

Wages are not only affected by the level education of the individual, but also correlate to the level of education of the individual's parents. For whites and blacks whose parents had less than a college education, whites consistently earn more than blacks. However, in a situation where the parents had some college education or more, blacks earn more than their white counterparts (Black, 19).

Choice of Industry and Occupation

As shown in Table 2, differences between racial and ethnic groups can be found in their choices of industry and occupation.

Table 2: Occupational Data for Employed Population 16 and over*

Race/ Ethnicity	Management/ Professional	Service	Production/ Transportation/ Materials Moving
White	35.6%	13.4%	13.6%
Black	25.2%	22.0%	18.6%
Hispanic	18.1%	21.8%	21.2%
Asian	44.6%	14.1%	13.4%

*Original Source: U.S. Census Bureau, 2000. "Profile of Selected Economic Characteristics." Census 2000, Summary File 4, QT-P28.

These statistics beg the question why people of different races end up in different occupations. One answer is obvious – differences in education; because a great percentage of blacks and Hispanics do not acquire a high school or a college degree, they work jobs in service,

production, transportation, and material moving. Another reason may be the existence of so called "ethnic niches." New York City provides a broad example of ethnic niches; there, Hispanics predominantly work in construction, Asians run laundromats and dry cleaning businesses, fire fighters are generally white males. While such niches can help members of the prevalent racial or ethnic group at that job obtain a job by providing training and shelter from discrimination, the ethnic segregation may lead to lower pay and may constrain job mobility. Once an ethnic niche is created in a certain occupation or industry, the desirability and availability of the job becomes limited (Spalter-Roth, 5).

Work Patterns

Labor Force Participation

Various resources, including the U.S. Census Bureau, show that a greater percentage of black and Hispanic men than white and Asian men do not participate in the labor force; of those people who are in the labor force, there are twice as many blacks unemployed as whites. Moreover, blacks and Hispanics tend to work fewer weeks per year and fewer hours per week, are overrepresented in temporary and on-call work, and tend to be unemployed for longer periods of time than whites. Rates of participation in the labor market, as well as rates of employment and unemployment are one way to compare work experience among racial and ethnic groups, which could explain some of the gap in wages and earnings. Whether it is by choice or due to other factors, statistically, black, Hispanic, and, to a lesser extent, Asian people overall are employed less than whites (Spalter-Roth, 2).

Table 3: Labor Force Participation, Employment, Unemployment in 2000*

Race/Ethnicity	In Labor Force	Employed	Unemployed
White	64.6%	61.1%	3.0%
Black	60.2%	52.5%	6.9%
Hispanic	61.4%	55.2%	5.7%
Asian	63.3%	59.7%	3.2%

*Original Source: U.S. Census Bureau, 2000. "Profile of Selected Economic Characteristics." Census 2000, Summary File 4, DP-3.

Number of Weeks Worked

The differences in number of weeks worked per year and number of hours worked per week by the different racial and ethnic groups may also reveal information about the gap in wages and earnings. According to the California labor market data, among all working men compared in 2000, blacks worked 46 weeks per year on average, while whites worked 48. In terms of hours worked per week, blacks and Hispanics worked about 41 hours per week, while whites worked 44 hours per week (Reed). This is also reflected when hourly wages are compared to annual earnings. According to "Basic Skills and the Black-White Earning Gap" by Neal and Johnson, black men in America earn 48% less per year than whites of the same age, even though their wages are only 24% lower (Johnson, 12). This statistic suggests that black men may be working less time overall.

Temporary and Part-time Jobs

The type of jobs people hold can greatly affect their wages also. According to "The Big Payoff," the earnings of workers who work full time year round tend to be significantly higher than the earnings of workers who work part time or just part of the year (Cheeseman Day, 2). When compared to whites, the participation of blacks and Hispanics in non-standard work (regular part-time, temporary help agency, on-call/day labor, self employed, independent contractor) is proportional to the size of its population, and maybe even slightly low. However, in two worst areas of non-standard jobs - temporary and on-call labor - both of which tend to pay little and offer few benefits, if any, blacks and Hispanics are over represented. While blacks made up only 12% of the U.S. population in 1997, they made up 20% of all temporary workers in the U.S. In the same year, Hispanics represented 13% of the temporary workers and were 15% of all on-call/day laborers (Hudson, 12). Moreover, whether people work full-time or non-standard jobs is often closely tied to their level of education. For example, according to "The Big Payoff," high school dropouts are less likely to work full time and year round than people with bachelor's degrees. While only 65% of high school dropouts worked full time and year round in 2000, 77% of people with bachelor's degrees worked the same amount (Cheeseman Day, 2).

Skill Disparity

One important factor affecting the wage gap between racial and ethnic groups is skill. While looking at the level of education has been the traditional and common way to determine one's ability level and predict future wages, recent researchers have contended that this information can be misleading because the quality of schools and intensity of education in different schools vary greatly in America. Just as age is not a valid predictor of one's level of education, the amount of schooling one has does not truly reveal ability.

In "The Role of Premarket Factors in Black-White Wage Differences" Derek Neal and William Johnson discuss a different measure of education - skill. For their research, Neal and Johnson used the scores from the Armed Forces Qualification Test (AFQT) found in the National Longitudinal Survey of Youth, to examine the black-white wage gap among workers in their late twenties (age 26-29). The AFQT is known to be a racially unbiased measure of basic skills that helps predict job performance, and is often used in military testing. The data set included a sample of individuals who were tested at ages 16-18, just before they entered the labor force full time or began their secondary education. Testing for math and reading skills, the results of the test revealed that three-fourth of the racial wage gap for men is due to a skill disparity. For women, the test scores explained all of the wage disparity. In fact, when the AFQT scores were held constant for white, black, and Hispanic women, black and Hispanic women earned more than white women.

The information on skill disparity begs for some explanation for the cause of the skill disparity between racial and ethnic groups. According to Neal and Johnson, the ability disparity can be explained by varying school and home environments. In fact, the authors found that children's scores on the AFQT correlated with the level of education and the professional status of their parents, the number of children in the family, measures of family reading material, and school characteristics of the children (including student/teacher ratio, disadvantaged student ratio, dropout rate, teacher turnover rate) (Neal, 887). These factors may vary by race and ethnicity. According to Carneiro, Heckman, and Masterov, however, most of the important factors would be those related to the family environment, since ability gaps are substantial before children even enter school.

Among the factors they mention are measures of family background, family income, mother's level of education, home environment, and mother's cognitive ability.

Disparity exists among racial and ethnic groups before school begins. Now we must address why this gap widens as the children get older and obtain more education. The positive effect of schooling on test scores is much larger for whites and Hispanics than it is for blacks. This could be explained by the fact that whites, and blacks and Hispanics start school at different levels; since blacks and Hispanics start with lower skills than whites, their subsequent progress and success is less than that of whites. The quality of schools attended by black and Hispanic children in comparison to white children could also explain the lower effect of schooling on the former group relative to the latter group. Thus, differential initial conditions and differential school quality may also be important determinant of the adult black-white skill gap (Carneiro, 14-17).

Immigration and Language Disparity

Language disparity plays an important role in wage determination. According to "Labor Market Costs of Language Disparity: An Interpretation of Hispanic Earnings Differences," language ability explains up to one-third of the relative wage difference between Whites and Hispanics in America. The wage disparity that is usually attributed to ethnicity, nativity, and time in the United States can in fact be explained by differences associated with English language skills. (McManus 818)

Similar results were found in "Why Do Minority Men Earn Less?" Here, the authors found that the status of immigration and whether English is spoken at home both affect earnings. Generally for non-immigrants, if a language other than English is spoken at home, the people earn less than those who speak only English at home. When comparing all immigrants, those who do not speak English at home earn substantially less than those who do. Moreover, when all people who do not speak English at home are compared, the immigrants earn substantially less than non-immigrants. Thus, it can be concluded that one's immigration status as well as what language one speaks at home both affect earnings. (Black 16-17)

Economic Changes

According to the U.S. Department of Labor, there are other things that could affect the wage disparity, and in fact made earnings more unequal during the 1980's and 1990's – these are technological change, trade liberalization, increased immigration, value of the minimum wage, and declining unionization. The economy has transitioned from being driven by manufacturing to information. Thus, as technology continues to advance, the demand for skilled workers who are able to operate the advanced technology and contribute to its development continues to grow. Moreover, technological advancements are causing the replacement of lesser-skilled jobs with automated devices, and thus demand for lesser-skilled workers is dropping. This situation is aggravated by the increase in immigration that has been occurring since 1965. Particularly, less-skilled workers with lower education levels have and continue to immigrate to the U.S., which increases the competition for unskilled jobs and drives wages down for unskilled-workers. Expanded trade also drives down the wages of low-skilled workers because it displaces the goods they produce. A decline in unionization in the 1980's has also contributed to increased wage inequality, because fewer workers are impacted by collective bargaining. Finally, the minimum wage fell in real terms during both the 1970's and 1980's reaching a level in 1990 significantly below its 1960 level.

c) Maryland-Specific

The Commission relied on several general sources of materials regarding wage disparities and the issue of equal pay in Maryland. Two sources were specifically developed for the Commission to consider Maryland-specific information and are discussed herein. These are the study conducted by IWPR on behalf of the Commission and two memoranda prepared by staff of Maryland Human Relations Commission.

i) IWPR Study

Based on 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 prepared by the Institute for Women's Policy Research (from a dataset from the 2002 through 2004 files of the American Community Survey) the key findings in the IWPR report are included below::

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.)

