COMPENSATING DIFFERENTIALS AND THE GENDER EARNINGS GAP

AMONG THE LESS-EDUCATED

by

Sarah E. Reed

A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Economics

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ABSTRACT

This research focuses on the role of occupational characteristics in the occupation-specific gender earnings gap for less-educated individuals. Using data from the American Community Survey and the U.S. Department of Labor's Occupational Information Network, I estimate the gender earnings gap within 404 occupations and identify occupational characteristics that are associated with an increasing or decreasing gender earnings gap within occupations. I find the importance, necessity, and frequency of cooperatively working with other individuals within an occupation is associated with a decreasing gender earnings gap within occupations, whereas the amount of responsibility a worker has within an occupation is associated with an increasing gender earnings gap. I also find evidence of a relationship between the gender earnings gap and the price of temporal flexibility within occupations, with the price of flexibility increasing in the amount of time pressure a worker faces and the regularity of work schedules.

Chapter 1

INTRODUCTION

Historically, men outpaced women in wage-determining factors, such as educational attainment and job experience, and as a result received higher compensation in the labor market. However, as women achieved higher levels of education and experience, the gender wage gap contracted. In Claudia Goldin's Presidential Address at the 2014 meeting of the American Economic Association (Goldin 2014), she addressed the gender earnings gap, and what must happen in "its last chapter" for gender equality in earnings to be achieved. Part of her analysis examines the role of occupational characteristics, rather than individual characteristics, and how they contribute to the gender earnings gap for college-educated individuals. Using data from the U.S. Department of Labor's Occupational Information Network (O*NET), she focuses on five occupational characteristics that capture the amount of temporal flexibility in an occupation and finds that occupations with less temporal flexibility have larger gender earnings gaps.

In this dissertation, I examine the effect of occupational characteristics on the gender earnings gap within occupations among individuals who do not have a college degree using data from O*NET, a nationally-representative database providing occupation-specific data on nearly 1,000 occupations in the U.S. I identify a comprehensive set of occupational characteristics that reflect typical duties and tasks common to many occupations and examine their role in the gender earnings gap

among these individuals, who compose over half of the U.S. labor force (U.S. Bureau of Labor Statistics 2017a) and have a women's to men's earnings ratio of approximately 0.76 (U.S. Bureau of Labor Statistics 2017b). Combining the O*NET data with data from the American Community Survey (ACS), I identify specific occupational characteristics that are associated with an increasing or decreasing gender earnings gap within occupations.

Following Goldin (2014), I also examine the role of temporal flexibility in the gender earnings gap. Women are often regarded as desiring more flexibility in their work life than men in order to accommodate the needs of their families, and I investigate if that desire for temporal flexibility is driving the gender earnings gap within occupations. Furthermore, I examine how occupational characteristics influence the cost of temporal flexibility in an occupation. I identify characteristics of an occupation that cause earnings to be sensitive to a change in working hours.

Lastly, I provide a case study of the service sector to identify what occupational characteristics are associated with the gender earnings gap within occupations in the service sector. Employment in the service sector has been steadily increasing for the past 30 years (U.S. Bureau of Labor Statistics), and the proportion of annual hours worked by women in the service sector increased by nearly 20 percentage points between 1965 and 2008 (Ngai and Petrongolo 2017). Since employment in the service sector has been steadily increasing, especially for women, it is important to know if the overall results across all occupations hold within occupations in the service sector.

I choose to study less-educated workers, whose highest level of education is a high school diploma or equivalent credential, some college experience without a

degree, or an associate's degree, for a number of reasons. First, the gender earnings gap within this group of individuals is often overlooked. The gender earnings gap among college-educated individuals is more commonly studied. Moreover, and perhaps more importantly, individuals who have at least a high school diploma, but do not have a four-year college degree, compose over half of the civilian workforce. Those with a high school diploma or equivalent credential account for approximately one quarter of the civilian labor force, while those with some college experience or an associate's degree compose nearly 28% (U.S. Bureau of Labor Statistics 2017a).

Furthermore, according to the 2016 Annual Social and Economic Supplement of the Current Population Survey, 27% of all households are headed by someone with a high school diploma and 29% by someone with some college experience. Considering only households headed by a single person with a high school diploma or some college experience (rather than a married couple), 68% and 74% of them, respectively, are headed by a woman. In 2014, nearly 31% of female-headed households were below the poverty line, while that was only true of 16% of male-headed households (DeNavas-Walt and Proctor 2015). Since the majority of households that are headed by a single individual with either a high school diploma or some college experience are headed by a woman and these households are more likely to be below the poverty line, understanding any barriers to these women's success in the labor market is exceptionally important.

Interestingly, less-educated women are not necessarily worse off relative to some of their more-educated counterparts when compared to equivalent men. For example, for full-time workers whose highest education credential is some college experience, the ratio of women's to men's median annual earnings was 0.79 in 2016,

which was equal to the earnings ratio for workers with a bachelor's degree. However, the annual earnings ratio for workers with an associate's degree was considerably lower at 0.74, especially when compared to the earnings ratio for workers who hold a master's degree or higher, which was 0.81 in 2016 (National Center for Education Statistics 2017).

More generally, less-educated workers in the U.S. have fallen behind their more-educated counterparts in the past decades. The returns to skill have increased over the past few decades, leading to increased inequality between high-skilled and low-skilled workers (Juhn, Murphy, and Pierce 1993; Autor and Dorn 2013). Accordingly, the wage premium associated with a college degree has increased by approximately 20 percentage points since 1980 (Goldin and Katz 2007).

Taking all of this evidence together, it seems that less-educated workers, especially less-educated women, face substantial challenges in the labor market. Thus, it is important to study why women in this population are at a disadvantage relative to men and to identify ways to remedy this.

My research contributes to the literature by identifying what occupational characteristics, rather than human capital variables or individual characteristics, are associated with a gender earnings gap within occupations. By merging the characteristics of the O*NET occupation categories with the ACS occupation categories, I study the gender earnings gap from an occupational perspective after using individual-level data to estimate the earnings gap. That is, I identify specific duties or tasks of an occupation that are associated with increasing or decreasing equality in earnings between men and women who are working in the same occupation. Moreover, this research provides a comprehensive study of the gender

earnings gap of the less-educated population exclusively, whereas the majority of the gender wage inequality research focuses on the college-educated population.

My research also contributes to the literature by expanding the discussion around temporal flexibility and the gender earnings gap. In this research, I offer a simple theoretical framework illustrating how the desire for and the price of flexibility (in terms of foregone earnings) can perpetuate the earnings gap between men and women working in the same occupation. An empirical analysis then offers a quantitative evaluation of the effect of working hours on the gender earnings gap within occupations. Moreover, I identify occupational characteristics that contribute to temporal flexibility being an expensive job amenity. This will have important implications in achieving gender equality in earnings if women are the individuals who desire flexibility and must sacrifice a nontrivial amount of earnings to acquire it.

In this research, I show the magnitude of the within-occupation gender earnings gaps among less-educated workers varies across occupations. Within an occupation, women earn, on average, $0.84 per $1 men earn. I find that the importance, necessity, and frequency of cooperatively working with other individuals within an occupation is associated with a decreasing gender earnings gap within occupations, whereas the amount of responsibility workers have within an occupation is associated with an increasing gender earnings gap. For example, Panel (a) of Figure 1 shows a positive relationship between the importance of establishing and maintaining interpersonal relationships, which is one measure of the importance of working with others, and the ratio of women's to men's earnings in an occupation; this means that the gender earnings gap decreases as the importance of establishing and maintaining interpersonal relationships increases within an occupation. Panel (b)

shows an inverse relationship between the amount of responsibility workers have for work outcomes and the earnings ratio within an occupation, which demonstrates that the gender earnings gap is increasing in the amount of responsibility workers have within an occupation.

I also find evidence that a positive relationship exists between the gender earnings gap and the price of temporal flexibility within occupations, meaning occupations that have a high price of flexibility also have a large gender earnings gap. Moreover, I find the price of flexibility within an occupation is increasing in the amount of time pressure a worker faces and the regularity of work schedules within an occupation.

(a) *The Importance of Interpersonal Relationships*
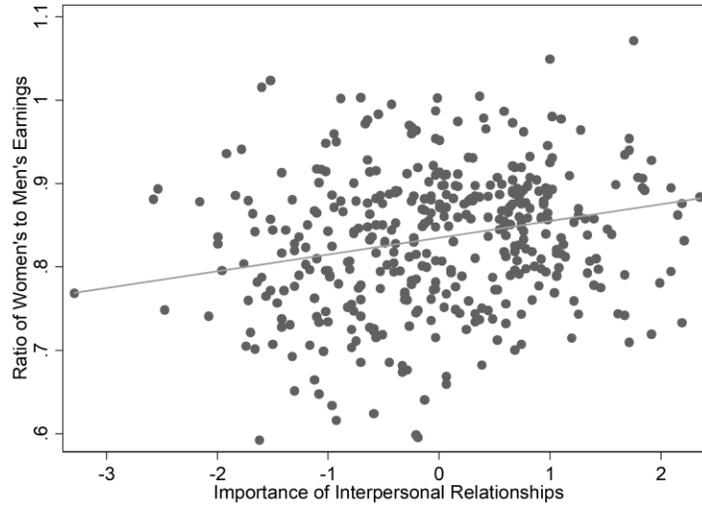
(b) *The Amount of Responsibility for Work Outcomes*
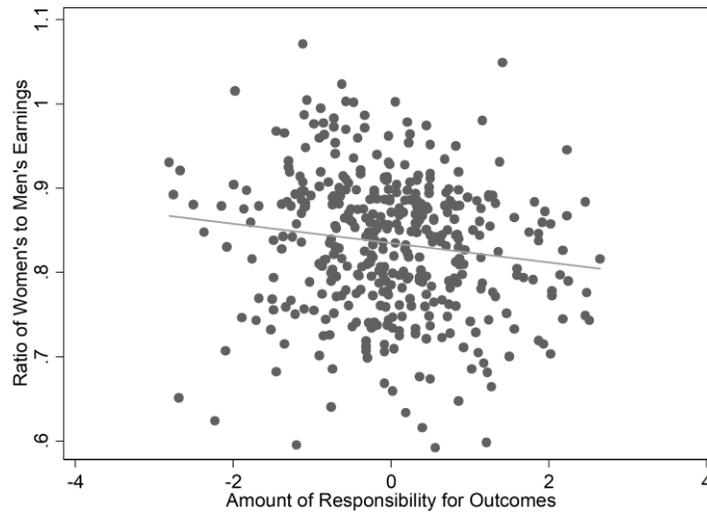
Figure 1:   *The Relationship between the Occupation-Specific Gender Earnings Gap and Selected Occupational Characteristics*

Notes: Estimated from ACS and O*NET data as described in Chapter 4 with full results presented in Chapter 5.

Finally, I find that industrial components may also play an important role in the occupation-specific gender earnings gap because I find little evidence that these characteristics are related to the gender earnings gap within the service sector. For example, I find only limited evidence that the gender earnings gap within occupations in the service sector is associated with the importance, necessity, and frequency of cooperatively working with others. Similarly, the amount of responsibility for outcomes within an occupation is not associated with the gender earnings gap within occupations in the service sector. The inability to extrapolate the overall results within the service sector hints that industry-specific components are important in the explanation of the gender earnings gap within occupations.

The remainder of this dissertation is structured as follows: In the next chapter, I provide an overview of the existing literature on the gender earnings gap. In Chapter three, I include important background information and offer a simple theoretical framework. I describe the data and methodology in Chapter four and discuss the results in Chapter five. Chapter six provides a case study of the service sector, and Chapter seven offers concluding remarks.

Chapter 2

LITERATURE REVIEW

In this chapter, I review the historical trends of the gender earnings gap and some common explanations for the trends. I also summarize recent research that highlights the importance of occupation in estimating the gender earnings gap. A review of the compensating differentials literature that focuses on the gender earnings gap is included, as is a brief overview of the soft skills literature. Lastly, I highlight the contributions this current study makes to the existing literature.

2.1 Time Trends

From the 1950s to the 1970s, the ratio of women's wages to men's wages stayed relatively constant at approximately .60 (Blau and Kahn 2006; 1994; O'Neill 2003; O'Neill and Polachek 1993). The ratio began increasing in 1979 and then experienced a rapid increase through the entire 1980s decade. By 1989, the ratio had reached nearly 0.70 (Blau and Kahn 2006). Figure 2 illustrates the earnings ratio over time.

The large and rapid increase in the ratio of women's wages to men's wages during the 1980s is exceptionally noteworthy since it occurred in a decade in which overall inequality in the labor market was increasing (Katz and Murphy 1992). Increasing returns to skills left workers in low skill jobs adversely affected by the changing wage structure. However, in spite of this increasing overall inequality,

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women made gains relative to men in their wages (Blau and Kahn 1997). Blau and Kahn (1997) said women were "swimming upstream" during this time.
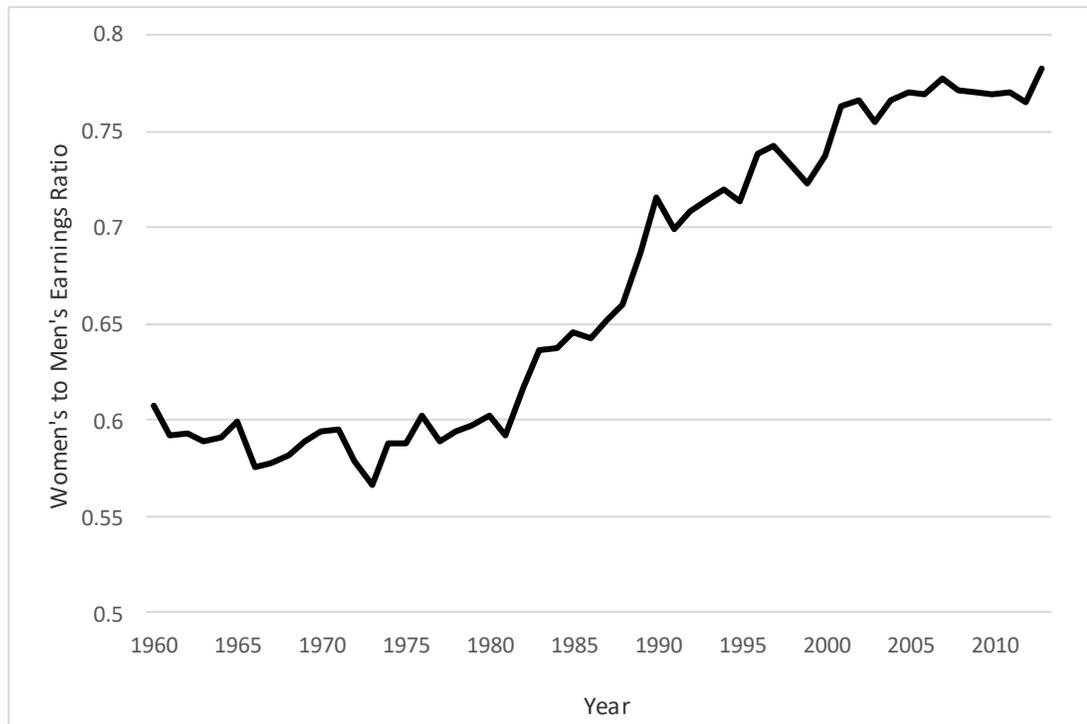
Figure 2:   *Women's to Men's Annual Earnings Ratio, 1960-2013*

Source: United States Department of Labor.
Notes: Data comes from the Current Population Survey (CPS), Annual Social and Economic Supplements (1960-2013). The ratio is based on full-time, full-year workers aged 15 and over since 1980 and aged 14 and older prior to 1980.

Increases in women's relative experience levels played a significant role in the convergence of wages in the 1980s. O'Neill and Polacheck (1993) find that women

increased their actual years of work experience relative to men from 1967-1988, which alone should decrease the wage gap. More importantly, the quality of women's work experience rose during this time. This improved work experience led to an increase in the returns to experience for women relative to men. Women's relative increases in years of experience is found to account for nearly 30% of the wage convergence in the 1980s while changes in the returns to experience are responsible for approximately 35% of the convergence (O'Neill and Polachek 1993).

Additionally, women's choice of occupations and subsequent shifts of women in professional and managerial positions contributed substantially to increasing the wage ratio (Blau and Kahn 1997). The proportion of women in male-dominated occupations (defined as having 80% or more of workers being men) consistently rose from 1977-1989 while the proportion of women in female-dominated occupations fell concurrently. Regardless of these gender shifts across occupations, men still account for the majority of workers in blue-collar jobs. During the 1980s, the wages of low-skilled, blue-collar workers fell relatively dramatically, which also contributed to the increasing wage ratio (O'Neill and Polachek 1993).

Finally, the unexplained portion of the wage gap fell during this time which is attributed to an increase in women's unobservable skills, a decline in discrimination against women in the workforce, or a combination of both (Blau and Kahn 1997).

After the 1980s, when the ratio of women's to men's wages increased rapidly, the ratio increased at a much slower rate. During the 1990s, the ratio increased by approximately 3.5 percentage points compared to the nearly 10 percentage point increase it saw during the 1980s (Blau and Kahn 2006).

In the 1990s, women's experience played a smaller role in the convergence of the wage gap relative to the effect it had in the 1980s. From 1979-1989, the gender gap in years of experience declined by 2.3 years, whereas it declined by only 0.7 years from 1989-1999. However, increases in women's educational attainment played a larger role in convergence in the 1990s than it did in the 1980s. Education variables accounted for approximately 40% of the decline in the gender earnings gap from 1989-1998, but had a negligible effect from 1979-1989. Considered together, changes in women's relative experience and education from 1979-1998 offset each other and play no role in the slowing convergence of the gender earnings gap in the 1990s (Blau and Kahn 2006).

Women shifting across occupations was a contributing factor in moving towards wage equality in the 1980s. Women continued to enter non-traditional occupations in the 1990s, and this continued to have a positive effect on women's wages relative to men's wages. However, this effect was larger in the 1980s compared to the 1990s, thus facilitating the slowing convergence (Blau and Kahn 2006). Baker and Cornelson (2016) show the Duncan index[1] falls by 10 percentage points from 1970-1990, but falls by only 4 percentage points in the following 22 years, further illustrating the slowing shifts of women across occupations.

Blau and Kahn (2006) find the unexplained portion of the wage gap to be the largest factor in the slowing convergence. They find evidence that demand shifts for

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[1] The Duncan index can take a value from 0 to 1 and represents the fraction of men or women who must change occupations in order for men and women to have a similar occupation distribution.

women were more favorable in the 1980s relative to the 1990s, and women were lacking relative to men in some unmeasurable characteristics. Finally, they suggest that labor market discrimination against women may have dissipated faster in the 1980s relative to the 1990s.

By 2010, the unadjusted earnings ratio increased to 0.79 and it was only 0.82 when adjusted for human capital controls, highlighting the lack of explanatory power human capital variables hold anymore. A Oaxaca-Blinder decomposition shows education and experience were responsible for 27% of the gender gap in 1980, but in 2010, they only accounted for 8%. When controls are added for union coverage, industry, and occupation the unadjusted ratio increases to 0.92 (Blau and Kahn 2017).

2.2   Occupation

Goldin (2014) examines the role of occupation in the gender earnings gap and her findings are consistent with the findings of Blau and Kahn (2017). Using American Community Survey (ACS) data from 2009-2011, she finds a significant gender earnings gap when estimating a wage equation that includes a female dummy variable, even after controlling for demographic variables, education, hours and weeks worked, and occupation with 469 occupation dummy variables. For all workers aged 25-64 with positive earnings and hours worked, the regression-adjusted ratio of women's to men's wages is 0.826. For individuals with a college degree the ratio increases slightly to 0.850, which is similar to the estimate in Blau and Kahn (2017).

Goldin (2014) observes how the coefficient of the female dummy changes as more controls are subsequently added to a log wage equation. The most basic form of the wage equation includes a female dummy, age, race, and year. Then controls for

hours and weeks worked are added, followed by education level dummies. Lastly, 469 occupation dummies are added to the wage equation. For all workers, the regression-adjusted earnings gap declines by 40% once controls for time worked, education, and occupation are added. For full-time workers, the regression-adjusted earnings gap declines by 22%, while the earnings gap for full-time workers with a bachelor's degree falls by nearly 43%. This shows that more than half of the earnings gap persists even after controlling for all the factors in her regression, including the 469 occupations. In short, Goldin (2014) concludes that "What happens within each occupation is far more important than the occupations in which women wind up" (1097).

Blau and Kahn (2017) conduct a similar analysis using a Oaxaca-Blinder decomposition. Using data from the Michigan Panel Study of Income Dynamics (PSID) for full-time (nonfarm) wage and salary workers aged 25-64 who worked a minimum of 26 weeks in the preceding year, the combined effect of industry and occupation variables accounted for only 20% of the earnings gap in 1980, but was responsible for 51% of the gap in 2010. The 20 occupation variables seem to be the relatively more important factor, accounting for approximately 33% of the total gender earnings gap in 2010. This is consistent with Goldin's (2014) result that the regression-adjusted earnings gap falls by 22%-43% once controls for occupation are added.

A decomposition of the average gender earnings gap into two components, differences in employment across occupations and difference in earnings within occupation, also illustrates that the difference in earnings within occupations is more important than the distribution of men and women across occupations. Baker and

Cornelson (2016) use 2012 ACS data and find nearly two-thirds of the average wage differential is due to the difference in earnings within occupations. Even when controlling for a number of occupational skills, aptitudes, and attributes, the proportion of the average earnings gap attributed to wage differentials within occupations remains larger than the proportion due to the distribution of men and women across occupations.

Goldin et al. (2017) calculate a more detailed decomposition of the gender earnings gap within occupation. Using the Longitudinal Employer-Household Dynamics (LEHD) Census, they find the gender earnings gap for individuals with less than a college degree but at least a high school diploma is approximately halved once controls for industry, occupation, and establishment are added. Approximately half of the gap is attributed to differences in earnings between men and women within the same establishment, but half of the gap is attributed to differences in earnings across different establishments within the same occupation.

Even though Goldin (2014), Blau and Kahn (2017), Baker and Cornelson (2016), and Goldin et al. (2017) use different data and different, but related, methodologies, all reach the same conclusion. The distribution of women across occupations is important, but even after controlling for that, the gender earnings gap still persists. Differences in pay across genders within occupation are more important than gender differences in the occupational distribution.

2.3   Compensating Differentials

Adam Smith was the first to point out that wages vary depending on the type of work when he wrote *The Wealth of Nations* in 1776. According to Smith (1776),

wages vary according to "the ease or hardship, the cleanliness or dirtiness, the honourbleness or dishonourableness, of the employment" (54). Rosen (1986), who wrote the seminal modern paper on compensating differentials, defines compensating differentials to be the "observed wage differentials required to equalize the total monetary and nonmonetary advantages or disadvantages among work activities and among workers themselves" (641).

As Rosen (1986) points out, compensating differentials arise in response to a number of job characteristics such as health or safety risks, location, work schedules, and fringe benefits. The theory of compensating differentials predicts that jobs with pleasant amenities (e.g. fringe benefits, flexible work schedules) will have earnings lower than average, while jobs with unpleasant working conditions or tasks (e.g. working in extreme weather, dangerous tasks) will have earnings with a premium attached.

A large literature exists regarding the compensating differentials associated with job riskiness (see, among others, Smith (1979), Olson (1981), Leeth and Ruser (2003)). However, compensating differentials are shown to exist for a number of other occupational characteristics. For example, Feinberg (1981) finds a compensating differential for earnings risk; HomRoy (2016) finds a compensating differential for CEOs due to their high risk of dismissal; Usui (2009) finds a wage premium associated with working in male-dominated occupations; Hersch (2011) finds a wage differential exists for exposure to the risk of sexual harassment; and Wei (2007) finds an earnings compensation for illness risk.

In an attempt to explain the earnings gaps within occupations, Goldin (2014) develops a simple theoretical compensating differentials framework examining hours

worked and the penalty for temporal flexibility (see section 3.1 below for further discussion of this framework). Occupations that value long work hours or working during certain hours impose a very heavy penalty for fewer hours worked or a change in the timing of the work hours. For example, in certain occupations, a 60 hour work week will produce earnings greater than twice the earnings of a 30 hour work week, or working eight hours from 8am-4pm produces higher earnings than working eight hours from 8am-12pm and 4pm-8pm. Reduction of wages does not occur at a linear rate with respect to hours missed, which implies there is a convex earnings structure in these occupations. This large penalty may induce a worker to switch to an occupation or position where time flexibility is not as costly. Occupations that have a linear wage structure impose no additional consequence, other than reduced wages, for temporal flexibility. Fewer hours worked imply a reduction of wages at a linear rate, which does not induce workers to change occupations or positions within an occupation (Goldin 2014).

      Goldin (2014) argues that substitutability between workers is the mechanism driving the linearity or nonlinearity of earnings in an occupation. When workers are easily substituted for one another with no transactions costs, earnings are linear with respect to hours worked, and in the case where workers are imperfect substitutes for one another, earnings are nonlinear. That is, when workers can easily substitute for one another in an occupation, flexibility is not met with a disproportionately large reduction in earnings because it imposes minimal costs on the firm. Conversely, when workers are imperfect substitutes, obtaining flexibility will cause earnings to be reduced by a larger amount.

To quantitatively model the degree of substitutability between workers within an occupation, Goldin (2014) uses data on five occupational characteristics from the Occupation Information Network (O*NET) that capture the degree of substitutability in an occupation[2]. A high average O*NET value of the five occupational characteristics reflects little substitutability between workers in an occupation, which is thought to be due to factors such as a large amount of time pressure, or frequent contact with others. With little substitutability between workers, any change in the hours worked induces a disproportionally large change in earnings. In this case, the pay structure is thought to be nonlinear, which implies there is a large penalty to flexibility. Thus, a large O*NET average value for an occupation can be thought of as representing a nonlinear pay structure in that occupation, while a small O*NET value is representing a linear pay structure, where there is no penalty attached to flexibility.

Goldin (2014) estimates the occupation-specific gender earnings gaps for all occupations, while controlling for demographic variables, education, and hours and weeks worked. A regression of the occupation-specific earnings gap for the top 95 highest paid occupations on the average value of the five occupational characteristics shows occupations with a lower degree of substitutability between workers have larger gender earnings gaps. This supports her argument that certain occupations have pay structures that penalize individuals who desire temporal flexibility. Assuming women

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[2] Goldin uses data on the following occupational characteristics: time pressure, contact with others, establishing and maintaining interpersonal relationships, structured vs. unstructured work, and freedom to make decisions. The data values are normalized, and Goldin calculates the average of the five normalized characteristic values for each occupation.

want more flexibility than men, this desire for temporal flexibility and the penalty (i.e.

compensating differential) associated with it may explain why we still observe a

gender earnings gap within an occupation after controlling for human capital and

demographic variables[3,4].

Goldin and Katz (2011) also develop a compensating differentials framework

to show how workplace flexibility is related to the gender earnings gap within an

occupation. A simple demand and supply framework shows that individuals who have

a greater willingness to pay (WTP) for flexibility have earnings lower than someone

who has a lower WTP. An increase in the number of individuals who have a high

WTP for flexibility raises the price of flexibility (i.e. individuals must sacrifice an

increasing amount of earnings for flexibility). If women are the individuals who want

flexibility, an increase in the number of women who desire flexibility then raises its

price. Conversely, if the cost of providing flexibility decreases (or alternatively, the

benefits associated with inflexibility fall), women's earnings increase relative to

men's, which decreases the gender earnings gap (again assuming women are the

individuals who are paying for flexibility).

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[3] Cha and Weeden's (2014) empirical results are consistent with Goldin's (2014)
argument of a nonlinear earnings structure. They also find that the incidences of
"overwork" (defined as working a minimum of 50 hours per week) play a role in the
gender earnings gap from 1979-2009. They find an earnings premium is associated
with overwork and that men are more likely to overwork. Thus, overwork increases
men's earnings relative to women's earnings.
[4] This is similar to the idea of occupational segregation. Polachek (1981) argued
women are more likely to enter occupations where the wage penalty for time out of the
labor force is low. He finds there is a higher probability that women will enter clerical,
sales, craft, operative, or service occupations relative to professional occupations,
where the loss of earnings potential is greatest.

Using essentially the same framework, Goldin and Katz (2016) find the high degree of substitutability between individual pharmacists, which decreases the cost of providing flexibility, contributes to the small gender earnings gap within the pharmacy occupation. Pharmacists can easily substitute for one another due to changes in the industry's structure, such as the increasing use of technology to track a patient's history and the standardization of medicines coming from pharmaceutical companies. These factors allow earnings of pharmacists to be mainly dependent on their working hours, which implies flexibility comes with no additional penalty. Accordingly, Goldin and Katz (2016) find no part-time penalty for female pharmacists while other college-educated females incur a 21 log point part-time penalty.

Sasser (2005) finds the compensating differential for flexibility for physicians is related to the gender earnings gap within that occupation. She finds that women are more likely to work in specialties (e.g. pediatrics, OB-GYN, pathology) and practice settings (e.g. hospitals, HMO, government) where the average weekly hours worked is relatively low, and in these specialties where women are disproportionally found, the gender earnings gap is smaller. Additionally, the penalties associated with marriage and children for women are lower (and often statistically insignificant) in these specialties compared to specialties that have longer average work weeks[5]. In short, Sasser (2005) finds evidence that the characteristics of a job and the penalty associated with flexibility influence women's choice of jobs in this occupation. Goldin and Katz (2011) also find that women physicians tend to work in specialties that are more apt to

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[5] Sasser (2005) also demonstrates that selection does not affect the penalties women incur for marriage and children.

satisfy their desire for flexibility. They find women physicians are more likely to work in specialties with fewer weekly hours, low (or no) additional time demands (e.g. on-call shifts), and with relatively shorter residency and fellowship programs.

Goldin (2014) also examines the relationship between the weekly hours worked and earnings in each occupation. She estimates the elasticity of earnings with respect to hours worked for each occupation. A simple plot of the estimated elasticity of earnings against the occupation-specific gender earnings gap for the top 95 highest-paid occupations (as ranked by male income) shows a clear negative relationship. Occupations with large earnings elasticities have a large gender earnings gap (i.e. the log gender earnings gap has a large negative value). Individuals in occupations with elasticities greater than one will receive a disproportionally large increase in earnings compared to the increase in their hours worked, which implies there is a nonlinear wage structure. This provides additional evidence that in occupations where there is a nonlinear pay structure (and thus, flexibility is penalized) women earn less than men.

2.4   Soft Skills

There is a growing literature on the importance of "soft skills", which are non-typical and hard-to-measure personal skills/characteristics/traits, in the labor market. For example, wage premiums have been found attached to everything from beauty (Hamermesh and Biddle 1994) to leadership skills (Kuhn and Weinberger 2005). Social skills, which are an example of a specific type of soft skill, are commonly studied and are found to have a relationship with the gender earnings gap so I offer a brief review of the literature on social skills.

Deming (2017) studies the increasing importance of social skills in the labor market. He finds significant, positive returns associated with social skills and finds the returns to social skills increased from 1980 to 2012. Similarly, over the same time period, social skills became more important in predicting full-time employment. The relationship between full-time employment and social skills increased by a factor of four between 1980 and 2012. Employment and wages increased for occupations that are social skill-intensive since 1980. Moreover, this employment and wage growth has occurred throughout the entire skill distribution, meaning the importance of social skills in the labor market is not concentrated in either high-skill or low-skill occupations.

Borghans, ter Weel, and Weinberg's (2014) results are consistent with Deming's (2017). They find the importance of "people tasks", which they define as the "ability to effectively interact with or handle interactions with people, ranging from communication with to caring for to motivating them" (289), increased during their entire sample period (1970-2002). They find the premium associated with people skills increased during this time as well.

Similarly, Weinberger (2014) and Bacolod and Blum (2010) find an increasing premium attached to social skills. Both studies also find that cognitive skills are associated with an earnings premium, and the largest earnings premium is associated with being "multiskilled", or possessing both cognitive and social skills.

The increasing importance of social skills is also shown to decrease the gender earnings gap. The increasing importance of social skills is associated with an increase of wages of non-black women compared to non-black men by as much as 5.8% compared to the actual increase of 11.8% from 1977-2002 (Borghans, ter Weel, and

Weinberg 2014, 287-334). During the 1980s, the change in the returns to skills

(cognitive, motor, people, and physical strength) is estimated to explain approximately

20% of the decreasing gender earnings gap (Bacolod and Blum 2010). Balcar (2014)

summarizes some of the empirical literature on soft skills, with many of the reviewed

studies focusing on social skills and some studies citing social skills as a contributor to

the narrowing gender earnings gap.

2.5   Summary and Contribution

The majority of the literature on the gender earnings gap focuses on the role of

human capital, especially in the college-educated population. However, women have

essentially achieved parity with men in human capital characteristics, thus they can no

longer be a plausible explanation for the gender earnings gap. Additionally, an

increasing number of women have shifted out of the lower-paid female-dominated

occupations to occupations traditionally dominated by men, which are typically higher

paid (Blau and Kahn 2017). Regardless, multiple studies cited above show that a

significant portion of the gender earnings gap comes from differences in earnings

within occupations.

To my knowledge, no studies offer a comprehensive examination of the gender

earnings gap within occupations exclusively for the less-educated population. Goldin

(2014) studies the within-occupation gender earnings gaps for college-educated

individuals working in the top 95 highest-paid occupations, and shows occupational

characteristics that capture temporal flexibility play a role in perpetuating the gender

earnings gap within occupations. However, she never isolates the effect of the

individual occupational characteristics. My research contributes to the literature by

extending Goldin's research on the effect of occupational characteristics on the gender earnings gap in a different group of individuals. In this research, I offer a comprehensive study of the gender earnings gap within occupations in a specific population of individuals who have an education level less than a college degree, but a minimum of a high school diploma. It considers the characteristics of occupations, rather than the skills possessed by individuals, and their role in the gender earnings gap within occupations.

Deming (2017), Borghans, ter Weel, and Weinberg (2014), Weinberger (2014), and Bacolod and Blum (2010) provide evidence that social skills are valued in the labor market and decrease the gender earnings gap. Yet, these studies do not examine what is happening within occupations that require workers to use these "soft skills". While this current research is not directly comparable to the "soft skills" literature, it is complementary to it. In this research, rather than estimating the returns to different skills and estimating how that impacts the gender earnings gap, I estimate the relationship between the gender earnings gap in an occupation and various skills and tasks (and not just exclusively social skills) that are required in an occupation. That is, I want to identify what occupational characteristics (e.g. frequency of being in contact with others or the level of competition) are associated with an increasing or decreasing gender earnings gap within occupations. For example, the aforementioned studies estimate the effect of social skills on earnings at the individual level. This research, on the other hand, views it from the occupational perspective. That is, this research can answer questions such as "In occupations where working with others is important and necessary, is the gender earnings gap increasing or decreasing?", or "In occupations where individuals have leadership roles, is the gender earnings gap

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increasing or decreasing?" In contrast, previous research answers questions like "Does possessing social skills translate to increased earnings?", or "Does the increasing importance of possessing social skills affect the gender earnings gap?"

My research also contributes to the literature by expanding the discussion around temporal flexibility and the gender earnings gap. As Goldin (2014), Goldin and Katz (2011, 2016), and Sasser (2005) discussed, the gender earnings gap is often said to originate from a women's desire for temporal flexibility. In this research, following Goldin (2014), I estimate the earnings-hours elasticity within occupations to use as a measure of temporal flexibility. However, I extend Goldin's analysis by estimating the effect of occupational characteristics on the earnings-hours elasticity within occupations to identify the occupational characteristics that influence the cost of temporal flexibility. Features of an occupation that cause earnings to be very sensitive to a change in the hours worked put a high price, in terms of foregone wages, on temporal flexibility. An individual who desires flexible work hours may be excessively punished for a small change in their hours worked due to certain inherent features of the occupation in which they are employed. If women desire more temporal flexibility than men, the earnings gap may stem from the high cost of that flexibility.

The models I estimate are models of compensating differentials, rather than models of human capital, which have historically dominated the literature on the gender earnings gap. However, instead of estimating the effect of occupational characteristics on earnings (e.g. the effect of job riskiness on earnings), I estimate the effect of occupational characteristics on the gender earnings gap within occupations. Moreover, I focus on characteristics of an occupation that reflect the typical duties and

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tasks workers face in an occupation rather than characteristics that reflect more obvious occupational traits, such as job safety. Nearly all studies find a gender earnings gap after controlling for wage-determining variables, such as human capital characteristics, occupation choice, time worked, etc. Therefore, the remaining earnings gap can plausibly come from some characteristics that are inherent to a profession, such as the time constraints, tasks, or responsibilities faced by the worker.

Chapter 3

BACKGROUND AND THEORY

This chapter offers a detailed review of Goldin's (2014) compensating differentials framework and highlights the important results of the theory. Following that, I develop an alternative and complementary framework that provides an alternate view on how flexibility can perpetuate the gender earnings gap within an occupation.

3.1   Background

The pursuit of flexibility can lead to workers sorting across occupations, which is consistent with the theory of occupational segregation, but it can also lead to workers sorting across jobs (or niches) within occupations. Since multiple studies show the increasing importance of occupation when considering the gender earnings gap (Goldin 2014, Blau and Kahn 2017, Baker and Cornelson 2016, Goldin et al. 2017), this research focuses on what is happening within occupations.

Following Goldin (2014), a portion of my research examines the role of temporal flexibility and working hours in perpetuating the gender earnings gap within an occupation. Because flexibility is typically regarded as a desirable job amenity it will, according to the theory of compensating differentials, come at the price of lowered earnings. Within an occupation, a job offering a high level of temporal flexibility is expected to have lower earnings than a comparable job in the same occupation that does not offer the same amount of temporal freedom. For example, a

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lawyer who is employed in a large law firm is expected to have earnings greater than a self-employed lawyer, but the self-employed lawyer will have much more freedom in regards to the hours he/she wishes to work. Additionally, a lawyer who wants a regulated work schedule may sort into corporate law, which affords him/her a structured work schedule. Each of these individuals works in the occupation of "lawyer", but they have different jobs that provide varying amounts of flexibility.

To further illustrate the choice of jobs within an occupation, consider an individual who completes an Advanced Degree in Nursing (ADN), which is an associate's degree in nursing. With an ADN, an individual can become a registered nurse (RN), assuming he/she passes the appropriate exam(s). Once an individual is an RN, his/her occupation is classified as 'registered nurse'. However, this individual now has a choice of the job he/she wishes to pursue within the occupation. He/she has the choice of working in a hospital, a physician's office, a nursing care facility, a school, a clinic, or in home healthcare, among other choices (Adkins 2016).