- 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." (IWPR 1-2)

ii) Maryland Human Relations Commission (MCHR) Reports

Commission member Glendora C. Hughes, General Counsel, Maryland Human Relations Commission (MCHR) provided statistics on complaints processed by the MCHR that involve wages. In the period between January 1, 2004 and December 7, 2005, the statistics show that out of 829 total issues involving race, 56 involved wage issues and out of 636 involving sex, 35 involved wage issues. The Division of Labor and Industry reports receiving no Maryland Equal Pay Act complaints during the past ten years.

MCHR staff provided two memoranda on existing law and case law regarding the Maryland Equal Pay Act (MEPA) and race-based wage disparity complaints. The memo prepared by MCHR legal staff regarding gender-based Equal Pay Complaints concludes that it "appears that most employees are either unaware of MEPA, are using the federal EPA to file a claim, or are mistakenly filing a claim under MEPA but are establishing a prima facie case under federal EPA elements. In addition, the lack of appellate case law can probably be attributed to the lack of claims under the MEPA."

In the race-based wage MCHR memo, MCHR Commission Counsel staff did not find as much information as in the gender-based memorandum. They attribute this to three possible causes: "First, Title VII claims are construed in harmony with EPA in spite of Title VII prohibiting a broader range of discrimination. Second, Exhibits 1 and 2 suggest data for Title VII does exist suggesting Title VII suits have been filed; however, statistics do not further distinguish the type of discrimination. For example, the U.S. Equal Employment Opportunity Commission [hereinafter EEOC] race discrimination statistical data in Exhibit 1 could encompass race discrimination in hiring, promotion, or compensation. However, there is no distinction among each category. The same can be echoed with the EEOC national origin discrimination statistical data in Exhibit 2. Research of cases from around the country and law reviews was conducted; however, the focus was wage discrimination in light of gender instead of race. Last, the lack of race-wage discrimination cases may also be the result of potential plaintiffs being discouraged from discussing their salaries or not being aware that race-wage discrimination has or is occurring." (MCHR 6 Appendix F)

These reviews of gender-based and race-based complaint systems point to two separate but intertwined recommendations. First, the MEPA needs to be carefully reviewed to determine what impediments exist to filing claims and those impediments need to be addressed. From a preliminary discussion with DLLR staff, it is clear that there is no funding for administration or enforcement of the Maryland Equal Pay Law. In addition there are parts of the law that need to be reviewed and

may need to be strengthened. In the review of other state laws, ways of strengthening the Maryland EPA law are studied. Secondly, it is clear that data is an underlying impediment to understanding the Equal Pay Issue. It appears that improvements both on the federal and state level on data retention may be desirable.

B) Consequences - With regard to the consequences of the disparities on the economy and families affected, the Commission believes that given the lack of Maryland-specific economic data available and the complexity of the causes leading to wage disparities, few conclusions can be drawn on the consequences of the disparities. Although the Commission looked at estimates of the dollar losses to women due to wage disparities, it is difficult to draw specific reliable conclusions related to the Maryland economy from those materials.

The Commission does believe that given the fact that data shows that more minority families are headed by female single parents, the wage disparities serve to amplify the existing unequal distribution of income. This coupled with inferior educational opportunities and limited mobility suggests that the disparities will remain unchanged or increase, unless intervention occurs.

From an economic perspective, the Commission does not believe that addressing the disparities will necessarily increase the overall percentage of GDP that is spent on wages. Rather, there would be a re-distribution of wages without increasing total wage expenditures in the economy or the total number of workers employed.

One additional impact the Commission would comment on is the impact on those who discriminate against women and minorities in terms of wages. According to Art Diamond's web log, in "The Economics of Discrimination," Gary Becker argued that "those who discriminate in the labor market pay a price for their prejudice in the form of having to pay higher wages. Those who do not discriminate have open to them an additional pool of workers, whose talents will contribute to the firm's bottom line." (Diamond 1)

C) Literature Analysis - Actions that may lead to the elimination and prevention of disparities

The General Assembly asked the Commission to report on "actions that are likely to lead to the elimination and prevention of the disparities." In researching this charge, the Commission relied on a review of international, national and local literature to identify actions to assist in the elimination and prevention of disparities. A number of organizations identified possible strategies with the potential to reduce disparities. The strategies are highlighted below.

Strengthen Legal Remedies – Legislative initiatives, which would lead to more effective enforcement of equal pay laws, including model legislation to:

- provide for enhanced penalties for violating the equal pay act,
- require employers to post rights and remedies and conduct regular equal pay reviews,
- establish alternative dispute resolution methods, and
- allow claims to be brought on behalf of groups of employees.

Remedy Wage Disparities -- Implementing wage adjustment to correct inequities, raising the

Minimum Wage, and bargaining strategies.

Work Life Initiatives –Supporting part time and flexible working, including telecommuting options; and providing for accessible, affordable and high quality childcare options for women.

Education of Workers – Educating workers about rights and remedies and developing and supporting adequate community outreach education capacity.

Pay Equity Audits –Encouraging or requiring the use of pay equity self-audits, providing technical assistance to employers, creating and using software to analyze pay structures, and developing an individualized plan to address audit findings.

Best Practices – Documenting best practices for employers and developing model policies for the public and private sectors, recognizing employers that have best practices and providing technical assistance to employers.

Data Collection – Improving data collection systems and requirements.

Education – Insuring equal educational opportunities for women and minorities and providing professional development opportunities.

Public Relations – Educating the public about the extent of disparities and prevention strategies.

*Government Procurement Practices –E*nhancing employment opportunities for underrepresented workers in the higher-paying non traditional jobs, apprenticeships and the trades, on federal projects; and promoting gender equality by contracting government projects to those companies that comply with gender and race equality policies.

V) Commission Recommendations

The Commission believes that additional research and ongoing data gathering are critical to addressing wage disparity issues between men and women and minorities and non-minorities in Maryland. The research that was conducted by and on behalf of the Commission confirms that there are wage gaps based on both gender and race in the State, particularly in the private sector. The Commission was hampered from reviewing the gaps and related factors by time, data and budget limitations. Therefore, the Commission's first three recommendations relate directly to establishing a mechanism for additional study and effective implementation of changes. The final three recommendations provide shorter term strategies that could have an immediate impact on existing wage disparities.

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A) Create an On Going Commission - The Commission recommends the creation of an ongoing Commission charged with continuing the work started herein and provided with staff and funding to pay for additional studies into the wage disparities, related factors and possible remedies. Integral to this recommendation is the need to do comprehensive reviews of compensation systems to determine effective systems in different sectors.

B) Assign Effective Equal Pay Authority to a State Agency - Assign to a State agency the authority to effectively develop policies that systematically address the equal pay issue and to enforce the Maryland Equal Pay Act. Allocate the requisite resources to ensure effective implementation of these responsibilities.

C) Develop and Implement a Consistent and Comprehensive Data Collection System - The Commission was hampered by the need to have reliable Maryland-specific data that can provide detailed information on the wages being paid to men and women and minorities and non-minorities in Maryland. There simply was not sufficient data readily available to fully explore the issues set before the Commission. Therefore, the Commission recommends the development and implementation of a comprehensive mechanism for gathering consistent and comprehensive data on wage disparity issues.

D) Encourage Implementation of Family Friendly Work Policies - The Commission believes family friendly work policies could encourage the retention of women in the work force. Policies addressing issues such as family leave, affordable child care and sick leave need to be considered.

E) Provide for Effective Administration and Enforcement of Existing Laws - The Commission believes that by improving the Maryland Equal Pay Law and providing for its administration and enforcement, the State could further narrow wage gaps in the State.

F) Gather and Disseminate Best Practices - A multi-faceted approach is necessary to address wage disparities. The Commission recommends a comprehensive strategy of gathering best practices on a number of critical issues and ensuring that the information is disseminated and available to individuals, employers and policy makers.

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VII) List of Appendices

Appendix A – List of Members and Affiliations
Appendix B –Report to the Maryland State Commission on Equal Pay - Gender-Based Wage Disparities
Appendix C – Report to the Maryland State Commission on Equal Pay -Race-Based Wage Disparities
Appendix D – Report to the Maryland Equal Pay Commission from the Institute for Women's Policy and Research (IWPR), July 19, 2006
Appendix E – Memorandum - Maryland Commission on Human Relations - Equal Pay Act
Appendix F – Memorandum- Maryland Commission on Human Relations - Title VII -Wage-Race Discrimination Overview
Appendix G – Organizations (forthcoming)

Equal Pay Commission Members

Business Representatives

Phyllis M. Burlage — **Chairperson**
Accountant
Severna Park

Ellen H. Levi
Business Owner
Owings Mills

Labor Representatives

Evelyn Ruth McCarter
Assistant Director, AFSCME
Baltimore

Ismael V. Canales
1st Vice President
Lodge 89, Fraternal Order of Police
Prince George's County

Organizational Representatives

Glendora C. Hughes, Esq.
General Counsel
Maryland Human Relations Commission
Baltimore

L. Tracy Brown, Esq.
Executive Director,
Women's Law Center of Maryland, Inc.
Towson

Higher Education Representatives

George Georgiou, Ph.D.
Professor and Chairman, Department of Economics
Towson University
Towson

George LaNoue, Ph.D.
Professor of Political Science
Public Policy Graduate Program
University of Maryland Baltimore County
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Joliet, Illinois
(Former President CCBC Dundalk-Essex, Baltimore, MD)

Report to the Maryland State Commission on Equal Pay

Table of Contents

Introduction

Wage disparity between men and women has been a controversial topic on the minds of various interest groups, politicians, and individuals for several decades. There are several theories about why such disparities exist. According to a study conducted by the United States General Accounting Office, without adjusting for factors that affect wages, women earned 44% less than men during the period of the 1983-2000 (GAO, 44). However, once those factors were incorporated into the equation, the gap dropped to 21%. In recent years the gap is decreasing and, in Maryland, it is substantially less than in most other states. Among the significant factors were work patterns, choice of industry, choice of occupation, race, marital status, and job tenure. In consulting other similar studies and sources, the two major factors seemingly affecting wages are the differences in industries and occupations females and males choose, as well as the work patterns they have at those jobs (GAO, 10).