As previously mentioned, Goldin (2014) develops a simple theoretical framework examining the relationship between hours worked and the penalty for temporal flexibility. Consider Goldin's (2014) Figure 4 below[6]. This figure relates output, Q, of a worker to his/her time input, λ. Output is expressed as output per unit time (i.e. productivity) in occupation j, k_j, multiplied by time input, λ. Technically, λ can represent the fraction of full-time employment worked by an individual (or some

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[6] The framework developed in Goldin's (2014) Figure 4 can be viewed as an individual choosing between different occupations or choosing between different jobs within the same occupation. I summarize it in the latter way to more closely relate to this research.

other measure of hours worked), but can simply be thought of as a worker's time input. δ_j is the decline in output faced by an individual when his/her time input, λ, falls below a certain threshold. It acts as a penalty for a lowered time input.

$$Q = \begin{cases} \lambda_i k_j & \text{if} \quad \lambda_i > \lambda_j^* \\ \lambda_i k_j \cdot (1 - \delta_j) & \text{if} \quad \lambda_i \le \lambda_j^* \end{cases}$$
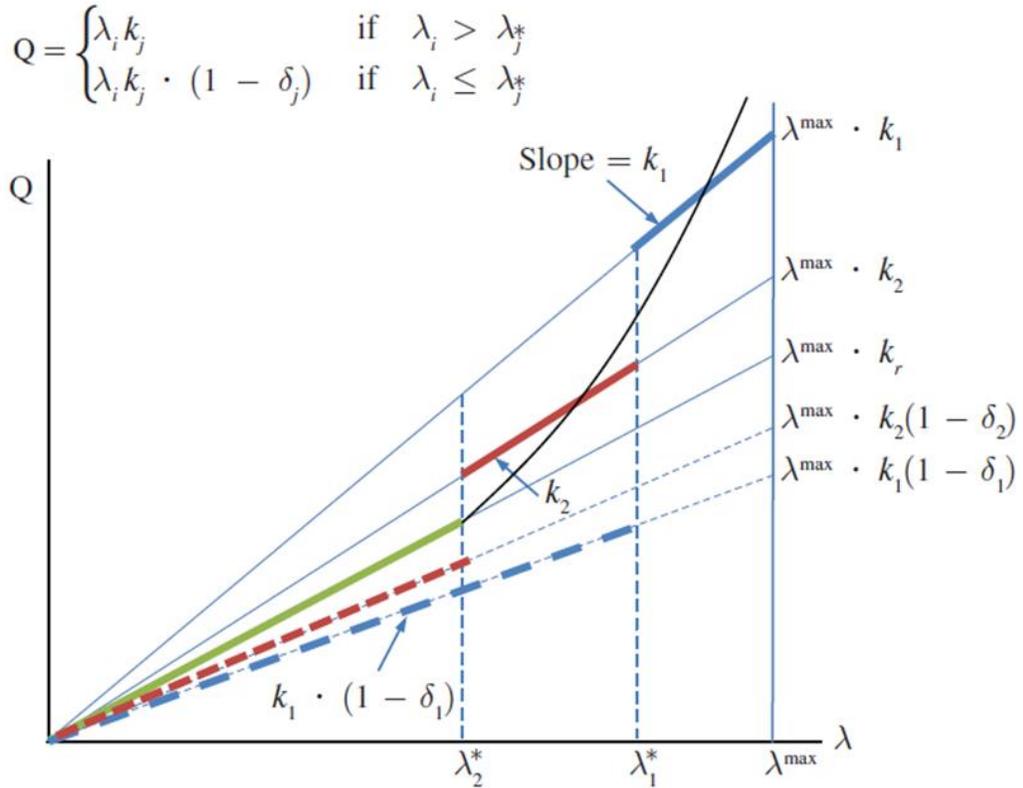
A THEORY OF OCCUPATIONAL PAY DIFFERENCES

Notes: Each of the lines gives the relationship between output, Q, in some occupation and the time input, λ, of a worker where $0 < \lambda \le \lambda^{max}$. When the time input is reduced below some level, λ^*, output decreases discretely for occupations 1 and 2. Occupation r has a linear relationship between time worked and earnings throughout. An individual who works between λ_1^* and λ^{max} will be in occupation 1, an individual between λ_1^* and λ_2^* will work in 2 and all others will work in r, if they remain in the labor force.

Source: Claudia Goldin, "A Grand Gender Convergence: Its Last Chapter," American Economic Review 104, no. 4 (04, 2014), 1105.

In this framework, there are three jobs (1, 2, and r) within this occupation. An individual working in this occupation will choose the job that maximizes his/her output, or equivalently, his/her productivity, which, in turn, will maximize his/her earnings. An individual working in job 1 will be the most productive when $\lambda^*_1 < \lambda < \lambda^{max}$. However, when $\lambda < \lambda^*_1$, job 1 imposes the largest penalty, δ_1, which makes job 1 a suboptimal choice for any worker whose time input is below λ^*_1. In job 2, productivity is lower relative to job 1 ($k_2 < k_1$), but the penalty for decreased time input is smaller ($\delta_2 < \delta_1$). Job 2 is the optimal choice when $\lambda^*_2 < \lambda < \lambda^*_1$. Job r, which is referred to as the reservation job, imposes no penalty for varying levels of λ (i.e. there is a linear relationship between λ and Q), but productivity is lowest in this job. The reservation job is the optimal choice when $\lambda < \lambda^*_2$.

Goldin argues the substitutability (or lack thereof) between workers in a job causes nonlinearity of earnings, which, in this framework, is shown by a discontinuous drop in productivity. In jobs where workers are perfect substitutes for one another, work is easily transferrable between workers, so there are no transactions costs of substituting one worker for another. Time away from a job does not cause productivity to decrease discontinuously because the work is not tailored specifically to one worker. Output, and thus, earnings will be linear with respect to hours worked (i.e. job r) in jobs where workers are perfect substitutes for one another.

However, in jobs where workers are imperfect substitutes, there will be a transaction cost of substituting one worker for another. An imperfect substitute will not have the ability to produce the same output as the original worker (or will need additional time, training, or information to do so), so productivity falls. At certain time input thresholds, productivity drops discontinuously. The discontinuous decline in

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productivity acts as a transaction cost, which is then reflected in a worker's lowered output, and thus, earnings. Therefore, in jobs where workers are imperfect substitutes for one another, earnings will be nonlinear.

This framework demonstrates there is no penalty to flexibility, or equivalently, no premium to the number of working hours in jobs here workers can easily substitute for one another (i.e. earnings are linear with respect to the number of hours worked). Conversely, when workers cannot substitute without incurring a transaction cost, a penalty to flexibility, or equivalently, a premium to long work hours exists (i.e. nonlinear earnings).

In short, in some jobs workers are penalized for having a flexible schedule, or on the flip side of the same coin, workers are disproportionally awarded for long working hours. These penalties (premiums) can induce individuals to switch jobs, occupations, or even affect their decision to participate in the labor market. If women desire more flexibility than men, their earnings may be penalized, and thus, this stronger desire for flexibility may perpetuate the gender earnings gap.

Goldin's (2014) framework clearly demonstrates the (aforementioned) points regarding the penalty to flexibility/premium to long and continuous work hours and how the substitutability (or lack thereof) is driving this result. While this framework (indirectly) considers the value an individual places on flexibility by his/her choice of λ and the cost a firm faces in providing flexibility by the drop in earnings (or more precisely, Q), I offer a different, complementary framework that includes both of these factors directly.

3.2   Theory

Consider the firm's perspective. Temporal flexibility is a job amenity that many workers desire. However, it can be costly to the firm to offer this amenity. Goldin's theory illustrates this, using the substitutability (or lack thereof) between workers as the mechanism. The theory shows time away from certain jobs results in a large drop in productivity[7]. When productivity drops, output will fall. Thus, a firm offering temporal flexibility will see a decrease in worker productivity, which will result in a loss of output. A loss of output reduces a firm's revenue, making temporal flexibility a costly job amenity for the firm to provide.

Assuming the firm wants to keep total production costs unchanged, a worker's earnings must fall as his/her productivity decreases. Without a decrease in earnings, output will decrease with no change in production costs, which is equivalent to production costs increasing. So, as a firm offers more temporal flexibility, earnings must decline accordingly.

I assume a firm can offer different bundles of earnings and temporal flexibility in a job, while keeping the total cost of production unchanged. A firm's isocost line shows all possible equal-cost bundles of temporal flexibility and hourly earnings in a job. Figure 3 shows three isocost lines, C_1, C_2, and C_3, for three different jobs within an

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[7] A study focusing on the importance of collaboration on scientific research supports this idea. The study finds that physical proximity plays a crucial role in the quality of the research completed. That is, a small distance between authors is associated with a larger number of citations on completed research (Lee et al. 2010). Similarly, a study in the Harvard Business Review shows that, in some instances, increased interaction and collaboration between colleagues leads to improved company performance (Waber, Magnolfi, and Lindsay 2014).

occupation offered by three different firms. These three jobs (1, 2, and 3) form a choice set for a worker employed in this occupation.

The isocost lines show a negative relationship between hourly earnings, which reflects a worker's productivity, and temporal flexibility. This follows from Goldin's result: as a worker acquires more temporal flexibility, his/her productivity will fall[8]. When a worker becomes less productive, the firm will lower his/her compensation in order to keep total costs unchanged. Thus, the isocost lines are negatively sloped.

The different vertical intercepts illustrate the different levels of productivity, or equivalently, the maximum potential hourly earnings in each job. Job 1 has the highest possible productivity and the greatest potential earnings, E_1, while job 3 has the lowest productivity and potential earnings, E_3.

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[8] Temporal Flexibility is often associated with the ability to work from home, and conflicting evidence exists regarding productivity when working from home. For example, one study of a Chinese travel agency found allowing workers to work from home increased worker performance by 13%. However, this study focuses on one specific type of worker (call center employees) whose pay is partially based on performance (Bloom et al. 2015). Bailey and Kurland (2002) offer a review of the telework literature and highlight that while multiple studies find increased productivity, the majority of studies use self-reported data and most workers working remotely choose to do so, which may bias the productivity data. More recently, large companies, such as IBM and Yahoo, infamous for their remote work policies have ended those policies. Justification for the policy change at Yahoo came in a memo sent out by the director of Human Resources at Yahoo, Jackie Reses, saying "Some of the best decisions and insights come from hallway and cafeteria discussions, meeting new people and impromptu team meetings. Speed and quality are often sacrificed when we work from home" (Cain Miller and Rampell 2013) , implying productivity is lower when individuals are away from the workplace.
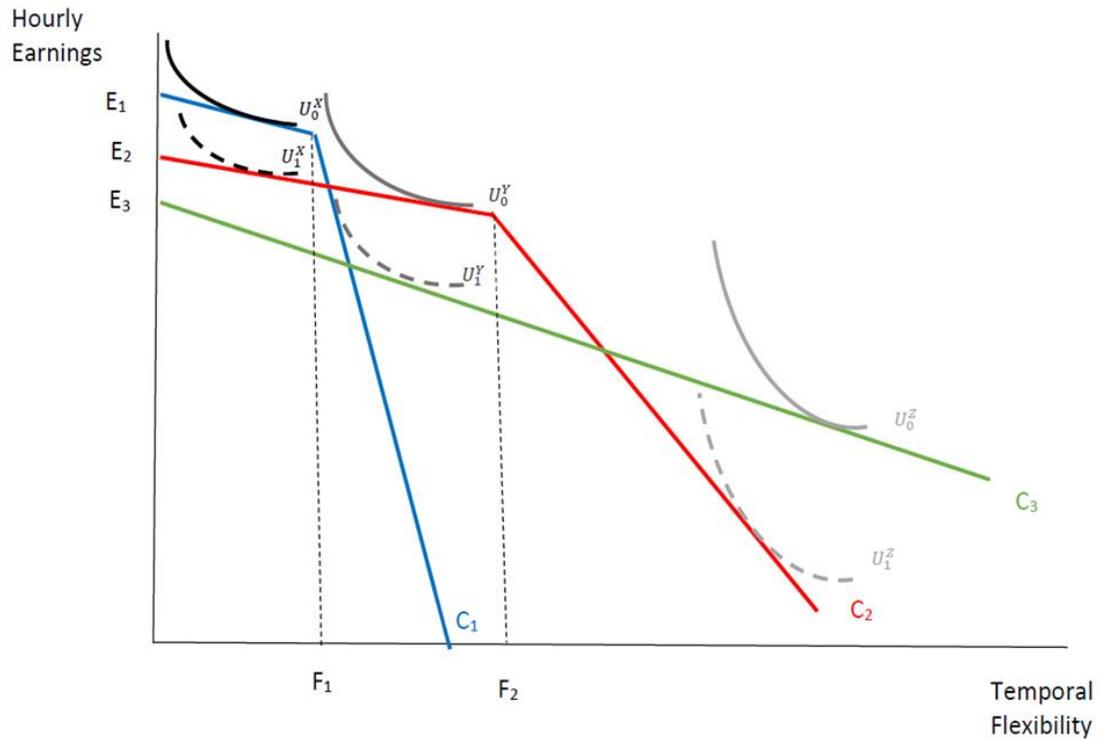
Figure 3:   *Earnings-Flexibility Trade-Off Within an Occupation*

The slopes of the isocost lines show the cost of providing temporal flexibility in terms of earnings while keeping the total cost of production unchanged. At the levels of temporal flexibility where the isocost line is relatively flat, temporal flexibility can be provided by the firm at a low cost. This will be the case when workers can substitute relatively easily for one another. The steeper the slope of the isocost curve, the more costly it is for the firm to provide temporal flexibility. This is the case when workers are imperfect substitutes.

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From the workers' perspective, temporal flexibility is a job amenity they must 'pay' for by sacrificing earnings. Again, the slope of the isocost line reflects the 'price' of temporal flexibility. With a steep isocost line, a small change in temporal flexibility is met with a large change in earnings. In this case, workers must pay a high price for temporal flexibility. Conversely, with a relatively flat isocost line, a change to the level of desired temporal flexibility causes a small change in earnings, so flexibility has a low price.

Similar to Goldin's (2014) framework, job 1 has the highest possible earnings and productivity, but it also imposes the largest penalty for flexibility for all levels of temporal flexibility greater than F_1. Up to flexibility level F_1, it is relatively cheap for this firm to offer temporal flexibility. However, at F_1, the worker becomes less productive and the cost of providing temporal flexibility increases. This is reflected by the steeper slope of the isocost line after F_1. In other words, there is limited substitutability between workers in job 1. Because of that, only a small amount of flexibility can be offered at a low cost by this firm.

Job 2 has lower potential earnings relative to job 1. However, this job imposes a smaller penalty for temporal flexibility. It is relatively cheap for this firm to provide temporal flexibility up to level F_2. At F_2, the cost of providing temporal flexibility increases as productivity falls. In job 3, there is a linear relationship between earnings and temporal flexibility. There is not a particular level of temporal flexibility at which the cost of providing temporal flexibility increases. However, this job has the lowest potential earnings. In job 3, workers will be perfect substitutes for one another because temporal flexibility is offered by the firm at a linear rate with respect to earnings with no additional penalty imposed.

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Also shown in Figure 3 are three sets of indifference curves (i.e. indifference maps) for three different representative individuals, X, Y, and Z, working in this occupation. These indifference curves illustrate how different individuals can have different preferences for earnings and temporal flexibility. The slopes of the indifference curves reflect the value the individuals place on temporal flexibility. An individual who has a low willingness to pay for flexibility will have a flat indifference curve, while an individual who has a high willingness to pay for flexibility will have a relatively steep indifference curve. Individual X has a weak interest in temporal flexibility as illustrated by his/her relatively flat indifference curve, whereas individual Z values flexibility highly as shown by his/her steep indifference curve.

Generally speaking, individuals who have a large desire for temporal flexibility will have indifference curves that are steeper than those for individuals who have a smaller desire for temporal flexibility. Conversely, individuals who have little desire for temporal flexibility will have relatively flat indifference curves. Technically, individuals with steep indifference curves have a larger marginal rate of substitution between earnings and temporal flexibility. That is, they need a larger increase in earnings in order to give up flexibility than an individual with a flatter indifference curve would require (or are willing to sacrifice more pay for additional flexibility).

It is worth noting that the slopes of the indifference curves for the representative individuals are consistent with the amount of flexibility they each want, respectively. That is, individual Z places the highest value on flexibility and desires the largest amount of it. Likewise, individual X places the lowest value on flexibility and wants only a small amount of it.

Each representative individual aims to maximize his/her utility by achieving his/hers highest indifference curve possible, subject to the isocost lines of the firms. The isocost lines can be viewed as a budget constraint faced by the individual. Individual X will maximize his/her utility by working in job 1. By working in job 1, he/she can achieve his/hers highest indifference curve, U_0^X. If he/she chooses to work in job 2, he/she would be on indifference curve U_1^X, which is a suboptimal outcome. Similarly, individuals Y and Z would maximize their utility by working in jobs 2 and 3, respectively.

The sets of indifference curves make it clear that any representative individual can do no better by working in a job other than their optimal choice. Consider individual Y, who will choose to work in job 2 to maximize his/her utility. If this individual were to work in job 1, he/she would be on a lower indifference curve, namely U_1^Y. Similarly, if individual Z chooses to work in job 2, he/she would also be on a lower indifference curve (U_1^Z).

If women are the individuals who desire a relatively large amount of temporal flexibility and place the highest value on it, they will have indifference curves like representative individual Z. Conversely, if men do not want flexibility and place a low value on temporal flexibility, they will have indifference curves like representative individual X or Y. That is, men will work in jobs where the price (in terms of foregone earnings) of temporal flexibility is high and variable, while women choose to work in jobs where the price of flexibility is low and unchanging, regardless of the desired level of flexibility. If this is true, within this occupation, men have earnings greater than women.

This framework illustrates the occupation-specific gender earnings gap can originate from the different value men and women place on temporal flexibility, their different desired amount of it, and the price they must pay for it. In high-paying jobs within an occupation, the high price of increasing flexibility may deter women from working in that job, and they will have an incentive to switch to a lower-paying job where temporal flexibility does not impose a large penalty. Men, who may not desire as much flexibility as women, can afford to work in the high-paying jobs that offer low levels of flexibility (without incurring a large penalty). Thus, the desire for and the price of temporal flexibility can be perpetuating the gender earnings gap within an occupation.

The possibility also exists that women work fewer hours for lower wages due to discrimination rather than choice. If women are viewed as being less committed to their job compared to men, employers may employ women for fewer hours and less pay. However, according to existing studies, that does not appear to be the case. In a study of physicians, Sasser (2005) finds no evidence of discrimination when comparing outcomes of self-employed physicians, who have more control over their working hours, to outcomes of physicians employed in group practices, hospitals, HMOs, etc. Similarly, Briscoe (2006) finds that women physicians are significantly more likely to work in a large organization that offers more flexibility, which suggests women are working in an environment where they can choose to work fewer hours. While the experiences of physicians cannot be generalized to all other occupations, these studies provide some evidence that women may work fewer hours and thus, forego some earnings, by choice rather than discrimination dictating that outcome.

Empirically, data constraints do not allow me to estimate the price of temporal flexibility for different jobs within an occupation. I can, however, estimate the overall price of flexibility within an occupation. I use the elasticity of earnings with respect to hours worked within an occupation as the price of flexibility. The earnings-hours elasticity captures how much earnings change when the number of hours worked changes in an occupation, which is why it can act as the price of flexibility.

However, flexibility is multidimensional. Temporal flexibility reflects the number of hours worked, the timing of hours worked, and how easily either of those factors can change. Unfortunately, data limitations only allow me to look at one dimension of flexibility—the number of hours worked. Thus, the discussion of flexibility in this research focuses on the responsiveness of earnings with respect to the number of hours worked.

It is worthwhile to note that the preceding analysis is focusing on the relationship between earnings and temporal flexibility and how that contributes to the occupation-specific earnings gap. However, temporal flexibility is just one desirable characteristic of a job. Temporal flexibility is considered important to women, especially women who have children, which is why it fits well into this analysis. The framework could easily be generalized to any desired job amenity, such as pleasant working conditions or job safety.

Chapter 4

DATA AND METHODOLOGY

In this chapter, I describe the data and methodologies used in this analysis. I begin by describing the two data sources I use. I follow that with a detailed discussion of the models I estimate.

4.1 Data

I use two sources of data, the American Community Survey (ACS) and the U.S. Department of Labor's Occupational Information Network (O*NET). The ACS is a national survey that is administered on an annual basis by the United States Census Bureau. It is sent to approximately 3.5 million households asking detailed questions regarding demographic information, education, income, occupation, fertility, military status, citizenship, etc.

O*NET is a comprehensive database that provides occupational information for nearly 1,000 jobs. It provides data on hundreds of job and worker characteristics based on survey responses from individuals employed in each of the jobs. The O*NET database serves as the replacement for the U.S. Department of Labor's Dictionary of Occupational Titles (DOT).

4.1.1 American Community Survey

I use ACS data for 2012-2014. Because I am examining the gender earnings gap for less-educated individuals in the civilian population, only individuals with a

high school diploma or equivalent credential (e.g. GED)[9], an associate's degree, or some college experience but no degree will be included in the sample. I choose to study this group of individuals because they are individuals whose gender earnings gap is often overlooked. Furthermore, and more importantly, this group of individuals composes over half of the civilian workforce. Those with a high school diploma or GED account for approximately one quarter of the civilian workforce, while those with some college or an associate's degree account for nearly 28% (U.S. Bureau of Labor Statistics 2017a).

In addition to the education restrictions, I restrict the sample to persons of prime working age, which I define as 22-55 years of age, who have positive wage or salary income reported and work full-time year-round. I choose to use workers 22 years or older to avoid including students who are working while attending school, and I exclude workers over 55 to avoid individuals who retired from a previous occupation and choose to work in a different, often less arduous, occupation in retirement. To be considered a full-time, full-year worker, an individual must work a minimum of 35 hours per week and 40 weeks per year. I choose 40 weeks per year

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[9] Three exams in the U.S. can be used to obtain a high school equivalency credential: the General Educational Development test (GED), the Test Assessing Secondary Completion (TASC), and the High School Equivalency Test (HiSET) (Educational Testing Center 2017). States can also offer additional options to obtain a high school equivalency credential. For example, Pennsylvania offers a "30 College Credit Option", which awards a high school equivalency credential to a PA resident who has completed a minimum of 30 semester hours at an accredited postsecondary institution (Pennsylvania Department of Education 2016). For the sake of brevity, any high school equivalency credential will be referred to as GED for the remainder of this paper.

because I aim to capture individuals who work for the majority of the year (e.g.

preschool teachers, teaching aides, etc) and the next cutoff of 48 weeks per year may

be too restrictive[10]. Lastly, I only use individuals who work in an occupation with 1) a

minimum of 25 men and 25 women employed in the occupation, and 2) a minimum of

10% of all workers in the occupation falling into the education restrictions.

From the ACS data, I use data on individuals' annual earnings (wage or

salary), education, occupation, and demographic information. I choose to use an

individual's wage or salary income for the past 12 months over alternative earnings

measures (e.g. total earnings) because I am focusing solely on the compensation

individuals are receiving for their work in the labor market. For the same reason, I do

not consider self-employment income.

Since I am using three years of data, I apply adjustment measures to the

income variable to account for inflation. First, I adjust the income data for each year

using the adjustment factor given in the ACS data each year. This adjusts for the

inflation that occurred over the 12 months in which the ACS data was gathered.

Second, I use the Consumer Price Index Research Series using Current Methods (CPI-

U-RS) adjustment factor to make all three years of income data compatible. I use the

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[10] As can be seen in Table 1, the average number of weeks worked per year is
approximately 51, implying that the majority of workers work more than 40 weeks per
year. If the full-year restriction is changed to 48 weeks per year, less than 5% of my
sample is lost and the estimation results of the occupation-specific gender earnings
gaps are essentially unchanged. Similarly, if the full-year restriction is changed to 50
weeks per year, only 6% of my sample is lost.

CPI-U-RS annual averages for all items for 2012-2014 to convert all income data to 2014 dollars.

As previously stated, I restrict my sample to individuals whose highest possible education level is an associate's degree and lowest possible education level is a high school diploma or GED. Each individual in the sample falls into one of five exhaustive education categories that can be seen in Table 1. In the model, I use dummy variables for the different education levels instead of a variable for the highest grade completed so the effect of education can vary discontinuously across the different education levels.

The demographic variables I use include gender, age, race, and ethnicity of an individual. For race, I construct six exhaustive categories that can be seen in Table 1. I also control for Hispanic ethnicity since there are nearly 20 million Hispanics living in the U.S., making them the largest ethnic minority group in the country (United States Census Bureau 2016, 1).

The ACS collects data on the working hours for an individual and his/her occupation. I use data on the typical number of hours worked per week. I also use data on the number of weeks worked in the past year. The ACS reports the number of weeks worked in intervals, so following Goldin (2014), I let the mean of the interval represent the number of weeks worked. I control for the occupation an individual works in by using occupation fixed effects, which represent the different occupation categories in the ACS data. As stated previously, individuals are only included in the sample if they work in an occupation where at least 10% of all workers in the occupation fall within the education restrictions and if a minimum of 25 men and women work in the occupation. This implies that a minimum of 10% of all workers in

the included occupations are in the sample and each of the occupations included employ a minimum of 25 men and women. This insures the occupations in the analysis are not misrepresented by a very small fraction of workers or a large imbalance between the number of men and women.

Table 1 provides descriptive statistics of the sample. Within the sample, average income is roughly $45,000. The average number of hours worked per week is 43 and the average number of weeks worked in a year is approximately 51. The distribution of individuals' highest education level is also shown in Table 1. Individuals who have a high school diploma as their highest education credential account for the largest proportion of the sample and those with a GED account for the smallest fraction.

In Table 2, I present the same descriptive statistics, but break them down by gender. Table 2 shows that, on average, men earn more than women and work slightly more hours in a typical week. Within the sample, the average man earns nearly $13,000 (or 34%) more than the average woman. The education distributions in Table 2 show that, generally speaking, women are more educated than men in this sample. Nearly 22% of women hold an associate's degree, while that is true of only 15% of men. Similarly, 40% of men hold a high school diploma as their highest level of education compared to 32% for women.[11]

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[11] I address the potential concern of the education distribution shifting systematically over the three ACS years informally by examining the education distribution across years. There is no evidence of systematic shifts occurring: For each respective education level, the percentage of the sample earning that credential stays within one percentage point over the course of the three years. I also verify that the education distribution across genders is not systematically changing over time by examining the

Table 1:   *Descriptive Statistics for Full-Time, Full-Year Workers Aged 22-55 Without a College Degree*

Variable	Mean	SD
Annual wage or salary income	44,594	34,049
Usual weekly hours worked	43.46	7.98
Weeks worked	50.61	1.60
Age	40.35	9.82
Female	0.43	
White	0.78	
African American	0.11	
American Indian/Alaska Native	0.01	
Asian	0.03	
Hawaiian/Pacific Islander	0.002	
Other race/Multiple races	0.06	
Hispanic	0.14	
High School diploma	0.37	
GED (or alternative credential)	0.06	
Less than 1 yr of college, no degree	0.12	
More than 1 yr of college, no degree	0.27	
Associate's degree	0.18	
N	1,210,371	

Source: American Community Survey 2012-2014
Notes: The sample includes all individuals who have positive income reported, whose highest level of education is either a high school diploma, GED, some college experience without a degree, or an associate's degree, and works in an occupation with a minimum of 25 men and women where at least 10% of all workers in the occupation fall within the education restrictions. Full-time (FT) is defined as working a minimum of 35 hours per week, and full-year (FY) is defined as working a minimum of 40 weeks per year.

education distributions across years by gender and I can draw the same conclusion for each gender.

Table 2:   *Descriptive Statistics for Full-Time, Full-Year Workers Aged 22-55*
Without a College Degree by Gender

	Male		Female	
Variable	Mean	SD	Mean	SD
Annual wage or salary income	50,035	37,908	37,270	26,307
Usual weekly hours worked	44.87	8.83	41.56	6.17
Weeks worked	50.62	1.58	50.61	1.61
Age	39.93	9.79	40.91	9.84
White	0.80		0.76	
African American	0.10		0.14	
American Indian/Alaska Native	0.01		0.01	
Asian	0.03		0.03	
Hawaiian/Pacific Islander	0.002		0.002	
Other race/Multiple races	0.06		0.06	
Hispanic	0.14		0.14	
High School diploma	0.40		0.32	
GED (or alternative credential)	0.07		0.05	
Less than 1 yr of college, no degree	0.12		0.13	
More than 1 yr of college, no degree	0.26		0.29	
Associate's degree	0.15		0.22	
N	694,411		515,960	

Source: American Community Survey 2012-2014. See Notes to Table 1.

4.1.2   Occupational Information Network

O*NET provides data on occupational characteristics for 974 occupations. For each occupation, O*NET provides 227 characteristics, which are classified into 6 broad categories: worker characteristics, worker requirements, experience requirements, occupational requirements, workforce characteristics, and occupation-specific information. Within each of these categories, there are additional subcategories. For example, under the occupational requirements category, there are 5

subcategories: generalized work activities (41 descriptors), intermediate work activities, detailed work activities, organizational context, and work context (57 descriptors). Since this research is concerned with the importance of occupational factors instead of individual factors, most relevant factors will come from the occupational requirements category.

The data from O*NET is unique and advantageous because it quantifies a large number of various occupational characteristics that are not easily measurable. The O*NET data has information on day-to-day responsibilities, tasks, pressures, and working conditions faced in an occupation. For example, O*NET provides information on how frequently a job requires different types of communication methods, such as public speaking or email. It also provides data on a worker's freedom to make decisions, responsibility for others, contact with others (in person or otherwise), and consequences if an error is made. It also provides information on more obvious job characteristics, such as exposure to hazardous materials, likelihood of injury, and working conditions (e.g. indoor/outdoor, hot/cold, etc.).

One disadvantage of the O*NET data is the inconsistency of the measurement scales used. Unfortunately, the occupational characteristics are measured using multiple scales so they are not directly comparable. For example, some characteristics are measured on a scale from 1-5, while others are measured on a scale of 0-7. To remedy this, I normalize all the occupational data from O*NET. Each occupational characteristic is normalized to have mean zero and standard deviation one.

Since O*NET provides data on approximately twice the number of occupations that are included in the ACS, I have to collapse multiple O*NET occupations to map to a single census occupation. Since the O*NET classification

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system is based on the Standard Occupation Classification system (SOC) and O*NET provides a crosswalk linking the two different systems, I first map O*NET occupations to SOC occupations. Then using a crosswalk published by the Bureau of Labor Statistics, I map SOC occupations to ACS occupations. If multiple SOC occupations map to a single ACS occupation, I weight each SOC occupation by the number of individuals employed in that occupation relative to the total number of individuals employed in the ACS occupation. Once the O*NET occupations and the ACS occupations are made compatible and have a one-to-one correspondence, there are 405 occupation categories.

As mentioned previously, O*NET provides data for more than 200 occupational characteristics. I do not use data on all of the occupational characteristics, especially the more obvious ones. It is well-known that hazardous or dangerous occupations have greater compensation compared to safe occupations to account for the increased risk workers face (see, among others, Smith (1979), Olson (1981), and Leeth and Ruser (2003)). I am more interested in a small set of occupational characteristics that capture the nuances of a worker's day-to-day activities and responsibilities.

Within the occupational requirements category, O*NET provides data on what are called "Structural Job Characteristics", "Work Context", and "Generalized Work Activities". The structural job characteristics reflect "the relationship or interactions between the worker and the structural characteristics of the jobs", while the work context variables reflect the "physical and social factors that influence the nature of work". Generalized work activities are "activities that are common across a very large

number of occupations" (National Center for O*NET Development). Table 3 lists the variables I use from each category and their respective descriptions.

I choose the 21 variables listed in Table 3 because they capture various aspects of the work that could be done on a typical day by workers in many occupations. Specifically, the O*NET characteristics I use attempt to capture, within an occupation, i) the importance (and necessity) of working with others; ii) the amount of responsibility a worker has; iii) the importance of leadership roles; iv) the type of work; and v) the work environment.

Table 3:   *Occupational Characteristics and their O*NET Description, 2016*

O*NET Occupational Characteristic	O*NET Characteristic Description
Structural Characteristics	
Consequence of Error	How serious would the result usually be if the worker made a mistake that was not readily correctable?
Frequency of Decision Making	How frequently is the worker required to make decisions that affect other people, the financial resources, and/or the image and reputation of the organization?
Freedom to Make Decisions	How much decision making freedom, without supervision, does the job offer?
Degree of Automation	How automated is the job?
Importance of Being Exact or Accurate	How important is being very exact or highly accurate in performing this job?
Structured versus Unstructured Work	To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?
Level of Competition	To what extent does this job require the worker to compete or to be aware of competitive pressures?
Work Context	
Face-to-Face Discussions	How often do you have to have face-to-face discussions with individuals or teams in this job?
Contact with Others	How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?
Work with Work Group or Team	How important is it to work with others in a group or team in this job?
Deal with External Customers	How important is it to work with external customers or the public in this job?
Responsible for Others' Health and Safety	How much responsibility is there for the health and safety of others in this job?
Responsibility for Outcomes and Results	How responsible is the worker for work outcomes and results of other workers?
Frequency of Conflict Situations	How often are there conflict situations the employee has to face in this job?

Table 3 continued

Generalized Work Activities	
Processing Information	Compiling, coding, categorizing, calculating, tabulating, auditing, or verifying information or data.
Thinking Creatively	Developing, designing, or creating new applications, ideas, relationships, systems, or products, including artistic contributions.
Organizing, Planning, and Prioritizing Work	Developing specific goals and plans to prioritize, organize, and accomplish your work.
Communicating with Persons Outside Organization	Communicating with people outside the organization, representing the organization to customers, the public, government, and other external sources. This information can be exchanged in person, in writing, or by telephone or e-mail.
Establishing and Maintaining Interpersonal Relationships	Developing constructive and cooperative working relationships with others, and maintaining them over time.
Coordinating the Work and Activities of Others	Getting members of a group to work together to accomplish tasks.
Staffing Organizational Units	Recruiting, interviewing, selecting, hiring, and promoting employees in an organization.

Source: O*NET Database 21.0, released August 2016

I include multiple characteristics that highlight the importance of working cooperatively with other individuals, including coworkers, workers in other firms, and the public, because interacting with others is shown to be a valuable skill for workers (Deming 2017; Borghans, ter Weel, and Weinberg 2014; Weinberger 2014; Bacolod and Blum 2010). To capture the importance of working with others within an occupation, I use the following characteristics: the frequency of face to face discussions; the frequency of being in contact with others (in person, by phone, email, etc); the importance of working with a group or team; the importance of working with

external customers or the public; the importance of communicating with persons outside the organization; and the importance of establishing and maintaining interpersonal relationships. These characteristics reflect the importance and frequency with which workers must work together as well as with individuals outside of their firm.

I also include characteristics that reflect the level of responsibility and influence a worker has within an occupation since these are characteristics that are usually associated with an earnings premium (e.g. see Fleming (2015)). The amount of responsibility a worker has within an occupation is reflected by: the amount of freedom a worker has to make decisions without supervision and the frequency in which he/she does so; the consequence of an error; and the level of responsibility a worker has for the outcomes of the work completed as well as for the health and safety of others. These characteristics reflect the accountability of a worker along with the amount of discretion a worker can use in his/her daily life. I include two characteristics, the importance of coordinating the work of others and the importance of staffing organizational units, to capture the importance of leadership roles.

I attempt to capture the type of work done within an occupation by including the following six characteristics: the degree of automation; the importance of being exact or accurate; how structured or unstructured the work is; the importance of processing information; the importance of thinking creatively; and the importance of organizing, planning, and prioritizing work. Lastly, the level of competition and the frequency of conflict situations are two characteristics I include to reflect the work environment within an occupation.

While O*NET provides data on additional aspects of an occupation, I choose to focus on the characteristics listed in Table 3. A number of the O*NET characteristics that are not included in the analysis are similar to the ones listed, so adding them to the analysis may not provide any additional insight. For example, I considered including a characteristic called "Impact of Decisions on Coworkers or Company Results". However, the characteristic "Frequency of Decision Making" measures how frequently a worker makes an impactful decision, so including both seemed redundant. Technically, I see evidence of a strong, positive relationship between the characteristics because their correlation is 0.84.

When examining the role of working hours and temporal flexibility (using the earnings-hours elasticity) in the occupation-specific gender earnings gap, I use a set of ten occupational characteristics that are likely to affect the amount of temporal flexibility a worker has within an occupation. Six of these occupational characteristics are classified as "Structural Characteristics", two are classified as "Work Context", one is classified as a "Generalized Work Activity", and one is classified as a "Cross-Functional Skill". Table 4 lists the ten occupational characteristics and their respective O*NET characteristic descriptions.

When selecting what characteristics to include in the study of temporal flexibility and the gender earnings gap, I start with the five characteristics Goldin (2014) identifies as influencing temporal flexibility within an occupation: the importance of establishing and maintaining interpersonal relationships; the frequency of being in contact with others (in person, by phone, email, etc); the amount of freedom a worker has to make decisions without supervision; how structured or unstructured the work is; and the amount of time pressure a worker faces.

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Table 4:   *Occupational Characteristics that Influence Flexibility and their O*NET Description, 2016*

O*NET Occupational Characteristic	O*NET Characteristic Description
Structural Characteristics	
Work Schedules	How regular are the work schedules for this job?
Duration of Typical Work Week	Number of hours typically worked in one week.
Freedom to Make Decisions	How much decision making freedom, without supervision, does the job offer?
Time Pressure	How often does this job require the worker to meet strict deadlines?
Structured versus Unstructured Work	To what extent is this job structured for the worker, rather than allowing the worker to determine tasks, priorities, and goals?
Pace Determined by Speed of Equipment	How important is it to this job that the pace is determined by the speed of equipment or machinery? (This does not refer to keeping busy at all times on this job.)
Work Context	
Work with Work Group or Team	How important is it to work with others in a group or team in this job?
Contact with Others	How much does this job require the worker to be in contact with others (face-to-face, by telephone, or otherwise) in order to perform it?
Generalized Work Activities	
Establishing and Maintaining Interpersonal Relationships	Developing constructive and cooperative working relationships with others, and maintaining them over time.
Cross-Functional Skills	
Time Management	Managing one's own time and the time of others.

Source: O*NET Database 21.0, released August 2016

I also include five additional characteristics that I believe influence the level of flexibility a worker has within an occupation: the regularity of work schedules; the duration of a typical work week; the extent to which the pace is determined by the speed of equipment; the importance of working with a group or team; and the importance of time management.

The latter five characteristics reflect conventional determinants of flexibility. The regularity of work schedules and the duration of a typical work week capture the importance of the timing of working hours and the amount of working hours. The importance of working with a group or team and the pace of the work being determined by equipment influence the ease (or lack thereof) that the timing of working hours and the quantity of working hours can be changed. If time management is important in an occupation, this implies workers are required to complete a certain amount of tasks or meet deadlines during working hours, making flexibility less accessible compared to occupations where workers are not trying to meet a goal or quota.

Generally, the five characteristics Goldin (2014) uses reflect the level of substitutability between workers within an occupation. They capture how often a worker has to be in contact with other individuals and the importance of cooperative working relationships a worker must maintain. More contact and personal relationships make workers poor substitutes for one another, making flexibility more costly for the firm to provide. Similarly, if the work being done is structured specifically to one worker or one worker has the freedom to use their discretion to determine tasks, any other worker would be an imperfect substitute. Any worker who faces time pressure and has to meet deadlines frequently who does not have a perfect

substitute will have limited flexibility, since another worker cannot meet deadlines for him/her.