Differences in Types of Jobs and Industries

While the United States has come a long way since the time when most women were housewives, gender roles are still clearly visible within the job market as women and men are often concentrated into occupations and job titles that they do not share with the opposite sex. So

called “women’s jobs” and “men’s jobs” still exist within the market, and typically those traditionally held by men tend to pay more than those traditionally held by women. In “Still a Man’s Labor Market,” Rose and Hartman look at the job market on a three-tier schema of elite, good, and less-skilled jobs. They find that in the elite tier, women are concentrated in teaching and nursing, while men are business executives, scientists, doctors, and lawyers. In the middle tier jobs, women are secretaries while men are blue collar workers, and in the lower tier, women are sales clerks while men work in factory jobs. Within each of the six gender-tier categories, at least 75% of the workers are of one gender, and in each tier women’s jobs pay significantly less than those of their male counterparts (Rose, iv).

These facts beg the question why men and women choose such different professions and why those chosen by women pay less. First, differences in career choices can be seen between men and women as far back as to the college experience. Men more often choose majors that are hard sciences, while women choose those involving humanities and education. In 2000, women earned only 36% of all physical science degrees, 27% of all degrees in computer and information sciences, and a mere 17% in engineering (BPWF, 6). Whether the differences in the choices made by men and women are a result of conforming to societal norms or are free choices can’t be definitively concluded, but they exist.

Still, the question of why professions typically chosen by women pay less, remains. Rose and Hartman’s “Still a Man’s Labor Market” suggests that jobs chosen by men within each tier of the labor force are typically more skilled or onerous than those chosen by women. The professions of doctor (typically chosen by men) and nurse (typically chosen by women), while both in the top tiers of the job market for their gender, require different levels of education, different number of work hours, and provide different opportunities for leave. For all three

factors, nurses have an easier path – their training requires many less years of schooling, the job allows for a much less demanding, more flexible and more consistent work schedule, as well as more opportunity for leave time (Rose, iv). This scenario leaves one wondering, "do certain jobs pay less because predominantly women work there, or do women choose jobs that are less demanding, and as a result, pay less?"

Work Patterns

The other major factor affecting earning is work patterns including the number of hours worked per year, years of experience in the job force, and the amount of leave taken. The GAO study found that women on average have fewer years of work experience than men (men have 16 years of experience, while women have 12), work fewer hours per year (men work 2147, while women work 1675 – a difference of 472 hours per year), are less likely to work a full-time schedule, and leave the labor force for longer periods of time than men (GAO, 11-12). Taking these differences into consideration, may partially explain why women earn less than men, since they work fewer hours than men.

Family Matters – Marriage and Children

But why do these differences in work patterns exist between men and women? According to Furchtgott-Roth and Stolba in "Women's Figures," the difference seen in the work patterns of men and women can be explained by the personal choices made outside of work by the two genders. According to them, marriage and children have a major effect on women's earnings (Furchtgott-Roth, 12). The fifteen- year longitudinal study conducted by the IWPR and summarized in "Still a Man's Labor Market" found that women who spent most of the period of

the study married earned less because they had more years out of the labor force; whereas, women who were only married for a few years spent more time in the work force. Along the same lines, women who had children present for ten to fifteen years during the study period had the lowest earnings, while women who had children for two years or less earned nearly $9000 more per working year on average. The study showed that the opposite was true for men; those with children present in the house for a longer period of time earned more money (Rose, 25-27). Professor Jane Waldfogel, conducted a similar study in 1991, comparing adjusted wage gap between men and women with the same experience and education for mothers and women without children. Like the findings of IWPR, her research showed that women without children made 95% of men's wages, all other factors accounted for, while mothers made 75% of men's wages (Furchtgott-Roth, 15).

Why would marriage or children have an effect on wages? Eighty percent of women in the U.S. bear children at some point in their lives (Furchtgott-Roth, 12). The commitment level involved in having and raising a child has a great effect on the number of hours women work and the amount of leave time they take. Most pregnant women take time off towards the end of their pregnancy to have a baby. In the best scenario possible, a woman takes off a week, in a typical situation a few months, but in a situation involving health complications for her or the baby, a woman may need to take off as long as a year or more. The research conducted by the IWPR showed that 52% of women have at least one complete calendar year without any earnings in comparison to only 16% of men. A career interruption of one year or more can have a serious impact on one's career and earnings regardless of whether it's a man or a woman (Rose, iii).

After bearing a child, the demands of motherhood lead women to make other choices that affect their careers. According to "Women's Figures," in order to accommodate familial needs,

women tend to choose occupations where job flexibility is high, salaries are lower, and job skills deteriorate at a slower rate than others ((Furchtgott-Roth, 13). In research conducted by the Maryland Federation of Business and Professional Women, results showed that 77.85% of working women reported that flexible work schedules are of moderate or major importance to them, while half of those women reported that having opportunities to work part-time is of moderate or major importance to them (BPWF, 5). To sum up, women in many professions are making decisions to balance work and family priorities and those decisions result in fewer women reaching the top of their fields.

The fact that women work fewer hours per year, are less likely to work a full-time schedule, and leave the labor force for longer periods of time than men, doesn't only affect the amount of money they make but affects the perception of their value in the work force. For example, research indicates that arrangements such as part-time work, leave, and telecommuting reduce workers "face time"- the amount of time spent in the work place. Some employers use face time as an indicator of workers productivity and those who lack face time may experience negative career effects. Moreover, the fact that statistically women use such arrangements more frequently than men makes them seem less available, less committed and, thus, less valuable (GAO, 61).

Causes of Existing Discrimination

Traditionally playing the role of homemakers, women in the labor force carry a stereotype of being less career-driven than men because they traditionally tend to make family their top priority. Many employers are interested in hiring those people who are willing to make their job their number one priority. This leads to discrimination when employers decide who to hire, what to pay an employee, and who to promote (GAO 61-62). Moreover, fearing that they

may leave their jobs for family responsibilities, employers who hire women tend to be less willing to train them. This further promotes the wage gap, because women aren't extended the training opportunities that are often crucial in working one's way to the top of the field (Blau, 6-7). Moreover, families perpetuate the wage disparity when they decide to let mothers stay home with the children in place of hiring caretakers because a worker's potential earnings drop in proportion to time taken out of the labor force.

Conclusion - Unaccounted Disparity

In the GAO report, once measurable factors such as choice of industry, choice of occupation, and work patterns were added into the equation, the 44% difference between the earnings of men and women dropped to 21% (GAO, 29). Other studies have found approximately the same results. So, how can the other 21% be explained? Simply, not all factors that could possibly affect wage disparity are measurable. Moreover, it is virtually impossible to come up with every factor that could possibly affect wages (GAO, 19-20). One factor rarely mentioned but that has been found by the Council of Economic Advisers to contribute to wage disparities is labor unions. Union membership boosts wages of union members relative to non-union members by 10 to 20 percent and, traditionally, many more men have been members of unions than women (CEA, 7). Certainly, other factors like this may exist that have yet to be studied and tested. Then, of course, there is one other possibility, flat out discrimination ("just because you are a woman I will pay you less"). However, measuring that possibility by examining statistical aggregates either nationally or in a particular state is complicated because of the number of variables involved.

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Report to the Maryland State Commission on Equal Pay

Table of Contents

Introduction

Just as a wage gap can be found in earnings of men and women, a wage gap also exists among some racial and ethnic groups in America. The controversial question is why the wage gap exists – to what factors can it be attributed? Research suggests various answers – skill disparity, differences in work patterns, differences in choice of industry/occupation, economic changes, and discrimination. Each of these possibilities has different policy implications. Before any progress can be made in eliminating wage disparity between racial and ethnic groups, it must be determined which of the possibilities is responsible for the wage gap.

Education

One's level of education plays a big role in how much one earns and will earn in the future. The combination of data on level of enrollment and level of completion give a clear picture of how different groups measure up to one another. U.S. Census data on enrollment in primary, kindergarten, elementary, high school, college, and college as a full time student, reveals that while enrollment is very similar among racial and ethnic groups for kindergarten through high school, it varies substantially for college and college full-time enrollment. While whites' college enrollment is at 23%, blacks' is at 20%, Hispanics' is at 16%, and Asians' is at 35%. For full time college enrollment, whites' is at 16%, blacks' at 13%, Hispanics' at 10%, and Asians' at 26% (U.S. Census - 2).

However, rates of enrollment do not tell the whole story. While rates of enrollment are very similar among all groups for high school, Hispanics' and blacks' rates of high school

completion are lower than those of whites and Asians. According to the U.S. Census Bureau, of all eighteen through twenty-four year olds who were included in the census in 2000, 91.8% of whites, 83.7% of blacks, 64.1% of Hispanics, and 94.6% of Asians completed high school (NCES - 2). A similar trend can be found for college completion. According to the Integrated Postsecondary Education Data System (IPEDS) Graduation Rate Survey published in 2003, blacks and Hispanics complete college at lower rates also. Of all people who began college in 1997, 59% of whites completed college within six years or less, while only 40% of blacks and 42% of all Hispanics that began college in 1997 completed it within the same time period. A huge gap exists also in advanced degrees. According to the U.S. Census Survey of Income and Program Participation of 2001, out of the total 16,180,000 advanced degrees held by people in America, 82.4% were held by whites, 6% were held by blacks, 3.6% were held by Hispanics, and the rest by other minorities (U.S. Census – 1). As the data reveals, at practically all levels of education, blacks and Hispanics have a lower level of participation and completion.