I should note that overlap exists between the characteristics I include in the analysis of the gender earnings gap using occupational characteristics and in the study of temporal flexibility's role in the gender earnings gap. I believe the overlapping characteristics will influence the gender earnings gap, but their effect may be working through their role in influencing temporal flexibility. If a characteristic is found to be unrelated to the gender earnings gap within an occupation, but related to the price of flexibility within an occupation, that characteristic will be affecting the gender earnings gap only through its relationship with flexibility within an occupation. Thus, I allow this overlap.

4.2   Methodology

This section describes the estimation procedures I use to estimate the effect of various O*NET characteristics on the occupation-specific gender earnings gap and earnings-hours elasticity. Generally speaking, the estimation procedure is a two-step process. First, I estimate the occupation specific gender earnings gap (earnings-hours elasticity), and then I estimate the effect of the O*NET occupational characteristics on the estimated gender earnings gap (earnings-hours elasticity).

4.2.1   The Effect of Occupational Characteristics on the Gender Earnings Gap

I use the ACS data to estimate earnings equations. I begin by estimating a basic earnings equation where I control for only demographic variables, education level, and time worked (hours per week and weeks per year). Then controls for occupation and

the interaction terms of occupation and female are added successively. The occupation controls consist of 404 occupation dummies.

The following model, which includes occupation controls and the interaction terms of occupation and female, is estimated using Ordinary Least Squares (OLS) and produces the occupation-specific gender earnings gap for all the occupation categories included in the model.

$$\log(earnings_i) = \beta_0 + \beta_1 female_i + \beta_2 age_i + \beta_3 race_i + \beta_4 hisp_i + \beta_5 \log(hrs_i) +$$
$$\beta_6 \log(wks_i) + \beta_7 educ_i + \sum_{k=1}^{404} \gamma_k occ_i + \sum_{k=1}^{404} \theta_k (occ_i \times female_i) + \Phi_t + \varepsilon_i \qquad (1)$$

In the model, $female_i$ is a dummy variable that takes the value of 1 if individual i is a woman. age_i is the age of individual i, which I will enter in the model as a quartic[12] following Goldin's (2014) approach. Also following Goldin (2014) and for the reasons previously mentioned, $earnings_i$ represents individual i's annual earnings from wage or salary income in the past 12 months. $race_i$ represents a set of five dummy variables, and $hisp_i$ is an indicator variable representing Hispanic ethnicity.

I control for the time worked by individual i by including the usual hours worked per week (hrs_i) and the number of weeks worked in the past year (wks_i); both hours and weeks enter the model as log values. educ_i represents a set of dummy variables for the highest level of educational attainment of individual i. I use dummy variables for the highest grade completed so the effect of education can vary by education level.

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[12] Entering age_i as a quartic simply means I include age and its square, cubic, and quartic terms in the model. This allows for a nonlinear relationship between age and earnings.

I control for the occupation in which individual i is employed by using 404 occupation dummies and allow the effect of occupation to vary by gender (or, equivalently, allow the gender effect to vary by occupation) by including the interaction terms of occupation and female. The interaction of female and occupation captures the differential effect of being a woman in a given occupation (in addition to the overall effect of occupation, which is captured by the occupation dummies). Lastly, Φ_t represents two year dummy variables to control for the different years of ACS data, and ε_i is the error term.

In this specification, $\widehat{gap_k} \equiv \widehat{\beta_1} + \widehat{\theta_k}$ is the occupation-specific gender earnings gap adjusted for demographic information, education level, and time worked for occupation k or, equivalently, the adjusted gender earnings gap within occupation k. There are 404 occupation categories included in the model, so I estimate 404 occupation-specific gender earnings gaps. By estimating within-occupation earnings gaps, I avoid the issue of women selecting into women-dominated occupations, which are often lower-paying occupations compared to male-dominated occupations. Additionally, the distribution of women across occupations is no longer the driving force behind the gender earnings gap (Goldin 2014). As discussed previously, the earnings gap is primarily stemming from differences in earnings between men and women within the same occupation.

Combining the data from O*NET with the estimation results from (1), I identify the occupational characteristics that are associated with the earnings difference between genders within occupations by regressing the estimated occupation-specific gender earnings gap on the normalized occupational

characteristics values. By doing so, I can identify how certain characteristics of occupations affect the gender earnings gaps within occupations.

Using the comprehensive group of occupational characteristics listed in Table 3 and, following Goldin's (2014) approach, I estimate the following univariate models[13]:

$$\widehat{gap_k} = \beta_0 + \beta_1 ONETcharacteristic_k + \epsilon_k \qquad (2)$$

Recall, $\widehat{gap_k}$ is the vector of estimated occupation-specific gender earnings gaps from the estimation of equation (1). *ONETcharacteristic_k* represents one of the 21 normalized O*NET occupational characteristics (listed in Table 3) in occupation *k*. I choose to use 21 univariate regressions as opposed to a single multivariate regression that includes the 21 occupational characteristics. The characteristics are highly correlated so multicollinearity would be a problem in a multivariate regression. The results of a univariate regression show the effect of the occupational characteristic in the regression as well as everything it is correlated with. With these models, I am not aiming to estimate causal effects. Rather, in this "horserace" approach, I want to see the effect (and its magnitude) of each characteristic individually.

The characteristic descriptions in Table 3 show exactly what each O*NET characteristic measures. As discussed previously, the characteristics in Table 3 can be categorized into 5 aspects of an occupation: i) the importance of working with others (which includes face-to-face discussions; contact with others; work with a group or

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[13] Goldin uses data for only five characteristics that capture temporal flexibility. In her model, she aggregates the five characteristics and regresses the estimated occupation-specific gender earnings gap on the average of the five occupational characteristics.

team; deal with external customers; communicating with persons outside organization; establishing and maintaining interpersonal relationships); ii) the amount of responsibility a worker has (consequence of error; responsibility for outcomes and results; responsible for others' health and safety; frequency of decision making; freedom to make decisions); iii) the importance of leadership roles (coordinating the work and activities of others; staffing organizational units); iv) the type of work (degree of automation; importance of being exact or accurate; processing information; thinking creatively; structured versus unstructured work; organizing, planning, and prioritizing work); and v) the work environment (level of competition; frequency of conflict situations).

Estimation of these 21 univariate models will allow me to identify what occupational characteristics, if any, rather than human capital differences, are contributing to the earnings difference between genders. Since I control for human capital and demographic variables as well as time worked in the estimation of the earnings gaps, the remaining difference in earnings can plausibly stem from these occupational features.

4.2.2 The Role of Temporal Flexibility and Working Hours in the Gender Earnings Gap

As discussed in sections 2.3 and 3.1, Goldin's (2014) research looks at how temporal flexibility and the penalty associated with it influence the gender earnings gap. Following her work, I also examine the role of temporal flexibility and working hours in perpetuating the gender earnings gap within an occupation. Furthermore, I aim to identify the characteristics of an occupation that cause earnings to be sensitive to changes in the number of hours worked.

As discussed in section 3.2, women (assuming they are the individuals who want flexibility) will work in jobs where temporal flexibility has a low price, and men will work in jobs where flexibility has a higher price. Since the price of temporal flexibility is hard to quantify, I use the elasticity of earnings with respect to hours worked within an occupation as a proxy for it. The earnings-hours elasticity captures how responsive earnings are to a change in the number of hours worked. When the elasticity is large, earnings are sensitive to any small change in the hours worked. Thus, a large earnings elasticity represents a high price of temporal flexibility (and vice versa).

I begin by estimating the occupation-specific earnings elasticity with respect to hours worked by estimating equation (3) using OLS. The variables in (3) are the same as those in (1). However, in (3) I add the interaction terms of occupation and hours.

$$\log(earnings_i) = \beta_0 + \beta_1 female_i + \beta_2 age_i + \beta_3 race_i + \beta_4 hisp_i + \beta_5 \log(hrs_i) + \beta_6 \log(wks_i) + \beta_7 educ_i + \sum_{k=1}^{404} \gamma_k occ_i + \sum_{k=1}^{404} \theta_k (occ_i \times female_i) + \sum_{k=1}^{404} \delta_k (occ_i \times \log(hrs_i)) + \Phi_t + \varepsilon_i \tag{3}$$

In this model, $\widehat{\beta_5} + \widehat{\delta_k} \equiv \widehat{\eta_{eh_k}}$ is the estimated elasticity of earnings with respect to hours worked within occupation k (since hours worked enters the model in log form), or alternatively the occupation-specific earnings-hours elasticity. This value shows the responsiveness of earnings to a change in the typical number of hours worked per week in occupation k. An elasticity value greater than one shows the earnings are elastic with respect to the hours worked in occupation k. That is, an additional hour of work will be met with a disproportionally large increase in earnings or, equivalently, one less hour of work will be met with an excessively large decrease

in earnings. This implies the return to long work weeks is high, and on the flip side, the penalty to short work weeks is large.

While the earnings-hours elasticity can capture the responsiveness of earnings with respect to a change in the number of weekly hours worked, it does not provide any information on the responsiveness of earnings with respect to the timing of the hours worked. That is, the number of hours worked is only part of the flexibility story. Flexibility can also be achieved through the timing of work hours, but due to data constraints, the change in earnings due to a change in the timing of working hours cannot be found. Thus, I will focus on flexibility in terms of the number of working hours.

In occupations where the earnings-hours elasticity is large, temporal flexibility has a high price in terms of foregone earnings. In an occupation where earnings are elastic, individuals who desire temporal flexibility will be adversely affected. Their earnings will be significantly lower than the earnings of an individual who does not want flexibility, since they have to pay a high price for the flexibility they desire. If the individuals who desire flexibility are women, the within-occupation gender earnings gap may be stemming from the high price of temporal flexibility.

Goldin (2014) plots the relationship between the elasticity of earnings and the gender earnings gap for the top 95 highest-paid occupations (as ranked by male income) and finds that occupations with a higher earnings-hours elasticity have larger gender earnings gaps. That is, occupations where earnings are very responsive to changes in the hours worked have the greatest inequality of earnings between men and women.

Again, following Goldin (2014), I investigate the relationship between the earnings-hours elasticity and the gender earnings gaps within occupations. Assuming my results will be similar to Goldin's (2014), I expect to see a large earnings gap between men and women in occupations where the earnings elasticity is large and a smaller earnings gap as the earnings elasticity decreases. If this is true, it would provide suggestive evidence that the gender earnings gap is being perpetuated (at least partially) through women's desire for flexibility.

Assuming my expectations are met, it would be extremely valuable to identify what features of an occupation are associated with a high price of temporal flexibility. Isolating the occupational characteristics that contribute to a large earnings elasticity within an occupation will have important implications in achieving gender equality in earnings as well as providing insight as how to lower the price of flexibility within occupations. To do this, I estimate the following model using OLS.

$$\widehat{\eta_{eh\,k}} = \beta_0 + \beta_1 interpersonal_k + \beta_2 free\ decision_k + \beta_3 time\ pressure_k + \beta_4 contactothers_k + \beta_5 structured_k + \beta_6 work\ sched_k + \beta_7 duration_k + \beta_8 pace\_equipment_k + \beta_9 group\_team_k + \beta_{10} time\ management_k + \epsilon_k$$ (4)

The first five characteristics in the model are the characteristics Goldin (2014) identifies as influencing temporal flexibility, and the latter five characteristics I identify as likely influencing flexibility. The characteristic descriptions in Table 4 identify exactly what each characteristic measures.

As previously discussed, I argue each of these characteristics affects the flexibility a worker has in an occupation, either through the freedom (or lack thereof) to change the timing or quantity of working hours (the latter five characteristics) or through the substitutability of workers (the former five characteristics). In occupations

where workers have little freedom to alter their working hours or are imperfect substitutes for one another, flexibility is more expensive, meaning the earnings-hours elasticity will be increasing. These characteristics will drive the gender earnings gap through their role in making temporal flexibility an expensive job amenity (assuming my expectations about the relationship between the gender earnings gap and the earning-hours elasticity are true).

Chapter 5

RESULTS AND DISCUSSION

5.1   The Effect of Occupational Characteristics on the Gender Earnings Gap

Table 5 displays the estimation results for different specifications of an earnings equation (where the dependent variable is the natural log of annual earnings) for full-time, full-year workers aged 22-55. Column (1) shows the results for the most basic earnings equation, controlling for only demographic variables, education, and time worked. Column (2) adds 404 controls for occupation. There are 405 occupation categories in my data, but I omit one category (maids and housekeepers) so the model does not suffer from perfect collinearity. Column (3) subsequently adds interaction terms of female and occupation. Column (4) introduces interaction terms of occupation and hours. The full estimation results for the specifications in columns (2), (3), and (4) are available in Appendix A.

In each specification, earnings are increasing with education. According to the most basic specification in column (1), relative to someone with a high school diploma (the omitted group), an individual with some college experience earns 11-16% more annually. The return to an associate's degree is greater still, with earnings being nearly 25% larger. Conversely, those with a GED earn approximately 8% less than individuals who have a diploma[14]. The returns to education are approximately halved

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[14] This is consistent with the findings of Heckman, Humphries, and Mader (2010), who show that GEDs are not equivalent to high school diplomas, especially in terms

once controls for occupation are added with the exception of the penalty to a GED, which stays relatively constant in all specifications. This suggests that some of the returns to education come in the form of access to better-paying occupations.

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of labor market outcomes of the individuals who hold each of these respective credentials.

Table 5:   *Estimation Results of Annual Earnings for Full-Time, Full-Year Workers Without a College Degree, 2012-2014*

	Dependent Variable: ln(annual earnings)			
Independent Variable	*(1)*	*(2)*	*(3)*	*(4)*
Female	-0.241***	-0.193***	------	------
	(0.001)	(0.001)		
GED	-0.078***	-0.067***	-0.066***	-0.066***
	(0.002)	(0.002)	(0.002)	(0.002)
Some College < 1 yr.	0.113***	0.050***	0.050***	0.049***
	(0.002)	(0.002)	(0.002)	(0.002)
Some College >1 yr.	0.159***	0.075***	0.075***	0.074***
	(0.001)	(0.001)	(0.001)	(0.001)
Associate's Degree	0.244***	0.098***	0.097***	0.097***
	(0.001)	(0.001)	(0.001)	(0.001)
ln(hours)	0.720***	0.597***	0.593***	------
	(0.003)	(0.003)	(0.003)	
ln(weeks)	2.121***	1.725***	1.720***	1.722***
	(0.015)	(0.014)	(0.014)	(0.014)
Intercept	-6.935***	-4.370***	-4.323***	-3.630***
	(0.172)	(0.158)	(0.158)	(0.249)
Occupation Controls	No	Yes	Yes	Yes
Occupation*Female Interactions	No	No	Yes	Yes
Occupation*Hours Interactions	No	No	No	Yes
R^2	0.2159	0.3411	0.3433	0.3463
F value	17543.15	1480.84	764.49	520.30
Pr >F	0.0000	0.0000	0.0000	0.0000
Sample Size	1,210,371	1,210,371	1,210,371	1,210,371

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively. Standard errors are shown in parenthesis. Controls for age (entered as a quartic), race, ethnicity, and year are included but not reported for the sake of brevity. "Occupation Controls" are 404 occupation indicator variables and "Occupation*Female Interactions" are 404 interaction terms of the occupation indicator variables and the

female indicator variable. The "Occupation*Hours Interactions" are 404 variables where the occupation indicator variables are interacted with ln(hrs). The full estimation results that include the additional indicator variables for occupation, female and occupation, and hours and occupation are available in Appendix A. The estimation results are for full-time (defined as working 35 hours or more per week), full-year workers (defined as working a minimum of 40 weeks per year) who are 22-55 years old.

Earnings are also increasing in the time worked (hours and weeks), as expected. Similar to education but less dramatic, the returns to hours and weeks worked fall once occupation controls are added, implying the effect of time worked is partially dependent on occupation. After controlling for occupation, earnings would increase by approximately 17% if the number of weeks worked in a year increased by 10%, as shown in column (2). A 10% increase in the number of hours worked in a typical week would yield a 6% increase in earnings according to the specification in column (2). The latter result appears to be at odds with Goldin's (2014) result, which is that many occupations have a convex wage schedule, meaning a given increase in the number of hours worked would be met with an even larger increase in earnings. However, that result is based on the occupation-specific earnings elasticity with respect to hours worked, whereas in columns (1)-(3), this is the overall effect across all occupations. I further investigate the results in column (4), which give the occupation-specific earnings-hours elasticity by allowing the effect of hours worked to vary by occupation, in section 5.2 below.

The specification in column (3) produces the occupation-specific (or within occupation) log gender earnings gaps that are adjusted for demographic variables, education, and time worked. The occupation-specific log gender earnings gap for a given occupation is the sum of the coefficient on the female term and the coefficient

on the interaction term of occupation and female. Table 6 summarizes the estimated occupation-specific log gender earnings gaps.

Panel (a) of Table 6 displays summary statistics and Panel (b) shows the distribution of the estimated occupation-specific log gender earnings gaps. The average log gender earnings gap within occupations is -0.176, which corresponds to an earnings ratio of 0.839. The smallest gender earnings gap of 0.192, which corresponds to the maximum log gender earnings gap, shows women in this occupation (gaming cage workers) earn approximately $0.21 more per $1 than men. As Panel (b) shows, women earn a premium relative to men in 13 occupations (3.22% of all occupations). In the remaining 391 occupations, women earn less than men even after controlling for time worked, demographic variables, and education level. Panel (b) also shows that the earnings ratio in over 80% of the occupations is less than or equal to 0.90 (which corresponds to a log gender earnings gap of -0.1 or below), meaning that in over 80% of the occupations (333 to be exact) women earn $0.90 or less per $1 that men earn. In the majority of occupations (278 occupations or 69% of all occupations), women earn between $0.74 and $0.90 per $1 men earn.

Table 6:   *Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree*

	Mean	Standard Deviation	Median	Max	Min	N
(a) Occupation-Specific Log Gender Earnings Gap	-0.176	0.076	-0.171	0.192	-1.569	404
(b) Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap	Frequency	Percent				
$X \leq -0.4$	13	3.22				
$-0.4 < X \leq -0.3$	42	10.40				
$-0.3 < X \leq -0.2$	116	28.71				
$-0.2 < X \leq -0.1$	162	40.10				
$-0.1 < X \leq 0$	58	14.36				
$0 < X \leq 0.1$	8	1.98				
$X > 0.1$	5	1.24				

Source: Author's calculations using the American Community Survey 2012-2014. Notes: The occupation-specific log gender earnings gaps are calculated using the estimated coefficients from column (3) in Table 5 (i.e. $\widehat{\beta_1} + \widehat{\theta_k}$ in equation (1) in section 4.2.1 where $\widehat{\beta_1}$ is the coefficient on $female_i$ and $\widehat{\theta_k}$ is the coefficient on $occ_i \times female_i$). The occupation-specific earnings gaps are adjusted for demographic variables, education, and time worked. The average occupation-specific log gender earnings gap is weighted by the number of women working in each occupation. The unadjusted mean and standard deviation are -0.188 and 0.128, respectively.

The largest gender earnings gap in an occupation corresponds to the minimum log gender earnings gap of -1.569, which translates to an earnings ratio of 0.208, and belongs to the occupation drywall installers, ceiling tile installers, and tapers. This observation is an outlier; the next largest log gender gap is -0.524. Figure 4 illustrates the distribution of the log gender earnings gap, excluding the outlier observation so as

to not distort the distribution. The distribution has a slight negative skew since the median is larger than the mean and more mass lies to the left of the central tendency.
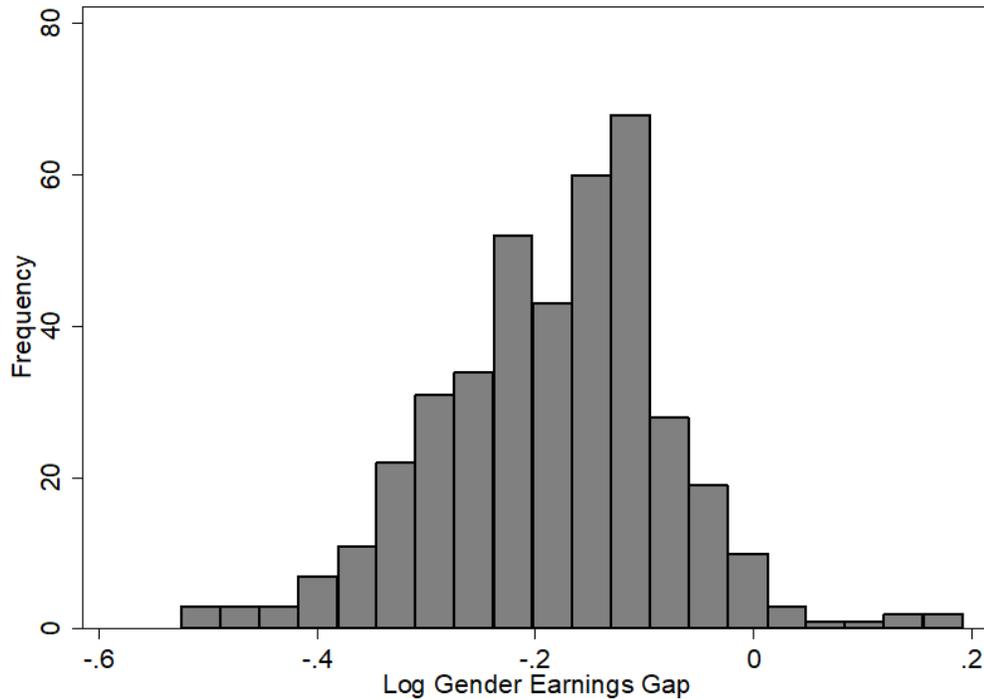
Figure 4:   *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree*

It is worth noting that the majority of the estimated occupation-specific gender earnings gaps are significantly different from zero. From the 404 estimated occupation-specific gender earnings gaps, 309 (or 76%) are statistically different from zero. Additionally, in some occupations, an estimated gender earnings gap that is not

statistically different from zero may be reflective of a situation where there is equality in earnings, and thus, the estimated gap should not be significantly different from zero.

The earnings gap varies greatly across occupations, as can be seen in Table 6 and Figure 4. This suggests that something must be happening within occupations to cause this variation. To investigate this possibility, I estimate 21 univariate regressions of the occupation-specific gender earnings gap of full-time, full-year workers aged 22-55 on 21 occupational characteristics from O*NET. Table 7 shows the results of the 21 estimations. When interpreting the results in Table 7, it is important to keep in mind that the dependent variable is the occupation-specific log gender earnings gap estimated in equation (1). Since a negative estimated coefficient decreases the log gender gap (i.e. makes it a larger negative value), variables that have a negative estimated coefficient are associated with an increasing gender earnings gap (and vice versa). As previously mentioned, I choose not to estimate a single multivariate regression with the 21 characteristics because the occupational characteristics are correlated, and thus, multicollinearity may lead to erroneous and imprecise estimates of the effect of each characteristic[15]. Since I estimate 21 univariate regressions, the estimated coefficient in each regression captures the effect of the occupational characteristic in the regression as well as everything it is correlated with. My goal here is not to estimate causal effects but to get a "horserace" sense of the magnitudes of the effect of each characteristic individually.

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[15] See Appendix B for a discussion of multicollinearity issues between the O*NET Occupational Characteristics.

Table 7: *Estimation of the Effect of Occupational Characteristics on the Occupation-Specific Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree*

	Dependent Variable: ln (Occupation-Specific Gender Earnings Gap)			
	Independent Variable	*Coefficient Estimate*	*Model Statistics*	
Working with Others	Face-to-face discussions	0.004 (0.006)	R^2	*0.0012*
			F value	*0.47*
			Pr >F	*0.4936*
	Contact with others	0.023*** (0.006)	R^2	*0.0323*
			F value	*13.42*
			Pr >F	*0.0003*
	Work with a group or team	0.012* (0.006)	R^2	*0.0086*
			F value	*3.48*
			Pr >F	*0.0630*
	Deal with external customers	0.030*** (0.006)	R^2	*0.0545*
			F value	*23.17*
			Pr >F	*0.0000*
	Communicate with outside persons	0.027*** (0.006)	R^2	*0.0451*
			F value	*19.00*
			Pr >F	*0.0000*
	Interpersonal relationships	0.028*** (0.006)	R^2	0.0470
			F value	19.82
			Pr >F	0.0000
Amount of Responsibility	Freedom to make decisions	-0.005 (0.006)	R^2	0.0017
			F value	0.69
			Pr >F	0.4053
	Frequency of decision making	0.004 (0.006)	R^2	0.0011
			F value	0.44
			Pr >F	0.5085
	Consequence of error	-0.004 (0.006)	R^2	0.0010
			F value	0.40
			Pr >F	0.5255

Table 7 continued

	Responsible for outcomes	-0.014** (0.006)	R^2 F value Pr >F	0.0118 4.79 0.0292
	Responsible for others' health	-0.012* (0.006)	R^2 F value Pr >F	0.0082 3.32 0.0690
Leadership Roles	Coordinate the work of others	0.001 (0.006)	R^2 F value Pr >F	0.0001 0.03 0.8662
	Staff organizational units	0.013** (0.006)	R^2 F value Pr >F	0.0102 4.14 0.0426
Type of Work	Degree of automation	-0.005 (0.006)	R^2 F value Pr >F	0.0017 0.70 0.4046
	Importance of being exact	0.004 (0.006)	R^2 F value Pr >F	0.0010 0.39 0.5320
	Structured vs. Unstructured	0.0001 (0.006)	R^2 F value Pr >F	0.0000 0.00 0.9861
	Processing information	0.014** (0.006)	R^2 F value Pr >F	0.0125 5.09 0.0246
	Thinking creatively	0.004 (0.006)	R^2 F value Pr >F	0.0009 0.37 0.5437
	Organizing/planning work	0.011* (0.006)	R^2 F value Pr >F	0.0072 2.90 0.0895
Work Environment	Frequency of conflict situations	0.015** (0.006)	R^2 F value Pr >F	0.0146 5.97 0.0150
	Level of competition	-0.004 (0.006)	R^2 F value Pr >F	0.0009 0.35 0.5558

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively, and standard errors are shown in parenthesis. The reported coefficients are from 21 univariate regressions that are each estimated with an intercept term where the dependent variable is the log occupation-specific gender earnings gap for full-time, full-year workers aged 22-55. The sample size is 404 in each regression.

The regressors in the first six models reflect the importance, necessity, and frequency of working with others within an occupation. Five of them have a significant estimated effect on the occupation-specific gender earnings gap, with four of them being significant at the 1% level. They all have a positive estimated effect, meaning they are associated with a decreasing gender earnings gap. Additionally, the magnitudes of the estimated effects are largest for these characteristics that reflect the importance and frequency of working with others compared to all other occupational characteristics included in this study. A one standard deviation increase in the importance of developing interpersonal relationships, communicating with persons outside the firm, working with the public or external customers, or the amount of contact a worker must have with others is associated with a 0.02-0.03 fall in the occupation-specific log gender earnings gap, which corresponds to an 0.02-0.03 increase in the earnings ratio. The effect of a one standard deviation increase in the importance of working with a group is slightly smaller and less significant.

These results hint that women may have better social skills and may be better able to effectively develop relationships and communicate with others compared to men. In occupations where cooperatively working and communicating with others is important, women are better off relative to occupations where these social skills are not as important. Previous research supports this notion. Borghans, ter Weel, and Weinberg (2014) find people skills are associated with a decreasing gender earnings

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gap. They find the importance of people tasks and the premium associated with them increased from 1970-2002. Moreover, there is a positive and significant correlation between women and interpersonal tasks (Borghans, ter Weel, and Weinberg 2008), and occupations where people skills are important tend to favor women (Borghans, ter Weel, and Weinberg 2014). This implies women should make gains in their earnings relative to men due to the importance of having people skills in the labor market, which is the result they find. The current results support this: In occupations where working with others is important and necessary, the earnings gap is decreasing.

The next five regression coefficients capture the level of responsibility or the amount of influence a single worker has in an occupation. Of these five occupational characteristics, only two have a significant estimated effect on the gender earnings gap. Interestingly, the two characteristics that have a significant estimated effect are the characteristics that directly measure the amount of responsibility a worker has in an occupation. The occupation-specific gender earnings gap is increasing in the amount of responsibility a worker has for outcomes of the work done as well as for the results of others, and the earnings gap is also increasing in the amount of responsibility a worker has for the health and safety of others. A one standard deviation increase in the amount of responsibility for the outcome of the work done (for the health and safety of others) is associated with a 0.014 (0.012) decrease in the earnings ratio. That is, if the earnings ratio of women's earnings to men's earnings within an occupation is 1, a one standard deviation increase is associated with a fall in the earnings ratio to 0.986 (0.988).

These two characteristics that directly measure the amount of responsibility a worker has in an occupation are the only occupational characteristics associated with

an increasing gender earnings gap. This suggests that in occupations where workers are directly responsible for the work outcomes and the results of others or for the health and safety of other individuals, such as in managerial or supervisory positions, the gender earnings gap is larger than it would be in other occupations. The data supports this notion. The 20 occupations with the largest values for the responsibility for outcomes and results are various managers or first-line supervisors, and the average log gender earnings gap in these 20 occupations is -0.225 (with an unweighted average of -0.215), which is substantially larger than the average occupation-specific gender earnings gap of -0.176 shown in Table 6.

The results of a study of the U.S. hospitality industry are consistent with this result. Across the entire U.S. hospitality industry women are paid less than men, losing out on approximately 5.5% of the average income. However, female managers are the most disadvantaged within this industry, missing out on nearly 22% of the mean income of managers in the hospitality sector (Fleming 2015).

Of the next ten models, which have characteristics that reflect leadership roles, the type of work, and the work environment, only four characteristics have a significant estimated effect on the occupation-specific gender earnings gap. The importance of staffing organizational units, processing information, organizing/planning work, and the frequency of conflict situations are all significantly associated with a decreasing gender earnings gap. The magnitudes of the estimated effects of these characteristics are very similar as well. A one standard deviation increase in any of these characteristics is associated with a decrease in the gender earnings gap of 0.011-0.015.

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Finding the frequency of conflict situations is significantly associated with a decreasing gender earnings gap is surprising. I would expect occupations with frequent conflicts to be male-dominated, and male-dominated occupations are typically higher paid. The occupations with some of the highest values for the frequency of conflict situations include police officers, supervisors of police and detectives, and supervisors of correctional officers, where 88%, 85%, and 75%, respectively, of all workers in each job are men. However, for the ten occupations with the highest frequency of conflict situations the average gender earnings gap is -0.164 (with an unweighted average of -0.150), which is smaller than the overall gender earnings gap of -0.176 shown in Table 6. Even though men are more likely to work in conflict-riddled occupations, it appears greater frequency of conflict situations in an occupation is associated with greater gender equality in earnings.

Similarly, Baker and Cornelson (2016) find that men are more likely to work in an occupation with a high level of competitive pressure. However, it appears the level of competition is unrelated to the gender earnings gap within occupations. That is not to say that occupations that have competitive pressures do not have a gender earnings gap, but the gender earnings gaps in those occupations are not related to the amount of competitive pressures in the occupation.

The lack of significance of the remaining regressors still provides important information. For example, the severity of a mistake and the freedom and frequency of making decisions, while reflecting different types of responsibilities just like the characteristics that directly measure the amount of responsibility a worker has in an occupation, do not appear to affect the gender earnings gap in an occupation. This implies that not all responsibilities in an occupation are equal in influencing the gender

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earnings gap. Similarly, the importance of processing information, which includes requiring workers to compile, code, and categorize data, is associated with a decreasing gender earnings gap, whereas the importance of thinking creatively, which requires workers to design and/or create new ideas or products, appears to be unrelated to the earnings gap in an occupation, implying only certain occupational tasks are associated with the earnings gap within occupations.

In regards to how the type of work done in an occupation influences the gender earnings gap, the degree of automation, the importance of being exact, and how structured or unstructured the work is are not significant in the estimation of the gender earnings gap. If a higher degree of substitutability between workers decreases the gender earnings gap as Goldin (2014) hypothesizes, I would expect each of these characteristics to be significantly associated with a decreasing gender earnings gap. Instead, their estimated effects are insignificant and nearly zero. In occupations where being exact in production is important, production is highly automated, and/or the tasks are not structured for a specific individual (meaning another worker can easily replace that worker), workers should have the ability to easily substitute for one another. If substitutability between workers is easy, there should be minimal transaction costs of substituting, implying reduced hours or a change in the timing of hours should impose no cost and earnings should move towards equality in such occupations. However, these characteristics are not significant in the estimation of the gender earnings gap and their lack of significance does not support this substitutability argument.

Similarly, I find strong evidence that working with others (in a variety of different capacities) is associated with a decreasing gender earnings gap, which is at

odds with Goldin's (2014) theory about the substitutability of workers. She argues that working in an occupation that requires personal relationships can make workers imperfect substitutes for each other, which can contribute to the gender earnings gap by making flexibility costly. However, she never isolates the effect of working with others empirically. Instead, she finds that the average of five occupational characteristics that reflect working with others, among other things, increases the occupation-specific gender earnings gap.

The substitutability argument may not hold in this study since I am examining less-educated workers. Goldin (2014) argues that substitutability between workers can decrease the gender earnings gap within occupations for college-educated workers in the top 95 highest-paid occupations. In those occupations, workers are highly educated and highly skilled, making them hard to replace. In this study, workers have less than a four-year college degree, and they work in occupations that are less specialized and require less training and education. For that reason, the ability to substitute one worker for another may not be difficult and may play no role in the gender earnings gap within occupations where the less-educated population works.

In summary, from the comprehensive group of occupational characteristics included in this analysis, I find only certain occupational traits are associated with the gender earnings gaps within occupations. The importance and necessity of working with others in occupations, whether they are working in the same firm, other external entities such as the public or other organizations, and in person or otherwise, is associated with a decreasing earnings gap. The amount of responsibility a worker has for the work outcomes and for the health and safety of others is associated with an increasing gender earnings gap within occupations. While Goldin (2014) finds

evidence of an inverse relationship between the degree of substitutability between

workers in an occupation and the gender earnings gap in an occupation, I do not find

the same result. I do not find evidence that the amount of substitutability between

workers directly affects the gender earnings gap within an occupation.

While it appears the substitutability between workers does not have a direct

effect on the gender earnings gap for the less-educated population, there is not enough

evidence to completely dismiss Goldin's (2014) substitutability theory. Goldin (2014)

argues in jobs where workers are imperfect substitutes for one another, a penalty for

flexibility exists, which can contribute to the earnings gap. Thus, it is possible the

degree of substitutability between workers may affect the earnings gap through its role

in determining the price of temporal flexibility, and I explore this possibility below.

5.2 The Role of Temporal Flexibility and Working Hours in the Gender Earnings Gap

I now investigate the role of temporal flexibility and working hours in the

occupation-specific gender earnings gap. The specification of the log earnings

equation in column (4) of Table 5 produces the occupation-specific earnings-hours

elasticity for full-time, full-year workers aged 22-55. The occupation-specific

earnings-hours elasticity is the sum of the coefficient on the hours term and the

coefficient on the interaction term of occupation and hours. The estimated elasticity

captures the sensitivity of annual earnings with respect to a change in the typical

number of hours worked per week for each occupation, giving the price of flexibility

within an occupation. Table 8 summarizes the estimated occupation-specific earnings-

hours elasticities.

Panel (a) of Table 8 gives summary statistics of the occupation-specific earnings-hours elasticity within occupations and Panel (b) shows the distribution. The average earnings-hours elasticity is 0.59, meaning a 10% change in the number of hours worked in a typical week yields a 5.9% change in annual earnings in the average occupation. The largest earnings-hours elasticity of 1.66 is for brokerage clerks and means a 10% increase in the number of hours worked in a typical week induces a 16.6% increase in earnings in this occupation. On the other end of the spectrum, 11 occupations have an estimated negative earnings-hours elasticity, which implies that an increase in the hours worked per week will lead to a reduction in earnings[16]. The minimum elasticity of -0.676 is for air traffic controllers and airfield operations specialists. Figure 5 illustrates the frequency distribution of the occupation-specific earnings-hours elasticities. The earnings-hours elasticity across occupations appears to be normally distributed.

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[16] It's hard to know what a negative earnings-hours elasticity actually means. It could simply stem from an error in the number of working hours reported. Negative values for the earnings-hours elasticity can also be observed in Goldin (2014).