Table 1: Group Completion Rates

	High School*	College**
White	91.8%	59%
Black	83.7%	40%
Hispanic	64.1%	42%
Asian	94.6%	64%

* 18- through 24-year-olds who had completed high school, by race/ethnicity: October 2000

** First-Time-In-College, Bachelor-Degree-Seeking Students Enrolled fall 1997 Who Graduated from the Same College or University by August 2003, IPEDS GRS.

Why is education so important? It has been proven in various research that level of education and earnings have a positive correlation. A study conducted by the U.S. Census Bureau and published in “The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings” displayed this correlation. In estimating the work-life earnings for full-time workers of different education levels, the article revealed that while a white non-high-school graduate would earn 1.1 million over a life time, the same individual with an advanced degree would earn almost three times the amount at 3.1 million dollars. For a black individual a similar

trend of earning growth exists with experience, however, non-high school graduates would start out at .8 million dollars, while a person with an advanced degree would earn 2.5 million. The data for Hispanics and Asians is very similar to that of blacks, except at the advanced degree level, Asians' earnings mirror those of whites at 3.1 million (Cheeseman Day, 7). Thus, while ultimately, blacks and Hispanics earn less than whites of roughly the same level of education, there is a great return on education for all racial and ethnic groups. In fact, the return on education is greater for blacks and Hispanics because in calculating the increase in earnings of a person who starts out without even a high school degree and then works his way up to an advanced degree, the increase in earnings for whites is 280%, while for blacks and Hispanics it is 315%. The fact that the return on education is actually greater for black men than for white men is also confirmed by the National Center for Education Statistics. Their study showed that in 2003, black college graduates earned 60% more than black high school completers, while black high school completers earned 30% more than black workers who dropped out. On the other hand, whites with a bachelor's degree or higher earned just 20% more than whites who finished high school (NCES – 1).

Wages are not only affected by the level education of the individual, but also correlate to the level of education of the individual's parents. For whites and blacks whose parents had less than a college education, whites consistently earn more than blacks. However, in a situation where the parents had some college education or more, blacks earn more than their white counterparts (Black, 19).

While various data demonstrate that blacks and Hispanics are less educated than whites and Asians when measuring by degrees earned, the question that remains is why an earnings gap remains for people of roughly the same level of education but of different racial or ethnic groups. One explanation is that the data available often does not control for both level of education and years of experience. Just as in comparing wages of men and women, women of all ages tended to have less work experience than men, differing work patterns of different racial and ethnic groups may have an affect on wages and earnings.

Work Patterns

Various resources show that a greater percentage of black and Hispanic men than white and Asian men do not participate in the labor force; of those people who are in the labor force, there are twice as many blacks unemployed as whites. Moreover, blacks and Hispanics tend to work fewer weeks per year and fewer hours per week, are overrepresented in temporary and on-call work, and tend to be unemployed for longer periods of time than whites.

Rates of participation in the labor market, as well as rates of employment and unemployment are one way to compare work experience among racial and ethnic groups, which could explain some of the gap in wages and earnings. The U.S. Census Bureau report showed that in 2000 white people had a higher rate of participation in the labor force, than blacks, Asians, and Hispanics, with 64.6% of the total white population, 60.2% of the black population, 63.3% of the Asian population, and 61.4% of the Hispanic population, participating. The same report showed that among all people in the labor force in 2000, blacks had a higher rate of unemployment than whites; the unemployment rate for whites was 3%, for blacks 6.9%, for Hispanics 5.7%, and for Asians 3.2%. A review of the U.S. Census data for different years shows that the gaps in the rates of unemployment among different groups have proportionally persisted over the years. Whether it is by choice or due to other factors, statistically, black, Hispanic, and even Asian people overall are employed less than whites (Spalter-Roth, 2).

Table 2: Labor Force Participation, Employment, Unemployment in 2000*

	In Labor Force	Employed	Unemployed
White	64.6%	61.1%	3.0%
Black	60.2%	52.5%	6.9%
Hispanic	61.4%	55.2%	5.7%
Asian	63.3%	59.7%	3.2%

*Original Source: U.S. Census Bureau, 2000. “Profile of Selected Economic Characteristics.” Census 2000, Summary File 4, DP-3.

The differences in number of weeks worked per year and number of hours worked per week by the different racial and ethnic groups may also reveal information about the gap in wages and earnings. According to the California labor market data, among all working men

compared in 2000, blacks worked 46 weeks per year on average, while whites worked 48. In terms of hours worked per week, blacks and Hispanics worked about 41 hours per week, while whites worked 44 hours per week (Reed). This is also reflected when hourly wages are compared to annual earnings. According to "Basic Skills and the Black-White Earning Gap" by Neal and Johnson, black men in America earn 48% less per year than whites of the same age, even though their wages are only 24% lower (Johnson, 12). This statistic suggests that black men may be working less time overall.

The type of jobs people hold can greatly affect their wages also. According to "The Big Payoff" the earnings of workers who work full time year round tend to be significantly higher than the earnings of workers who work part time or just part of the year (Cheeseman Day, 2). When compared to whites, blacks' and Hispanics' participation in non-standard work (regular part-time, temporary help agency, on-call/day labor, self employed, independent contractor) is proportional to the size of its population, and maybe even slightly low. However, in two worst areas of non-standard jobs - temporary and on-call labor, both of which tend to pay little and offer few benefits, if any, blacks and Hispanics are over represented. While blacks made up only 12% of the U.S. population in 1997, they made up 20% of all temp workers in the U.S. In the same year, Hispanics represented 13% of the temp workers and 15% of all on-call/day laborers (Hudson, 12). Moreover, whether people work full-time or non-standard jobs is often closely tied to their level of education. For example, according to "The Big Payoff," high school dropouts are less likely to work full time and year round than people with bachelor's degrees. While only 65% of high school dropouts worked full time and year round in 2000, 77% of people with bachelor's degrees worked the same amount (Cheeseman Day, 2).

Another important factor that must be considered is whether there are differences between how long people of different racial and ethnic groups are unemployed. Hispanics and blacks are more likely than whites to be unemployed for longer periods of time. In 2000, 29% of all long-term unemployed Americans were black, 16.9%, were Hispanic, and 48.3% were white. When compared to the percentage each racial and ethnic group makes up in the total population (whites - 69%, blacks – 16%, and Hispanics – 12%), it is clear that blacks and Hispanics are disproportionately represented among the long-term unemployed group. Moreover, when compared to the 20% that blacks made up of the total unemployed in 2000, the 29% is very high. Of all people long-term unemployed, blacks had the highest percentage of people that were

unemployed for over six months at 22.7%, while whites had 17.6%, and Hispanics had 14.2% (Stettner, 2).

Table 3: Long-Term Unemployment

	Long Term Unemployed	Unemployed Over 6 Months*
White	48.3%	17.6%
Black	29%	22.7%
Hispanic	16.9%	14.2%

* % rate of the Long Term Unemployed

Choice of Industry/Occupation

Besides the differences between racial and ethnic groups in work patterns, differences can also be found in their choices of industry and occupation. According to the U.S. Census Survey of 2000, 35.6% of white men, and 44.6% of Asian men were employed in managerial, professional and related occupations, compared with 25.2% of black men and just 18% of Hispanic men. On the other hand, about 40% of black and Hispanic men held jobs in service, production, transportation, and material moving occupations, compared to 27% of white men and Asian men. A disproportionately high percentage of black and Hispanic women compared with white and Asian women held jobs with poor pay, few benefits, and little career mobility such as food preparation, cleaning, and personal care (Spalter-Roth, 4).

Table 4: Occupational Data for Employed Population 16 and over*

Race/ Ethnicity	Management/ Professional	Service	Production/ Transportation/ Materials Moving
White	35.6%	13.4%	13.6%
Black	25.2%	22.0%	18.6%
Hispanic	18.1%	21.8%	21.2%
Asian	44.6%	14.1%	13.4%

*Original Source: U.S. Census Bureau, 2000. “Profile of Selected Economic Characteristics.” Census 2000, Summary File 4, QT-P28.

These statistics beg the question why people of different races end up in different occupations. One answer is obvious – differences in education.; because a great percentage of blacks and Hispanics do not acquire a high school or a college degree, they work jobs in service, production, transportation, and material moving. Another reason may be the existence of so called “ethnic niches”. New York city provides a broad example of ethnic niches; there, Hispanics predominantly work in construction, Asians run laundry mats and dry cleaning businesses, white men work as fire fighters, etc. While such niches can help members of the prevalent racial or ethnic group at that job obtain a job by providing training and shelter from discrimination, such jobs pay less, and can often constrain job mobility. Once an ethnic niche is created in a certain occupation or industry the desirability and availability of the job becomes limited (Spalter-Roth, 5).

Another difference could be simply the variation in choices made by people of different racial and ethnic groups in college. According to “Why Do Minorities Earn Less? A Study of Wage Differentials among the Highly Educated”, the index of dissimilarity indicates that 14% of Hispanic men, 20% of black men, and 31% of Asian men would need to change their major to match the distribution of majors among whites. Asians, for example, are more likely to major in engineering than any other group, while black men tend to be underrepresented in engineering and over represented in education. Black men also choose majors that on average have a higher fraction of women, while Asian men choose majors that have a lower fraction of women (Haviland, 12).