Table 8:   *Distribution of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

	Mean	Standard Deviation	Median	Max	Min	N
(a) Occupation-Specific Earnings-Hours Elasticity	0.590	0.249	0.576	1.661	-0.676	404
(b) Frequency Distribution of the Occupation-Specific Earnings-Hours Elasticity	Frequency	Percent				
$X \leq 0$	11	2.72				
$0 < X \leq 0.25$	40	9.90				
$0.25 < X \leq 0.5$	101	25				
$0.5 < X \leq 0.75$	144	35.64				
$0.75 < X \leq 1$	76	18.81				
$1 < X \leq 1.25$	22	5.45				
$X > 1.25$	10	2.48				

Source: Author's calculations using the American Community Survey 2012-2014.
Notes: The occupation-specific earnings-hours elasticities are calculated using the estimated coefficients from column (4) in Table 5 (i.e. $\widehat{\beta_5} + \widehat{\delta_k}$ in equation (3) in section 4.2.2 where $\widehat{\beta_5}$ is the coefficient on hrs_i and $\widehat{\delta_k}$ is the coefficient on $occ_i \times hrs_i$). The occupation-specific earnings-hours elasticities are adjusted for demographic variables, education, and time worked. The average occupation-specific earnings-hours elasticity is weighted by the number of women working in each occupation. The unadjusted mean and standard deviation are 0.581 and 0.308, respectively.
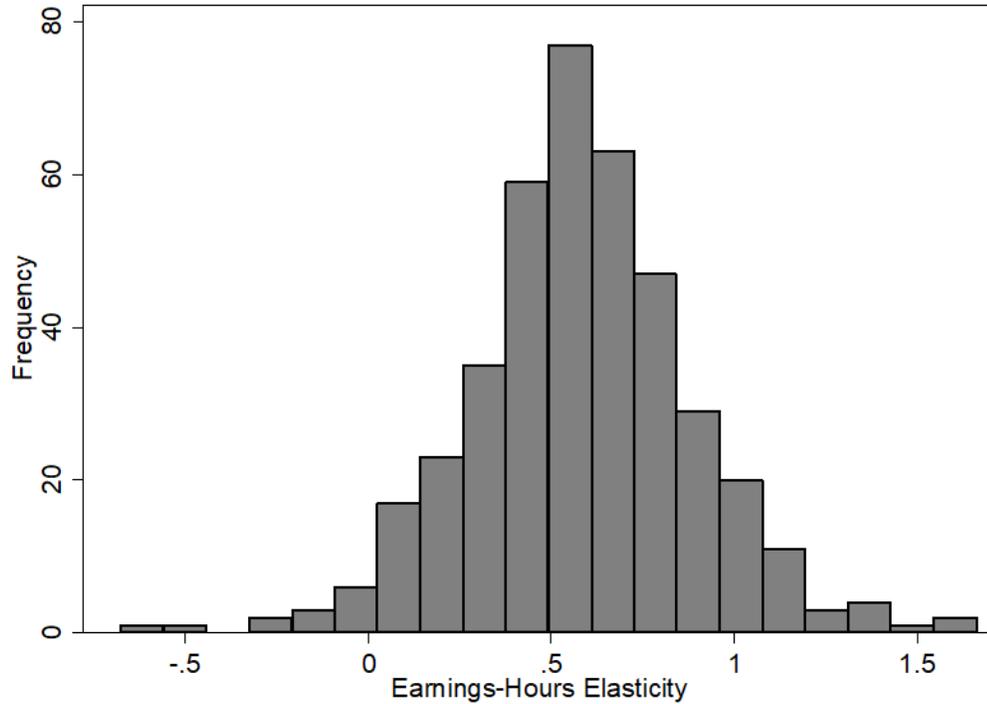
Figure 5: *Frequency Distribution of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

Notes: See notes to Table 8

Goldin (2014) finds a strong positive relationship between the earnings-hours elasticity and the gender earnings gap within an occupation for the top 95 highest paid occupations, meaning occupations that have a large earnings-hours elasticity also have a large gender earnings gap. In Figure 6, I plot the relationship between the earnings-hours elasticity and the gender earnings gap in occupations. I find the same relationship Goldin (2014) does. Figure 6 shows evidence of a negative relationship

between the log gender earnings gap and the earnings-hours elasticity (i.e. a positive relationship between the gender gap and elasticity). However, the relationship in Figure 6 does not appear to be as strong as the relationship Goldin (2014) finds (see Figure 3 in "A Grand Gender Convergence: Its Last Chapter").
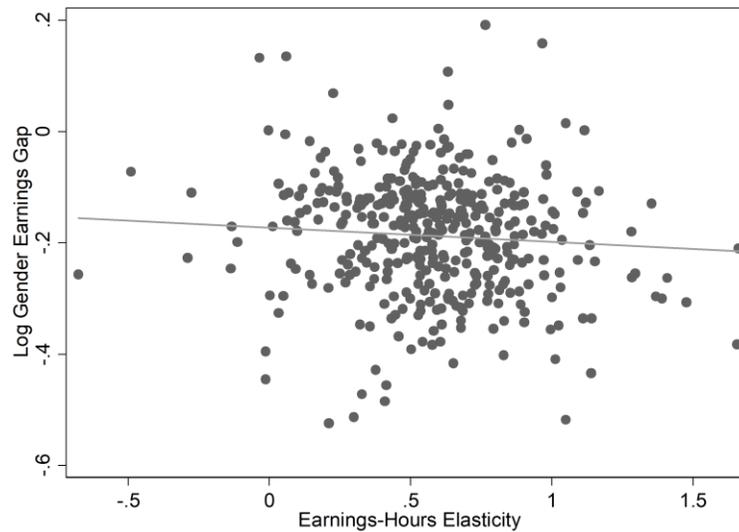
Figure 6:   *The Occupation-Specific Gender Earnings Gap and Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

Notes: Quantitatively, the relationship between the gender earnings gap and the earnings-hours elasticity within an occupation is given by: $\widehat{gap_k} = -0.173 - 0.026\widehat{\eta_{eh_k}}$, with the standard error of the slope estimate being 0.021. The relationship between the gender earnings gap and the earnings-hours elasticity becomes stronger if the occupation-specific gender effect controls are dropped from the estimation of the earnings-hours elasticity. The relationship is then given by: $\widehat{gap_k} = -0.159 - 0.050\widehat{\eta_{eh_k}}$ with the standard error of the slope estimate being 0.020. However, the estimated elasticity values and the following results are largely unchanged. See Appendix C.

To test the effect of working hours on the gender earnings gap within occupations, I test the joint significance of the occupation-specific gender effect once I allow the effect of hours to vary across occupations. That is, I want to test whether the gender effect within occupations remains significant once the effect of hours on earnings can vary within each occupation. If the effect of working hours is driving the gender earnings gap within occupations, the gender effect should become insignificant or smaller once the effect of working hours is allowed to vary within occupations. Table 9 shows the results of this joint test of significance.

The null hypothesis states that the gender effect is zero in all occupations after allowing the effect of hours to vary by occupation. I can reject this null hypothesis at the 99% confidence level. This suggests that the effect of hours within occupations is not the only factor causing the differential in earnings across genders. The effect of being a female within occupations is nonzero even after controlling for the effect of hours within occupations.

Table 9: *Test of Joint Significance of the Differential Effect of Being Female within Occupations for Full-Time, Full-Year Workers Without a College Degree*

$H_0: \theta_1 = \theta_2 = \theta_3 = \cdots = \theta_{404} = 0$
$F_{(404, 1209139)} = 8.99$
$Prob > F = 0.0000$

Notes: θ_k is the coefficient on $occ_i \times female_i$ in equation (3) in section 4.2.2. This tests the joint significance of the gender effect within occupations once the effect of working hours can vary by occupation.

Even though the gender effect remains nonzero after allowing the effect of hours to vary within occupations, the size of the gender effect decreases in approximately two-thirds of the occupations (259 to be exact) once the effect of hours can vary within occupations. This result and the result of the above test suggest that some, but not all, of the gender effect within occupations comes via differences in working hours.

Although the gender effect still remains significant after controlling for hours within occupations, Figure 6 and the decreased magnitude of the gender effect in the majority of occupations provide evidence that working hours and the gender earnings gap within occupations are related. Since the gender earnings gap is increasing in the earnings-hours elasticity, I want to identify what (if any) occupational characteristics are associated with an increasing earnings-hours elasticity. To do that, I estimate equation (4) where the dependent variable is the occupation-specific earnings-hours elasticity for full-time, full-year workers aged 22-55 and various temporal-related O*NET occupational characteristics in Table 4 are the independent variables. Table 10 shows the results of this estimation.

Table 10: *Estimation of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree using Occupational Characteristics*

Dependent Variable: Occupation-Specific Earnings-Hours Elasticity	
Independent Variable	
Interpersonal relationships	0.035
	(0.025)
Freedom to make decisions	0.012
	(0.026)
Time Pressure	0.060***
	(0.021)
Contact with others	0.002
	(0.023)
Structured vs. Unstructured	-0.029
	(0.029)
Regularity of work schedules	-0.028*
	(0.015)
Duration of typical work week	0.011
	(0.022)
Pace determined by equipment	0.023
	(0.020)
Work with a group or team	0.005
	(0.022)
Importance of time management	-0.062***
	(0.023)
Intercept	0.581***
	(0.015)
R^2	0.0641
F value	2.24
Pr >F	0.0149
Sample Size	404

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively. Robust standard errors are shown in parenthesis. The dependent variable is the estimated occupation-specific earnings-hours elasticity for full-time, full-year workers aged 22-55.

Two occupational characteristics, the amount of time pressure a worker faces and the regularity of work schedules, are significantly associated with an increasing occupation-specific earnings-hours elasticity[17]. That is, regular working schedules and a higher frequency in which workers must meet deadlines are both associated with an increasing price of flexibility in occupations. One of these characteristics captures the importance of the timing of working hours and the other makes workers imperfect substitutes for one another.

Specifically, in occupations where schedules are set and workers follow an established routine, the price of flexibility is higher than in a comparable occupation where that is not the case. This is consistent with my theory—in occupations that offer little flexibility (in this case, due to a tight schedule), the price of flexibility is high. This implies that earnings are sensitive to the timing of the hours worked, but the lack of significance of the estimated effect of the duration of a typical work week implies earnings are not sensitive to the number of hours worked.

The positive relationship between the elasticity of earnings and the amount of time pressure a worker faces in an occupation is consistent with Goldin's (2014) theory about the substitutability between workers. Goldin (2014) argues that within occupations where workers must meet deadlines frequently, workers become imperfect substitutes for each other, which can cause earnings to be sensitive to any time away from the workplace. According to the results above in section 5.1, it

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[17]The occupation-specific earnings-hours elasticity is increasing in the regularity of work schedules because a lower value for the regularity of work schedules indicates a more regular schedule within an occupation.

appears substitutability between workers does not directly influence the gender earnings gap within occupations, but according to the current results, it appears to have a negative relationship with the price of flexibility. That is, the price of flexibility appears to be increasing as the substitutability between workers in an occupation decreases.

The importance of time management is the only characteristic that is significantly associated with a decreasing earnings-hours elasticity within occupations. This relationship may be reflecting reverse causality. Occupations where time management is important may be able to offer temporal flexibility at a lower price, rather than time management skills causing the price of flexibility to fall[18]. That is, if a worker can manage time well and complete all necessary work in a timely manner in such an occupation, flexibility is not met with an additional penalty.

From the results in Table 10, I do not see significant evidence of convex wage structures in these occupations as Goldin (2014) does for the top 95 highest-paid occupations. If these occupations had convex wage structures, I would expect the earnings-hours elasticity to be increasing in the duration of a typical work week. If the earnings-hours elasticity is increasing in the number of hours worked in a week, a change in earnings would be larger than the corresponding change in the number of

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[18] The results shown in Table 10 are largely unchanged if 10 univariate regressions are estimated with the occupational characteristics and the occupation-specific earnings-hours elasticity (as I do in Table 7 with the occupation-specific gender earnings gap). Two additional characteristics become significant in the estimation of the univariate models, structured vs. unstructured work and the importance of the pace being determined by equipment, but their estimated effects are very similar to those shown in Table 10.

hours worked[19], giving the wage structure a convex shape. Similar to the case of the substitutability argument, I may not see evidence of convex wage structures as Goldin (2014) does because I am studying the occupations of less-educated workers while she studied the top 95 highest-paid occupations of college-educated workers.

The results in Table 10 provide evidence that the price of flexibility is influenced by the timing of work hours and the degree of substitutability, but the evidence is not very strong. While the estimated coefficients that are insignificant maintain each of their respective expected signs[20], the lack of significance by the majority of regressors limits the conclusive power of this analysis.

To summarize, it appears the price of flexibility within an occupation is influenced by the timing, but not the duration, of work hours and the ease of substitutability between workers. Identifying these occupational traits and their impacts is important because evidence suggests the gender earnings gap within an occupation is related to the price of flexibility in that occupation. If occupations can make earnings less sensitive to the timing of work hours and find ways for workers to

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[19] Consider the technical definition of the earnings-hours elasticity: $\eta_{eh} = \frac{\%\Delta earnings}{\%\Delta hours}$. For η_{eh} to be increasing as $\%\Delta hours$ increases, the corresponding increase in $\%\Delta earnings$ must be larger than the increase in $\%\Delta hours$.

[20] An increase in the importance of interpersonal relationships, the amount of freedom to make decisions, the amount of contact with others, and how structured the work is to a specific worker (where a large value means less structured and a small value means more structured) should make workers imperfect substitutes for one another, making the price of flexibility costly. An increase in the duration of a typical work week, the importance of working with a group or team, and the pace of work being determined by equipment should make changing the quantity and timing of work hours difficult, which would increase the price of flexibility.

be able to better substitute for one another, flexibility will come at a lower price and the gender earnings gap within occupations may decrease. While making flexibility more accessible at a lower price will help close the gender earnings gap within occupations, that in and of itself is not the entire solution.

Chapter 6

CASE STUDY: THE SERVICE SECTOR

6.1 Case Study: The Occupation-Specific Gender Earnings Gap within the Service Sector

From Table 5 in section 5.1, it is clear that occupation plays an important role in the gender earnings gap. According to the Bureau of Labor Statistics, "the occupational classification reflects the type of job or work that the person does" (U.S. Bureau of Labor Statistics 2018). However, multiple studies also highlight the importance of industry in the gender earnings gap (Blau and Kahn 2017; Fields and Wolff 1995; Blau and Kahn 1997; Bayard et al. 2003). While the occupation of a worker captures the type of work done by the worker, the "industry classification reflects the business activity of their employer or company" (U.S. Bureau of Labor Statistics 2018).

In this analysis, I study five industries within the service sector. I choose to study the service sector because, as panel A in Figure 7 shows, in the U.S., total employment (including both males and females) in the service sector has been steadily increasing for the past 30 years and now stands at 127 million employees. This is in stark contrast to the employment trend in the manufacturing sector, which as panel B shows, has been decreasing over the same time period. Total manufacturing employment currently stands at 12 million workers. Moreover, Ngai and Petrongolo (2017) show, using data from the Current Population Survey (CPS), that the fraction

of annual hours worked by women in the service sector increased by 19 percentage points between 1965 and 2008. They also show the female share of hours increased from 29% to 44% over this period, and 30% of this change is explained by the growth in the service sector.

(A) Average Employment by Year, Service Sector
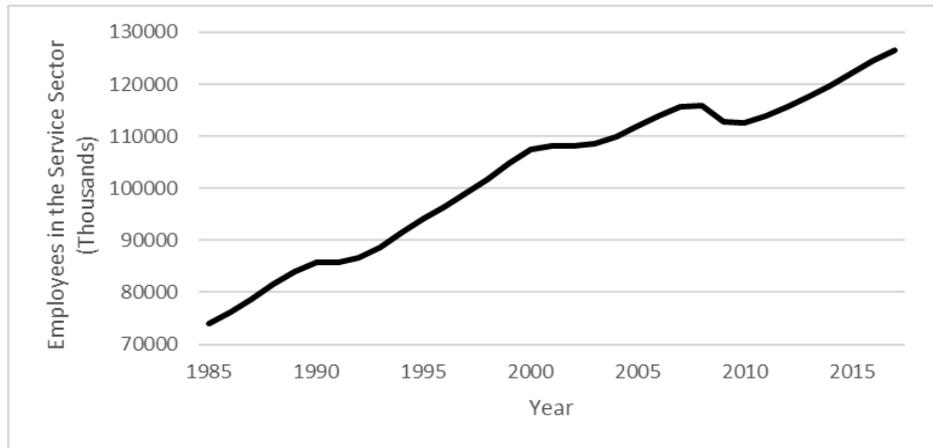
(B) Average Employment by Year, Manufacturing Sector
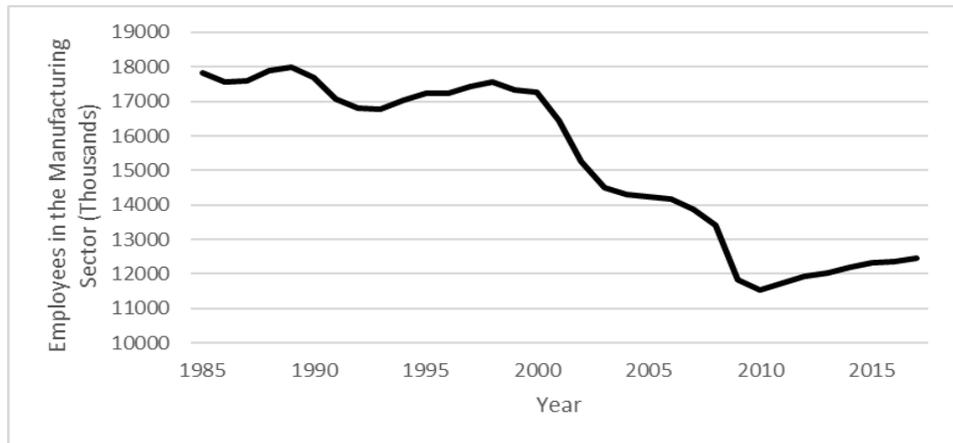
Figure *7:*   *Average Employment in the U.S. Service and Manufacturing Sectors,
                1985-2017*

Source: Bureau of Labor Statistics
Notes: Data comes from the Current Employment Statistics Survey
published by the Bureau of Labor Statistics. The data include all
employees in service-providing industries and manufacturing industries,
respectively.

Existing studies show that the growth of the service sector has been advantageous for women relative to men. In the service sector, many occupations favor "brains" over "brawn" (or, alternatively, require less "brawn" than occupations in goods-producing sectors), and shifts in labor demand favor individuals who have "brains" (Ngai and Petrongolo 2017; Rendall 2010). Women have a comparative advantage in "brains" and have relatively better "people" skills, so the growth of the service sector provides occupations for which women naturally have a comparative advantage (Ngai and Petrongolo 2017; Weinberg 2000; Galor and Weil 1996; Borghans, ter Weel, and Weinberg 2008; 2014). While there appears to be no clear mechanism linking the gender earnings gap to the comparative advantage women possess, considering the existing evidence, it seems reasonable to expect the earnings gap within occupations in the service sector to be relatively small.

In Chapter 5, Table 7 clearly shows, using data from 404 occupations across all industries, that certain occupational characteristics are related to the occupation-specific gender earnings gap, but these results may vary across different sectors within the economy. In this analysis, I estimate the occupation-specific gender earnings gaps within five broad industry classifications within the service sector, and then I estimate the effect of occupational characteristics on the occupation-specific gender earnings gaps within those industries.

To my knowledge, little research quantitatively examining the gender earnings difference within industries exists. Using CPS data, Fields and Wolff (1995) decompose the overall gender earnings gap and find that 15-19% of the gender gap is due to the distribution of women across industries and 12-22% of the gap is attributed to differences in earnings within industries. In a historical analysis from 1890 to 1970,

Goldin (1990) finds increases in women's earnings relative to men within an industry[21] played a larger role in the convergence of earnings than the changing distribution of women across industries. While the following analysis cannot offer any insight to the effect of the distribution of women across industries, it does provide insight as to what is happening within different service industries and allows for a comparison across the different service industries.

I focus on five broad Census industry classifications that reflect different types of service industries: Professional, Scientific, and Technical Services (PSTS); Educational Services (ES); Health Care and Social Assistance (HCSA); Arts, Entertainment, and Recreation (AER); and Food Services (FS). Within each of these broad industry classifications, there are more detailed industry classifications. However, I choose to focus the analysis on five broad classifications to facilitate comparisons across the different types of service industries.

The analysis remains focused on the sample used in the previous chapters--less-educated workers who work full-time year round and are between the ages of 22 and 55. Approximately 30% of the initial sample of workers works in one of the five different service industries.

I begin by estimating the occupation-specific log gender earnings gaps within each of the five broad industry classifications by estimating equation (1) (shown again below) for full-time, full-year workers aged 22-55 within each of the five industry

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[21] Technically, Goldin (1990) looks at six broad occupation categories, but the categories (professional, clerical, sales, manufacturing, service, agriculture) are broad enough so as to resemble industries.

categories. That is, I estimate the earnings model separately for each industry, restricting the estimation sample to only individuals working in the given industry. Each regression includes indicator variables for occupation and interaction terms of occupation and female. Table 11 shows a subset of the estimation results; the full estimation results are available from the author upon request.

$$\log(earnings_i) = \beta_0 + \beta_1 female_i + \beta_2 age_i + \beta_3 race_i + \beta_4 hisp_i + \beta_5 \log(hrs_i) + \beta_6 \log(wks_i) + \beta_7 educ_i + \sum_{k=1}^{404} \gamma_k occ_i + \sum_{k=1}^{404} \theta_k (occ_i \times female_i) + \Phi_t + \varepsilon_i \tag{1}$$

As expected, earnings are increasing with education within each industry. However, the returns to education vary across industries. Generally speaking, the returns to education are relatively low for all education levels in the ES industry. Conversely, the returns to an associate's degree are very high in the FS industry and the HCSA industry compared to the other service industries.

The returns to hours worked also vary across industries. Depending on the industry, a 10% increase in the average number of hours worked per week increases earnings by 4%-6.5%. Similarly, earnings will increase by anywhere from 12% to 19% if the number of weeks worked in a year increases by 10%.

Table 11:   *Estimation Results of Annual Earnings for Full-Time, Full-Year Workers Without a College Degree Within Service Industries, 2012-2014*

Independent Variable	Professional, Scientific, & Technical	Education	Health Care & Social Assistance	Arts, Entertainment, & Recreation	Food Services
Dependent Variable: ln(annual earnings)					
GED	-0.028**	0.005	-0.025***	-0.0003	-0.066***
	(0.014)	(0.010)	(0.006)	(0.019)	(0.009)
Some College <1 yr.	0.047***	0.021***	0.036***	0.046***	0.026***
	(0.008)	(0.007)	(0.004)	(0.014)	(0.008)
Some College >1 yr.	0.083***	0.045***	0.070***	0.051***	0.066***
	(0.007)	(0.006)	(0.003)	(0.011)	(0.006)
Associate's Degree	0.069***	0.058***	0.116***	0.073***	0.104***
	(0.007)	(0.006)	(0.003)	(0.013)	(0.008)
ln(hours)	0.633***	0.550***	0.402***	0.549***	0.649***
	(0.018)	(0.020)	(0.008)	(0.030)	(0.014)
ln(weeks)	1.868***	1.156***	1.539***	1.935***	1.486***
	(0.079)	(0.044)	(0.035)	(0.114)	(0.060)
Intercept	-4.625***	-4.961***	-1.897***	-5.490***	-2.862***
	(1.011)	(0.794)	(0.369)	(1.324)	(0.717)
R^2	0.3441	0.3595	0.4012	0.2808	0.3043
F value	43.17	45.25	190.94	13.73	69.81
Pr >F	0.0000	0.0000	0.0000	0.0000	0.0000
Sample Size	48,802	44,643	167,046	17,902	52,997

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively. Standard errors are shown in parenthesis. Controls for occupation, female, occupation×female, age (entered as a quartic), race, ethnicity, and year are included but not reported for the sake of brevity. The occupation controls are occupation indicator variables and the occupation×female controls are interaction terms of the occupation indicator variables and the female indicator variable. The full estimation results are available from the author upon request The estimation results are for full-time (defined as working 35 hours or more per week), full-year workers (defined as working a minimum of 40 weeks per year) who are 22-55 years old.

Within each industry category, the estimation results produce the occupation-specific log gender earnings gaps that are adjusted for demographic variables, education, and time worked. For example, 231 occupations fall within the PSTS industry, and the earnings equation estimation within the PSTS industry produces a gender earnings gap within each of the 231 occupations in this industry. The first row of Table 12 summarizes the 231 occupation-specific log gender earnings gaps within the PSTS industry. The following rows summarize the occupation-specific log gender earnings gaps within the other four industry classifications. The magnitude of the average occupation-specific gender gap varies across industries, with the FS industry having the smallest gender earnings gap within occupations and the PSTS industry having the largest gender earnings gap within occupations. In the FS industry, women earn roughly $0.91 per $1 men earn in the average occupation, and in the PSTS industry, women earn, on average, only $0.77 to every $1 earned by men in the same occupation. The distributions of the occupation-specific gender earnings gaps within each of the industry classifications are shown in Appendix D.

Table 12:   *Occupation-Specific Log Gender Earnings Gap of U.S. Full-Time, Full-Year Workers Without a College Degree Within Service Industries*

Industry Classification	Mean	Standard Deviation	Median	Max	Min	N
Professional, Scientific, & Technical Services	-0.260	0.368	-0.177	1.275	-2.195	231
Educational Services	-0.217	0.259	-0.172	0.7534	-1.874	219
Health Care & Social Assistance	-0.165	0.159	-0.150	1.486	-2.317	239
Arts, Entertainment, & Recreation	-0.094	0.351	-0.108	1.871	-1.257	188
Food Services	-0.090	0.342	-0.124	1.279	-3.153	116

Source: Author's calculations using the American Community Survey 2012-2014.
Notes: The values in the table summarize the occupation-specific log gender earnings gaps within each of the different industry classifications. The occupation-specific log gender earnings gaps are calculated using the estimated coefficients from the regression results that correspond to the estimation results shown in Table 11. The occupation-specific earnings gaps are adjusted for demographic variables, education, and time worked. The means and standard deviation are weighted by the number of women working in each occupation.

The results in Table 12 highlight how the wage differential between men and women who work in the same occupation can vary depending on the industry of employment. To be more specific, a woman working in the occupation of "Marketing and Sales Manager" in the PSTS industry earns $0.71 per $1 men earn in the same occupation and industry. In contrast, a woman working in that same occupation who is employed in the HCSA industry earns $0.93 to every $1 earned by a man working in that occupation in the HCSA industry.

Compared to the average occupation-specific log gender earnings gap from all 404 occupations across all industries, which is -0.176 (shown in Table 6 in Chapter 5),

three service industries have smaller average occupation-specific gender gaps and two have larger occupation-specific gender gaps. This is an interesting result because it highlights the heterogeneity of the gender earnings gap within occupations across industries that are relatively similar. As mentioned above, women have a comparative advantage in occupations in the service sector (Ngai and Petrongolo 2017; Weinberg 2000; Galor and Weil 1996; Borghans, ter Weel, and Weinberg 2008; 2014), and because of this, it seems reasonable to expect relatively smaller gender earnings gaps in occupations within service industries. However, this is true for only three of the service industries (HCSA, AER, FS), hinting that even if women have a comparative advantage, that does not necessarily translate to a decreased gender earnings gap.

6.2   The Effect of Occupational Characteristics on the Occupation-Specific Gender Earnings Gaps within the Service Sector

Tables 11 and 12 show everything from the returns to education and time worked to the magnitude of the gender wage differential within occupations varies across the different service industries. Due to the variation, I expect the occupational characteristics from O*NET that are associated with the occupation-specific gender gap will vary across industries. To investigate this, I estimate the following equation (which is equation (2)) within each of the five industry classifications:

$$\widehat{gap_k} = \beta_0 + \beta_1 ONETcharacteristic_k + \epsilon_k \qquad (2)$$

In this specification, $\widehat{gap_k}$ is the vector of estimated occupation-specific gender earnings gaps within a given industry. *ONETcharacteristic_k* represents one of the 21

normalized O*NET occupational characteristics (listed in Table 3 in Chapter 4) in occupation k. In total, I estimate 21 univariate models within each of the five industries. In this "horserace" approach, I aim to identify what occupational characteristics are most strongly associated with the occupation-specific gender earnings gap within each industry. Moreover, by estimating these univariate models for only occupations within each industry, I can identify any occupational characteristics that are consistently associated with an increasing or decreasing gender earnings gap across service industries. The estimation results are shown in Table 13. Also shown in the last column of Table 13 are the results from Table 7 in Chapter 5, which shows the estimation results when all occupations across all industries are considered.

As can be seen in the last column of Table 13, when all occupations are considered, working with others in many different capacities is found to be significantly associated with a decreasing gender earnings gap within occupations. However, that only appears to be true within a limited number of service industries.

Within the PSTS industry, three measures of the importance/frequency of working with others are significantly associated with a decreasing gender gap. A one standard deviation increase in the amount of contact with others required in an occupation and a one standard deviation increase in the importance of working with a group are both associated with a 0.05 fall in the log gender earnings gap, which corresponds to a 0.05 increase in the earnings ratio within occupations in this industry. A one standard deviation increase in the frequency of having face-to-face discussions is associated with a larger decrease (0.09) in the log earnings gap.

Interestingly, the magnitude of the effect of each of these characteristics is substantially larger within occupations in the PSTS industry compared to the magnitude found across all occupations in Chapter 5. The effect of the importance of working with a group/team is four times larger when the analysis is restricted to only occupations within the PSTS industry; the effect of contact with others is two times larger when only occupations in the PSTS industry are considered. This hints that women working in the PSTS industry in occupations that require workers to work in a group/team or frequently have contact with other individuals may experience less wage inequality compared to women working in similar occupations in different industries. Similarly, in occupations in the PSTS industry that require frequent face-to-face interaction with other individuals, the gender earnings gap is declining substantially, and that only holds true for occupations in the PSTS industry.

Within the remaining service industries, the effect of working with others is not very robust. However, within each industry, the effect of working with others is always significantly associated with a decreasing gender earnings gap within occupations. This supports the findings in section 5.1, which show across all occupations, the importance and frequency of working with others is associated with a decreasing gender earnings gap within occupations.

Table 13:   *Estimation of the Effect of Occupational Characteristics on the Occupation-Specific Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree Within Service Industries*

		Occupations within Industry:					
	Independent Variable	*Professional, Scientific, & Technical*	*Education*	*Health Care & Social Assistance*	*Arts, Entertain-ment, & Recreation*	*Food Services*	*All Occupations*
Working with Others	Face-to-face discussions	0.091*** (0.028)	-0.006 (0.026)	0.004 (0.024)	0.043 (0.030)	0.076 (0.054)	0.004 (0.006)
	Contact with others	0.047* (0.026)	-0.011 (0.026)	0.032 (0.023)	0.032 (0.031)	0.078 (0.057)	0.023*** (0.006)
	Work with a group or team	0.051* (0.028)	0.049* (0.027)	0.006 (0.025)	0.030 (0.030)	0.043 (0.060)	0.012* (0.006)
	Deal with external customers	0.027 (0.028)	-0.013 (0.029)	0.011 (0.025)	0.046 (0.034)	-0.013 (0.063)	0.030*** (0.006)
	Communicate with outside persons	0.040 (0.027)	0.045* (0.026)	0.004 (0.024)	0.048 (0.031)	-0.031 (0.055)	0.027*** (0.006)
	Interpersonal relationships	0.036 (0.026)	0.036 (0.024)	0.003 (0.023)	0.086*** (0.030)	0.113** (0.053)	0.028*** (0.006)
Amount of Respon-sibility	Freedom to make decisions	0.038 (0.027)	-0.014 (0.025)	-0.010 (0.023)	-0.025 (0.028)	-0.034 (0.049)	-0.005 (0.006)
	Frequency of decision making	0.053** (0.025)	0.016 (0.025)	0.021 (0.022)	0.026 (0.028)	-0.106** (0.052)	0.004 (0.006)
	Consequence of error	0.084*** (0.027)	0.017 (0.026)	0.025 (0.023)	0.011 (0.033)	-0.118* (0.063)	-0.004 (0.006)
	Responsible for outcomes	0.016 (0.025)	0.030 (0.024)	0.018 (0.022)	-0.009 (0.026)	-0.010 (0.048)	-0.014** (0.006)
	Responsible for others' health	-0.001 (0.025)	0.020 (0.024)	-0.010 (0.021)	-0.026 (0.028)	-0.053 (0.053)	-0.012* (0.006)

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Table 13 continued

	Independent Variable	Professional, Scientific, & Technical	Education	Health Care & Social Assistance	Arts, Entertain-ment, & Recreation	Food Services	All Occupations
Leadership Roles	Coordinate the work of others	0.026 (0.024)	0.025 (0.023)	-0.015 (0.021)	0.003 (0.028)	0.001 (0.052)	0.001 (0.006)
	Staff organizational units	0.020 (0.024)	0.005 (0.023)	-0.009 (0.020)	0.004 (0.026)	-0.009 (0.043)	0.013** (0.006)
Type of work	Degree of automation	0.005 (0.026)	-0.008 (0.025)	0.020 (0.023)	0.072** (0.031)	-0.093 (0.063)	-0.005 (0.006)
	Importance of being exact	0.006 (0.026)	0.022 (0.024)	0.014 (0.021)	0.016 (0.026)	-0.112** (0.047)	0.004 (0.006)
	Structured vs. Unstructured	0.059** (0.026)	0.001 (0.026)	0.014 (0.024)	-0.002 (0.029)	-0.012 (0.049)	0.0001 (0.006)
	Processing information	0.086*** (0.025)	0.030 (0.023)	-0.009 (0.022)	0.056** (0.026)	-0.008 (0.049)	0.014** (0.006)
	Thinking creatively	0.019 (0.025)	0.026 (0.024)	-0.016 (0.021)	0.009 (0.026)	0.035 (0.048)	0.004 (0.006)
	Organizing/ planning work	0.074*** (0.026)	0.053** (0.023)	0.008 (0.022)	0.047* (0.028)	0.060 (0.052)	0.011* (0.006)
Work Environ-ment	Frequency of conflict situations	0.066*** (0.026)	0.007 (0.025)	0.030 (0.022)	0.025 (0.029)	0.005 (0.058)	0.015** (0.006)
	Level of competition	-0.002 (0.024)	-0.004 (0.023)	-0.045** (0.021)	-0.002 (0.027)	-0.009 (0.048)	-0.004 (0.006)
		N=231	N=219	N=239	N=188	N=116	N=404

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively, and standard errors are shown in parenthesis. In the first five columns, the reported coefficients are from 21 univariate regressions for occupations within the given industry that are each estimated with an intercept term where the dependent variable is the log occupation-specific gender earnings gap for full-time, full-year workers aged 22-55. The last column shows the estimation result for 21 univariate regressions for all occupations across all industries, which comes from Table 7 in Chapter 5.

When considering measures of responsibility, the amount of responsibility a

worker has for the work outcomes is not significantly associated with the occupation-

specific gender earnings gap within any of the service industries, which is at odds with the results across all occupations that find a significant relationship between the two. Similarly, the amount of responsibility for the health and safety of others is not significantly associated with the gender earnings gap within occupations in any of the service industries, while that is significant in the overall analysis across all occupations. Since the overall results in Chapter 5 find an inverse relationship between the amount of responsibility and the gender earnings gap in an occupation and there is no such relationship within service industries, the overall result must be driven by what is occurring in other industries (e.g. manufacturing, construction, agriculture, wholesale trade, etc.).

In the FS industry, the different measures of the amount of responsibility a worker has within an occupation consistently show a positive relationship with the occupation-specific gender earnings gap. The frequency with which workers make impactful decisions and the severity of a mistake are both significantly associated with an increasing gender earnings gap within occupations, and the estimated magnitudes of both of these characteristics are the largest within this industry. Relatedly, the gender earnings gap is increasing in the importance of being exact when performing job tasks only within occupations in the FS industry. This suggests that occupations within the FS industry that require workers to make important decisions frequently, occupations where mistakes are severe, and/or occupations where it is important to be exact, women are at a larger disadvantage in terms of their earnings than they would be in a similar occupation within a different service industry.

Interestingly, two measures of responsibility are associated with a decreasing gender gap within occupations in the PSTS industry. Up to this point, all the measures

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of responsibility that have been significantly associated with the occupation-specific gender gap worked in the direction of increasing the gap. This suggests that within the PSTS industry, women in occupations that require a worker to hold responsibilities will be better off than women in similar (or potentially, the same) occupations within different industries. This result emphasizes how industry as well as occupation plays a role in the gender earnings gap.

Within three service industries (PSTS, ES, & AER), the importance of organizing and prioritizing work is associated with a decreasing occupation-specific gender earnings gap. A one standard deviation increase in the importance of developing goals within an occupation is associated with a 0.05-0.07 increase in the earnings ratio. In the initial analysis across all occupations, a one standard deviation increase in the importance of organizing and prioritizing work is associated with a 0.01 increase in the earnings ratio, as can be seen in the last column. What is happening within the PSTS, ES, and AER industries may be driving that result. Similarly, the importance of processing information is associated with a 0.01 fall in the occupation-specific log gender gap across all occupations, and that may be driven by what is occurring in occupations in the PSTS and AER industries.

The frequency of conflict situations, which provides one measure of the work environment, is associated with a decreasing gender earnings gap across all occupations, and that same result (with an even stronger effect) is observed within the PSTS industry. Within all service industries, the frequency of conflict situations in an occupation is negatively associated with the occupation-specific gender earnings gap, while the second measure of the work environment, the level of competition within an occupation, is positively associated with the gender gap in all service industries. Even

though statistically significant results are limited, the trends are worth noting since they consistently have opposite effects on the estimated gender gaps.

Similar to the results in section 5.1, there is limited evidence supporting Goldin's (2014) substitutability hypothesis. Certain results support the theory, but on the whole, it's difficult to conclude the substitutability between workers is influencing the gender earnings gaps within occupations in service industries[22]. As discussed previously, this is likely due to studying less-educated workers who work in occupations that require less education and training compared to Goldin's (2014) sample of interest.

The preceding analysis, which focuses on occupations in different industries within the service sector, shows that the overall results across all occupations found in section 5.1 do not generalize very well within the service industries. For example, in the analysis across all occupations, five measures of the importance of working with others are found to be significantly associated with a decreasing gender earnings gap within occupations, and no such robust results are found in any of the service industries. Similarly, the measures of responsibility that are found to be associated with an increasing occupation-specific gender gap across all occupations have no effect within occupations in the service industries. While some of the results found in section 5.1 are consistent with some of the present results, the lack of consistency

[22] The statistically significant results that support the substitutability hypothesis are as follows: within occupations in the PSTS industry, the gender earnings gap is decreasing as the occupations become less structured towards a specific worker; within occupations in the FS industry, the gender gap is increasing in the frequency of decision making; and, within occupations in the AER industry, the gender gap is decreasing as the occupations become less automated.

across all results implies that industry-specific components may be influencing the gender gaps within occupations. The lack of similar results across the five different service industries also supports the notion that industry-specific factors are important. While I do not investigate how well the overall results generalize within other sectors of the economy, the current results suggest that to be successful in decreasing the gender wage differential, both occupational and industrial components must be considered. That is, a structural change in an occupation designed to decrease the gender gap (e.g. providing an option for flexible work hours) may only be effective within certain industries.

Chapter 7

CONCLUSION

In this dissertation, I examine the occupational gender earnings gap among less-educated workers whose highest education credential is a high school diploma, some college experience, or an associate's degree. Using data from the ACS and O*NET, I find the wage differential between less-educated men and women is pervasive and is significantly associated with certain characteristics of an occupation.

I find that within an occupation, women earn, on average, $0.84 per $1 men earn after adjusting for demographic variables, education, and time worked. Moreover, women earn less than men in 97% of the 404 occupations included in this study. In over 80% of occupations, women earn $0.90 or less per $1 men earn.

My research provides compelling evidence that the gender earnings gap among less-educated workers within occupations is related to certain characteristics of an occupation. I find that the gender earnings gap is decreasing in the importance and frequency of cooperatively working with others within an occupation. Conversely, in occupations where workers are responsible for the work outcomes or for the health and safety of others, the earnings difference between men and women is increasing.

The latter results may hint that women in managerial or supervisory positions may be worse off (in terms of earnings equality) than similar women in different occupations that require fewer responsibilities. The former results imply that women

are relatively better off in occupations that require "people" skills. This is consistent with the commonly-held notion that women have better "people" skills than men.

This research draws heavily from Goldin (2014), especially when considering the role of temporal flexibility within an occupation. I find suggestive evidence that the gender earnings gap within an occupation is related to the price of flexibility, which is measured by the earnings-hours elasticity within an occupation. I find the occupations that have a high price of flexibility also have a large gender earnings gap.

Within an occupation, I find the price of flexibility is associated with certain characteristics of an occupation. In occupations characterized by regimented schedules and established routines, the price of flexibility is increasing. Similarly, the price of flexibility within an occupation is also associated with the amount of time pressure workers face in an occupation, with the price of flexibility increasing in the amount of time pressure faced.

I find limited evidence to support the hypothesis regarding the substitutability of workers within an occupation put forth by Goldin (2014). The substitutability theory posits that, in occupations where workers can easily substitute for one another, flexibility can be obtained at a low price, and the gender earnings gap should be relatively small in such occupations. However, only one occupational characteristic that reflects the substitutability between workers (the amount of time pressure faced) is significantly related to the price of flexibility. Moreover, while I find a positive relationship between the price of flexibility within an occupation and the size of the gender earnings gap, it is not a very strong relationship. It is possible, however, that the difference in my findings compared to Goldin's reflects the differences in our samples of interest. I focus on less-educated workers with less than a 4-year college

degree, whereas Goldin's work examines highly-skilled workers in the top 95 highest paid occupations.

Lastly, I find evidence that industry-specific factors play an important role in the gender earnings gaps within occupations. Within five industries in the service sector, the average occupation-specific gender gap varies. Moreover, the occupational characteristics associated with the occupation-specific gender earnings gaps varies across the five industries. For only occupations in the Food Service industry, the gender earnings gap within occupations is increasing in the amount of responsibility workers hold. The effect of working with others is more robust for occupations in the Professional, Scientific, and Technical Services industry compared to other service industries.

Generally speaking, this research adds to the extensive literature on the gender gap in earnings and its causes. However, in this research, I show that the gender earnings gap is related to structural components of an occupation. After controlling for individual characteristics, a gender earnings gap persists and is significantly associated with the tasks and features of an occupation that capture the day-to-day requirements of a worker.

This result supports the burgeoning awareness that observable differences between men and women in wage-determining variables are no longer driving the wage differential. I find that women lose out on, on average, $0.16 for every $1 earned by men even after controlling for demographic variables, education level, time worked, and a detailed measure of occupation. A one standard deviation increase in certain occupational characteristics (the importance of dealing with external customers, persons outside the organization, and interpersonal relationships) is

associated with a 0.03 increase in the earnings ratio, which means a one standard deviation increase would be sufficient to close nearly 20% of the $0.16 earnings gap. Restructuring occupations, to the extent that restructuring can be done, can have big implications for the persistent earnings difference between men and women. Additionally, restricting the analysis to within a single industry does not necessarily lessen the wage discrepancy, which hints that for gender equality in earnings to be achieved, structural changes must take place at both the occupation and industry levels.

One such change would be to find ways to make earnings less sensitive to a change in working hours. Occupations where earnings are sensitive to a change in the number of weekly hours worked have relatively large gender earnings gaps. By desensitizing earnings with respect to hours worked, flexibility becomes more easily obtainable and less costly. According to the results of this study, decreasing the price of flexibility within an occupation may be accomplished by allowing workers more freedom in their working schedules and decreasing the amount of time pressure workers face.

Since I identify occupational characteristics that are associated with the gender earnings gap, future work in this area can focus on why occupations characterized by certain features have increasing gender earnings gaps. For example, occupations that are characterized by workers holding responsibilities for the work outcomes and/or the health and safety of others have increasing gender earnings gaps. Identifying why women earn less in such occupations, whether it be due to discrimination or some other factor, would be a step in the direction of closing the earnings gaps in those occupations. Similarly, understanding why the earnings gap is relatively small in

occupations characterized by interaction with other people will provide important information in how restructuring of an occupation can decrease the gender earnings gap.

       While this research shows occupational structure is clearly important when thinking about the causes of the gender earnings gap, it is just one in the list of many potential causes of the gender differential in earnings (others include statistical discrimination, taste-based discrimination, occupational or industrial segregation, etc). Because there are many different components to the gender earnings gap, restructuring occupations in ways to level the playing field between men and women is not the entire solution. Other factors will need to change as well. However, changing the structure of an occupation can be one factor that plays a role in the narrowing of the gender earnings gap.

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Appendix A

FULL ESTIMATION RESULTS OF THE EARNINGS EQUATIONS

This Appendix contains the full estimation results of the earnings equations in columns (2)-(4) of Table 5. Table A.1 corresponds to column (2) in Table 5, Table A.2 to column (3), and Table A.3 to column (4).

Table A.1: *Full Estimation Results of Annual Earnings with Occupation Dummies for Full-Time, Full-Year Workers Without a College Degree, 2012-2014*

```
                                     Number of obs   = 1,210,371
                                     F(423, 1209947) =   1480.84
                                          Prob > F    =   0.0000
                                          R-squared   =   0.3411
                                       Adj R-squared  =   0.3409
                                          Root MSE    =  .51434


------------------------------------------------------------------------------
lnincome |    Coef.   Std. Err.    t       P>|t|    [95% Conf. Interval]
--------------+---------------------------------------------------------------
female |   -.193012   .0012497 -154.45  0.000   -.1954614  -.1905627
age |      .4800027   .0164431   29.19  0.000    .4477748   .5122306
age2 |     -.0161155  .0006667  -24.17  0.000   -.0174223  -.0148087
age3 |      .0002461  .0000117   21.03  0.000    .0002232   .0002691
age4 |      -1.42e-06 7.52e-08  -18.86  0.000   -1.57e-06  -1.27e-06
black |     -.0896352  .0015304  -58.57  0.000   -.0926348  -.0866356
ind_alaska| -.0922934  .0044174  -20.89  0.000   -.1009513  -.0836355
asian |       -.013146  .0027401   -4.80  0.000   -.0185165  -.0077755
haw_pacisl | -.0117374   .009917   -1.18  0.237   -.0311743   .0076996
other_comb | -.0116103  .0021875   -5.31  0.000   -.0158977  -.0073229
hispdum |   -.0489179  .0015106  -32.38  0.000   -.0518785  -.0459572
ged |        -.0667599  .0020767  -32.15  0.000   -.0708301  -.0626896
somecol_less1 |.050264  .0015684   32.05  0.000    .0471899   .0533381
```

Table A.1 continued

somecol	.0752549	.0012234	61.51	0.000	.072857	.0776527
assoc	.0978168	.0014489	67.51	0.000	.094977	.1006565
lnhrs	.5968655	.0032376	184.35	0.000	.5905199	.6032111
lnwks	1.724546	.0140052	123.14	0.000	1.697096	1.751995
year2013	-.0049581	.0011451	-4.33	0.000	-.0072024	-.0027138
year2014	-.0107506	.0011472	-9.37	0.000	-.012999	-.0085022
occ_10	1.026666	.0092374	111.14	0.000	1.008561	1.044771
occ_20	.7950461	.0079909	99.49	0.000	.7793842	.810708
occ_40	.727525	.0365176	19.92	0.000	.6559518	.7990982
occ_50	.8552008	.0094598	90.40	0.000	.8366598	.8737417
occ_60	.8980088	.0425692	21.10	0.000	.8145745	.9814431
occ_100	.7291481	.0147639	49.39	0.000	.7002113	.7580848
occ_110	1.024147	.0108169	94.68	0.000	1.002946	1.045347
occ_120	.7659742	.0082289	93.08	0.000	.7498457	.7821026
occ_136	.7299377	.0107967	67.61	0.000	.7087766	.7510987
occ_137	.7227162	.0253699	28.49	0.000	.672992	.7724403
occ_140	.7649846	.0119115	64.22	0.000	.7416384	.7883308
occ_150	.7962723	.0148856	53.49	0.000	.767097	.8254476
occ_160	.5546325	.0113918	48.69	0.000	.532305	.57696
occ_205	.1610054	.0102387	15.73	0.000	.1409379	.1810728
occ_220	.7747041	.0092675	83.59	0.000	.7565401	.792868
occ_230	.4785279	.0117606	40.69	0.000	.4554775	.5015782
occ_300	1.009384	.0245775	41.07	0.000	.9612134	1.057555
occ_310	.3405754	.007918	43.01	0.000	.3250563	.3560945
occ_330	.6077068	.0327166	18.57	0.000	.5435835	.6718301
occ_340	.413767	.0164187	25.20	0.000	.381587	.4459471
occ_350	.7240738	.0099342	72.89	0.000	.7046031	.7435445
occ_410	.5905076	.0098644	59.86	0.000	.5711738	.6098415
occ_420	.5655823	.0142379	39.72	0.000	.5376765	.5934881
occ_425	.6149917	.0554825	11.08	0.000	.5062478	.7237356
occ_430	.7585284	.0068384	110.92	0.000	.7451252	.7719315
occ_500	.563826	.0374209	15.07	0.000	.4904823	.6371696
occ_510	.4039892	.0571228	7.07	0.000	.2920303	.515948
occ_520	.4796513	.0133628	35.89	0.000	.4534606	.505842
occ_530	.6219169	.0115357	53.91	0.000	.5993073	.6445266
occ_540	.6729704	.0112143	60.01	0.000	.6509908	.69495
occ_565	.7260109	.014245	50.97	0.000	.6980911	.7539307
occ_600	.6835221	.0148375	46.07	0.000	.6544412	.712603
occ_630	.7067367	.0092795	76.16	0.000	.6885492	.7249242
occ_640	.6712468	.0248297	27.03	0.000	.6225814	.7199122

Table A.1 continued

occ_650	.6716348	.0162846	41.24	0.000	.6397176	.703552
occ_700	.6076298	.0153735	39.52	0.000	.5774984	.6377613
occ_710	.881511	.01167	75.54	0.000	.8586383	.9043837
occ_725	.6046438	.0217818	27.76	0.000	.5619522	.6473354
occ_726	.5124741	.0404956	12.66	0.000	.4331042	.591844
occ_735	.7799528	.0182982	42.62	0.000	.744089	.8158167
occ_740	.6598332	.0133486	49.43	0.000	.6336703	.6859961
occ_800	.5974985	.0084646	70.59	0.000	.580908	.6140889
occ_810	.5101361	.0227531	22.42	0.000	.4655409	.5547314
occ_820	1.005622	.0341614	29.44	0.000	.9386669	1.072577
occ_830	.7568761	.03902	19.40	0.000	.6803981	.833354
occ_840	.9037345	.0336793	26.83	0.000	.8377243	.9697447
occ_850	.8694552	.0163292	53.25	0.000	.8374506	.9014598
occ_860	.7905748	.0180063	43.91	0.000	.755283	.8258666
occ_900	.7296205	.0744843	9.80	0.000	.5836339	.8756071
occ_910	.7345863	.011245	65.33	0.000	.7125465	.7566261
occ_930	.6387288	.0234731	27.21	0.000	.5927223	.6847353
occ_940	.4717882	.0273053	17.28	0.000	.4182706	.5253057
occ_950	.6177083	.0252511	24.46	0.000	.568217	.6671996
occ_1006	.8809554	.0116165	75.84	0.000	.8581875	.9037233
occ_1007	.986897	.0246678	40.01	0.000	.9385491	1.035245
occ_1010	.8788991	.0123161	71.36	0.000	.8547601	.9030381
occ_1020	1.071347	.0106178	100.90	0.000	1.050536	1.092158
occ_1030	.7116994	.0178569	39.86	0.000	.6767004	.7466983
occ_1050	.6681354	.0088376	75.60	0.000	.6508139	.6854568
occ_1060	.8166783	.020817	39.23	0.000	.7758776	.857479
occ_1105	.8322945	.0121221	68.66	0.000	.8085355	.8560535
occ_1106	1.05678	.0174403	60.59	0.000	1.022598	1.090962
occ_1107	.7574978	.0101054	74.96	0.000	.7376915	.7773041
occ_1220	.9176581	.0196469	46.71	0.000	.8791508	.9561654
occ_1300	.8148837	.0313385	26.00	0.000	.7534612	.8763061
occ_1310	.5739157	.0430036	13.35	0.000	.4896302	.6582012
occ_1320	.962651	.0279009	34.50	0.000	.9079662	1.017336
occ_1350	.906469	.0456969	19.84	0.000	.8169046	.9960334
occ_1360	.8099355	.0193145	41.93	0.000	.7720798	.8477913
occ_1400	.9255852	.0298461	31.01	0.000	.8670879	.9840824
occ_1410	.9093893	.0193976	46.88	0.000	.8713706	.9474079
occ_1430	.7842664	.0167176	46.91	0.000	.7515005	.8170324
occ_1450	.7640443	.0401512	19.03	0.000	.6853492	.8427393
occ_1460	.83561	.0162228	51.51	0.000	.8038138	.8674062

Table A.1 continued

occ_1530	.8924228	.0140218	63.65	0.000	.8649406	.919905
occ_1540	.618277	.0124643	49.60	0.000	.5938473	.6427066
occ_1550	.6871474	.0088218	77.89	0.000	.6698569	.7044379
occ_1560	.5674292	.017086	33.21	0.000	.5339411	.6009172
occ_1600	.48401	.0613507	7.89	0.000	.3637648	.6042553
occ_1860	.5113078	.0491962	10.39	0.000	.4148851	.6077306
occ_1900	.5007578	.0249894	20.04	0.000	.4517795	.5497361
occ_1910	.4763072	.0366906	12.98	0.000	.4043949	.5482196
occ_1920	.5924311	.0189473	31.27	0.000	.5552951	.6295672
occ_1930	.8289975	.0328428	25.24	0.000	.7646267	.8933683
occ_1965	.5668912	.0155663	36.42	0.000	.5363818	.5974007
occ_2000	.3717231	.0126553	29.37	0.000	.3469193	.396527
occ_2010	.4578583	.0110065	41.60	0.000	.4362861	.4794306
occ_2015	.4774448	.0257559	18.54	0.000	.4269641	.5279254
occ_2016	.3412407	.0154688	22.06	0.000	.3109224	.3715591
occ_2025	.3943035	.0216153	18.24	0.000	.3519382	.4366687
occ_2040	.2250201	.0155383	14.48	0.000	.1945656	.2554745
occ_2050	.287557	.033816	8.50	0.000	.2212789	.3538352
occ_2145	.6774277	.0103177	65.66	0.000	.6572054	.69765
occ_2160	.6471938	.0137929	46.92	0.000	.6201601	.6742274
occ_2300	.0469557	.0100311	4.68	0.000	.0272951	.0666162
occ_2330	.0968186	.0241467	4.01	0.000	.0494918	.1441453
occ_2340	.4263083	.0103549	41.17	0.000	.406013	.4466036
occ_2400	.4175654	.0507961	8.22	0.000	.3180067	.5171241
occ_2430	.2126545	.0307526	6.91	0.000	.1523803	.2729286
occ_2440	.1712104	.0368637	4.64	0.000	.0989588	.243462
occ_2540	-.0172937	.0083176	-2.08	0.038	-.0335959	-.0009915
occ_2550	.3540588	.0250135	14.15	0.000	.3050332	.4030844
occ_2600	.5522701	.0207513	26.61	0.000	.5115982	.592942
occ_2630	.5407567	.0097403	55.52	0.000	.521666	.5598474
occ_2700	.2902479	.0622157	4.67	0.000	.1683072	.4121886
occ_2710	.7070506	.0218119	32.42	0.000	.6643	.7498011
occ_2720	.4365262	.0196003	22.27	0.000	.3981102	.4749422
occ_2740	.6401395	.0536766	11.93	0.000	.5349353	.7453437
occ_2750	.4076945	.0272481	14.96	0.000	.3542892	.4610998
occ_2800	.396525	.0313336	12.65	0.000	.3351122	.4579378
occ_2810	.5227489	.0396861	13.17	0.000	.4449655	.6005324
occ_2825	.7386525	.0295141	25.03	0.000	.6808059	.7964991
occ_2830	.5902807	.0257053	22.96	0.000	.5398991	.6406623
occ_2840	.77891	.0349726	22.27	0.000	.7103649	.8474552

Table A.1 continued

occ_2850	.5518952	.0295154	18.70	0.000	.4940461	.6097443
occ_2860	.492851	.0231643	21.28	0.000	.4474497	.5382523
occ_2900	.5679337	.0172389	32.94	0.000	.5341461	.6017213
occ_2910	.3517098	.0214793	16.37	0.000	.3096112	.3938084
occ_2920	.6148479	.0358482	17.15	0.000	.5445866	.6851092
occ_3030	.3531112	.0295075	11.97	0.000	.2952776	.4109448
occ_3110	.635446	.027207	23.36	0.000	.5821211	.6887709
occ_3200	1.166286	.038925	29.96	0.000	1.089995	1.242578
occ_3220	.8027215	.0145105	55.32	0.000	.7742815	.8311616
occ_3245	.5370535	.0296058	18.14	0.000	.4790272	.5950797
occ_3255	.8729386	.007056	123.72	0.000	.8591091	.8867682
occ_3300	.5244804	.0117274	44.72	0.000	.501495	.5474657
occ_3310	.8612685	.0170571	50.49	0.000	.8278372	.8946998
occ_3320	.8041033	.0097979	82.07	0.000	.7848997	.8233069
occ_3400	.451379	.0105275	42.88	0.000	.4307456	.4720125
occ_3420	.4307646	.0085521	50.37	0.000	.4140028	.4475264
occ_3500	.5184338	.0077985	66.48	0.000	.5031491	.5337185
occ_3510	.4133512	.0133119	31.05	0.000	.3872603	.4394421
occ_3520	.4654119	.0204208	22.79	0.000	.4253878	.5054359
occ_3535	.526053	.01541	34.14	0.000	.49585	.556256
occ_3540	.6558005	.0217059	30.21	0.000	.6132577	.6983434
occ_3600	.1978499	.0069105	28.63	0.000	.1843056	.2113942
occ_3610	.6959557	.0322429	21.58	0.000	.6327607	.7591508
occ_3620	.6217133	.0177234	35.08	0.000	.5869761	.6564505
occ_3630	.217036	.0201342	10.78	0.000	.1775736	.2564984
occ_3640	.4248233	.0107951	39.35	0.000	.4036652	.4459814
occ_3645	.3401717	.0086076	39.52	0.000	.323301	.3570423
occ_3647	.3356293	.0258086	13.00	0.000	.2850454	.3862132
occ_3648	.2131609	.0253634	8.40	0.000	.1634496	.2628723
occ_3649	.3391819	.0146977	23.08	0.000	.310375	.3679888
occ_3655	.241667	.0144162	16.76	0.000	.2134118	.2699222
occ_3700	.6101178	.0167255	36.48	0.000	.5773365	.6428991
occ_3710	.8162061	.0142961	57.09	0.000	.7881863	.8442259
occ_3720	.8548077	.018443	46.35	0.000	.81866	.8909553
occ_3740	.6783893	.0091143	74.43	0.000	.6605256	.6962529
occ_3750	.6379486	.0307126	20.77	0.000	.5777529	.6981444
occ_3800	.5677464	.0082054	69.19	0.000	.5516641	.5838287
occ_3820	.8429146	.0156977	53.70	0.000	.8121476	.8736816
occ_3840	.4441219	.0456885	9.72	0.000	.354574	.5336699
occ_3850	.7513182	.0077882	96.47	0.000	.7360535	.7665828

Table A.1 continued

occ_3900	.3996235	.0381952	10.46	0.000	.3247621	.4744849
occ_3910	.6517096	.0220038	29.62	0.000	.6085829	.6948363
occ_3930	.2977503	.0078351	38.00	0.000	.2823938	.3131068
occ_3940	.2714701	.0396794	6.84	0.000	.1936998	.3492404
occ_3945	.5666187	.0298775	18.96	0.000	.5080599	.6251775
occ_3955	.2383348	.0267728	8.90	0.000	.1858611	.2908086
occ_4000	.2068008	.0097487	21.21	0.000	.1876936	.2259079
occ_4010	.1546627	.0089933	17.20	0.000	.1370361	.1722892
occ_4020	-.0649307	.0073157	-8.88	0.000	-.0792691	-.0505922
occ_4030	-.0725113	.0103166	-7.03	0.000	-.0927314	-.0522912
occ_4040	.1408907	.0109575	12.86	0.000	.1194143	.1623671
occ_4050	-.0334926	.0139115	-2.41	0.016	-.0607587	-.0062264
occ_4060	-.1627409	.0277692	-5.86	0.000	-.2171676	-.1083142
occ_4110	.0631309	.0079599	7.93	0.000	.0475297	.0787321
occ_4120	.114549	.0170443	6.72	0.000	.0811429	.1479552
occ_4130	-.0386161	.0164315	-2.35	0.019	-.0708213	-.006411
occ_4140	-.2223152	.0176959	-12.56	0.000	-.2569986	-.1876319
occ_4150	.0923056	.0239157	3.86	0.000	.0454317	.1391795
occ_4200	.3649906	.0120102	30.39	0.000	.341451	.3885301
occ_4210	.3276821	.014441	22.69	0.000	.2993782	.3559859
occ_4220	.1492471	.0069903	21.35	0.000	.1355464	.1629478
occ_4240	.2726278	.0175168	15.56	0.000	.2382955	.3069601
occ_4250	.0777368	.0084143	9.24	0.000	.0612451	.0942285
occ_4300	.4709046	.0209032	22.53	0.000	.429935	.5118741
occ_4320	.270732	.0173119	15.64	0.000	.2368013	.3046628
occ_4340	-.0053381	.0326503	-0.16	0.870	-.0693316	.0586553
occ_4350	.1585232	.0153845	10.30	0.000	.1283701	.1886763
occ_4400	.4414387	.0168487	26.20	0.000	.4084159	.4744615
occ_4410	.2270329	.0836601	2.71	0.007	.0630619	.3910039
occ_4420	.1125292	.0622129	1.81	0.070	-.009406	.2344644
occ_4430	.1070338	.0203972	5.25	0.000	.0670559	.1470117
occ_4460	.1774727	.0545556	3.25	0.001	.0705457	.2843997
occ_4465	.4904921	.0264669	18.53	0.000	.4386179	.5423663
occ_4500	-.1742656	.0215748	-8.08	0.000	-.2165515	-.1319796
occ_4510	.1258836	.0091234	13.80	0.000	.108002	.1437651
occ_4520	-.0394494	.0132937	-2.97	0.003	-.0655045	-.0133942
occ_4530	.2298017	.0196419	11.70	0.000	.1913042	.2682993
occ_4540	.0263281	.037422	0.70	0.482	-.0470178	.099674
occ_4600	-.054265	.0091789	-5.91	0.000	-.0722553	-.0362747
occ_4610	.0000586	.0082671	0.01	0.994	-.0161446	.0162618

Table A.1 continued

occ_4620	.2012463	.0133043	15.13	0.000	.1751704	.2273223
occ_4640	.1043153	.0259605	4.02	0.000	.0534335	.155197
occ_4700	.4281099	.0065952	64.91	0.000	.4151834	.4410363
occ_4710	.6354728	.007772	81.76	0.000	.6202399	.6507056
occ_4720	.067155	.0073464	9.14	0.000	.0527562	.0815537
occ_4740	.2254848	.0210712	10.70	0.000	.184186	.2667837
occ_4750	.3092024	.0141936	21.78	0.000	.2813834	.3370213
occ_4760	.308798	.0069557	44.40	0.000	.2951651	.3224309
occ_4800	.5749689	.0158574	36.26	0.000	.5438889	.6060488
occ_4810	.565667	.0098837	57.23	0.000	.5462953	.5850388
occ_4820	.7258285	.0154044	47.12	0.000	.6956364	.7560205
occ_4830	.4495439	.0210713	21.33	0.000	.4082449	.4908429
occ_4840	.64947	.0093782	69.25	0.000	.6310891	.6678508
occ_4850	.6542909	.0076982	84.99	0.000	.6392027	.6693791
occ_4900	.2464728	.044516	5.54	0.000	.159223	.3337226
occ_4920	.5408554	.0108259	49.96	0.000	.5196369	.5620738
occ_4940	.1766392	.0204474	8.64	0.000	.1365629	.2167154
occ_4950	.119336	.0227488	5.25	0.000	.0747492	.1639228
occ_5000	.5907286	.0072423	81.57	0.000	.576534	.6049233
occ_5010	.2400547	.0303479	7.91	0.000	.1805738	.2995355
occ_5020	.3363669	.0253841	13.25	0.000	.2866149	.3861189
occ_5100	.4234833	.0118708	35.67	0.000	.400217	.4467497
occ_5110	.3867673	.0085986	44.98	0.000	.3699143	.4036203
occ_5120	.4715229	.007355	64.11	0.000	.4571075	.4859384
occ_5130	.2163881	.0450062	4.81	0.000	.1281775	.3045987
occ_5140	.5323486	.0122081	43.61	0.000	.508421	.5562761
occ_5150	.6309297	.0252786	24.96	0.000	.5813845	.6804749
occ_5160	.2422167	.0097978	24.72	0.000	.2230133	.26142
occ_5200	.6420746	.0571187	11.24	0.000	.5301239	.7540254
occ_5220	.4501902	.0170773	26.36	0.000	.4167192	.4836612
occ_5230	.4892986	.0221548	22.09	0.000	.4458759	.5327213
occ_5240	.3598293	.0068331	52.66	0.000	.3464366	.3732219
occ_5250	.5617811	.0188118	29.86	0.000	.5249106	.5986516
occ_5260	.368475	.0111729	32.98	0.000	.3465766	.3903734
occ_5300	.0785302	.0155995	5.03	0.000	.0479557	.1091047
occ_5310	.3490666	.0156531	22.30	0.000	.318387	.3797461
occ_5320	.1582273	.0257531	6.14	0.000	.1077521	.2087024
occ_5330	.5682592	.0136506	41.63	0.000	.5415046	.5950138
occ_5340	.4640622	.0331473	14.00	0.000	.3990946	.5290298
occ_5350	.343455	.014261	24.08	0.000	.315504	.371406

Table A.1 continued

occ_5360	.5058523	.0188618	26.82	0.000	.4688838	.5428208
occ_5400	.2824949	.0077549	36.43	0.000	.2672955	.2976943
occ_5410	.4032409	.0157035	25.68	0.000	.3724627	.4340192
occ_5500	.4460542	.0328337	13.59	0.000	.3817012	.5104072
occ_5510	.4164687	.0122538	33.99	0.000	.3924516	.4404858
occ_5520	.4507303	.0097582	46.19	0.000	.4316045	.4698561
occ_5530	.422127	.0232145	18.18	0.000	.3766274	.4676266
occ_5540	.6911704	.0144705	47.76	0.000	.6628086	.7195321
occ_5550	.6842112	.0095234	71.85	0.000	.6655456	.7028767
occ_5560	.6568432	.0175411	37.45	0.000	.6224633	.6912232
occ_5600	.5394505	.0103028	52.36	0.000	.5192573	.5596437
occ_5610	.2499373	.008286	30.16	0.000	.233697	.2661777
occ_5620	.2043788	.0074501	27.43	0.000	.1897769	.2189807
occ_5630	.3578309	.0169174	21.15	0.000	.3246734	.3909884
occ_5700	.4282508	.0065418	65.46	0.000	.4154291	.4410725
occ_5800	.4723278	.0162345	29.09	0.000	.4405086	.5041469
occ_5810	.3493766	.0097895	35.69	0.000	.3301895	.3685637
occ_5820	.4153653	.0099816	41.61	0.000	.3958017	.4349289
occ_5840	.4828283	.009636	50.11	0.000	.463942	.5017145
occ_5850	.2541253	.0178919	14.20	0.000	.2190578	.2891928
occ_5860	.3908871	.0075478	51.79	0.000	.3760936	.4056806
occ_5900	.3242423	.0268637	12.07	0.000	.2715903	.3768944
occ_5910	.1701784	.0769102	2.21	0.027	.0194369	.3209198
occ_5920	.6424467	.0321082	20.01	0.000	.5795158	.7053776
occ_5940	.4999722	.0088781	56.32	0.000	.4825714	.5173731
occ_6005	.2902296	.0214893	13.51	0.000	.2481113	.3323479
occ_6010	.5138016	.0418851	12.27	0.000	.4317082	.595895
occ_6040	.0167122	.0289884	0.58	0.564	-.0401041	.0735285
occ_6050	.0215858	.0091329	2.36	0.018	.0036856	.039486
occ_6100	.2891972	.0336308	8.60	0.000	.2232821	.3551124
occ_6120	.2543142	.0440491	5.77	0.000	.1679794	.3406489
occ_6130	.2085684	.0207487	10.05	0.000	.1679017	.249235
occ_6200	.7116571	.00783	90.89	0.000	.6963106	.7270037
occ_6220	.4061052	.0158747	25.58	0.000	.3749914	.437219
occ_6230	.388188	.0079863	48.61	0.000	.3725351	.4038409
occ_6240	.2919354	.0175803	16.61	0.000	.2574786	.3263921
occ_6260	.3586374	.0074787	47.95	0.000	.3439795	.3732953
occ_6320	.5379261	.0092214	58.33	0.000	.5198525	.5559997
occ_6330	.2766102	.0183601	15.07	0.000	.240625	.3125954
occ_6355	.6455965	.0076634	84.24	0.000	.6305765	.6606165

Table A.1 continued

occ_6400	.506828	.0228795	22.15	0.000	.461985	.5516709
occ_6420	.280303	.0104309	26.87	0.000	.2598588	.3007472
occ_6440	.5829576	.0085023	68.56	0.000	.5662933	.5996219
occ_6515	.3088234	.0152323	20.27	0.000	.2789686	.3386782
occ_6520	.5158061	.0130796	39.44	0.000	.4901706	.5414416
occ_6530	.6016345	.0175426	34.30	0.000	.5672517	.6360173
occ_6600	.2383967	.0268788	8.87	0.000	.1857152	.2910783
occ_6660	.5952464	.0174998	34.01	0.000	.5609474	.6295454
occ_6720	.4459913	.027561	16.18	0.000	.3919727	.50001
occ_6730	.3746317	.0133012	28.17	0.000	.3485618	.4007015
occ_6765	.3836654	.0222811	17.22	0.000	.3399952	.4273356
occ_6830	.5420384	.0290114	18.68	0.000	.485177	.5988997
occ_6840	.7690163	.0152033	50.58	0.000	.7392185	.7988142
occ_6940	.6377929	.0152939	41.70	0.000	.6078173	.6677685
occ_7000	.671862	.0096445	69.66	0.000	.6529591	.690765
occ_7010	.4856558	.0114443	42.44	0.000	.4632255	.5080862
occ_7020	.6577729	.0116063	56.67	0.000	.6350251	.6805208
occ_7030	.5695246	.0252715	22.54	0.000	.5199934	.6190558
occ_7040	.5325792	.0256842	20.74	0.000	.482239	.5829195
occ_7100	.6156668	.0257467	23.91	0.000	.5652043	.6661294
occ_7120	.4429992	.0210627	21.03	0.000	.4017171	.4842814
occ_7130	.4911083	.0193236	25.41	0.000	.4532347	.5289818
occ_7140	.6491282	.010819	60.00	0.000	.6279233	.6703331
occ_7150	.4514284	.0132975	33.95	0.000	.4253656	.4774911
occ_7200	.3897291	.0077213	50.47	0.000	.3745956	.4048626
occ_7210	.5045434	.0093874	53.75	0.000	.4861444	.5229425
occ_7220	.5964489	.0102521	58.18	0.000	.5763551	.6165426
occ_7260	.1792546	.018908	9.48	0.000	.1421955	.2163136
occ_7300	.6351438	.0284322	22.34	0.000	.5794178	.6908699
occ_7315	.5231823	.0092434	56.60	0.000	.5050656	.5412991
occ_7330	.568435	.0087771	64.76	0.000	.5512322	.5856377
occ_7340	.4695134	.0083023	56.55	0.000	.4532413	.4857856
occ_7350	.5392984	.0230993	23.35	0.000	.4940245	.5845722
occ_7360	.7152795	.0184996	38.66	0.000	.6790208	.7515381
occ_7410	.916789	.0119985	76.41	0.000	.8932724	.9403056
occ_7420	.6105346	.0118326	51.60	0.000	.5873431	.6337261
occ_7430	.6043653	.0190952	31.65	0.000	.5669394	.6417911
occ_7510	.3120949	.0241336	12.93	0.000	.264794	.3593959
occ_7540	.3778138	.0290477	13.01	0.000	.3208812	.4347464
occ_7610	.1759081	.0379035	4.64	0.000	.1016184	.2501978

Table A.1 continued

occ_7630	.4288559	.0108924	39.37	0.000	.4075071	.4502047
occ_7700	.6089231	.0073981	82.31	0.000	.5944231	.623423
occ_7710	.5056206	.0510407	9.91	0.000	.4055826	.6056586
occ_7720	.2719627	.0132378	20.54	0.000	.2460171	.2979084
occ_7730	.4406895	.0336188	13.11	0.000	.3747978	.5065812
occ_7740	.4072125	.0255153	15.96	0.000	.3572033	.4572217
occ_7750	.307337	.0074745	41.12	0.000	.2926872	.3219867
occ_7800	.1027803	.0137859	7.46	0.000	.0757604	.1298002
occ_7810	.220922	.0115137	19.19	0.000	.1983555	.2434885
occ_7830	.3318008	.0467709	7.09	0.000	.2401314	.4234703
occ_7840	.2326701	.0175947	13.22	0.000	.1981851	.2671551
occ_7850	.1534723	.0520449	2.95	0.003	.0514659	.2554786
occ_7900	.4420198	.0141734	31.19	0.000	.4142405	.4697992
occ_7920	.4094386	.03303	12.40	0.000	.3447009	.4741763
occ_7940	.4656969	.0434379	10.72	0.000	.3805601	.5508336
occ_7950	.2894682	.0123435	23.45	0.000	.2652754	.3136609
occ_8030	.5006407	.008804	56.86	0.000	.4833851	.5178963
occ_8040	.4978097	.0254867	19.53	0.000	.4478566	.5477628
occ_8100	.3630813	.0195054	18.61	0.000	.3248513	.4013113
occ_8130	.6111129	.0171921	35.55	0.000	.5774169	.6448089
occ_8140	.4440537	.0079849	55.61	0.000	.4284036	.4597037
occ_8220	.3474801	.0088376	39.32	0.000	.3301586	.3648016
occ_8250	.3411834	.0263218	12.96	0.000	.2895935	.3927732
occ_8255	.3589285	.0115431	31.09	0.000	.3363044	.3815525
occ_8256	.2768881	.0300182	9.22	0.000	.2180534	.3357227
occ_8300	-.0243055	.0149777	-1.62	0.105	-.0536613	.0050502
occ_8310	.0175793	.0276963	0.63	0.526	-.0367046	.0718632
occ_8320	-.0223643	.0148823	-1.50	0.133	-.0515332	.0068045
occ_8330	.0126416	.0500877	0.25	0.801	-.0855287	.1108118
occ_8350	.08226	.0284196	2.89	0.004	.0265586	.1379613
occ_8400	.1552919	.0554743	2.80	0.005	.0465643	.2640196
occ_8410	.2420384	.0542521	4.46	0.000	.1357061	.3483708
occ_8420	.1655704	.0429911	3.85	0.000	.0813092	.2498316
occ_8450	.2356279	.0302601	7.79	0.000	.1763191	.2949367
occ_8460	.3527309	.0368659	9.57	0.000	.2804751	.4249867
occ_8500	.2345251	.020943	11.20	0.000	.1934776	.2755727
occ_8510	.1999261	.0483446	4.14	0.000	.1051723	.2946799
occ_8530	.0986011	.025625	3.85	0.000	.0483769	.1488253
occ_8540	.1496614	.0322331	4.64	0.000	.0864857	.2128372
occ_8550	.216488	.0327812	6.60	0.000	.1522379	.2807382

Table A.1 continued

occ_8600	1.030669	.0177143	58.18	0.000	.9959491	1.065388
occ_8610	.6754484	.0149466	45.19	0.000	.6461537	.7047432
occ_8620	.5098571	.0138907	36.70	0.000	.4826318	.5370825
occ_8630	.7756872	.018929	40.98	0.000	.7385871	.8127874
occ_8640	.660189	.0180975	36.48	0.000	.6247186	.6956595
occ_8650	.3819635	.0152435	25.06	0.000	.3520867	.4118402
occ_8710	.2329517	.0198425	11.74	0.000	.1940612	.2718423
occ_8720	.2869738	.0245133	11.71	0.000	.2389286	.3350191
occ_8730	.4857293	.0383027	12.68	0.000	.4106572	.5608013
occ_8740	.4352126	.0078387	55.52	0.000	.4198491	.4505762
occ_8750	.2739466	.0304532	9.00	0.000	.2142593	.3336339
occ_8760	.3863836	.0172418	22.41	0.000	.3525902	.420177
occ_8800	.2170802	.0115535	18.79	0.000	.1944357	.2397247
occ_8810	.3808703	.0132102	28.83	0.000	.3549787	.4067619
occ_8830	.2116113	.0286599	7.38	0.000	.1554388	.2677838
occ_8850	.2801568	.0465822	6.01	0.000	.1888573	.3714564
occ_8910	.2985456	.0536766	5.56	0.000	.1933412	.40375
occ_8920	.321408	.0306076	10.50	0.000	.2614181	.3813979
occ_8930	.4538682	.0259666	17.48	0.000	.4029746	.5047619
occ_8940	.6071126	.0291733	20.81	0.000	.549934	.6642913
occ_8950	.1639827	.0271414	6.04	0.000	.1107865	.2171789
occ_8965	.3657968	.0072584	50.40	0.000	.3515707	.3800229
occ_9000	.5715365	.0110984	51.50	0.000	.549784	.593289
occ_9030	.8664845	.0212086	40.86	0.000	.8249163	.9080526
occ_9040	1.032558	.0218806	47.19	0.000	.9896727	1.075443
occ_9050	.5150755	.0219167	23.50	0.000	.4721195	.5580314
occ_9110	.1510395	.0381982	3.95	0.000	.0761724	.2259066
occ_9120	.2876566	.0096833	29.71	0.000	.2686777	.3066355
occ_9130	.362586	.0065966	54.97	0.000	.349657	.3755151
occ_9140	.0260185	.01264	2.06	0.040	.0012446	.0507924
occ_9200	.8598005	.0184459	46.61	0.000	.8236471	.8959539
occ_9240	.7656439	.0180718	42.37	0.000	.7302237	.801064
occ_9260	.7303805	.0308627	23.67	0.000	.6698907	.7908702
occ_9300	.4364112	.0262602	16.62	0.000	.384942	.4878803
occ_9310	.640386	.0241781	26.49	0.000	.5929977	.6877743
occ_9350	.032129	.022933	1.40	0.161	-.0128189	.0770769
occ_9360	.0879331	.0174154	5.05	0.000	.0537994	.1220667
occ_9410	.6401223	.0211005	30.34	0.000	.5987661	.6814785
occ_9415	.3288303	.0396787	8.29	0.000	.2510615	.4065992
occ_9420	.4646927	.0295201	15.74	0.000	.4068343	.5225512

Table A.1 continued

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occ_9510 |  .6878113  .0173599   39.62  0.000    .6537866   .721836
occ_9560 |  .5551273  .0346777   16.01  0.000    .4871601   .6230944
occ_9600 |  .2606727  .0085017   30.66  0.000    .2440097   .2773356
occ_9610 |  .0990193  .0117538    8.42  0.000    .0759821   .1220564
occ_9620 |  .2545121  .0069649   36.54  0.000    .2408611   .2681631
occ_9630 |  .1891868  .0301592    6.27  0.000    .1300757   .2482979
occ_9640 |  .1248849  .0103858   12.02  0.000     .104529   .1452408
occ_9650 |  .6480802  .0229846   28.20  0.000    .6030312   .6931292
occ_9720 |   .255949  .0174555   14.66  0.000    .2217367   .2901612
occ_9750 |  .4405111  .0206675   21.31  0.000    .4000034   .4810187
   _cons | -4.369812   .157822  -27.69  0.000   -4.679138  -4.060487
```

Table A.2: *Full Estimation Results of Annual Earnings with Occupation Dummies &*
Occupation Female Interactions for Full-Time, Full-Year Workers
without a College Degree, 2012-2014

Number of obs	= 1,210,371
F(827, 1209543) =	764.49
Prob > F	= 0.0000
R-squared	= 0.3433
Adj R-squared	= 0.3428
Root MSE	= .51358