One other possibility that could explain why people of different racial and ethnic groups end up in different occupations, is discrimination. Rather than looking at each person’s credentials like education and experience, employers look at skin color, and base their hiring decisions on racial and ethnic identities of past employees. For example, if in all the years of a company’s existence the position of vice-president has been filled by a white male, it may take a long time before a woman or a minority will be hired for that position, simply because the hiring personnel may feel more comfortable giving the position to someone who is similar to other people who have held that position in the past. Thus, blacks continue to be hired for certain types of jobs in certain occupations, reinforcing existing ethnic niches.

Skill Disparity

One important factor that may shine some light on the cause of the wage gap between racial and ethnic groups is skill. While looking at the level of education has been the traditional and common way to determine one's ability level and predict future wages, recent researchers have contended that this information can be misleading because the quality of schools and intensity of education in different schools vary greatly in America. Just as age is not a valid predictor of one's level of education, the amount of schooling one has doesn't truly reveal that person's ability. In "The Role of Premarket Factors in Black-White Wage Differences" Derek Neal and William Johnson discuss a different measure of education - skill. For their research, Neal and Johnson used the scores from the Armed Forces Qualification Test (AFQT) found in the National Longitudinal Survey of Youth, to examine the black-white wage gap among workers in their late twenties (age 26-29). The AFQT is known to be a racially unbiased measure of basic skills that helps predict job performance, and is often used in military testing. The data set included a sample of individuals who were tested at ages 16-18, just before they entered the labor force full time or began their secondary education. Testing for math and reading skills, the results of the test revealed that three-fourth of the racial wage gap for men is due to a skill disparity. For women, the test scores explained all of the wage disparity. In fact, when the AFQT scores were held constant for white, black, and Hispanic women, black and Hispanic women earned more than white women.

Carneiro, Heckman, and Masterov, the authors of "Labor Market Discrimination and Racial Differences in Premarket Factors," sampled the children of the mothers in the 1979 NLSY to see if ability disparity can be found in children before they enter school. Their data from the Children of the National Longitudinal Survey of Youth of 1979 (CNLSY79), showed that minorities do in fact enter school with lower measured ability than whites, and the gap in ability widens as the children obtain more schooling. However, the increase in gap with schooling is much less significant than the original gap. According to the CNLSY79, 5-6 year old black boys scored 18 percentile points below white boys of the same age, while Hispanic boys scored 16 percentile points below white boys. These findings are consistent for the different tests and in various data sets. Schooling, rather than closing the gap, substantially widens it. By ages 13 to 14, the gap in scores widens to 22 percentile points for blacks, and remains the same for

Hispanic boys at 16%. Therefore, when they enter the market, they have a much poorer set of skills than whites.

Besides the disparity that exists in cognitive skills, disparity is apparent also with non-cognitive skills such as motivation, self control, time preference, and social skills. In the CNLSY, mothers were asked age-specific questions about the anti-social behavior of their children, including aggressiveness, violent behavior, cheating, lying, disobedience, peer conflicts, and social withdrawal. The results showed that by age 5 and 6, the average black is roughly 10 percentile points above the average white (the higher the score, the worse the behavior). This gap is important because non-cognitive skills are directly related to what the labor market calls “soft-skills”. These skills involve ease of interaction with colleagues and customers, enthusiasm and a positive work attitude – all skills essential in a service driven economy. Thus, if such disparities in social ability exist at such a young age, they can have very negative effects in the future, unless some sort of intervention occurs (Carneiro, 19-20). In fact, it has been documented that black men are at a particular disadvantage during job interviews, because their body language and communication skills often do not meet employer expectations regarding politeness, indications of motivation, or enthusiasm (Spalter-Roth, 7).

All of this information on skill disparity begs for some explanation for the cause of the skill disparity between racial and ethnic groups. According to Neal and Johnson, the ability disparity can be explained by varying school and home environments. In fact, the authors found that children’s scores on the AFQT correlated with the level of education and the professional status of their parents, the number of children in the family, measures of family reading material, and school characteristics of the children (including student/teacher ratio, disadvantaged student ratio, dropout rate, teacher turnover rate) (Neal, 887). According to Carneiro, Heckman, and Masterov, however, most of the important factors would be those related to the family environment, since ability gaps are substantial before children even enter school. Among the factors they mention are measures of family background, family income, mother’s level of education, home environment, and mother’s cognitive ability. More specifically, black and Hispanic children tend to come from much poorer and less educated families than white children. They are more likely to grow up in broken or single parent homes. The home score, which is based factors such as the number of books, magazines, toys and musical recordings available to the child, family activities, methods of discipline and parenting, learning at home, TV watching

habits, home cleanliness and safety, etc, is always higher for whites than for blacks and Hispanics (Carneiro, 8-11). All of these factors may explain the cause of the skill disparity between racial and ethnic groups.

We have addressed why the gap exists among racial and ethnic groups before school begins. Now we must address why this gap widens as the children get older and obtain more education. The positive effect of schooling on test scores is much larger for whites and Hispanics than it is for blacks. This could be explained by the fact that whites, blacks and Hispanics start school at different levels; since blacks and Hispanics start with much lower abilities than whites, their subsequent progress and success is less than that of whites. The quality of schools attended by black and Hispanic children in comparison to white children could also explain the lower effect of schooling on the former groups relative to the latter group. Thus, differential initial conditions and differential school quality may also be important determinant of the adult black-white skill gap (Carneiro, 14-17).

Another important explanation for the widening of the skill gap with schooling is expectations of the students. For instance, in a given survey, 22% blacks and Hispanics reported that they expected to die next year, in comparison to 16% of whites. Blacks and Hispanics also report higher expectation of committing a crime and being incarcerated (Carneiro, 18). Such unfortunate expectations could certainly reduce how much those two groups invest in their own human capital – how often they attend school, study, do their homework, and participate in class. All of these factors affect their skills and ability, which is subsequently reflected in future wages. There is the possibility that pessimistic expectations of black and Hispanic parents lower their investment in their children, which translates into lower levels of ability and skill of those children.

Immigration and Language Disparity

Language disparity plays an important role in wage determination, and according to "Labor Market Costs of Language Disparity: An Interpretation of Hispanic Earnings Differences" explains up to one-third of the relative wage difference between Whites and Hispanics in America. The wage disparity that is usually attributed to ethnicity, nativity, and time in the United States, can in fact be explained by differences associated with English language skills. In the data sample, all the Hispanics were divided into four groups of English

proficiency: fluent, very well, well, not well. The findings showed that Hispanic men in the fluent group have earnings insignificantly different from whites who have the same school and potential work experience, as well residency in the same geographic area. Moving a member of the "very well" group up to full English fluency would raise his wages by 10%, a "well" member to full fluency by 17%, and a "not well" member to fluency by 26% (McManus).

Similar results were found in "Why Do Minority Men Earn Less?" Here, the authors found that the status of immigration and whether English is spoken at home both affect earnings. Generally for non-immigrants, if a language other than English is spoken at home, the people earn less than those who speak only English at home. When comparing all immigrants, those who do not speak English at home earn substantially less than those who do. Moreover, when all people who do not speak English at home are compared, the immigrants earn substantially less than non-immigrants. Thus, it can be concluded that one's immigration status as well as what language one speaks at home both affect earnings. When non-immigrants of different racial/ethnic groups who speak English at home are compared, Hispanics and Asians earn just slightly less than whites. However, when all non-immigrants who do not speak English at home are compared, all groups including whites, blacks, Hispanics, and Asians earn about the same with blacks earning slightly more than whites, Hispanics earning slightly less, and Asians earning more. From the data above, it appears that immigrants who do not speak English at home are the lowest earning group in America. Unfortunately, 37% of all Hispanics, and 70% of all Asians in the U.S fall into this category (Black, 16-17).

Table 4: Wage Gaps by Language Spoken at Home and Immigration Status

	NON-IMMIGRANT		IMMIGRANT	
	Speaks only English at home	Speaks language other than English at home	Speaks only English at home	Speaks language other than English at home
White	-.001	-.077	.028	-.127
Black	-.126	-.072	-.201	-.334
Hispanic	-.007	-.093	-.007	-.157
Asian	-.006	-.049	-.017	-.234

Economic Changes

According to the U.S. Department of Labor, there are other things that could affect the wage disparity, and in fact made earnings more unequal during the 1980's and 1990's – these are technological change, trade liberalization, increased immigration, value of the minimum wage, and declining unionization. The economy has transitioned from being driven by manufacturing to information. Thus, as technology continues to advance, the demand for skilled workers who are able to operate the advanced technology and contribute to its development continues to grow. Moreover, technological advancements are causing the replacement of lesser-skilled jobs with automated devices, and thus demand for lesser-skilled workers is dropping. This situation is aggravated by the increase in immigration that has been occurring since 1965. Particularly, less-skilled workers with lower education levels have and continue to immigrate to the U.S., which increases the competition for unskilled jobs and drives wages down for unskilled-workers. Expanded trade also drives down the wages of low-skilled workers because it displaces the goods they produce. A decline in unionization in the 1980's has also contributed to increased wage inequality, because fewer workers are benefiting from collective bargaining. Finally, the minimum wage fell in real terms during both the 1970's and 1980's reaching a level in 1990 significantly below its 1960 level.

Conclusion

What does all of this information mean? It is important to have a clear understanding of whether the wage disparity is a result of discrimination in rewarding blacks and Hispanics, or is a result of the disparity in education, skills, hours of work, types of work, and types of job, that exist among different racial and ethnic groups. The distinction is important because the two different explanations have different policy implications. "If persons of identical skill are treated differently on the basis of race or ethnicity, a more vigorous enforcement of civil rights and affirmative action in the market place would appear to be warranted. If the gaps are due to unmeasured abilities and skills that people bring to the labor market, then a redirection of policy towards fostering skills should be emphasized" (Carneiro, 3).

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Report to the
Maryland Equal Pay Commission

from the
Institute for Women's Policy Research
Vicky Lovell, Ph.D., and Olga V. Sorokina
July 19, 2006

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.)

- 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.

[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.

- 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, except where noted.

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

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		Earnings Ratio[a]	Wage Ratio[a]
Education	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**		
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		Earnings Ratio[a]	Wage Ratio[a]
Education	**Women**	**Men**	**Women**	**Men**	**Women**	**Men**		
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 %.

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.

References

Filer, Randall K. 1993. "The Usefulness of Predicted Values for Prior Work Experience in Analyzing Labor Market Outcomes for Women." *Journal of Human Resources* 28(3): 519-537.

Rose, Stephen J., and Heidi I. Hartmann. 2004. *Still a Man's Labor Marker: The Long-Term Earnings Gap*. Washington, DC: Institute for Women's Policy Research.

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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

MEMORANDUM

MARYLAND COMMISSION ON HUMAN RELATIONS

TO: Equal Pay Commission Members

FROM: Glendora C. Hughes, General Counsel
Erika Gilliam, Law Clerk

DATE: March 8, 2006

SUBJECT: Equal Pay Act: Overview of Commencing a Claim; and Recent Maryland and Supreme Court Holdings

I. EQUAL PAY ACT OVERVIEW

The Equal Pay Act (hereinafter "EPA") was passed on June 10, 1964 and became effective on June 11, 1964. EPA provides protection against wage discrimination on the basis of sex. EPA prohibits employers from unequally paying "wages to employees of the opposite sex . . . 'for equal work on jobs the performance of which requires equal skill, effort and responsibility, and which are performed under similar working conditions."[1]

A. PLAINTIFF'S/EMPLOYEE'S CASE

When establishing an EPA claim, the plaintiff (hereinafter "employee") has the ultimate burden of persuasion and has the burden of production to establish a *prima facie* case. Employee need not show intentional discrimination[2], however, the employee must create a presumption of discrimination[3] by proving three elements needed to establish a *prima facie* case:[4]

[1] *Corning Glass Works v. Brennan, Secretary of Labor*, 417 U.S. 188, 195 (1974); 29 U.S.C.A. § 206(d)(1).
[2] *Galarraga v. Marriott Employees Federal Credit Union*, 1996 U.S. Dist. LEXIS 8987, 6 (4th Cir. 1996); 29 C.F.R. § 1620.13(b)(4)(1998).
[3] *Reece v. Martin Marietta Technologies*, 914 F. Supp. 1236, 1240 (D. Md. 1995)
[4] *Corning Glass Works*, 417 U.S. at 195; *Dibble v. Regents of the University of Maryland System*, 1996 U.S. App. LEXIS 15390, 7 (4th Cir. 1996).

Appendix E

(1) employer pays different wages to employees of the opposite sexes;
(2) employees of the opposite sex hold jobs that require equal skill, effort and responsibility; and
(3) jobs are performed under similar working conditions.

Courts have explained the different methods of proving each EPA element. For example, an employee may establish a *prima facie* case simply through successive employment by establishing that her successor made higher wages.[5] However, if employee is unable to produce a salary comparison because no opposite sex was employed in a similar position at a higher wage rate, an employee cannot set forth an EPA claim.[6] While traditionally, employees prove that working conditions were "virtually identical,"[7] for the second element, the employee cannot claim that their assigned duties plus additional voluntary duties constituted similar working conditions to that of another employee.[8] Also, an employee also cannot establish similar working conditions on job titles alone.[9] [10] For the third prong of EPA, courts have rejected that similar title combined with similar generalized responsibilities are equivalent to equal skills and responsibilities.[11] In addition, one cannot compare all positions held by other gender department heads to the department heads of the opposite sex.[12] Instead comparisons must made on a case-by-case basis. However, jobs that have the same general responsibilities are considered unequal "if the more highly paid job involves additional tasks which (1) require extra effort . . . (2) consume a significant amount of time . . . and (3) are of an economic value commensurate with the pay differential."[13]

[5] *Galarraga*, 1996 U.S. Dist. LEXIS at 13; 29 C.F.R. § 1620.13(b)(4)(1998).
[6] *Corning Glass*, 417 U. S. at 180.
[7] *Jordan v. CSX Intermodal, Inc.*, 991 F. Supp. 754, 757 (D. MD 1998).
[8] *Dibble*, 1996 U.S. App. LEXIS at 9.
[9] *Gustin v. West Virginia University*, 63 Fed. Appx. 695, 698 (4th Cir. 2003).
[10] The 4th Circuit in West Virginia, our sister state, ruled that an employee cannot establish similar working conditions solely based on job titles. *Gustin v. West Virginia University*, 63 Fed. Appx. 695, 698 (4th Cir. 2003).
[11] *Wheatley v. Wicomico County of Maryland*, 390 F.3d 328, 333 (4th Cir. 2004).
[12] *Id.* at 332.
[13] *Id.* at 333 quoting *Hodgson v. Fairmont Supply Co.*, 454 F.2d 490, 493 (4th Cir. 1972).

B. DEFENDANT'S/EMPLOYER'S CASE[14]

If the employee is able to establish a *prima facie* case by proving the elements of EPA, the burden shifts to the defendant [hereinafter "employer"]. The employer then has the burden of production, by preponderance of the evidence,[15] to produce credible evidence supporting one of the statutory affirmative defenses[16] to justify the wage discrepancy. The affirmative defenses are: (1) seniority system; (2) the merit system; (3) production system, which measures earnings by quantity or the quality of production; and (4) a system based on factors other than sex.[17]

Throughout a number of cases, courts have further defined and accepted specific nuances of each affirmative defense. For example, the 4th Circuit made clear that if an employee has a seniority system, the system does not have to be recorded; however, employees must be aware of the system's existence.[18]

The 4th Circuit also addressed aspects of the merit system in *Equal Opportunity Commission v. Aetna Insurance Co.* In this case, the Secretary of Labor brought suit on behalf of an employee under the EPA. The employer, however, was able justify the pay disparity with the statutory affirmative defense, the merit system. The merit system took into account the employee's previous work experience, performance, and current progression within the company.[19] [20] Ultimately, the District Court granted summary judgment to the employer based on the merit system and the 4th Circuit subsequently affirmed.[21] Similar to the seniority system, the 4th Circuit indicated that the merit system does not have to be recorded; however, the system must be organized and structured in a manner where employees are systematically evaluated according to predetermined criteria.[22] If the merit system is not recorded, employees must be

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[14] It should be noted that although the employer's case is briefly addressed by the Maryland District Court in *Reece v. Martin Marietta Technologies*, 914 F. Supp. at 1241), interpretation of the affirmative defenses are discussed in other 4th Circuit cases.
[15] *Keziah v. W.M. Brown & Son, Inc.*, 888 F.2d 322, 325 (4th Cir. 1989).
[16] *Brinkley v. Harbour Recreation Club*, 180 F.3d 598, 614 (4th Cir. 1999).
[17] *29 U.S.C. § 206* (d)(1); *Corning Glass Works*, 417 U.S. at 196 (1974); *Reece*, 914 F. Supp. at 1241; *Brinkley*, 180 F.3d at 613.
[18] 29 *C.F.R.* § 800.144; *Equal Employment Opportunity Commission v. Whitin Machine Works, Inc.*, 635 F.2d 1095, 1097 (1980).
[19] *Equal Employment Opportunity Commission v. Aetna Insurance Co.*, 616 F.2d 719, 721 (4th Cir. 1980).
[20] The 4th Circuit also acknowledged the position within a salary range another factor of the merit system in *Boyd v. Rubbermaid Commercial Products, Inc.*, 1998 U.S. App. LEXIS 1880, 3 (4th Cir. 1998).
[21] *Equal Employment Opportunity Commission v. Aetna Insurance Co.*, 616 F.2d at 720.
[22] 29 *C.F.R.* § 800.144 (1979); *Equal Employment Opportunity Commission v. Aetna Insurance Co.*, 616 F.2d at 725.

aware of the system and the merit system is not upon sex.[23] Although the 4th Circuit in *Equal Opportunity Commission v. Aetna Insurance Co*. acknowledged the merit system, the Court did not specifically characterize employer's affirmative defense as the merit system. Instead the 4th Circuit affirmed the lower court's ruling and declined to make a distinction. The 4th Circuit only designated employer's justification as a "pay differential . . . not based on sex."[24]

However 15 years later in 1995, the 4th Circuit identified the employer's affirmative defense in *Equal Opportunity Commission v. Aetna Insurance Co.* as a "factor other than sex," [25] the fourth statutory affirmative defense. The last affirmative defense also deemed by the Supreme Court as a "general 'catch-all'" affirmative defense.[26] The 4th Circuit in *Strag v. Board of Trustees* simply characterized the pay disparity justification as "factor other than sex" because of the a difference in qualifications/experience between the opposite sexes.[27] Another recently accepted "factor other than sex" defense is market demand. As what occurred in *Brinkley v. Harbour Recreation Club*, the Court accepted the employer's affirmative defense of market demand as a "factor other than sex" since the marketplace demanded an individual with a higher level of experience. If another employee of the opposite sex did not possess the same experience, they would be paid a lower wage.[28]