```
-----------------------------------------------------------------------------
  lnincome |    Coef.     Std. Err.    t     P>|t|    [95% Conf. Interval]
-------------+---------------------------------------------------------------
    female | -.2070962  .0157405  -13.16  0.000   -.2379471  -.1762453
       age |  .4799007  .0164229   29.22  0.000    .4477123   .5120891
      age2 | -.0161275  .0006659  -24.22  0.000   -.0174327  -.0148223
      age3 |  .0002466  .0000117   21.09  0.000    .0002237   .0002695
      age4 | -1.42e-06  7.51e-08  -18.94  0.000   -1.57e-06  -1.28e-06
     black | -.0885574  .0015307  -57.85  0.000   -.0915576  -.0855572
ind_alaska | -.0918715  .0044128  -20.82  0.000   -.1005204  -.0832226
     asian | -.0098937   .002741   -3.61  0.000   -.0152661  -.0045214
haw_pacisl | -.0116656  .0099046   -1.18  0.239   -.0310782   .0077471
other_comb | -.0108243  .0021849   -4.95  0.000   -.0151066  -.0065419
   hispdum | -.0477174  .0015097  -31.61  0.000   -.0506764  -.0447584
       ged |  -.066443  .0020741  -32.03  0.000   -.0705082  -.0623777
```

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Table A.2 continued

somecol_less1	.0499332	.0015666	31.87	0.000	.0468627	.0530038
somecol	.0749431	.0012225	61.30	0.000	.072547	.0773393
assoc	.0971668	.0014478	67.11	0.000	.0943291	.1000044
lnhrs	.5931363	.0032385	183.15	0.000	.586789	.5994837
lnwks	1.720432	.0139892	122.98	0.000	1.693014	1.74785
year2013	-.0049953	.0011436	-4.37	0.000	-.0072367	-.0027539
year2014	-.0106563	.0011457	-9.30	0.000	-.0129019	-.0084107
occ_10	1.035562	.016428	63.04	0.000	1.003364	1.06776
occ_20	.7981771	.0156031	51.16	0.000	.7675956	.8287586
occ_40	.7599132	.0540757	14.05	0.000	.6539267	.8658997
occ_50	.8895601	.0171972	51.73	0.000	.8558541	.9232661
occ_60	.9596268	.0689385	13.92	0.000	.8245097	1.094744
occ_100	.6960596	.0219209	31.75	0.000	.6530953	.7390238
occ_110	1.000185	.0177284	56.42	0.000	.9654381	1.034932
occ_120	.7846042	.0178071	44.06	0.000	.7497028	.8195056
occ_136	.67274	.0197659	34.04	0.000	.6339995	.7114805
occ_137	.6675261	.0343769	19.42	0.000	.6001486	.7349036
occ_140	.756518	.0181227	41.74	0.000	.720998	.7920379
occ_150	.7571785	.024533	30.86	0.000	.7090947	.8052622
occ_160	.5317835	.0177344	29.99	0.000	.4970247	.5665424
occ_205	.1610322	.0167028	9.64	0.000	.1282952	.1937692
occ_220	.7651133	.0160049	47.80	0.000	.7337442	.7964824
occ_230	.5683832	.0242358	23.45	0.000	.5208819	.6158845
occ_300	.9984801	.028337	35.24	0.000	.9429406	1.05402
occ_310	.346707	.0159702	21.71	0.000	.315406	.378008
occ_330	.5446914	.0432907	12.58	0.000	.4598432	.6295397
occ_340	.4020708	.0264655	15.19	0.000	.3501994	.4539422
occ_350	.6947221	.0219208	31.69	0.000	.6517581	.7376862
occ_410	.5562601	.0189526	29.35	0.000	.5191137	.5934065
occ_420	.5132565	.0272764	18.82	0.000	.4597956	.5667173
occ_425	.5522764	.061793	8.94	0.000	.4311642	.6733886
occ_430	.7473148	.0148221	50.42	0.000	.7182639	.7763657
occ_500	.5329507	.0518939	10.27	0.000	.4312404	.6346609
occ_510	.430069	.0672955	6.39	0.000	.298172	.5619659
occ_520	.4280143	.0218395	19.60	0.000	.3852096	.4708189
occ_530	.5624506	.0211101	26.64	0.000	.5210756	.6038257
occ_540	.6339768	.0230514	27.50	0.000	.5887967	.6791568
occ_565	.6843011	.0235158	29.10	0.000	.6382109	.7303914
occ_600	.6790919	.0203889	33.31	0.000	.6391304	.7190534
occ_630	.667932	.0194367	34.36	0.000	.6298367	.7060272

Table A.2 continued

occ_640	.5163264	.0683756	7.55	0.000	.3823125	.6503403
occ_650	.678978	.0253516	26.78	0.000	.6292896	.7286663
occ_700	.5625541	.0226264	24.86	0.000	.5182071	.6069011
occ_710	.8265347	.0205864	40.15	0.000	.786186	.8668834
occ_725	.4594291	.046615	9.86	0.000	.3680652	.5507929
occ_726	.2485627	.0770639	3.23	0.001	.0975199	.3996054
occ_735	.7188735	.0304198	23.63	0.000	.6592518	.7784952
occ_740	.6532093	.0231851	28.17	0.000	.6077673	.6986513
occ_800	.5198415	.020144	25.81	0.000	.4803599	.559323
occ_810	.4934341	.0335711	14.70	0.000	.4276359	.5592324
occ_820	.8714596	.0762672	11.43	0.000	.7219785	1.020941
occ_830	.6210288	.0856355	7.25	0.000	.4531862	.7888714
occ_840	.8429932	.0559957	15.05	0.000	.7332435	.952743
occ_850	.9399473	.0265217	35.44	0.000	.8879657	.991929
occ_860	.6809598	.0474274	14.36	0.000	.5880037	.7739159
occ_900	.7086987	.1431605	4.95	0.000	.428109	.9892883
occ_910	.7693997	.0232428	33.10	0.000	.7238445	.8149548
occ_930	.6447896	.050592	12.74	0.000	.545631	.7439483
occ_940	.3948616	.0518928	7.61	0.000	.2931536	.4965697
occ_950	.5811198	.0455549	12.76	0.000	.4918338	.6704057
occ_1006	.8469757	.0194369	43.58	0.000	.8088801	.8850714
occ_1007	.9628603	.0301339	31.95	0.000	.9037989	1.021922
occ_1010	.854644	.0185677	46.03	0.000	.8182519	.8910361
occ_1020	1.069047	.0173666	61.56	0.000	1.035009	1.103085
occ_1030	.7065133	.0241171	29.30	0.000	.6592446	.7537821
occ_1050	.6360062	.0161112	39.48	0.000	.6044288	.6675836
occ_1060	.8710668	.0305193	28.54	0.000	.81125	.9308837
occ_1105	.8082618	.0182988	44.17	0.000	.7723969	.8441267
occ_1106	1.042976	.0221347	47.12	0.000	.9995928	1.086359
occ_1107	.7314586	.0169576	43.13	0.000	.6982223	.7646949
occ_1220	.8487088	.0324048	26.19	0.000	.7851965	.9122212
occ_1300	.809455	.0365634	22.14	0.000	.7377921	.881118
occ_1310	.5510323	.0493985	11.15	0.000	.4542129	.6478516
occ_1320	.95716	.0319199	29.99	0.000	.8945981	1.019722
occ_1350	.8918918	.0488329	18.26	0.000	.796181	.9876027
occ_1360	.7845256	.023907	32.82	0.000	.7376687	.8313825
occ_1400	.9237279	.0337164	27.40	0.000	.8576448	.989811
occ_1410	.8918896	.0238467	37.40	0.000	.845151	.9386283
occ_1430	.7672582	.0225945	33.96	0.000	.7229738	.8115426
occ_1450	.7624897	.0443085	17.21	0.000	.6756465	.8493329

Table A.2 continued

occ_1460	.8215594	.0209911	39.14	0.000	.7804175	.8627013
occ_1530	.876262	.0195138	44.90	0.000	.8380157	.9145083
occ_1540	.5942284	.0186444	31.87	0.000	.557686	.6307708
occ_1550	.6837131	.0158795	43.06	0.000	.6525899	.7148363
occ_1560	.5567352	.0218829	25.44	0.000	.5138455	.5996249
occ_1600	.4696824	.0667809	7.03	0.000	.3387942	.6005706
occ_1860	.5308589	.0662699	8.01	0.000	.4009721	.6607458
occ_1900	.472044	.0343721	13.73	0.000	.4046759	.5394121
occ_1910	.4901565	.0486462	10.08	0.000	.3948117	.5855014
occ_1920	.5873177	.0251662	23.34	0.000	.5379929	.6366426
occ_1930	.8074753	.0384574	21.00	0.000	.7321001	.8828506
occ_1965	.534638	.0234563	22.79	0.000	.4886645	.5806116
occ_2000	.2999287	.0234735	12.78	0.000	.2539215	.3459359
occ_2010	.3407173	.0254355	13.40	0.000	.2908646	.39057
occ_2015	.407851	.037389	10.91	0.000	.3345699	.4811322
occ_2016	.2023623	.0348557	5.81	0.000	.1340462	.2706784
occ_2025	.3780996	.0360405	10.49	0.000	.3074615	.4487377
occ_2040	.2025836	.0211243	9.59	0.000	.1611808	.2439864
occ_2050	.3066473	.0510164	6.01	0.000	.2066569	.4066378
occ_2145	.5674792	.0312371	18.17	0.000	.5062557	.6287028
occ_2160	.6129625	.035314	17.36	0.000	.5437484	.6821767
occ_2300	.0435233	.0617895	0.70	0.481	-.077582	.1646285
occ_2330	.1159319	.0747501	1.55	0.121	-.0305758	.2624396
occ_2340	.4721398	.0181685	25.99	0.000	.4365302	.5077493
occ_2400	.4343863	.0796163	5.46	0.000	.278341	.5904315
occ_2430	.3304974	.086785	3.81	0.000	.1604017	.5005931
occ_2440	.3018528	.0762657	3.96	0.000	.1523746	.4513309
occ_2540	.1117034	.0238896	4.68	0.000	.0648805	.1585262
occ_2550	.3719113	.044711	8.32	0.000	.2842792	.4595434
occ_2600	.574195	.0274634	20.91	0.000	.5203678	.6280223
occ_2630	.5566897	.0173893	32.01	0.000	.5226072	.5907721
occ_2700	.2434885	.0796171	3.06	0.002	.0874416	.3995353
occ_2710	.6319386	.0283356	22.30	0.000	.5764017	.6874755
occ_2720	.4516142	.0255886	17.65	0.000	.4014614	.501767
occ_2740	.5856137	.1037088	5.65	0.000	.382348	.7888793
occ_2750	.4004521	.0323193	12.39	0.000	.3371074	.4637969
occ_2800	.3317798	.0373191	8.89	0.000	.2586356	.4049241
occ_2810	.515864	.0497856	10.36	0.000	.4182859	.6134421
occ_2825	.7896593	.0474283	16.65	0.000	.6967014	.8826171
occ_2830	.5956663	.0353178	16.87	0.000	.5264447	.6648879

Table A.2 continued

occ_2840	.6862488	.0488333	14.05	0.000	.5905371	.7819605
occ_2850	.5663835	.0460019	12.31	0.000	.4762214	.6565456
occ_2860	.4467831	.0374638	11.93	0.000	.3733553	.5202109
occ_2900	.5544346	.0218549	25.37	0.000	.5115998	.5972694
occ_2910	.3428592	.0299186	11.46	0.000	.2842198	.4014987
occ_2920	.6195755	.0404752	15.31	0.000	.5402455	.6989055
occ_3030	.2231685	.0683743	3.26	0.001	.0891571	.3571798
occ_3110	.6115331	.0548695	11.15	0.000	.5039907	.7190755
occ_3200	1.079686	.071343	15.13	0.000	.9398564	1.219516
occ_3220	.7422953	.0274328	27.06	0.000	.688528	.7960625
occ_3245	.4935937	.0540746	9.13	0.000	.3876093	.5995781
occ_3255	.7945989	.0179401	44.29	0.000	.7594368	.829761
occ_3300	.4714222	.025004	18.85	0.000	.4224152	.5204291
occ_3310	.8292202	.0981092	8.45	0.000	.6369295	1.021511
occ_3320	.7642748	.0200847	38.05	0.000	.7249096	.8036401
occ_3400	.4336071	.0175012	24.78	0.000	.3993054	.4679088
occ_3420	.3965367	.0198036	20.02	0.000	.3577223	.4353511
occ_3500	.436924	.0209806	20.83	0.000	.3958027	.4780453
occ_3510	.4057541	.0448444	9.05	0.000	.3178606	.4936477
occ_3520	.4777142	.0417979	11.43	0.000	.3957916	.5596367
occ_3535	.5550055	.0286725	19.36	0.000	.4988084	.6112027
occ_3540	.6551642	.0289591	22.62	0.000	.5984053	.711923
occ_3600	.1250217	.0169262	7.39	0.000	.091847	.1581964
occ_3610	.538247	.0879857	6.12	0.000	.365798	.710696
occ_3620	.5478652	.0356805	15.35	0.000	.4779327	.6177978
occ_3630	.1451588	.0424626	3.42	0.001	.0619334	.2283841
occ_3640	.2639813	.0448457	5.89	0.000	.1760852	.3518774
occ_3645	.2604332	.0278021	9.37	0.000	.205942	.3149245
occ_3647	.2974388	.0602498	4.94	0.000	.1793512	.4155264
occ_3648	.1472291	.062606	2.35	0.019	.0245235	.2699347
occ_3649	.2630855	.0386147	6.81	0.000	.187402	.3387689
occ_3655	.2625115	.0285953	9.18	0.000	.2064657	.3185572
occ_3700	.6078863	.0229123	26.53	0.000	.5629788	.6527937
occ_3710	.8006531	.0199243	40.18	0.000	.7616022	.839704
occ_3720	.8435251	.022735	37.10	0.000	.7989652	.888085
occ_3740	.6659496	.0158671	41.97	0.000	.6348506	.6970487
occ_3750	.6115872	.0345864	17.68	0.000	.543799	.6793754
occ_3800	.5493578	.0156511	35.10	0.000	.5186823	.5800334
occ_3820	.8323555	.0215548	38.62	0.000	.7901089	.8746021
occ_3840	.4055926	.0571977	7.09	0.000	.293487	.5176982

Table A.2 continued

occ_3850	.7303316	.0151986	48.05	0.000	.7005428	.7601203
occ_3900	.3276634	.0503847	6.50	0.000	.228911	.4264158
occ_3910	.6225963	.0325729	19.11	0.000	.5587546	.6864381
occ_3930	.2622687	.0153803	17.05	0.000	.2321238	.2924136
occ_3940	.171943	.05356	3.21	0.001	.0669671	.2769189
occ_3945	.4799393	.039908	12.03	0.000	.401721	.5581576
occ_3955	.2808349	.0362989	7.74	0.000	.2096903	.3519796
occ_4000	.1872026	.0165902	11.28	0.000	.1546864	.2197188
occ_4010	.1573796	.0174686	9.01	0.000	.1231417	.1916175
occ_4020	-.0803711	.0152598	-5.27	0.000	-.1102798	-.0504625
occ_4030	-.1427301	.0189978	-7.51	0.000	-.1799651	-.1054952
occ_4040	.110939	.019627	5.65	0.000	.0724708	.1494073
occ_4050	-.0629781	.0252498	-2.49	0.013	-.1124668	-.0134894
occ_4060	-.4113095	.0538139	-7.64	0.000	-.5167829	-.3058362
occ_4110	.0661482	.0168267	3.93	0.000	.0331684	.099128
occ_4120	.1319339	.0312332	4.22	0.000	.070718	.1931499
occ_4130	-.0228341	.0254363	-0.90	0.369	-.0726883	.0270202
occ_4140	-.2637427	.0233842	-11.28	0.000	-.309575	-.2179104
occ_4150	.155168	.0602504	2.58	0.010	.0370792	.2732568
occ_4200	.4028815	.0189425	21.27	0.000	.3657549	.4400082
occ_4210	.3211377	.019557	16.42	0.000	.2828067	.3594687
occ_4220	.1648417	.0148292	11.12	0.000	.1357769	.1939065
occ_4240	.2582134	.0220373	11.72	0.000	.2150209	.3014058
occ_4250	.0613892	.0154877	3.96	0.000	.0310338	.0917445
occ_4300	.442504	.0296511	14.92	0.000	.3843888	.5006192
occ_4320	.2935034	.0286256	10.25	0.000	.2373981	.3496086
occ_4340	.02988	.0461519	0.65	0.517	-.0605761	.1203361
occ_4350	.0240734	.030747	0.78	0.434	-.0361896	.0843365
occ_4400	.3968054	.0261716	15.16	0.000	.34551	.4481009
occ_4410	.2268287	.0892328	2.54	0.011	.0519354	.4017219
occ_4420	.074137	.0824536	0.90	0.369	-.0874694	.2357433
occ_4430	.0104826	.0295902	0.35	0.723	-.047513	.0684783
occ_4460	.1604149	.064815	2.47	0.013	.0333797	.2874501
occ_4465	.505975	.0334361	15.13	0.000	.4404414	.5715087
occ_4500	-.2134863	.0275625	-7.75	0.000	-.2675078	-.1594648
occ_4510	.0768661	.0256888	2.99	0.003	.026517	.1272153
occ_4520	-.2076263	.031829	-6.52	0.000	-.27001	-.1452426
occ_4530	.2140979	.0248269	8.62	0.000	.1654381	.2627577
occ_4540	-.0318268	.0470967	-0.68	0.499	-.1241348	.0604811
occ_4600	-.0047295	.0321137	-0.15	0.883	-.0676713	.0582123

Table A.2 continued

occ_4610	-.07011	.0193743	-3.62	0.000	-.1080829	-.0321371
occ_4620	.2291903	.023553	9.73	0.000	.1830272	.2753535
occ_4640	.0170735	.0428108	0.40	0.690	-.0668342	.1009812
occ_4700	.4473314	.0147442	30.34	0.000	.4184332	.4762295
occ_4710	.6049026	.0154206	39.23	0.000	.5746787	.6351264
occ_4720	.0526443	.016433	3.20	0.001	.0204363	.0848524
occ_4740	.2527	.0309868	8.16	0.000	.191967	.3134331
occ_4750	.3002666	.0197577	15.20	0.000	.261542	.3389911
occ_4760	.3324747	.0149662	22.22	0.000	.3031414	.361808
occ_4800	.5579393	.0255571	21.83	0.000	.5078483	.6080302
occ_4810	.5666831	.0195778	28.95	0.000	.5283113	.6050549
occ_4820	.6930233	.0245581	28.22	0.000	.6448903	.7411563
occ_4830	.3945549	.0516682	7.64	0.000	.293287	.4958228
occ_4840	.6504905	.0167456	38.85	0.000	.6176697	.6833112
occ_4850	.6475499	.0152978	42.33	0.000	.6175668	.677533
occ_4900	.2529897	.0617878	4.09	0.000	.1318877	.3740916
occ_4920	.5791759	.0200463	28.89	0.000	.5398858	.618466
occ_4940	.1604149	.0356693	4.50	0.000	.0905043	.2303256
occ_4950	.0679059	.0309867	2.19	0.028	.007173	.1286389
occ_5000	.5537131	.0157649	35.12	0.000	.5228145	.5846117
occ_5010	.3235613	.0678275	4.77	0.000	.1906218	.4565008
occ_5020	.2773152	.051012	5.44	0.000	.1773334	.3772971
occ_5100	.3313603	.0247784	13.37	0.000	.2827955	.3799252
occ_5110	.3257148	.0262706	12.40	0.000	.2742252	.3772044
occ_5120	.4278666	.0196623	21.76	0.000	.3893292	.466404
occ_5130	-.0785071	.0879821	-0.89	0.372	-.2509491	.0939349
occ_5140	.4116023	.0375349	10.97	0.000	.3380352	.4851694
occ_5150	.5757922	.0447085	12.88	0.000	.488165	.6634194
occ_5160	.2027319	.0294243	6.89	0.000	.1450614	.2604025
occ_5200	.6454959	.1431593	4.51	0.000	.3649086	.9260832
occ_5220	.3630738	.0435342	8.34	0.000	.2777483	.4483992
occ_5230	.4938671	.0562868	8.77	0.000	.3835468	.6041873
occ_5240	.299312	.015425	19.40	0.000	.2690795	.3295445
occ_5250	.5142548	.0523526	9.82	0.000	.4116454	.6168642
occ_5260	.3037133	.0251363	12.08	0.000	.2544471	.3529796
occ_5300	.0280551	.0281868	1.00	0.320	-.0271901	.0833003
occ_5310	.3471946	.0395474	8.78	0.000	.269683	.4247062
occ_5320	-.0253045	.0713383	-0.35	0.723	-.1651252	.1145161
occ_5330	.4691117	.0341636	13.73	0.000	.4021522	.5360712
occ_5340	.5407772	.0834741	6.48	0.000	.3771709	.7043836

Table A.2 continued

occ_5350	.2724461	.0249071	10.94	0.000	.223629	.3212632
occ_5360	.4405302	.0481115	9.16	0.000	.3462333	.534827
occ_5400	.2139579	.0222105	9.63	0.000	.170426	.2574897
occ_5410	.3829173	.0263727	14.52	0.000	.3312278	.4346068
occ_5500	.4090362	.0425756	9.61	0.000	.3255895	.4924829
occ_5510	.4107592	.0183067	22.44	0.000	.3748787	.4466396
occ_5520	.4191812	.0185521	22.59	0.000	.3828198	.4555427
occ_5530	.4026174	.0279558	14.40	0.000	.3478251	.4574098
occ_5540	.6172667	.0244911	25.20	0.000	.5692649	.6652685
occ_5550	.6467996	.017189	37.63	0.000	.6131098	.6804895
occ_5560	.5897448	.0282327	20.89	0.000	.5344097	.6450799
occ_5600	.6031408	.0194973	30.93	0.000	.5649268	.6413547
occ_5610	.2208273	.015811	13.97	0.000	.1898383	.2518164
occ_5620	.1662822	.0152703	10.89	0.000	.1363529	.1962116
occ_5630	.3833872	.0257205	14.91	0.000	.332976	.4337985
occ_5700	.3582364	.019427	18.44	0.000	.3201603	.3963126
occ_5800	.4888118	.0253217	19.30	0.000	.4391823	.5384414
occ_5810	.3208432	.0229963	13.95	0.000	.2757713	.3659151
occ_5820	.3437562	.0266212	12.91	0.000	.2915796	.3959329
occ_5840	.3888886	.025111	15.49	0.000	.3396719	.4381053
occ_5850	.2333742	.0277535	8.41	0.000	.1789782	.2877701
occ_5860	.3225633	.0186694	17.28	0.000	.2859719	.3591546
occ_5900	.2760817	.0403743	6.84	0.000	.1969495	.3552139
occ_5910	.2945289	.1431592	2.06	0.040	.0139418	.575116
occ_5920	.6205969	.0523524	11.85	0.000	.5179879	.7232059
occ_5940	.4811114	.0196265	24.51	0.000	.4426441	.5195787
occ_6005	.298697	.026312	11.35	0.000	.2471264	.3502676
occ_6010	.4868456	.0554222	8.78	0.000	.37822	.5954712
occ_6040	.1442082	.0464569	3.10	0.002	.0531543	.2352621
occ_6050	.031874	.0160669	1.98	0.047	.0003833	.0633646
occ_6100	.2955144	.0367703	8.04	0.000	.2234459	.3675829
occ_6120	.2611272	.0482874	5.41	0.000	.1664857	.3557688
occ_6130	.1994588	.0245958	8.11	0.000	.1512519	.2476658
occ_6200	.7026268	.0151335	46.43	0.000	.6729657	.732288
occ_6220	.3953308	.0205107	19.27	0.000	.3551305	.4355312
occ_6230	.3777715	.0152085	24.84	0.000	.3479633	.4075798
occ_6240	.2815622	.0218704	12.87	0.000	.2386969	.3244276
occ_6260	.3474691	.0149541	23.24	0.000	.3181597	.3767786
occ_6320	.5265366	.0159022	33.11	0.000	.4953688	.5577043
occ_6330	.3104227	.0226642	13.70	0.000	.2660017	.3548437

Table A.2 continued

occ_6355	.6356801	.015041	42.26	0.000	.6062002	.66516
occ_6400	.4989158	.0264793	18.84	0.000	.4470174	.5508143
occ_6420	.2687685	.0167124	16.08	0.000	.2360128	.3015242
occ_6440	.5746435	.0154885	37.10	0.000	.5442865	.6050005
occ_6515	.2980515	.020025	14.88	0.000	.2588033	.3372998
occ_6520	.5060399	.018528	27.31	0.000	.4697256	.5423543
occ_6530	.5907998	.0219044	26.97	0.000	.547868	.6337316
occ_6600	.2214971	.0303507	7.30	0.000	.1620108	.2809834
occ_6660	.5920885	.0224326	26.39	0.000	.5481214	.6360556
occ_6720	.4412159	.0326548	13.51	0.000	.3772136	.5052181
occ_6730	.3627319	.018639	19.46	0.000	.3262	.3992638
occ_6765	.3718283	.026104	14.24	0.000	.3206655	.4229912
occ_6830	.5297531	.0326209	16.24	0.000	.4658173	.5936889
occ_6840	.7560822	.020082	37.65	0.000	.7167222	.7954423
occ_6940	.6251218	.0201359	31.05	0.000	.5856561	.6645875
occ_7000	.6571761	.0162471	40.45	0.000	.6253323	.6890199
occ_7010	.4606684	.0176047	26.17	0.000	.4261638	.4951729
occ_7020	.6397804	.0176033	36.34	0.000	.6052786	.6742823
occ_7030	.5497909	.0293967	18.70	0.000	.4921744	.6074075
occ_7040	.5227189	.029393	17.78	0.000	.4651097	.5803282
occ_7100	.6185078	.0295391	20.94	0.000	.5606121	.6764034
occ_7120	.4403683	.0249372	17.66	0.000	.3914922	.4892444
occ_7130	.4806053	.0234077	20.53	0.000	.4347271	.5264836
occ_7140	.6368045	.016977	37.51	0.000	.6035301	.6700789
occ_7150	.4408263	.0185979	23.70	0.000	.4043751	.4772776
occ_7200	.3775751	.0150687	25.06	0.000	.3480409	.4071092
occ_7210	.4931007	.015992	30.83	0.000	.4617569	.5244446
occ_7220	.5862653	.0165141	35.50	0.000	.5538982	.6186324
occ_7260	.1672959	.0229542	7.29	0.000	.1223065	.2122852
occ_7300	.6105579	.032033	19.06	0.000	.5477742	.6733416
occ_7315	.510909	.0159037	32.13	0.000	.4797383	.5420797
occ_7330	.5575867	.0156643	35.60	0.000	.5268852	.5882882
occ_7340	.4573225	.0153986	29.70	0.000	.4271417	.4875032
occ_7350	.5259609	.0267519	19.66	0.000	.4735281	.5783937
occ_7360	.7085404	.02267	31.25	0.000	.664108	.7529727
occ_7410	.9051467	.0176587	51.26	0.000	.8705362	.9397572
occ_7420	.592711	.0176432	33.59	0.000	.558131	.6272911
occ_7430	.6046598	.0239706	25.23	0.000	.5576783	.6516413
occ_7510	.297823	.0287487	10.36	0.000	.2414766	.3541694
occ_7540	.3795408	.0324022	11.71	0.000	.3160335	.4430481

Table A.2 continued

occ_7610	.1449531	.0419036	3.46	0.001	.0628234	.2270828
occ_7630	.4158517	.0170149	24.44	0.000	.3825031	.4492004
occ_7700	.6154119	.015026	40.96	0.000	.5859615	.6448624
occ_7710	.5516007	.0610033	9.04	0.000	.4320363	.6711651
occ_7720	.2729882	.0215754	12.65	0.000	.2307011	.3152753
occ_7730	.4295665	.0377573	11.38	0.000	.3555634	.5035696
occ_7740	.3868431	.0289314	13.37	0.000	.3301385	.4435478
occ_7750	.3064767	.015312	20.02	0.000	.2764657	.3364878
occ_7800	.0712141	.023011	3.09	0.002	.0261134	.1163149
occ_7810	.2247386	.0179932	12.49	0.000	.1894727	.2600046
occ_7830	.3047658	.0545973	5.58	0.000	.1977569	.4117747
occ_7840	.2712663	.0275826	9.83	0.000	.2172054	.3253273
occ_7850	.1377742	.0672938	2.05	0.041	.0058805	.2696678
occ_7900	.4356768	.0195185	22.32	0.000	.3974212	.4739324
occ_7920	.4160222	.0376831	11.04	0.000	.3421647	.4898797
occ_7940	.5074539	.0505929	10.03	0.000	.4082936	.6066142
occ_7950	.2846725	.0184997	15.39	0.000	.2484137	.3209312
occ_8030	.4941496	.0156869	31.50	0.000	.4634039	.5248953
occ_8040	.4840653	.0290906	16.64	0.000	.4270487	.5410819
occ_8100	.3772266	.0247411	15.25	0.000	.3287349	.4257184
occ_8130	.597834	.0216198	27.65	0.000	.5554599	.640208
occ_8140	.4414641	.0152448	28.96	0.000	.4115849	.4713434
occ_8220	.3521316	.0159775	22.04	0.000	.3208164	.3834469
occ_8250	.3674895	.0376815	9.75	0.000	.2936349	.441344
occ_8255	.3695083	.0179016	20.64	0.000	.3344218	.4045948
occ_8256	.3054572	.0387777	7.88	0.000	.2294542	.3814602
occ_8300	-.0305865	.024452	-1.25	0.211	-.0785115	.0173386
occ_8310	.038025	.0391121	0.97	0.331	-.0386333	.1146833
occ_8320	-.126265	.0286197	-4.41	0.000	-.1823586	-.0701714
occ_8330	.0045196	.0695122	0.07	0.948	-.1317219	.1407611
occ_8350	.1435939	.0512285	2.80	0.005	.0431879	.244
occ_8400	.1841344	.0648132	2.84	0.004	.0571027	.311166
occ_8410	.2545621	.0933431	2.73	0.006	.0716127	.4375114
occ_8420	.1396481	.0747496	1.87	0.062	-.0068586	.2861549
occ_8450	.2220715	.0357904	6.20	0.000	.1519236	.2922194
occ_8460	.3697507	.0499799	7.40	0.000	.2717917	.4677097
occ_8500	.2227134	.02503	8.90	0.000	.1736554	.2717714
occ_8510	.1827868	.0578329	3.16	0.002	.0694363	.2961373
occ_8530	.0836771	.0297077	2.82	0.005	.025451	.1419032
occ_8540	.1271075	.0370338	3.43	0.001	.0545225	.1996926

Table A.2 continued

occ_8550	.224436	.0362966	6.18	0.000	.1532958	.2955762
occ_8600	1.022858	.0222299	46.01	0.000	.9792882	1.066428
occ_8610	.6717612	.0198998	33.76	0.000	.6327584	.7107641
occ_8620	.4966567	.0191389	25.95	0.000	.4591451	.5341683
occ_8630	.7794786	.0232596	33.51	0.000	.7338907	.8250666
occ_8640	.659641	.0227539	28.99	0.000	.6150442	.7042379
occ_8650	.3687509	.0205433	17.95	0.000	.3284867	.4090151
occ_8710	.2310609	.0256426	9.01	0.000	.1808023	.2813196
occ_8720	.2764427	.0298847	9.25	0.000	.2178697	.3350156
occ_8730	.4810344	.042237	11.39	0.000	.3982513	.5638175
occ_8740	.4744599	.0155555	30.50	0.000	.4439717	.5049481
occ_8750	.2247338	.0377563	5.95	0.000	.1507327	.2987348
occ_8760	.3934496	.0276692	14.22	0.000	.339219	.4476803
occ_8800	.2187652	.0199803	10.95	0.000	.1796046	.2579259
occ_8810	.3760369	.0189544	19.84	0.000	.338887	.4131868
occ_8830	.2592737	.0426925	6.07	0.000	.1755978	.3429495
occ_8850	.3530125	.0606225	5.82	0.000	.2341944	.4718306
occ_8910	.3308852	.0672937	4.92	0.000	.1989918	.4627786
occ_8920	.3207873	.0345833	9.28	0.000	.2530051	.3885694
occ_8930	.5083014	.0316052	16.08	0.000	.4463563	.5702466
occ_8940	.5911949	.0329185	17.96	0.000	.5266758	.6557141
occ_8950	.1443945	.0324007	4.46	0.000	.0808903	.2078988
occ_8965	.3786673	.0150184	25.21	0.000	.3492318	.4081028
occ_9000	.5795037	.0175789	32.97	0.000	.5450496	.6139577
occ_9030	.8694852	.0251642	34.55	0.000	.8201643	.9188061
occ_9040	1.033097	.0272163	37.96	0.000	.9797536	1.08644
occ_9050	.5807274	.0440432	13.19	0.000	.4944042	.6670505
occ_9110	.1489536	.0461499	3.23	0.001	.0585014	.2394058
occ_9120	.3245747	.0177392	18.30	0.000	.2898064	.359343
occ_9130	.3553988	.0145304	24.46	0.000	.3269197	.3838779
occ_9140	.0009455	.0187498	0.05	0.960	-.0358036	.0376945
occ_9200	.8484573	.0228298	37.16	0.000	.8037116	.893203
occ_9240	.7561576	.022477	33.64	0.000	.7121035	.8002117
occ_9260	.7155191	.034693	20.62	0.000	.647522	.7835162
occ_9300	.4371196	.0300541	14.54	0.000	.3782146	.4960247
occ_9310	.6388384	.0278407	22.95	0.000	.5842716	.6934053
occ_9350	.0018232	.0274764	0.07	0.947	-.0520296	.0556761
occ_9360	.08276	.0228936	3.61	0.000	.0378893	.1276306
occ_9410	.6564337	.0260882	25.16	0.000	.6053017	.7075658
occ_9415	.3617308	.0557033	6.49	0.000	.2525542	.4709074

Table A.2 continued

occ_9420	.4314687	.0341613	12.63	0.000	.3645138	.4984237
occ_9510	.6742981	.0217662	30.98	0.000	.631637	.7169592
occ_9560	.5374933	.0388643	13.83	0.000	.4613206	.613666
occ_9600	.2382219	.0155732	15.30	0.000	.2076991	.2687448
occ_9610	.0781097	.0179138	4.36	0.000	.0429991	.1132202
occ_9620	.2460249	.0147764	16.65	0.000	.2170636	.2749861
occ_9630	.2176381	.039371	5.53	0.000	.1404722	.294804
occ_9640	.1092661	.0192721	5.67	0.000	.0714934	.1470387
occ_9650	.6414059	.0266111	24.10	0.000	.5892491	.6935627
occ_9720	.2521518	.0222795	11.32	0.000	.2084848	.2958188
occ_9750	.439166	.0253924	17.30	0.000	.3893977	.4889342
occfem_10	-.0579249	.0222875	-2.60	0.009	-.1016077	-.0142421
occfem_20	-.0290411	.0193326	-1.50	0.133	-.0669323	.0088501
occfem_40	-.0672587	.073704	-0.91	0.361	-.2117161	.0771987