Although the affirmative defenses are clearly stated in both case law and at *29 U.S.C. § 206* (d)(1), employers have attempted to remedy EPA violations through other means and have attempted to characterize them as a "factor other than sex." For example in *Corning Glass Works v. Brennan, Secretary of Labor*, the Supreme Court rejected pay equalization as a "factor other than sex." In this case, the employer continued to violate EPA by paying higher wages to the male night shift inspectors than the female day shift inspectors. [29] In efforts to remedy this violation and avoid equalizing pay wages, the employer made the night shift positions available to female inspectors.[30] By making these positions available, female inspectors were able to bid for higher paying night inspection positions.[31] Ultimately the Supreme Court rejected pay

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[23] *Id.*
[24] *Equal Employment Opportunity Commission v. Aetna Insurance Co.*, 616 F.2d at 726.
[25] *Strag v. Board of Trustees*, 55 F.3d 943, 949 (1995).
[26] 207 L. Ed. Digest § 149.5.
[27] *Id.*
[28] *Brinkley*, 108 F.3d at 615.
[29] *Corning Glass Works*, 417 U.S. at 192-194.
[30] At the time a state amendment was passed permitting women to work at night. *Corning Glass Works*, 417 U.S. at 192-193.
[31] *Id.* at 194.

equalization as a "factor other than sex," because although the employer made an effort to integrate night shift positions, the employer still failed to adjust daytime pay disparities between the opposite sexes.[32] [33]

The employer may raise its affirmative defenses either in its answer to employee's complaint or in a motion for summary judgment.[34] With summary judgment, since the burden is on the movant to prove summary judgment, the facts are viewed in favor of the opposing party.[35] If employer fails to put forth affirmative defenses in its answer, the employer has not waived the right to produce affirmative defenses during summary judgment if employee is not unfairly surprised or prejudiced by the late notice of the affirmative defense.[36]

C. PLAINTIFF'S/EMPLOYEE'S SUBSEQUENT CASE

When the employer produces evidence supporting their affirmative defense, the burden of production then shifts back to the employee who "must come forward with 'specific facts showing that there is a genuine issue for trial.'"[37] The employee must produce evidence to controvert the employer's evidence for justifying affirmative defenses. However, if the employee is unable to produce specific facts, summary judgment as a matter of law is granted to the employer.[38]

D. DAMAGES

If the employer is unable to produce evidence supporting one of the affirmative defenses or if the employee rebuts the employer's successful affirmative defense, the employee may be entitled to damages.[39] The employee can be awarded liquidated damages and/or compensatory damages. If the employer is able to establish "that the act or omission giving rise to such action was in good faith and that he had reasonable grounds for believing that his act or omission was

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[32] *Id.* at 205-208.
[33] An employer may not decrease another employee's salary in efforts to equalize both sexes' salary and remedy pay disparities. *Brinkley-Obu*,36 F.3d at 350.
[34] Similar the employer, the employee may also motion for summary judgment indicating there are no material facts at issue regarding whether employee was subjected to pay disparities. .
[35] *U.S v. Leak*, 123 F.3d 787, 784 (4th Cir. 1997).
[36] *Brinkley*, 180 F.3d at 612.
[37] *Brinkley*, 180 F.3d at 614.
[38] *Id.*
[39] 29 *U.S.C.* § 260.

not violating of the Act," the employee is not entitled to damages.[40] To establish reasonable grounds for good faith, the employer's actions must not have been willful.[41] Similar to what occurred in *Brinkley-Obu v. Hughes Training Inc.,* where the employer decreased another employee's salary to equalize the salaries of both sexes. If the employer's actions are not willful, the employee is not entitled to liquidated damages.[42]

II. MARYLAND EQUAL PAY ACT

The Maryland Equal Pay Act (hereinafter "MEPA") also "prohibits discrimination in the payment of wages between male and female employees in the jobs of comparable character of work in the same establishment."[43] While the MEPA elements are similar to that of the EPA, the Maryland Court of Appeals made clear that the federal EPA did not preempt the MEPA.[44] Yet while the MEPA *prima facie* elements are similar, the exceptions that justify wage disparity are dissimilar. Instead of three factors as in the federal EPA, there are five factors in MEPA:[45]

(1) a seniority system that does not discriminate on the basis of sex;

(2) a merit increase system that does not discriminate on the basis of sex;

(3) jobs that require different abilities or skills

(4) jobs that require the regular performance of different duties or services; or

(5) work that is performed on different shifts or at different times of day.

Factors (4) and (5) are not reflected in the federal EPA.

A. CLAIMS UNDER THE MARYLAND EQUAL PAY ACT

Although the MEPA currently remains in effect, there have been few cases found within the appellate system. In fact, we found only three reported cases: *Gaskins v. Marshall Craft*

[40] *Brinkley-Obu,* 36 F.3d at 357.
[41] *Id.*
[42] *Id.* at 357-358.
[43] *Md. Labor Employment Code Ann.* §3-304(a)(2005).
[44] *Gaskins v. Marshall Craft Associates, Inc.,*, 110 Md. App. 705, 712-714 (1996).
[45] *Md. Labor and Employment Code Ann.* §3-304(b)(2005).

Associates Inc.,[46] *Hassman v. Valley Motors, Inc.*,[47] and *Nixon v. State of Maryland*[48] none which give insight to the MEPA. As previously stated in *Gaskins v. Marshall Craft Associates, Inc.*, the federal EPA does not preempt the MEPA.[49] In *Hassman v. Valley Motors, Inc.*, the employee brought an action against her employer under both the federal EPA and MEPA. The Maryland District Court entered judgment in favor of the employer because the employee's duties were not similar to those of the opposite sex.[50] The Court deemed the employer's reason "a legitimate, non-pretextual reason for the salary differential."[51] Since the Court found that the employer was unable to meet the *prima facie* elements of the federal EPA, the Court stated their findings also applied to the employee's MEPA claim.[52] Finally, in *Nixon v. State of Maryland*, although the employee brought a claim under the MEPA, the employee relied on the federal EPA. The Court analyzed employee's claim under MEPA.[53] Ultimately, the Court rejected the claim because the employee failed to show "that her deities required equal skill, effort and responsibility . . . [and that she] performed work of comparable character" to that of the opposite sex.[54]

B. CONCLUSION

It appears that most employees are either unaware of MEPA, are using the federal EPA to file a claim, or are mistakenly filing a claim under MEPA but are establishing a *prima facie* case under federal EPA elements. In addition, the lack of appellate case law can probably be attributed to the lack of claims filed under the MEPA.

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[46] 110 Md. App. 705 (1996).
[47] 790 F. Supp. 564 (D. Md. 1992).
[48] 96 Md. App. 485 (1993).
[49] 110 Md. App. at 712-714.
[50] *Hassman*, 790 F. Supp. at 568.
[51] *Id.*
[52] *Id.* At 569.
[53] *Nixon*, 96 Md. App. at 493-99.
[54] *Id.* At 494.

MEMORANDUM

TO: Equal Pay Commission

FROM: Glendora C. Hughes, General Counsel
Erika Gilliam, Law Clerk
Maryland Human Relations Commission

DATE: July 18, 2006

SUBJECT: **Title VII: Wage-Race Discrimination Overview**

I. TITLE VII OF THE CIVIL RIGHTS ACT OF 1964

Title VII of the Civil Rights Act of 1964 [hereinafter Title VII] prohibits discrimination "against an individual . . . with respect to his compensation . . . because of such individual's race, color . . ."[1] This encompasses wage-race discrimination, which occurs when an employer discriminately compensates an employee due to race. While Title VII became effective one year after enactment on July 2, 1965, specific sections such as the section previously stated became effective immediately[2] after enactment. Discriminatory practices that occurred before 1964 were also subject to Title VII in spite of the section being enacted in 1964.[3] Other courts[4] including Maryland[5] endorsed this principle also known as the *Bazemore* principle.

While '"compensation' is not defined either in the statute or in the implementing regulations . . . it includes all monetary remuneration for work done, in the form of weekly,

[1] 42 *U.S.C.* § 2000e-2(a)(1)(2006).
[2] *Id.* at § 2000e.
[3] *Bazemore v. Friday*, 478 U.S. 385, 395 (1986).
[4] *Tademe v. Saint Cloud State University*, 328 F.3d 982, 989 (8th Cir. 2002).
[5] *Nealon v. Stone*, 958 F.2d 584, 591-592 (4th Cir. 1991)

Appendix F

monthly, or yearly salary, hourly wage, bonuses, . . . it also includes benefits, such as health disability insurance and retirement and pension benefits."[6]

A. TITLE VII IN LIGHT OF THE EQUAL PAY ACT

With respect to application of the Equal Pay Act, [hereinafter EPA] "wage discrimination [with respect to race] claims under Title VII are generally construed in harmony with claims under EPA."[7] However, most important, the statutes are not equivalent in light of race-wage discrimination. EPA prohibits discrimination based on sex while Title VII prohibits a broader range of discrimination types such as race, color, religion, sex and national origin.[8]

II. LEGAL FRAMEWORK OF TITLE VII OF THE CIVIL RIGHTS ACT OF 1964

A. PLAINTIFFS'/EMPLOYEES' CASE

There are two avenues in which an employee can prove Title VII race-wage discrimination. First, an employee can prove intentional discrimination through either direct or indirect evidence.[9] Second, an employee may prove intentional discrimination through circumstantial evidence[10] under the burden-shifting test [hereinafter *McDonnell Douglas* burden-shifting test] established by the Supreme Court in *McDonnell Douglas Corp. v. Green*[11] similar to the test required under the EPA.

There are three stages under the *McDonnell Douglas b*urden-shifting test. First, plaintiff must establish a *prime facie* case for discrimination. The U.S. District Court for the District of Maryland in *Gbenoba v. Montgomery County Dept. of Health and Human Services* [hereinafter

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[6] *Neal Larson*, Employment Discrimination: Part IV Title VII: Disparate Treatment, 1-13 Employment Discrimination §13.01 (2006).
[7] *Galarraga v. Marriott Employees Federal Credit Union*, 1996 U.S. Dist. LEXIS 8987, 16 (1996).
[8] 42 *U.S.C.* § 2000e-2(a)(1)(2006).
[9] *Bean v. UPS*, 2005 U.S. Dist. LEXIS 17225, 7-8 (2005).
[10] *Id.* at 8.
[11] *McDonnell Douglas Corp. v. Green*, 411 U.S. 792-802-805 (1973).

Gbenoba] stated to establish a *prime facie* case for discrimination in compensation, plaintiff must show:

> 1) that he is a member of a protected class;
> 2) that he was paid less than a non-minority employee; and
> 3) that the higher paid employee was performing a job substantially similar to the plaintiffs.[12]

In citing these factors, the *Gbenoba* court cites *Brinkley-Obu v. Hughes Training, Inc.*, 36 F.3d 336, 343 (4th Cir. 1994), a landmark case citing all Title VII discrimination instances. While the elements are self-explanatory, Maryland and 4th Circuit courts have added nuances to the elements to successfully prove the *prime facie* case. For example, in *Gbenoba*, a race-based wage discrimination case, the Court made clear that plaintiff must offer discrimination of a particular employee that was paid more than the plaintiff at a particular time. Vague statements such as "white employees of a similar grade and title were paid higher and better salaries than their minority counterparts . . ."[13] were insufficient to establish race-wage discrimination.

Another nuance was stated in *Chika v. Planning Research Corp.*, where the Court made clear that failing assert a separate claim of disparate pay under Title VII would also eliminate one's claim for race-wage discrimination.[14]

B. DEFENDANTS'/EMPLOYERS' CASE

The second stage of the *McDonnell Douglas* burden-shifting test rests solely on the defendant. Similar to the EPA, after the plaintiff establishes a *prima facie* case, the burden shifts to the defendant to offer a non-discriminatory justification for the wage disparity.[15] However, dissimilar to the EPA, "the burden of production, not [burden of] persuasion, shifts to the

[12] 209 F. Supp.2d 572, 579 (2002).
[13] *Id.*
[14] 179 F. Supp.2d 575, 584 (2002).
[15] *Galarraga*, 1996 U.S. Dist. LEXIS at 16.

defendant."[16] Last, "if the defendant successfully proffers this justification, [for behavior] the burden [of production] shifts back to the plaintiff to show that the proffer is mere pretext and unworthy of credence."[17] The defendant does not have to proffer a reason for wage differences but only has to produce justification for the difference.

C. PLAINTIFF'S/EMPLOYEE'S SUBSEQUENT CASE

Plaintiff has the final burden in the third stage of the *McDonnell Douglas* burden-shifting test. Only after the defendant is able to justify the wage difference, the plaintiff has the final burden or proving that the defendant's reason is a pretext for intentional discrimination.

III. CASE EXAMPLE

One example where the plaintiff established a *prima facie* case in race-wage discrimination but did not prevail occurred in *Kess v. Municipal Employees Credit Union of Baltimore, Inc.*[18] Municipal Employees Credit Union of Baltimore [hereinafter MECU] hired Wanda Kess, an African-American female, in 2000 as branch manager.[19] Ms. Kess had one year of college credits and 25 years of banking experience working in different capacities.[20] MECU has also hired Mr. Frank Ciesla, a white male, as branch manger in 1991.[21] Mr. Ciesla had a college degree, was completing his master's degree at the time, and had 20 years experience as a regional manager of branch banking.[22] MECU has also hired John Godwin, another white male,

[16] *Id.*
[17] *Id.*
[18] Please note that establishing a *prima facie* case for race-wage discrimination does not constitute a complete victory for the plaintiff. Instead, as stated earlier, the *prime facie* case is only one of three stages to successfully prevail in a race-wage discrimination case. 319 F. Supp.2d 637, 640 (2004).
[19] *Id.*
[20] *Id.*
[21] *Id.*
[22] *Id.*

as a branch manger in 2001.[23] Mr. Godwin possessed a college degree, a master's degree in business administration, and was the CEO of a small credit union.[24] Prior to Kess' termination, Kess had complained to MECU management about her and another employee's salary being lower than Godwin and Ciesla.[25] Subsequently on August 23, 2002, other MECU employees reported "that Kess had been intimidating, belittling, disparaging and retaliating against employees working under her . . ."[26] Kess was terminated on August 29, 2002.[27] Kess then filed suit against MECU claiming that she was subject to race, sex, age discrimination, and retaliation in violation of Title VII.[28] Ms. Kess successfully established a *prima facie* case for discrimination in compensation because it was undisputed that she and another female African American earned less than Mr. Ciesla and Mr. Godwin in spite of all having the title of MECU branch manager.[29] However, as the case progressed through each stage, Kess was not successful through all three stages.

At the second stage, MECU had the burden of establishing non-discriminatory reasons for the salary disparity. MECU met this burden by establishing that "Ciesla and Godwin were able to negotiate a higher salary because they had significantly more management experience and education than either Kess or Stafford [, the other employee].[30] While Ms. Kess successfully established a *prima facie* case for discrimination, she did not prevail at the third stage of proving that the defendant's non-discriminatory explanation was "unworthy of credence." Ms. Kess did not prevail because she did not dispute that Mr. Ciesla and Mr. Godwin

[23] *Id.* at 641.
[24] *Kess*, F. Supp.2d at 641.
[25] *Id.* at 642.
[26] *Id.* at 642.
[27] *Id.*
[28] *Id.* at 643.
[29] *Id.* at 645.
[30] *Id.*

had greater experience and skills or offered contradictory evidence that their starting salaries were based on these factors.[31]

III. CONCLUSION

While the prior memo, which examined wage disparity in light of EPA, yielded more information, race-wage discrimination in light of Title VII did not yield as much information. This primarily may be true from many reasons. First, as previously stated, Title VII claims are construed in harmony with EPA in spite of Title VII prohibiting a broader range of discrimination.

Second, Exhibits 1 and 2 suggest data for Title VII does exist suggesting Title VII suits have been filed; however, statistics do not further distinguish the type of discrimination. For example, the U.S. Equal Employment Opportunity Commission [hereinafter EEOC] race discrimination statistical data in Exhibit 1 could encompass race discrimination in hiring, promotion, or compensation. However, there is no distinction among each category. The same can be echoed with the EEOC national origin discrimination statistical data in Exhibit 2. Research of cases from around the country and law reviews was conducted; however, the focus was wage discrimination in light of gender instead of race.

Last, the lack of race-wage discrimination cases may also be the result of potential plaintiffs being discouraged from discussing their salaries or not being aware that race-wage discrimination has or is occurring.

[31] *Kess*, 319 F. Supp.2d at 646.

Organizations Contacted
(including websites reviewed)

The Equal Pay Commission contacted a number of organizations in Maryland and reviewed numerous web sites in formulating its report. Listed below are organizations whose materials contributed to the work of the Commission.

American Association of University Women (AAUW)

American Federation of Federal State and County Municipal Employees (AFSCME)

American Federation of Labor and Congress of Industrial Organizations (AFL-CIO)

Baltimore Chamber of Commerce

Baltimore Hispanic Chamber of Commerce

Baltimore Urban League

Business and Professional Women

CASA of Maryland

Center for Policy Alternatives

Coalition of Asian Pacifics in Entertainment

CREW Network (Women in Commercial Real Estate)

Economic Policy Institute

Education International Pay Equity Resource Package

Equal Employment Opportunity Commission (EEOC) Task Force to study best EEO practices

Equal Opportunity for Women in the Workplace Agency in Australia

Equal Pay Task Force Report to the Equal Opportunities Commission in Great Britain

Appendix G

Governor's Commission on Asian Pacific American Affairs, State of Maryland

Governor's Commission on Hispanic Affairs, State of Maryland

Hispanic Chamber of Commerce of Montgomery County

Institute for Women's Policy Research (IWPR)

League of United Latin American Citizens

Maryland Chamber of Commerce

Maryland Commission on Women

Maryland Department of Labor, Licensing and Regulation

Maryland General Assembly, including testimony from AFSCME, Business and Professional Women/USA, Business and Professional Women/Maryland, Legislative Agenda for Maryland Women, Maryland NOW, Montgomery County Commission for Women, Women's Law Center of Maryland;

Maryland Human Relations Commission

Montgomery County Commission for Women

National Association for the Advancement of Colored People, Washington Bureau

National Association for Female Executives (NAFE);

National Bureau of Economic Research;

National Council of La Raza

National Committee on Pay Equity (NCPE)

National Women's Law Center;

National Federation of Independent Businesses (NFIB)

National Work-Life Alliance

New Brunswick’s Five Year Wage Gap Action Plan

Pew Hispanic Trust

U.S. Census Bureau

U.S. Council of Economic Advisors

U.S. Department of Labor

U.S. Government Accounting Office

Washington College of Law, American University, Program on Gender, Work and Family

Women's Law Center of Maryland, Inc.

Women and Work Commission in UK,

Wyoming Council for Women's Issues (WCWI)