occfem_50	-.0915814	.0215218	-4.26	0.000	-.1337634	-.0493993
occfem_60	-.1036804	.0877161	-1.18	0.237	-.275601	.0682401
occfem_100	.0799162	.032358	2.47	0.014	.0164955	.1433368
occfem_110	.0646054	.0254952	2.53	0.011	.0146356	.1145751
occfem_120	-.02645	.0200876	-1.32	0.188	-.065821	.0129211
occfem_136	.0959671	.0239502	4.01	0.000	.0490255	.1429087
occfem_137	.1319026	.0530446	2.49	0.013	.0279371	.2358682
occfem_140	.0034253	.032264	0.11	0.915	-.0598111	.0666617
occfem_150	.0677209	.0314543	2.15	0.031	.0060716	.1293702
occfem_160	.0918028	.0306605	2.99	0.003	.0317092	.1518964
occfem_205	-.0889994	.0322815	-2.76	0.006	-.1522701	-.0257287
occfem_220	.0059104	.0333296	0.18	0.859	-.0594146	.0712353
occfem_230	-.1226833	.0277298	-4.42	0.000	-.1770327	-.0683339
occfem_300	.0298485	.1048375	0.28	0.776	-.1756294	.2353265
occfem_310	-.0207013	.0187634	-1.10	0.270	-.0574768	.0160742
occfem_330	.1510868	.06789	2.23	0.026	.0180247	.2841489
occfem_340	.0160272	.0343661	0.47	0.641	-.0513292	.0833836
occfem_350	.0384795	.0245699	1.57	0.117	-.0096767	.0866358
occfem_410	.0529159	.022417	2.36	0.018	.0089793	.0968525
occfem_420	.0745404	.0320398	2.33	0.020	.0117436	.1373372
occfem_425	.3415485	.1506718	2.27	0.023	.046237	.6368601
occfem_430	.0168758	.0170916	0.99	0.323	-.0166231	.0503747
occfem_500	.0589398	.0757207	0.78	0.436	-.0894701	.2073498
occfem_510	-.1289803	.1308916	-0.99	0.324	-.3855233	.1275628
occfem_520	.0992547	.0285538	3.48	0.001	.0432903	.1552191
occfem_530	.0955798	.0254817	3.75	0.000	.0456365	.1455232

Table A.2 continued

occfem_540	.0529395	.026406	2.00	0.045	.0011846	.1046944
occfem_565	.0735688	.030214	2.43	0.015	.0143505	.1327872
occfem_600	-.0289401	.0424803	-0.68	0.496	-.1122002	.0543199
occfem_630	.0534697	.0221473	2.41	0.016	.0100616	.0968777
occfem_640	.179734	.0733684	2.45	0.014	.0359345	.3235335
occfem_650	-.0233226	.0340764	-0.68	0.494	-.0901111	.043466
occfem_700	.1116712	.0334666	3.34	0.001	.0460779	.1772645
occfem_710	.0955379	.0254667	3.75	0.000	.0456241	.1454518
occfem_725	.1871008	.0527017	3.55	0.000	.0838073	.2903943
occfem_726	.3655201	.0905459	4.04	0.000	.1880532	.542987
occfem_735	.100141	.0384022	2.61	0.009	.0248739	.1754081
occfem_740	.0069034	.0287476	0.24	0.810	-.0494409	.0632476
occfem_800	.0951777	.0221663	4.29	0.000	.0517326	.1386228
occfem_810	.0273849	.0465744	0.59	0.557	-.0638993	.1186692
occfem_820	.1685791	.0852673	1.98	0.048	.0014581	.3357001
occfem_830	.1720037	.0961636	1.79	0.074	-.0164737	.360481
occfem_840	.0938842	.0701817	1.34	0.181	-.0436695	.231438
occfem_850	-.1359845	.0342229	-3.97	0.000	-.2030602	-.0689088
occfem_860	.1291991	.0512489	2.52	0.012	.0287529	.2296453
occfem_900	.0283755	.1675535	0.17	0.866	-.3000237	.3567747
occfem_910	-.0480673	.0265709	-1.81	0.070	-.1001454	.0040108
occfem_930	-.0075548	.0570882	-0.13	0.895	-.1194459	.1043362
occfem_940	.1063405	.0610255	1.74	0.081	-.0132674	.2259484
occfem_950	.0521993	.0547787	0.95	0.341	-.055165	.1595635
occfem_1006	.0680884	.0254224	2.68	0.007	.0182614	.1179154
occfem_1007	.0849354	.0628378	1.35	0.176	-.0382246	.2080954
occfem_1010	.0888322	.0317106	2.80	0.005	.0266805	.1509838
occfem_1020	-.0225448	.0261725	-0.86	0.389	-.073842	.0287525
occfem_1030	-.0072126	.0415725	-0.17	0.862	-.0886932	.0742681
occfem_1050	.0984566	.0215608	4.57	0.000	.0561981	.1407152
occfem_1060	-.1282876	.0429196	-2.99	0.003	-.2124085	-.0441666
occfem_1105	.0992718	.0326316	3.04	0.002	.0353149	.1632287
occfem_1106	.065079	.0668566	0.97	0.330	-.0659577	.1961157
occfem_1107	.0849077	.0250815	3.39	0.001	.0357489	.1340665
occfem_1220	.1133452	.0410602	2.76	0.006	.0328685	.1938218
occfem_1300	-.0149883	.0836187	-0.18	0.858	-.1788782	.1489015
occfem_1310	.0788253	.1091032	0.72	0.470	-.1350134	.2926639
occfem_1320	-.0390983	.0951581	-0.41	0.681	-.2256049	.1474084
occfem_1350	.0840778	.1881472	0.45	0.655	-.2846843	.4528398
occfem_1360	.1853331	.0666146	2.78	0.005	.0547707	.3158954

Table A.2 continued

occfem_1400	-.0847583	.1046395	-0.81	0.418	-.2898481	.1203315
occfem_1410	.1147924	.0729528	1.57	0.116	-.0281927	.2577774
occfem_1430	.0467434	.0412951	1.13	0.258	-.0341936	.1276804
occfem_1450	-.0662617	.129074	-0.51	0.608	-.3192424	.186719
occfem_1460	.0988704	.0732679	1.35	0.177	-.0447321	.2424729
occfem_1530	.0739863	.045189	1.64	0.102	-.0145826	.1625552
occfem_1540	.0913389	.0325572	2.81	0.005	.0275279	.15515
occfem_1550	-.0348708	.023926	-1.46	0.145	-.081765	.0120234
occfem_1560	.0176508	.0628307	0.28	0.779	-.1054952	.1407967
occfem_1600	.045611	.1838752	0.25	0.804	-.3147782	.4060001
occfem_1860	-.0559597	.0996493	-0.56	0.574	-.2512689	.1393495
occfem_1900	.059182	.0518666	1.14	0.254	-.0424748	.1608387
occfem_1910	-.0484325	.0755448	-0.64	0.521	-.1964978	.0996328
occfem_1920	-.0079846	.0442395	-0.18	0.857	-.0946926	.0787234
occfem_1930	.0751139	.0844641	0.89	0.374	-.0904328	.2406606
occfem_1965	.0668713	.0331335	2.02	0.044	.0019308	.1318117
occfem_2000	.1084949	.028037	3.87	0.000	.0535433	.1634465
occfem_2010	.1453773	.0281944	5.16	0.000	.0901172	.2006374
occfem_2015	.1370927	.0524752	2.61	0.009	.0342431	.2399422
occfem_2016	.173948	.0388786	4.47	0.000	.0977472	.2501489
occfem_2025	.0226862	.045271	0.50	0.616	-.0660435	.1114158
occfem_2040	.0915124	.0422935	2.16	0.030	.0086186	.1744061
occfem_2050	-.0406188	.0684875	-0.59	0.553	-.1748519	.0936143
occfem_2145	.1231335	.0331031	3.72	0.000	.0582525	.1880145
occfem_2160	.0416882	.0383442	1.09	0.277	-.0334652	.1168416
occfem_2300	.0061825	.0626603	0.10	0.921	-.1166295	.1289946
occfem_2330	-.0194889	.0789769	-0.25	0.805	-.1742809	.1353032
occfem_2340	-.1147847	.0231062	-4.97	0.000	-.160072	-.0694974
occfem_2400	-.0325465	.1034712	-0.31	0.753	-.2353466	.1702535
occfem_2430	-.1326665	.0927857	-1.43	0.153	-.3145234	.0491903
occfem_2440	-.1710573	.0870862	-1.96	0.050	-.3417434	-.0003713
occfem_2540	-.1398481	.0254975	-5.48	0.000	-.1898224	-.0898738
occfem_2550	-.0283184	.0539965	-0.52	0.600	-.1341497	.0775128
occfem_2600	-.0991058	.0465959	-2.13	0.033	-.1904322	-.0077794
occfem_2630	-.051135	.0220851	-2.32	0.021	-.0944211	-.0078489
occfem_2700	.1092559	.1285591	0.85	0.395	-.1427155	.3612274
occfem_2710	.2550214	.0497407	5.13	0.000	.1575314	.3525114
occfem_2720	-.0973023	.0468686	-2.08	0.038	-.1891632	-.0054414
occfem_2740	.0728815	.1211523	0.60	0.547	-.164573	.310336
occfem_2750	-.0074308	.0735661	-0.10	0.920	-.1516179	.1367562

Table A.2 continued

occfem_2800	.2757127	.077355	3.56	0.000	.1240996	.4273258
occfem_2810	.0028096	.0850403	0.03	0.974	-.1638665	.1694856
occfem_2825	-.0896179	.0607912	-1.47	0.140	-.2087665	.0295307
occfem_2830	-.0252991	.0532252	-0.48	0.635	-.1296186	.0790204
occfem_2840	.1938873	.0708076	2.74	0.006	.0551069	.3326677
occfem_2850	-.0301257	.0602731	-0.50	0.617	-.148259	.0880075
occfem_2860	.0736819	.0479631	1.54	0.124	-.0203242	.167688
occfem_2900	.0693316	.0747888	0.93	0.354	-.077252	.2159152
occfem_2910	.0094554	.0450865	0.21	0.834	-.0789126	.0978233
occfem_2920	-.1025981	.1053671	-0.97	0.330	-.3091139	.1039178
occfem_3030	.1599244	.0757689	2.11	0.035	.0114199	.3084289
occfem_3110	.031613	.0631605	0.50	0.617	-.0921796	.1554055
occfem_3200	.1231667	.0851038	1.45	0.148	-.0436339	.2899672
occfem_3220	.0867684	.0323645	2.68	0.007	.0233352	.1502016
occfem_3245	.0611238	.06463	0.95	0.344	-.0655488	.1877964
occfem_3255	.0899993	.01944	4.63	0.000	.0518975	.1281011
occfem_3300	.0694839	.0283023	2.46	0.014	.0140124	.1249554
occfem_3310	.0360106	.0996409	0.36	0.718	-.1592821	.2313033
occfem_3320	.0556523	.0230207	2.42	0.016	.0105326	.100772
occfem_3400	.0416039	.0248022	1.68	0.093	-.0070076	.0902153
occfem_3420	.0428261	.0219325	1.95	0.051	-.0001609	.0858131
occfem_3500	.092812	.0225973	4.11	0.000	.0485221	.137102
occfem_3510	.0105101	.0469762	0.22	0.823	-.0815617	.1025819
occfem_3520	-.0166702	.0478931	-0.35	0.728	-.110539	.0771986
occfem_3535	-.0451734	.0340963	-1.32	0.185	-.1120009	.0216542
occfem_3540	-.0173218	.0474194	-0.37	0.715	-.1102623	.0756186
occfem_3600	.0856856	.0185305	4.62	0.000	.0493664	.1220048
occfem_3610	.1837859	.0945303	1.94	0.052	-.0014902	.3690621
occfem_3620	.0993703	.0410878	2.42	0.016	.0188396	.1799011
occfem_3630	.0930017	.0482106	1.93	0.054	-.0014895	.1874928
occfem_3640	.1704986	.0462412	3.69	0.000	.0798675	.2611298
occfem_3645	.0874102	.0292662	2.99	0.003	.0300495	.1447709
occfem_3647	.046884	.0666514	0.70	0.482	-.0837505	.1775185
occfem_3648	.0796843	.0684511	1.16	0.244	-.0544775	.2138462
occfem_3649	.0895691	.0417448	2.15	0.032	.0077507	.1713876
occfem_3655	-.0303434	.033145	-0.92	0.360	-.0953065	.0346197
occfem_3700	-.0202204	.0394979	-0.51	0.609	-.0976349	.0571941
occfem_3710	.0533857	.0411119	1.30	0.194	-.0271922	.1339636
occfem_3720	.0708594	.0982587	0.72	0.471	-.1217244	.2634431
occfem_3740	.1007847	.0411066	2.45	0.014	.0202172	.1813521

Table A.2 continued

occfem_3750	.1933085	.106698	1.81	0.070	-.0158159	.402433
occfem_3800	.0447607	.0202818	2.21	0.027	.0050091	.0845123
occfem_3820	.0149533	.0395851	0.38	0.706	-.0626323	.0925388
occfem_3840	.0972717	.0972078	1.00	0.317	-.0932524	.2877958
occfem_3850	.1062073	.0219108	4.85	0.000	.0632629	.1491518
occfem_3900	.1700417	.0787104	2.16	0.031	.0157721	.3243114
occfem_3910	.0523559	.0451254	1.16	0.246	-.0360883	.1408
occfem_3930	.1164863	.0195997	5.94	0.000	.0780715	.1549011
occfem_3940	.2225518	.0807805	2.76	0.006	.0642247	.3808788
occfem_3945	.2101492	.0620695	3.39	0.001	.088495	.3318034
occfem_3955	-.1232551	.0556429	-2.22	0.027	-.2323134	-.0141968
occfem_4000	.0622743	.0252548	2.47	0.014	.0127758	.1117728
occfem_4010	-.0106039	.0206885	-0.51	0.608	-.0511526	.0299448
occfem_4020	.0238115	.0178628	1.33	0.183	-.0111989	.0588219
occfem_4030	.1198762	.0230389	5.20	0.000	.0747208	.1650317
occfem_4040	.0489725	.0241413	2.03	0.043	.0016563	.0962886
occfem_4050	.0423234	.0304426	1.39	0.164	-.017343	.1019898
occfem_4060	.3395951	.0628184	5.41	0.000	.2164731	.4627171
occfem_4110	-.0081084	.0191653	-0.42	0.672	-.0456717	.029455
occfem_4120	-.0290414	.0373761	-0.78	0.437	-.1022973	.0442145
occfem_4130	-.0442442	.0343903	-1.29	0.198	-.111648	.0231596
occfem_4140	.1657426	.0447316	3.71	0.000	.0780703	.253415
occfem_4150	-.0745323	.0656195	-1.14	0.256	-.2031443	.0540797
occfem_4200	-.1455791	.0274663	-5.30	0.000	-.1994122	-.0917461
occfem_4210	-.0821376	.0684114	-1.20	0.230	-.2162216	.0519464
occfem_4220	-.1065289	.0178461	-5.97	0.000	-.1415067	-.071551
occfem_4240	.0986265	.0816282	1.21	0.227	-.0613619	.258615
occfem_4250	.112301	.0303901	3.70	0.000	.0527374	.1718646
occfem_4300	.057175	.0435816	1.31	0.190	-.0282435	.1425935
occfem_4320	-.0442729	.0363401	-1.22	0.223	-.1154982	.0269524
occfem_4340	-.0837177	.066117	-1.27	0.205	-.2133048	.0458693
occfem_4350	.1830476	.0355258	5.15	0.000	.1134182	.252677
occfem_4400	.0818257	.0351378	2.33	0.020	.0129568	.1506946
occfem_4410	-.0928485	.2719351	-0.34	0.733	-.6258321	.4401351
occfem_4420	.0781539	.1262452	0.62	0.536	-.1692825	.3255903
occfem_4430	.2096562	.0422687	4.96	0.000	.1268109	.2925015
occfem_4460	.0380049	.1234294	0.31	0.758	-.2039124	.2799223
occfem_4465	-.078139	.0596539	-1.31	0.190	-.1950586	.0387806
occfem_4500	.1350438	.0515842	2.62	0.009	.0339406	.2361471
occfem_4510	.0562627	.0274884	2.05	0.041	.0023864	.1101389

Table A.2 continued

occfem_4520	.2019413	.0349137	5.78	0.000	.1335117	.270371
occfem_4530	.0409573	.0538078	0.76	0.447	-.0645042	.1464188
occfem_4540	.1599628	.080301	1.99	0.046	.0025756	.3173501
occfem_4600	-.050322	.0335481	-1.50	0.134	-.1160751	.0154312
occfem_4610	.0867193	.0214085	4.05	0.000	.0447593	.1286793
occfem_4620	-.0507555	.0288431	-1.76	0.078	-.1072869	.0057759
occfem_4640	.1391922	.0540251	2.58	0.010	.0333048	.2450795
occfem_4700	-.0511026	.0166065	-3.08	0.002	-.0836508	-.0185544
occfem_4710	.0836055	.0190197	4.40	0.000	.0463275	.1208834
occfem_4720	.018088	.0183795	0.98	0.325	-.0179352	.0541113
occfem_4740	-.0688124	.0433913	-1.59	0.113	-.1538578	.0162331
occfem_4750	-.0004552	.0426841	-0.01	0.991	-.0841145	.0832041
occfem_4760	-.073743	.0172444	-4.28	0.000	-.1075415	-.0399445
occfem_4800	.0263315	.0332652	0.79	0.429	-.0388671	.0915301
occfem_4810	-.003726	.0227887	-0.16	0.870	-.0483911	.0409392
occfem_4820	.0585192	.0323782	1.81	0.071	-.0049409	.1219794
occfem_4830	.0670419	.0565652	1.19	0.236	-.043824	.1779078
occfem_4840	-.0214747	.0219085	-0.98	0.327	-.0644147	.0214653
occfem_4850	-.0009348	.0192139	-0.05	0.961	-.0385934	.0367238
occfem_4900	-.0238293	.0897105	-0.27	0.791	-.1996588	.1520002
occfem_4920	-.0682614	.0240989	-2.83	0.005	-.1154944	-.0210284
occfem_4940	.0214462	.0436704	0.49	0.623	-.0641463	.1070387
occfem_4950	.1248587	.0481238	2.59	0.009	.0305377	.2191797
occfem_5000	.0555451	.0178075	3.12	0.002	.020643	.0904473
occfem_5010	-.1043464	.0758135	-1.38	0.169	-.2529383	.0442454
occfem_5020	.0780708	.0587986	1.33	0.184	-.0371725	.1933141
occfem_5100	.1227798	.0282387	4.35	0.000	.0674329	.1781266
occfem_5110	.068415	.0278249	2.46	0.014	.0138791	.1229508
occfem_5120	.0505134	.0212037	2.38	0.017	.0089549	.0920719
occfem_5130	.3987477	.102351	3.90	0.000	.1981431	.5993522
occfem_5140	.1354098	.0397009	3.41	0.001	.0575974	.2132222
occfem_5150	.0810572	.0542723	1.49	0.135	-.0253147	.1874291
occfem_5160	.0451196	.0312157	1.45	0.148	-.0160621	.1063014
occfem_5200	-.0028783	.1560786	-0.02	0.985	-.3087871	.3030304
occfem_5220	.1038696	.0473113	2.20	0.028	.0111411	.1965981
occfem_5230	-.0041991	.0612093	-0.07	0.945	-.1241672	.115769
occfem_5240	.0857178	.0172165	4.98	0.000	.0519741	.1194615
occfem_5250	.0556926	.0560883	0.99	0.321	-.0542386	.1656238
occfem_5260	.0817576	.0280475	2.91	0.004	.0267855	.1367297
occfem_5300	.0740133	.0339897	2.18	0.029	.0073947	.1406319

Table A.2 continued

occfem_5310	.0031746	.0430497	0.07	0.941	-.0812014	.0875505
occfem_5320	.2119903	.0764801	2.77	0.006	.062092	.3618887
occfem_5330	.1185875	.0372508	3.18	0.001	.0455773	.1915978
occfem_5340	-.0899449	.0909246	-0.99	0.323	-.268154	.0882643
occfem_5350	.1141038	.0306882	3.72	0.000	.053956	.1742515
occfem_5360	.0781077	.0522803	1.49	0.135	-.02436	.1805753
occfem_5400	.0765621	.0237197	3.23	0.001	.0300722	.123052
occfem_5410	.030224	.0332388	0.91	0.363	-.0349229	.095371
occfem_5500	.087221	.069188	1.26	0.207	-.0483851	.2228271
occfem_5510	-.0231219	.0347193	-0.67	0.505	-.0911705	.0449267
occfem_5520	.0499898	.0221057	2.26	0.024	.0066634	.0933161
occfem_5530	.0780311	.0677727	1.15	0.250	-.0548011	.2108632
occfem_5540	.1256604	.0308094	4.08	0.000	.065275	.1860458
occfem_5550	.0797226	.0217172	3.67	0.000	.0371575	.1222876
occfem_5560	.1172495	.0365817	3.21	0.001	.0455506	.1889485
occfem_5600	-.108989	.0232075	-4.70	0.000	-.1544749	-.063503
occfem_5610	.0744269	.0200106	3.72	0.000	.0352069	.1136469
occfem_5620	.0922342	.0182175	5.06	0.000	.0565286	.1279399
occfem_5630	-.0659845	.035386	-1.86	0.062	-.1353398	.0033709
occfem_5700	.0756243	.0206744	3.66	0.000	.0351032	.1161454
occfem_5800	-.0425895	.0339804	-1.25	0.210	-.1091898	.0240108
occfem_5810	.0354934	.0253971	1.40	0.162	-.0142841	.0852709
occfem_5820	.0832793	.028713	2.90	0.004	.0270028	.1395558
occfem_5840	.1097107	.0271833	4.04	0.000	.0564323	.1629891
occfem_5850	.03313	.037146	0.89	0.372	-.0396749	.105935
occfem_5860	.0809983	.0204	3.97	0.000	.041015	.1209816
occfem_5900	.0853115	.0546429	1.56	0.118	-.0217867	.1924097
occfem_5910	-.1758189	.1696492	-1.04	0.300	-.5083255	.1566878
occfem_5920	.0322403	.0664249	0.49	0.627	-.0979503	.1624309
occfem_5940	.0245306	.0219998	1.12	0.265	-.0185882	.0676495
occfem_6005	-.1285122	.062867	-2.04	0.041	-.2517293	-.005295
occfem_6010	.0545112	.0858448	0.63	0.525	-.1137417	.222764
occfem_6040	-.2217335	.0596773	-3.72	0.000	-.338699	-.1047681
occfem_6050	-.1401213	.0253043	-5.54	0.000	-.1897168	-.0905258
occfem_6100	-.3173963	.1528931	-2.08	0.038	-.6170616	-.017731
occfem_6120	-.148939	.1412791	-1.05	0.292	-.4258413	.1279633
occfem_6130	-.0522567	.1396039	-0.37	0.708	-.3258756	.2213622
occfem_6200	-.046858	.03741	-1.25	0.210	-.1201804	.0264644
occfem_6220	-.0208772	.1498178	-0.14	0.889	-.3145149	.2727605
occfem_6230	-.0238225	.0463183	-0.51	0.607	-.1146048	.0669598

Table A.2 continued

occfem_6240	-.0642349	.1640115	-0.39	0.695	-.3856919	.257222
occfem_6260	.0171417	.0314916	0.54	0.586	-.0445807	.0788642
occfem_6320	.0696887	.0579938	1.20	0.229	-.0439772	.1833546
occfem_6330	-1.362186	.0982489	-13.86	0.000	-1.55475	-1.169621
occfem_6355	-.0323588	.0391364	-0.83	0.408	-.1090648	.0443473
occfem_6400	-.119262	.145034	-0.82	0.411	-.4035237	.1649997
occfem_6420	.0205419	.0435074	0.47	0.637	-.0647311	.1058149
occfem_6440	-.1607118	.0526469	-3.05	0.002	-.263898	-.0575257
occfem_6515	-.0318055	.1301159	-0.24	0.807	-.2868283	.2232172
occfem_6520	-.0134406	.0621076	-0.22	0.829	-.1351693	.1082881
occfem_6530	.0142704	.1170976	0.12	0.903	-.2152369	.2437777
occfem_6600	.1321911	.1249752	1.06	0.290	-.1127561	.3771382
occfem_6660	-.0588199	.0564294	-1.04	0.297	-.1694196	.0517799
occfem_6720	-.0244692	.0742026	-0.33	0.742	-.1699037	.1209653
occfem_6730	.0600407	.0759861	0.79	0.429	-.0888894	.2089709
occfem_6765	.037624	.1104226	0.34	0.733	-.1788006	.2540486
occfem_6830	.0398834	.114443	0.35	0.727	-.1844209	.2641877
occfem_6840	.1157695	.0870371	1.33	0.183	-.0548202	.2863593
occfem_6940	.1205834	.0932254	1.29	0.196	-.0621352	.303302
occfem_7000	.0835734	.0343597	2.43	0.015	.0162295	.1509173
occfem_7010	.140648	.0344272	4.09	0.000	.0731718	.2081241
occfem_7020	.1094826	.0401906	2.72	0.006	.0307103	.1882548
occfem_7030	.1130459	.0866118	1.31	0.192	-.0567103	.282802
occfem_7040	.0023227	.1070422	0.02	0.983	-.2074765	.2121218
occfem_7100	-.1884938	.1016665	-1.85	0.064	-.3877567	.0107692
occfem_7120	-.2651215	.1206159	-2.20	0.028	-.5015246	-.0287184
occfem_7130	.0052553	.1203077	0.04	0.965	-.2305437	.2410544
occfem_7140	.0472144	.0440444	1.07	0.284	-.0391111	.1335399
occfem_7150	.0038689	.0958208	0.04	0.968	-.1839365	.1916744
occfem_7200	.117847	.0438056	2.69	0.007	.0319896	.2037045
occfem_7210	.086132	.0696199	1.24	0.216	-.0503206	.2225846
occfem_7220	-.0092341	.0898555	-0.10	0.918	-.1853478	.1668796
occfem_7260	.1026574	.1831444	0.56	0.575	-.2562993	.4616141
occfem_7300	.2303996	.1142765	2.02	0.044	.0064215	.4543777
occfem_7315	.1810158	.0739473	2.45	0.014	.0360816	.3259499
occfem_7330	.0274588	.0403434	0.68	0.496	-.0516129	.1065305
occfem_7340	.0614503	.0355639	1.73	0.084	-.0082538	.1311544
occfem_7350	.102244	.1275734	0.80	0.423	-.1477955	.3522835
occfem_7360	-.184606	.1346919	-1.37	0.171	-.4485975	.0793855
occfem_7410	.1360593	.1087351	1.25	0.211	-.0770578	.3491764

Table A.2 continued

occfem_7420	.1902508	.0537678	3.54	0.000	.0848678	.2956339
occfem_7430	-.0784312	.0582607	-1.35	0.178	-.1926202	.0357577
occfem_7510	.0415985	.0720709	0.58	0.564	-.0996579	.182855
occfem_7540	-.2386515	.1325856	-1.80	0.072	-.4985147	.0212117
occfem_7610	.2091985	.1252294	1.67	0.095	-.0362468	.4546439
occfem_7630	.0647362	.0462549	1.40	0.162	-.0259218	.1553941
occfem_7700	-.087948	.0193874	-4.54	0.000	-.1259467	-.0499493
occfem_7710	-.195276	.1148275	-1.70	0.089	-.420334	.029782
occfem_7720	-.0122541	.0283503	-0.43	0.666	-.0678197	.0433114
occfem_7730	.0189686	.107768	0.18	0.860	-.192253	.2301902
occfem_7740	.3145216	.1404319	2.24	0.025	.0392799	.5897633
occfem_7750	-.0144636	.0182196	-0.79	0.427	-.0501735	.0212462
occfem_7800	.0523103	.0293808	1.78	0.075	-.0052751	.1098956
occfem_7810	-.061241	.0290869	-2.11	0.035	-.1182503	-.0042316
occfem_7830	.0845998	.1115556	0.76	0.448	-.1340455	.303245
occfem_7840	-.0833817	.036582	-2.28	0.023	-.1550811	-.0116823
occfem_7850	.0265674	.1072999	0.25	0.804	-.1837369	.2368716
occfem_7900	-.0420894	.051031	-0.82	0.409	-.1421084	.0579295
occfem_7920	-.1132915	.0960273	-1.18	0.238	-.3015017	.0749188
occfem_7940	-.2274612	.1054125	-2.16	0.031	-.4340661	-.0208564
occfem_7950	-.0221447	.0329432	-0.67	0.501	-.0867122	.0424228
occfem_8030	-.1027183	.0380963	-2.70	0.007	-.1773858	-.0280507
occfem_8040	.0766093	.1159755	0.66	0.509	-.1506987	.3039173
occfem_8100	-.1416734	.0529147	-2.68	0.007	-.2453844	-.0379624
occfem_8130	.1658582	.1143292	1.45	0.147	-.0582232	.3899396
occfem_8140	-.1476457	.0283053	-5.22	0.000	-.2031232	-.0921683
occfem_8220	-.0677704	.0226923	-2.99	0.003	-.1122466	-.0232943
occfem_8250	-.0666027	.0536791	-1.24	0.215	-.1718119	.0386064
occfem_8255	-.1107513	.0303761	-3.65	0.000	-.1702874	-.0512152
occfem_8256	-.1034438	.0640937	-1.61	0.107	-.2290652	.0221776
occfem_8300	.0042429	.0316208	0.13	0.893	-.0577328	.0662185
occfem_8310	-.0567506	.0564935	-1.00	0.315	-.1674759	.0539746
occfem_8320	.146251	.0335715	4.36	0.000	.080452	.21205
occfem_8330	.0079308	.1007508	0.08	0.937	-.1895374	.2053989
occfem_8350	-.092888	.061604	-1.51	0.132	-.2136296	.0278537
occfem_8400	-.1518529	.1296333	-1.17	0.241	-.4059297	.102224
occfem_8410	-.0219044	.1146852	-0.19	0.849	-.2466835	.2028748
occfem_8420	.0361608	.0913801	0.40	0.692	-.1429409	.2152626
occfem_8450	.0277649	.0776832	0.36	0.721	-.1244914	.1800213
occfem_8460	-.0521962	.0751321	-0.69	0.487	-.1994526	.0950603

Table A.2 continued

occfem_8500	.0355298	.0918028	0.39	0.699	-.1444006	.2154602
occfem_8510	.0375936	.1090722	0.34	0.730	-.1761841	.2513713
occfem_8530	.0607718	.0886971	0.69	0.493	-.1130714	.234615
occfem_8540	.0945119	.0914127	1.03	0.301	-.0846539	.2736777
occfem_8550	-.2497338	.1265489	-1.97	0.048	-.4977653	-.0017022
occfem_8600	-.0372064	.079193	-0.47	0.638	-.1924221	.1180092
occfem_8610	-.2093968	.0802136	-2.61	0.009	-.3666128	-.0521808
occfem_8620	.0782451	.0650574	1.20	0.229	-.0492652	.2057554
occfem_8630	-.2779226	.0847265	-3.28	0.001	-.4439837	-.1118616
occfem_8640	-.1179668	.0662101	-1.78	0.075	-.2477364	.0118028
occfem_8650	.0374768	.0481974	0.78	0.437	-.0569884	.1319419
occfem_8710	-.0284878	.0485791	-0.59	0.558	-.1237012	.0667256
occfem_8720	.0126604	.0632738	0.20	0.841	-.1113541	.1366749
occfem_8730	-.0458921	.1283793	-0.36	0.721	-.2975112	.205727
occfem_8740	-.1335398	.0189349	-7.05	0.000	-.1706514	-.0964281
occfem_8750	.1536935	.0687419	2.24	0.025	.0189618	.2884252
occfem_8760	-.0196592	.0359705	-0.55	0.585	-.0901601	.0508418
occfem_8800	-.011833	.0252128	-0.47	0.639	-.0612492	.0375833
occfem_8810	-.0393859	.0400208	-0.98	0.325	-.1178253	.0390536
occfem_8830	-.0999668	.0581546	-1.72	0.086	-.2139478	.0140143
occfem_8850	-.2024921	.0959883	-2.11	0.035	-.3906258	-.0143584
occfem_8910	-.1116181	.1132019	-0.99	0.324	-.33349	.1102538
occfem_8920	-.0938456	.1032466	-0.91	0.363	-.2962054	.1085143
occfem_8930	-.3116694	.0649632	-4.80	0.000	-.4389951	-.1843436
occfem_8940	.0804585	.1080642	0.74	0.457	-.1313436	.2922607
occfem_8950	.061151	.0713436	0.86	0.391	-.07868	.2009819
occfem_8965	-.0827239	.0182746	-4.53	0.000	-.1185414	-.0469063
occfem_9000	-.0901877	.0289499	-3.12	0.002	-.1469285	-.0334469
occfem_9030	-.3063276	.104025	-2.94	0.003	-.510213	-.1024422
occfem_9040	-.0493306	.0570005	-0.87	0.387	-.1610496	.0623884
occfem_9050	-.0882802	.0507661	-1.74	0.082	-.18778	.0112196
occfem_9110	-.0193176	.0869271	-0.22	0.824	-.1896918	.1510566
occfem_9120	-.0857237	.0218434	-3.92	0.000	-.128536	-.0429113
occfem_9130	-.0548661	.0196928	-2.79	0.005	-.0934634	-.0162689
occfem_9140	.097393	.0335829	2.90	0.004	.0315716	.1632143
occfem_9200	.0449631	.0846094	0.53	0.595	-.1208683	.2107946
occfem_9240	-.0038187	.0876208	-0.04	0.965	-.1755524	.167915
occfem_9260	.0631654	.1086202	0.58	0.561	-.1497265	.2760572
occfem_9300	-.1431428	.1018167	-1.41	0.160	-.3427001	.0564145
occfem_9310	-.1764158	.1156652	-1.53	0.127	-.4031156	.0502841

Table A.2 continued

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occfem_9350 |  .1759547   .0710839    2.48   0.013    .0366328    .3152767
occfem_9360 | -.021765    .046234    -0.47   0.638   -.112382     .068852
occfem_9410 | -.1712535   .059414    -2.88   0.004   -.2877029   -.0548041
occfem_9415 | -.0801214   .0800178   -1.00   0.317   -.2369536    .0767108
occfem_9420 |  .178327    .0857011    2.08   0.037    .0103559    .3462982
occfem_9510 |  .1560795   .1118327    1.40   0.163   -.0631088    .3752677
occfem_9560 |  .0783601   .1100211    0.71   0.476   -.1372776    .2939978
occfem_9600 |  .1577141   .0270624    5.83   0.000    .1046727    .2107556
occfem_9610 |  .0852167   .0334694    2.55   0.011    .0196177    .1508156
occfem_9620 | -.0014048   .0182171   -0.08   0.939   -.0371096    .0343
occfem_9630 | -.0976094   .0637078   -1.53   0.125   -.2224746    .0272557
occfem_9640 |  .0211802   .0232356    0.91   0.362   -.0243607    .0667212
occfem_9650 | -.1151015   .1354119   -0.85   0.395   -.3805042    .1503012
occfem_9720 | -.0717513   .0603588   -1.19   0.235   -.1900525    .0465499
occfem_9750 | -.0671176   .0634591   -1.06   0.290   -.1914953    .05726
      _cons | -4.323488   .1581577  -27.34   0.000   -4.633472   -4.013504
```

Table A.3: *Full Estimation Results of Annual Earnings with Occupation Dummies,*
           Occupation Female Interactions, & Occupation Hours Interactions for
           Full-Time, Full-Year Workers without a College Degree, 2012-2014

```
                              Number of obs   = 1,210,371
                              F(1231,1209139) =   520.30
                                    Prob > F   =   0.0000
                                  R-squared   =   0.3463
                              Adj R-squared   =   0.3456
                                  Root MSE    =   .51249
```

```
---------------------------------------------------------------------------
  lnincome |    Coef.    Std. Err.     t      P>|t|    [95% Conf. Interval]
-----------+---------------------------------------------------------------
    female | -.2090387   .0157202  -13.30   0.000   -.2398498   -.1782276
       age |  .4755399   .0163925   29.01   0.000    .4434113    .5076686
      age2 | -.0159833   .0006647  -24.05   0.000   -.017286    -.0146805
      age3 |  .0002444   .0000117   20.95   0.000    .0002215    .0002673
      age4 | -1.41e-06   7.50e-08  -18.81   0.000   -1.56e-06   -1.26e-06
     black | -.0870691   .0015284  -56.97   0.000   -.0900647   -.0840736
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Table A.3 continued

ind_alaska	-.091578	.0044049	-20.79	0.000	-.1002114	-.0829446
asian	-.0076395	.0027389	-2.79	0.005	-.0130077	-.0022713
haw_pacisl	-.01074	.0098859	-1.09	0.277	-.030116	.0086359
other_comb	-.0103032	.0021808	-4.72	0.000	-.0145775	-.006029
hispdum	-.0469904	.0015072	-31.18	0.000	-.0499444	-.0440363
ged	-.0661988	.0020702	-31.98	0.000	-.0702563	-.0621412
somecol	.0744326	.0012203	60.99	0.000	.0720409	.0768244
somecol_less1	.0494197	.0015636	31.61	0.000	.0463551	.0524843
assoc	.0966825	.0014454	66.89	0.000	.0938496	.0995155
lnhrs	.4181124	.0521877	8.01	0.000	.3158262	.5203986
lnwks	1.721503	.0139728	123.20	0.000	1.694117	1.748889
year2013	-.0049653	.0011414	-4.35	0.000	-.0072024	-.0027281
year2014	-.0105748	.0011436	-9.25	0.000	-.0128162	-.0083334
occ_10	1.250474	.2383135	5.25	0.000	.7833878	1.717561
occ_20	.8177073	.2258726	3.62	0.000	.3750048	1.26041
occ_40	-1.133503	.9735937	-1.16	0.244	-3.041714	.7747072
occ_50	-1.336887	.2557825	-5.23	0.000	-1.838212	-.8355619
occ_60	.5253718	1.119983	0.47	0.639	-1.669756	2.7205
occ_100	-.4142876	.3841458	-1.08	0.281	-1.1672	.338625
occ_110	.0077334	.2962378	0.03	0.979	-.5728826	.5883494
occ_120	-1.992919	.2522666	-7.90	0.000	-2.487353	-1.498485
occ_136	-.3865214	.2929621	-1.32	0.187	-.9607172	.1876744
occ_137	1.692376	.5563697	3.04	0.002	.6019102	2.782841
occ_140	.1732414	.3136486	0.55	0.581	-.4414991	.7879819
occ_150	-.521861	.4175441	-1.25	0.211	-1.340233	.2965112
occ_160	-.5991929	.3001511	-2.00	0.046	-1.187479	-.0109069
occ_205	1.691955	.2341678	7.23	0.000	1.232994	2.150916
occ_220	.7733305	.2438819	3.17	0.002	.2953303	1.251331
occ_230	.4753275	.3371734	1.41	0.159	-.1855209	1.136176
occ_300	.2776018	.5512452	0.50	0.615	-.8028201	1.358024
occ_310	-.3995071	.2198297	-1.82	0.069	-.8303658	.0313517
occ_330	.2939918	.7966892	0.37	0.712	-1.267492	1.855476
occ_340	.5623611	.3856349	1.46	0.145	-.1934701	1.318192
occ_350	.0037619	.2805644	0.01	0.989	-.5461347	.5536585
occ_410	-.0955894	.2850228	-0.34	0.737	-.6542245	.4630456
occ_420	.6643913	.3516478	1.89	0.059	-.0248264	1.353609
occ_425	1.979918	.9815028	2.02	0.044	.0562056	3.90363
occ_430	.4043517	.2066466	1.96	0.050	-.0006685	.809372
occ_500	.1174371	.9111819	0.13	0.897	-1.668448	1.903323
occ_510	-2.301403	1.551561	-1.48	0.138	-5.34241	.7396039

Table A.3 continued

occ_520	-2.098342	.3856358	-5.44	0.000	-2.854175	-1.342509
occ_530	-.2828165	.3813762	-0.74	0.458	-1.030301	.4646679
occ_540	.689278	.3563586	1.93	0.053	-.0091727	1.387729
occ_565	-1.075279	.401532	-2.68	0.007	-1.862268	-.2882897
occ_600	.088463	.412287	0.21	0.830	-.7196054	.8965315
occ_630	-.255176	.2755636	-0.93	0.354	-.7952713	.2849192
occ_640	-.2961886	.8007466	-0.37	0.711	-1.865625	1.273247
occ_650	.4378728	.4495404	0.97	0.330	-.443211	1.318957
occ_700	-.0338284	.3809156	-0.09	0.929	-.7804099	.7127531
occ_710	-.1433053	.3110426	-0.46	0.645	-.7529382	.4663276
occ_725	-1.191953	.6215196	-1.92	0.055	-2.41011	.0262043
occ_726	-1.826739	.9207893	-1.98	0.047	-3.631454	-.022023
occ_735	-2.110447	.4919873	-4.29	0.000	-3.074726	-1.146169
occ_740	-.5665439	.4015774	-1.41	0.158	-1.353622	.2205341
occ_800	-.7223829	.2801784	-2.58	0.010	-1.271523	-.1732428
occ_810	.1173752	.5589124	0.21	0.834	-.978074	1.212824
occ_820	.1731539	1.166924	0.15	0.882	-2.113978	2.460286
occ_830	.5262539	1.858471	0.28	0.777	-3.116286	4.168794
occ_840	.4687382	1.081302	0.43	0.665	-1.650576	2.588052
occ_850	-.8799931	.4829645	-1.82	0.068	-1.826587	.0666009
occ_860	-1.418958	.5784721	-2.45	0.014	-2.552743	-.2851719
occ_900	1.912411	2.22432	0.86	0.390	-2.447181	6.272003
occ_910	-2.531035	.365937	-6.92	0.000	-3.248259	-1.813811
occ_930	.2121741	.9268005	0.23	0.819	-1.604323	2.028672
occ_940	.5004771	.7574386	0.66	0.509	-.9840766	1.985031
occ_950	-.0555378	.5985206	-0.09	0.926	-1.228618	1.117542
occ_1006	.3750542	.3517104	1.07	0.286	-.3142861	1.064395
occ_1007	-.0528855	.7239642	-0.07	0.942	-1.471831	1.36606
occ_1010	.6120698	.3660486	1.67	0.095	-.105373	1.329513
occ_1020	.6380838	.3063045	2.08	0.037	.0377374	1.23843
occ_1030	1.002572	.4854098	2.07	0.039	.0511849	1.953958
occ_1050	-1.162583	.2909059	-4.00	0.000	-1.732748	-.592417
occ_1060	-1.727839	.6414103	-2.69	0.007	-2.984981	-.4706967
occ_1105	1.495309	.3631054	4.12	0.000	.7836349	2.206983
occ_1106	.077753	.4502756	0.17	0.863	-.804772	.9602779
occ_1107	-.234259	.3043462	-0.77	0.441	-.8307673	.3622492
occ_1220	.4760185	.6856006	0.69	0.487	-.8677354	1.819772
occ_1300	.0741263	.6995164	0.11	0.916	-1.296902	1.445155
occ_1310	1.492982	.9946049	1.50	0.133	-.4564095	3.442374
occ_1320	3.062959	.7916374	3.87	0.000	1.511376	4.614541

Table A.3 continued

occ_1350	.8808686	1.156677	0.76	0.446	-1.386178	3.147915
occ_1360	.9444234	.4560481	2.07	0.038	.0505846	1.838262
occ_1400	.1059428	.7176698	0.15	0.883	-1.300666	1.512551
occ_1410	-.7361637	.5282828	-1.39	0.163	-1.77158	.2992526
occ_1430	.6041555	.4420708	1.37	0.172	-.2622883	1.470599
occ_1450	1.788065	1.159449	1.54	0.123	-.4844156	4.060546
occ_1460	.6119219	.44246	1.38	0.167	-.2552846	1.479128
occ_1530	.6337055	.3780869	1.68	0.094	-.1073319	1.374743
occ_1540	-.2164708	.4235206	-0.51	0.609	-1.046557	.6136152
occ_1550	.0123379	.2569774	0.05	0.962	-.4913292	.5160049
occ_1560	-.5231731	.4453853	-1.17	0.240	-1.396113	.3497669
occ_1600	.2605609	1.479829	0.18	0.860	-2.639854	3.160976
occ_1860	-2.752985	1.085715	-2.54	0.011	-4.88095	-.6250211
occ_1900	-.1121982	.6687931	-0.17	0.867	-1.42301	1.198613
occ_1910	1.129885	.9871006	1.14	0.252	-.8047983	3.064569
occ_1920	.0048074	.5408575	0.01	0.993	-1.055255	1.06487
occ_1930	1.185801	.5457759	2.17	0.030	.1160984	2.255503
occ_1965	-.6554544	.4518668	-1.45	0.147	-1.541098	.2301891
occ_2000	.3190931	.3790838	0.84	0.400	-.4238983	1.062084
occ_2010	.0956063	.3503639	0.27	0.785	-.5910951	.7823076
occ_2015	.1831431	.9637808	0.19	0.849	-1.705834	2.072121
occ_2016	.2713389	.4767445	0.57	0.569	-.6630641	1.205742
occ_2025	-1.675613	.6023255	-2.78	0.005	-2.856151	-.4950759
occ_2040	1.422306	.350678	4.06	0.000	.7349892	2.109623
occ_2050	1.567681	.7789486	2.01	0.044	.0409684	3.094394
occ_2145	.5689848	.3666376	1.55	0.121	-.1496124	1.287582
occ_2160	.0912174	.4440867	0.21	0.837	-.7791774	.9616121
occ_2300	-.1846514	.3581596	-0.52	0.606	-.886632	.5173291
occ_2330	-.1637857	.773659	-0.21	0.832	-1.680131	1.35256
occ_2340	-.5290397	.2663929	-1.99	0.047	-1.051161	-.0069188
occ_2400	-1.185847	1.198822	-0.99	0.323	-3.535497	1.163802
occ_2430	-.6346613	1.337159	-0.47	0.635	-3.255448	1.986125
occ_2440	-.1642632	1.200831	-0.14	0.891	-2.517851	2.189324
occ_2540	-.6007191	.2695867	-2.23	0.026	-1.1291	-.0723384
occ_2550	.6636122	.5110729	1.30	0.194	-.3380733	1.665298
occ_2600	.0188838	.4632374	0.04	0.967	-.8890457	.9268133
occ_2630	.1264822	.2797558	0.45	0.651	-.4218295	.674794
occ_2700	-.296018	1.399715	-0.21	0.833	-3.039412	2.447376
occ_2710	-.1726024	.4793896	-0.36	0.719	-1.11219	.7669849
occ_2720	-.8772822	.4168914	-2.10	0.035	-1.694375	-.0601891

Table A.3 continued

occ_2740	-.1297938	1.259688	-0.10	0.918	-2.598739	2.339152
occ_2750	-.088436	.5973834	-0.15	0.882	-1.259287	1.082415
occ_2800	1.073231	.6776543	1.58	0.113	-.254948	2.401411
occ_2810	-2.183527	.9608303	-2.27	0.023	-4.066722	-.3003323
occ_2825	.7193761	.733467	0.98	0.327	-.7181942	2.156946
occ_2830	-.3071812	.6368075	-0.48	0.630	-1.555302	.9409397
occ_2840	-1.153889	.9822596	-1.17	0.240	-3.079084	.7713068
occ_2850	1.879556	.7440337	2.53	0.012	.4212754	3.337837
occ_2860	-1.233828	.6544569	-1.89	0.059	-2.516541	.0488855
occ_2900	.9754721	.4071692	2.40	0.017	.1774342	1.77351
occ_2910	-.942137	.4699942	-2.00	0.045	-1.86331	-.0209643
occ_2920	-.8643793	.7292551	-1.19	0.236	-2.293694	.5649359
occ_3030	-.7300884	.8436629	-0.87	0.387	-2.383639	.9234621
occ_3110	-.8138803	.7607552	-1.07	0.285	-2.304934	.6771739
occ_3200	-.3581048	2.006027	-0.18	0.858	-4.28985	3.57364
occ_3220	.7531278	.3967098	1.90	0.058	-.0244098	1.530665
occ_3245	.0122854	1.097027	0.01	0.991	-2.137849	2.16242
occ_3255	1.336951	.2191465	6.10	0.000	.9074318	1.766471
occ_3300	.2506399	.371924	0.67	0.500	-.4783185	.9795982
occ_3310	2.868577	.6458228	4.44	0.000	1.602787	4.134368
occ_3320	.4838209	.3153793	1.53	0.125	-.1343118	1.101954
occ_3400	.6444972	.2402732	2.68	0.007	.1735698	1.115425
occ_3420	-1.049901	.2871515	-3.66	0.000	-1.612708	-.4870938
occ_3500	.3858857	.2415006	1.60	0.110	-.0874473	.8592187
occ_3510	-.6315074	.544603	-1.16	0.246	-1.698911	.4358959
occ_3520	-.8347997	.7282019	-1.15	0.252	-2.262051	.5924512
occ_3535	-.3266861	.4508385	-0.72	0.469	-1.210314	.5569419
occ_3540	.2646763	.5157979	0.51	0.608	-.7462701	1.275623
occ_3600	.4912619	.2133084	2.30	0.021	.0731846	.9093391
occ_3610	.3483926	1.483991	0.23	0.814	-2.56018	3.256965
occ_3620	1.432736	.6728226	2.13	0.033	.1140264	2.751445
occ_3630	1.523051	.4938777	3.08	0.002	.5550676	2.491034
occ_3640	1.070052	.381272	2.81	0.005	.3227713	1.817332
occ_3645	.536203	.2977816	1.80	0.072	-.0474388	1.119845
occ_3647	-1.592168	.9652057	-1.65	0.099	-3.483938	.2996026
occ_3648	-2.468146	.9231448	-2.67	0.008	-4.277479	-.658814
occ_3649	-.0140595	.4744685	-0.03	0.976	-.9440016	.9158827
occ_3655	-.7808816	.4453787	-1.75	0.080	-1.653809	.0920456
occ_3700	3.279506	.4557902	7.20	0.000	2.386173	4.172839
occ_3710	1.154176	.3978528	2.90	0.004	.3743975	1.933954

Table A.3 continued

occ_3720	1.632964	.3686002	4.43	0.000	.9105199	2.355408
occ_3740	1.529763	.2249549	6.80	0.000	1.088859	1.970667
occ_3750	-.1299696	.7668269	-0.17	0.865	-1.632924	1.372985
occ_3800	1.787326	.2486898	7.19	0.000	1.299902	2.274749
occ_3820	.4586651	.4157866	1.10	0.270	-.3562624	1.273593
occ_3840	3.004093	1.328171	2.26	0.024	.4009231	5.607263
occ_3850	1.618875	.2281283	7.10	0.000	1.171751	2.065998
occ_3900	-.0177007	1.425942	-0.01	0.990	-2.812499	2.777097
occ_3910	-.7317046	.6173663	-1.19	0.236	-1.941721	.4783124
occ_3930	-1.078985	.2404626	-4.49	0.000	-1.550283	-.6076861
occ_3940	-2.194619	1.026797	-2.14	0.033	-4.207107	-.1821317
occ_3945	-1.261633	1.098175	-1.15	0.251	-3.41402	.8907529
occ_3955	-.1225621	.6892607	-0.18	0.859	-1.47349	1.228365
occ_4000	-1.313296	.2406354	-5.46	0.000	-1.784933	-.8416586
occ_4010	-1.444024	.2467935	-5.85	0.000	-1.927731	-.9603168
occ_4020	-.6806379	.2205026	-3.09	0.002	-1.112815	-.2484603
occ_4030	-.5176988	.298806	-1.73	0.083	-1.103348	.0679507
occ_4040	1.018084	.3104061	3.28	0.001	.4096982	1.626469
occ_4050	-1.100554	.4266263	-2.58	0.010	-1.936727	-.264381
occ_4060	1.275022	.7520714	1.70	0.090	-.199012	2.749057
occ_4110	.3614861	.2394523	1.51	0.131	-.1078322	.8308044
occ_4120	-.0033754	.558502	-0.01	0.995	-1.09802	1.09127
occ_4130	-.0245867	.4683539	-0.05	0.958	-.9425443	.8933709
occ_4140	-1.30193	.506886	-2.57	0.010	-2.295409	-.3084503
occ_4150	.9324851	.7496887	1.24	0.214	-.5368793	2.401849
occ_4200	-.5744949	.3188321	-1.80	0.072	-1.199395	.0504052
occ_4210	.081416	.3416454	0.24	0.812	-.5881974	.7510295
occ_4220	-.7425058	.2235476	-3.32	0.001	-1.180651	-.3043602
occ_4240	-.00397	.4528047	-0.01	0.993	-.8914519	.8835118
occ_4250	-.3103697	.2490104	-1.25	0.213	-.7984216	.1776823
occ_4300	1.010662	.5368396	1.88	0.060	-.0415257	2.062849
occ_4320	.746597	.3873028	1.93	0.054	-.0125033	1.505697
occ_4340	-1.095001	.6293763	-1.74	0.082	-2.328557	.1385547
occ_4350	-.5361208	.409947	-1.31	0.191	-1.339603	.2673614
occ_4400	.9268306	.5213024	1.78	0.075	-.0949043	1.948565
occ_4410	-3.417534	2.137592	-1.60	0.110	-7.607141	.7720732
occ_4420	-3.388955	1.936613	-1.75	0.080	-7.18465	.4067396
occ_4430	-2.590116	.5620635	-4.61	0.000	-3.691741	-1.488491
occ_4460	-1.935812	1.315638	-1.47	0.141	-4.514417	.642793
occ_4465	-.9987917	.6265197	-1.59	0.111	-2.226749	.2291657

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Table A.3 continued

occ_4500	3.243768	.4848618	6.69	0.000	2.293455	4.19408
occ_4510	-.2439352	.2693385	-0.91	0.365	-.7718295	.283959
occ_4520	1.195626	.3187992	3.75	0.000	.5707908	1.820462
occ_4530	-.6829397	.6297701	-1.08	0.278	-1.917268	.5513882
occ_4540	.8835228	.7646258	1.16	0.248	-.6151177	2.382163
occ_4600	1.037194	.2536619	4.09	0.000	.5400256	1.534363
occ_4610	.1693927	.2227123	0.76	0.447	-.2671159	.6059013
occ_4620	.7372508	.3718907	1.98	0.047	.0083576	1.466144
occ_4640	-.7172632	.5042998	-1.42	0.155	-1.705674	.2711474
occ_4700	-1.656374	.2037376	-8.13	0.000	-2.055692	-1.257055
occ_4710	-.0876979	.2237932	-0.39	0.695	-.526325	.3509292
occ_4720	-1.234365	.2347386	-5.26	0.000	-1.694445	-.7742852
occ_4740	-1.101502	.5196207	-2.12	0.034	-2.119941	-.0830629
occ_4750	-1.290885	.4243648	-3.04	0.002	-2.122625	-.4591444
occ_4760	-1.97787	.2127108	-9.30	0.000	-2.394776	-1.560965
occ_4800	-1.387386	.4491644	-3.09	0.002	-2.267732	-.5070387
occ_4810	-.8654448	.303443	-2.85	0.004	-1.460183	-.2707068
occ_4820	-1.550583	.4149499	-3.74	0.000	-2.36387	-.737295
occ_4830	1.467605	.7600848	1.93	0.054	-.0221353	2.957345
occ_4840	-1.229964	.2645958	-4.65	0.000	-1.748563	-.7113649
occ_4850	-.7628402	.2259194	-3.38	0.001	-1.205635	-.3200458
occ_4900	-1.822661	1.079261	-1.69	0.091	-3.937976	.2926536
occ_4920	-.5870524	.272554	-2.15	0.031	-1.121249	-.0528559
occ_4940	-1.617284	.6659977	-2.43	0.015	-2.922616	-.3119507
occ_4950	.7458405	.4960959	1.50	0.133	-.2264906	1.718172
occ_5000	-.4567049	.225591	-2.02	0.043	-.8988555	-.0145543
occ_5010	-1.434924	1.04403	-1.37	0.169	-3.481187	.6113396
occ_5020	-1.272178	1.02501	-1.24	0.215	-3.281162	.7368058
occ_5100	.2814583	.4697869	0.60	0.549	-.6393081	1.202225
occ_5110	.0800719	.319646	0.25	0.802	-.5464233	.7065671
occ_5120	-.3531699	.2501452	-1.41	0.158	-.8434459	.1371061
occ_5130	-1.365761	1.848812	-0.74	0.460	-4.98937	2.257849
occ_5140	1.120265	.4170939	2.69	0.007	.3027754	1.937755
occ_5150	-.4621569	.7716307	-0.60	0.549	-1.974527	1.050213
occ_5160	-1.472224	.5070407	-2.90	0.004	-2.466006	-.4784414
occ_5200	-3.988618	2.61725	-1.52	0.128	-9.118338	1.141102
occ_5220	1.482704	.6495185	2.28	0.022	.2096703	2.755738
occ_5230	.4432635	.8620611	0.51	0.607	-1.246347	2.132874
occ_5240	-1.758173	.2249421	-7.82	0.000	-2.199052	-1.317294
occ_5250	.7167492	.889792	0.81	0.421	-1.027213	2.460711

Table A.3 continued

occ_5260	.6053294	.4027198	1.50	0.133	-.1839878	1.394647
occ_5300	-.2370567	.5646113	-0.42	0.675	-1.343676	.8695621
occ_5310	.7372322	.5482853	1.34	0.179	-.3373884	1.811853
occ_5320	-.6956107	.8987501	-0.77	0.439	-2.45713	1.065909
occ_5330	-1.079202	.4869229	-2.22	0.027	-2.033554	-.1248493
occ_5340	-3.002698	1.699887	-1.77	0.077	-6.334418	.3290219
occ_5350	-.6651184	.5280431	-1.26	0.208	-1.700065	.3698282
occ_5360	-.2693371	.6362436	-0.42	0.672	-1.516353	.9776788
occ_5400	.1809006	.2819374	0.64	0.521	-.3716871	.7334883
occ_5410	-.8215984	.4313781	-1.90	0.057	-1.667085	.0238881
occ_5500	.0137905	.8575841	0.02	0.987	-1.667045	1.694626
occ_5510	-1.275545	.3392196	-3.76	0.000	-1.940404	-.6106863
occ_5520	.0899524	.2781128	0.32	0.746	-.4551392	.635044
occ_5530	.4829437	.9171671	0.53	0.598	-1.314673	2.28056
occ_5540	.2801995	.5093696	0.55	0.582	-.7181477	1.278547
occ_5550	.2295982	.306284	0.75	0.453	-.370708	.8299044
occ_5560	.4350403	.5875321	0.74	0.459	-.7165027	1.586583
occ_5600	-.3649354	.3123075	-1.17	0.243	-.9770474	.2471766
occ_5610	-1.019676	.2672287	-3.82	0.000	-1.543436	-.4959173
occ_5620	-1.510839	.2403917	-6.28	0.000	-1.981998	-1.039679
occ_5630	-.7919925	.4432225	-1.79	0.074	-1.660693	.0767085
occ_5700	.1195924	.2176818	0.55	0.583	-.3070565	.5462413
occ_5800	-.0166863	.5193458	-0.03	0.974	-1.034586	1.001214
occ_5810	-.0248613	.3619709	-0.07	0.945	-.7343119	.6845894
occ_5820	.2642415	.3713758	0.71	0.477	-.4636425	.9921254
occ_5840	-.3957767	.3570886	-1.11	0.268	-1.095658	.3041048
occ_5850	-.631196	.6640498	-0.95	0.342	-1.932711	.670319
occ_5860	-.084265	.262196	-0.32	0.748	-.5981602	.4296301
occ_5900	-.0069794	.9647493	-0.01	0.994	-1.897855	1.883896
occ_5910	-4.327918	1.889309	-2.29	0.022	-8.030899	-.6249367
occ_5920	-1.588107	1.226089	-1.30	0.195	-3.9912	.8149864
occ_5940	-.613542	.2896502	-2.12	0.034	-1.181246	-.0458375
occ_6005	.2744868	.4358153	0.63	0.529	-.5796963	1.12867
occ_6010	-.6793307	1.049863	-0.65	0.518	-2.737027	1.378366
occ_6040	.3086437	.7802549	0.40	0.692	-1.220629	1.837917
occ_6050	.434206	.2290701	1.90	0.058	-.0147636	.8831756
occ_6100	1.158504	.4602227	2.52	0.012	.2564834	2.060525
occ_6120	-1.907574	1.080363	-1.77	0.077	-4.025049	.2099018
occ_6130	-.9885003	.4293509	-2.30	0.021	-1.830013	-.1469871
occ_6200	-.4653864	.2158604	-2.16	0.031	-.8884653	-.0423075

Table A.3 continued

occ_6220	.7363677	.4298476	1.71	0.087	-.106119	1.578854
occ_6230	.9852198	.2376521	4.15	0.000	.5194298	1.45101
occ_6240	.8519353	.451003	1.89	0.059	-.0320153	1.735886
occ_6260	-.1638767	.2232672	-0.73	0.463	-.6014727	.2737193
occ_6320	-.6526627	.2474957	-2.64	0.008	-1.137746	-.1675797
occ_6330	1.475461	.5604482	2.63	0.008	.3770021	2.573921
occ_6355	.2131834	.2309638	0.92	0.356	-.2394978	.6658645
occ_6400	1.949089	.6703417	2.91	0.004	.6352424	3.262936
occ_6420	-.4022197	.3082405	-1.30	0.192	-1.006361	.2019213
occ_6440	.4345953	.2450567	1.77	0.076	-.0457075	.9148982
occ_6515	.8329927	.4056285	2.05	0.040	.0379746	1.628011
occ_6520	1.007791	.3957848	2.55	0.011	.2320658	1.783515
occ_6530	.6600378	.4838486	1.36	0.173	-.288289	1.608364
occ_6600	-.8882351	.6737628	-1.32	0.187	-2.208787	.4323171
occ_6660	.6080414	.4870449	1.25	0.212	-.3465499	1.562633
occ_6720	-2.081937	.7280334	-2.86	0.004	-3.508858	-.6550167
occ_6730	-.4586233	.4469745	-1.03	0.305	-1.334678	.4174315
occ_6765	.194204	.5349245	0.36	0.717	-.8542298	1.242638
occ_6830	1.197996	.5237843	2.29	0.022	.1713968	2.224596
occ_6840	.3173762	.3024963	1.05	0.294	-.2755064	.9102587
occ_6940	-.080942	.2739841	-0.30	0.768	-.6179414	.4560574
occ_7000	-.3413027	.2574751	-1.33	0.185	-.8459452	.1633398
occ_7010	-.415958	.3442529	-1.21	0.227	-1.090682	.258766
occ_7020	1.304744	.3289962	3.97	0.000	.6599224	1.949565
occ_7030	2.032819	.5548741	3.66	0.000	.9452845	3.120353
occ_7040	.7410833	.5804672	1.28	0.202	-.3966126	1.878779
occ_7100	2.299329	.500153	4.60	0.000	1.319046	3.279611
occ_7120	.7947975	.540252	1.47	0.141	-.264078	1.853673
occ_7130	.399774	.5418704	0.74	0.461	-.6622736	1.461822
occ_7140	1.993763	.285205	6.99	0.000	1.434771	2.552755
occ_7150	-.9083977	.3592158	-2.53	0.011	-1.612448	-.204347
occ_7200	.2207919	.2277188	0.97	0.332	-.2255291	.6671129
occ_7210	.1377363	.2569763	0.54	0.592	-.3659285	.641401
occ_7220	-.4825841	.2610131	-1.85	0.064	-.9941608	.0289926
occ_7260	-.0924107	.5027678	-0.18	0.854	-1.077818	.8929971
occ_7300	.553199	.8023269	0.69	0.491	-1.019334	2.125732
occ_7315	.1322206	.2818685	0.47	0.639	-.420232	.6846733
occ_7330	-.8821027	.2494662	-3.54	0.000	-1.371048	-.3931575
occ_7340	-.1515866	.2415911	-0.63	0.530	-.625097	.3219238
occ_7350	-.9303859	.5712932	-1.63	0.103	-2.050101	.1893293

Table A.3 continued

occ_7360	.4090212	.4197036	0.97	0.330	-.4135835	1.231626
occ_7410	-.0971448	.3325142	-0.29	0.770	-.7488614	.5545717
occ_7420	1.637161	.332355	4.93	0.000	.9857568	2.288566
occ_7430	.1186938	.4938485	0.24	0.810	-.8492324	1.08662
occ_7510	.508378	.6309801	0.81	0.420	-.7283214	1.745077
occ_7540	2.013379	.6519477	3.09	0.002	.7355843	3.291175
occ_7610	1.729169	1.000869	1.73	0.084	-.232499	3.690837
occ_7630	-.2903721	.2831984	-1.03	0.305	-.8454314	.2646872
occ_7700	-.3882511	.2193364	-1.77	0.077	-.8181431	.0416408
occ_7710	-.989457	1.785412	-0.55	0.579	-4.488803	2.509889
occ_7720	-1.072511	.4792576	-2.24	0.025	-2.011839	-.1331823
occ_7730	-1.258589	.9952557	-1.26	0.206	-3.209256	.6920781
occ_7740	-.4084228	.6636216	-0.62	0.538	-1.709098	.892253
occ_7750	-1.048644	.2395959	-4.38	0.000	-1.518244	-.5790447
occ_7800	-.9231728	.4104297	-2.25	0.024	-1.727601	-.1187445
occ_7810	-1.331333	.363415	-3.66	0.000	-2.043614	-.6190521
occ_7830	-.1100581	1.468212	-0.07	0.940	-2.987703	2.767587
occ_7840	-.3545971	.5428905	-0.65	0.514	-1.418644	.7094499
occ_7850	-3.099845	1.503439	-2.06	0.039	-6.046534	-.1531556
occ_7900	-.9777554	.3932001	-2.49	0.013	-1.748414	-.2070966
occ_7920	-.2374512	1.097401	-0.22	0.829	-2.38832	1.913418
occ_7940	-2.220273	.9115505	-2.44	0.015	-4.006881	-.4336653
occ_7950	-1.373244	.3437972	-3.99	0.000	-2.047075	-.6994131
occ_8030	-.5901303	.2569782	-2.30	0.022	-1.093799	-.0864617
occ_8040	-1.325741	.7173313	-1.85	0.065	-2.731686	.080204
occ_8100	-1.900032	.5809117	-3.27	0.001	-3.0386	-.7614652
occ_8130	-.4800806	.4934303	-0.97	0.331	-1.447187	.487026
occ_8140	-.9682028	.2308909	-4.19	0.000	-1.420741	-.5156646
occ_8220	-1.18216	.2661974	-4.44	0.000	-1.703898	-.6604225
occ_8250	-.1802443	.9657206	-0.19	0.852	-2.073024	1.712535
occ_8255	-.3371075	.3772469	-0.89	0.372	-1.076499	.4022836
occ_8256	.3469363	1.079738	0.32	0.748	-1.769313	2.463185
occ_8300	-1.704995	.4442442	-3.84	0.000	-2.575698	-.8342911
occ_8310	-3.663279	.889155	-4.12	0.000	-5.405993	-1.920566
occ_8320	-2.21817	.5118223	-4.33	0.000	-3.221324	-1.215016
occ_8330	2.014243	1.395162	1.44	0.149	-.720227	4.748714
occ_8350	-.1541885	.7504415	-0.21	0.837	-1.625028	1.316651
occ_8400	-.4207015	1.681927	-0.25	0.802	-3.717221	2.875818
occ_8410	-.1457971	2.188757	-0.07	0.947	-4.435687	4.144093
occ_8420	1.656313	1.680845	0.99	0.324	-1.638086	4.950713

Table A.3 continued

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occ_8450 |  -.3209622   .8442916   -0.38   0.704   -1.975745    1.333821
occ_8460 |  -.9569699   1.139648   -0.84   0.401   -3.190641    1.276701
occ_8500 |  -.0035046   .5939055   -0.01   0.995   -1.167539     1.16053
occ_8510 |    .106561   1.716306    0.06   0.950   -3.257341    3.470463
occ_8530 |  -2.514693   .6728863   -3.74   0.000   -3.833527   -1.195858
occ_8540 |  -.3137786   1.061056   -0.30   0.767   -2.393412    1.765854
occ_8550 |   .2463365   .9581445    0.26   0.797   -1.631594    2.124267
occ_8600 |   1.204479   .4513259    2.67   0.008    .3198957    2.089063
occ_8610 |  -.2009724    .399601   -0.50   0.615   -.9841767    .5822318
occ_8620 |   .8768269   .4445405    1.97   0.049    .0055426    1.748111
occ_8630 |   .8386714   .4133181    2.03   0.042     .028582    1.648761
occ_8640 |  -1.168301   .4658454   -2.51   0.012   -2.081342   -.2552595
occ_8650 |  -1.254742   .3775925   -3.32   0.001   -1.994811   -.5146738
occ_8710 |  -1.556174   .5850178   -2.66   0.008   -2.702789    -.409559
occ_8720 |  -2.043799   .6734886   -3.03   0.002   -3.363813    -.723784
occ_8730 |  -1.816305   .8331172   -2.18   0.029   -3.449187   -.1834238
occ_8740 |  -1.078684   .2325243   -4.64   0.000   -1.534424   -.6229444
occ_8750 |   .5838056   .8073775    0.72   0.470   -.9986267    2.166238
occ_8760 |  -.2039241   .5548803   -0.37   0.713   -1.291471    .8836224
occ_8800 |  -.8002194    .365117   -2.19   0.028   -1.515836   -.0846025
occ_8810 |  -.3933481   .3830465   -1.03   0.304   -1.144106      .35741
occ_8830 |  -3.672459   .9352151   -3.93   0.000   -5.505449   -1.839469
occ_8850 |  -1.879869    1.41561   -1.33   0.184   -4.654417    .8946776
occ_8910 |   .1343506   1.575078    0.09   0.932   -2.952749     3.22145
occ_8920 |  -.4822753   .8528227   -0.57   0.572   -2.153779    1.189228
occ_8930 |  -1.857488   .7482157   -2.48   0.013   -3.323965   -.3910106
occ_8940 |   1.441133   1.017257    1.42   0.157   -.5526561    3.434923
occ_8950 |   1.328288   .6757367    1.97   0.049    .0038669    2.652709
occ_8965 |  -1.250766   .2246941   -5.57   0.000   -1.691159   -.8103731
occ_9000 |  -.2178741   .2805058   -0.78   0.437   -.7676559    .3319078
occ_9030 |   1.356257   .3784457    3.58   0.000    .6145163    2.097998
occ_9040 |   5.127152   .6545217    7.83   0.000    3.844312    6.409992
occ_9050 |   2.149864   .4568414    4.71   0.000    1.254471    3.045258
occ_9110 |  -.1016765   .7992639   -0.13   0.899   -1.668207    1.464854
occ_9120 |  -1.005341   .2769546   -3.63   0.000   -1.548163   -.4625194
occ_9130 |  -.4074978   .1994823   -2.04   0.041   -.7984764   -.0165193
occ_9140 |   1.363155   .2836357    4.81   0.000    .8072391    1.919072
occ_9200 |   1.506801   .3629395    4.15   0.000    .7954516     2.21815
occ_9240 |   .7329057    .364322    2.01   0.044     .018847    1.446964
occ_9260 |  -1.491471   .7275353   -2.05   0.040   -2.917415   -.0655262
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Table A.3 continued

occ_9300	.7357608	.3783078	1.94	0.052	-.0057096	1.477231
occ_9310	.0589584	.3607976	0.16	0.870	-.6481925	.7661094
occ_9350	.3823302	.5584372	0.68	0.494	-.7121877	1.476848
occ_9360	-1.375904	.4696544	-2.93	0.003	-2.296411	-.4553978
occ_9410	-.0406912	.5021096	-0.08	0.935	-1.024809	.9434266
occ_9415	-1.386149	1.01228	-1.37	0.171	-3.370182	.597885
occ_9420	-.3532249	.8286134	-0.43	0.670	-1.977279	1.270829
occ_9510	-.7335465	.3668882	-2.00	0.046	-1.452635	-.0144581
occ_9560	-1.13449	.6653574	-1.71	0.088	-2.438568	.1695882
occ_9600	-.0618913	.256847	-0.24	0.810	-.5653026	.4415201
occ_9610	-.3750087	.3477025	-1.08	0.281	-1.056494	.3064763
occ_9620	-1.076137	.2167102	-4.97	0.000	-1.500882	-.6513929
occ_9630	-.6488632	.7699677	-0.84	0.399	-2.157974	.8602474
occ_9640	-.9130025	.347581	-2.63	0.009	-1.594249	-.2317556
occ_9650	.2099212	.3941772	0.53	0.594	-.5626527	.9824951
occ_9720	.4848868	.502114	0.97	0.334	-.4992395	1.469013
occ_9750	.0381174	.4689409	0.08	0.935	-.8809908	.9572255
occfem_10	-.0723771	.0224036	-3.23	0.001	-.1162873	-.0284669
occfem_20	-.0373936	.0193819	-1.93	0.054	-.0753815	.0005943
occfem_40	-.0350725	.0771275	-0.45	0.649	-.1862397	.1160947
occfem_50	-.0598325	.0217158	-2.76	0.006	-.1023947	-.0172702
occfem_60	-.1027483	.0876859	-1.17	0.241	-.2746096	.069113
occfem_100	.0864816	.0324679	2.66	0.008	.0228455	.1501176
occfem_110	.0697531	.02553	2.73	0.006	.0197152	.119791
occfem_120	.0055973	.0201808	0.28	0.782	-.0339565	.0451511
occfem_136	.1061174	.0242792	4.37	0.000	.0585311	.1537037
occfem_137	.1016694	.0538877	1.89	0.059	-.0039486	.2072874
occfem_140	.0040353	.032518	0.12	0.901	-.0596988	.0677695
occfem_150	.0771674	.031687	2.44	0.015	.0150618	.1392729
occfem_160	.0975652	.0306519	3.18	0.001	.0374886	.1576418
occfem_205	-.1490483	.0324337	-4.60	0.000	-.2126173	-.0854793
occfem_220	-.0011995	.0333262	-0.04	0.971	-.0665177	.0641187
occfem_230	-.1262231	.0278113	-4.54	0.000	-.1807324	-.0717138
occfem_300	.0319567	.104679	0.31	0.760	-.1732107	.2371241
occfem_310	-.0170017	.0188317	-0.90	0.367	-.0539112	.0199079
occfem_330	.1549021	.0678366	2.28	0.022	.0219448	.2878595
occfem_340	.009965	.0344502	0.29	0.772	-.0575563	.0774863
occfem_350	.0409328	.0245853	1.66	0.096	-.0072535	.089119
occfem_410	.0548005	.0224734	2.44	0.015	.0107533	.0988477
occfem_420	.0634977	.0323362	1.96	0.050	.0001199	.1268754

Table A.3 continued

occfem_425	.2939449	.1521054	1.93	0.053	-.0041765	.5920663
occfem_430	.0124463	.0171299	0.73	0.467	-.0211277	.0460203
occfem_500	.0594248	.0758955	0.78	0.434	-.0893279	.2081775
occfem_510	-.0875998	.1337866	-0.65	0.513	-.349817	.1746174
occfem_520	.123724	.0287739	4.30	0.000	.0673281	.18012
occfem_530	.0994864	.025616	3.88	0.000	.0492799	.1496928
occfem_540	.0478228	.0265263	1.80	0.071	-.0041679	.0998134
occfem_565	.0847985	.0302972	2.80	0.005	.0254171	.14418
occfem_600	-.0278451	.0427416	-0.65	0.515	-.1116171	.0559269
occfem_630	.0616202	.0225075	2.74	0.006	.0175063	.1057341
occfem_640	.183567	.0736169	2.49	0.013	.0392803	.3278536
occfem_650	-.0260401	.0343398	-0.76	0.448	-.0933448	.0412647
occfem_700	.1131833	.0335426	3.37	0.001	.047441	.1789257
occfem_710	.1035603	.0258191	4.01	0.000	.0529557	.1541649
occfem_725	.1949373	.0526904	3.70	0.000	.091666	.2982086
occfem_726	.3954453	.0919816	4.30	0.000	.2151646	.5757261
occfem_735	.1285448	.0387137	3.32	0.001	.0526674	.2044223
occfem_740	.0150731	.0289385	0.52	0.602	-.0416453	.0717915
occfem_800	.101938	.0221796	4.60	0.000	.0584667	.1454093
occfem_810	.025218	.0471621	0.53	0.593	-.0672181	.117654
occfem_820	.1708394	.0851157	2.01	0.045	.0040156	.3376632
occfem_830	.1746534	.0959682	1.82	0.069	-.013441	.3627479
occfem_840	.0957525	.0700388	1.37	0.172	-.0415212	.2330263
occfem_850	-.112992	.0350693	-3.22	0.001	-.1817267	-.0442573
occfem_860	.1378635	.0512016	2.69	0.007	.0375101	.238217
occfem_900	.0299601	.1671984	0.18	0.858	-.2977431	.3576632
occfem_910	-.0181225	.0267209	-0.68	0.498	-.0704946	.0342497
occfem_930	-.0068766	.0572163	-0.12	0.904	-.1190186	.1052654
occfem_940	.107917	.0609044	1.77	0.076	-.0114535	.2272875
occfem_950	.0541982	.0561851	0.96	0.335	-.0559227	.1643192
occfem_1006	.068242	.0255606	2.67	0.008	.018144	.11834
occfem_1007	.0868184	.062709	1.38	0.166	-.036089	.2097258
occfem_1010	.087541	.0317563	2.76	0.006	.0252997	.1497823
occfem_1020	-.022979	.0262704	-0.87	0.382	-.074468	.0285101
occfem_1030	-.0123223	.0416272	-0.30	0.767	-.0939103	.0692657
occfem_1050	.1063931	.0215531	4.94	0.000	.0641498	.1486365
occfem_1060	-.1016317	.0435306	-2.33	0.020	-.1869501	-.0163132
occfem_1105	.0938935	.032615	2.88	0.004	.0299692	.1578178
occfem_1106	.0697997	.0667978	1.04	0.296	-.0611217	.2007211
occfem_1107	.0889088	.0250722	3.55	0.000	.0397682	.1380494

Table A.3 continued

occfem_1220	.1133002	.0412531	2.75	0.006	.0324456	.1941548
occfem_1300	-.012732	.0836475	-0.15	0.879	-.1766784	.1512143
occfem_1310	.0525914	.1102627	0.48	0.633	-.1635198	.2687025
occfem_1320	-.0761365	.0955643	-0.80	0.426	-.2634394	.1111663
occfem_1350	.0650878	.1913341	0.34	0.734	-.3099204	.4400961
occfem_1360	.1753087	.0667491	2.63	0.009	.0444828	.3061346
occfem_1400	-.0819088	.1045169	-0.78	0.433	-.2867583	.1229407
occfem_1410	.1291956	.0730716	1.77	0.077	-.0140222	.2724135
occfem_1430	.0428251	.0414765	1.03	0.302	-.0384674	.1241175
occfem_1450	-.0553406	.1289345	-0.43	0.668	-.3080479	.1973666
occfem_1460	.0984624	.0731428	1.35	0.178	-.0448951	.2418198
occfem_1530	.0698767	.0453418	1.54	0.123	-.0189917	.158745
occfem_1540	.0949337	.032712	2.90	0.004	.0308192	.1590481
occfem_1550	-.0328085	.0239201	-1.37	0.170	-.0796912	.0140741
occfem_1560	.0254864	.0629351	0.40	0.686	-.0978643	.1488371
occfem_1600	.0396707	.1851545	0.21	0.830	-.3232258	.4025672
occfem_1860	.026023	.1045708	0.25	0.803	-.1789321	.2309781
occfem_1900	.0600861	.0532536	1.13	0.259	-.0442891	.1644612
occfem_1910	-.0412392	.0754854	-0.55	0.585	-.189188	.1067096
occfem_1920	-.0063345	.0441867	-0.14	0.886	-.0929388	.0802699
occfem_1930	.0660848	.0844707	0.78	0.434	-.0994748	.2316445
occfem_1965	.0742096	.033308	2.23	0.026	.008927	.1394921
occfem_2000	.105762	.0280832	3.77	0.000	.0507199	.1608041
occfem_2010	.1452523	.0281923	5.15	0.000	.0899963	.2005082
occfem_2015	.1349224	.053242	2.53	0.011	.0305698	.2392749
occfem_2016	.172642	.0388614	4.44	0.000	.096475	.248809
occfem_2025	.0504451	.0463669	1.09	0.277	-.0404324	.1413226
occfem_2040	.0568289	.0425991	1.33	0.182	-.0266639	.1403217
occfem_2050	-.0764604	.0699786	-1.09	0.275	-.213616	.0606952
occfem_2145	.1212262	.0331098	3.66	0.000	.0563322	.1861202
occfem_2160	.0428703	.0384085	1.12	0.264	-.032409	.1181495
occfem_2300	.0094	.0625329	0.15	0.881	-.1131624	.1319623
occfem_2330	-.0228359	.0796567	-0.29	0.774	-.1789603	.1332884
occfem_2340	-.1068447	.0232754	-4.59	0.000	-.1524636	-.0612257
occfem_2400	-.0276954	.1033207	-0.27	0.789	-.2302004	.1748097
occfem_2430	-.1274662	.0932734	-1.37	0.172	-.3102789	.0553465
occfem_2440	-.1696278	.0873068	-1.94	0.052	-.3407461	.0014906
occfem_2540	-.1365284	.0255171	-5.35	0.000	-.1865411	-.0865157
occfem_2550	-.0430612	.0545462	-0.79	0.430	-.1499699	.0638475
occfem_2600	-.098808	.046996	-2.10	0.036	-.1909187	-.0066974

Table A.3 continued

occfem_2630	-.0510846	.0221128	-2.31	0.021	-.0944251	-.0077442
occfem_2700	.1112814	.1283745	0.87	0.386	-.1403283	.3628912
occfem_2710	.258517	.0498139	5.19	0.000	.1608835	.3561504
occfem_2720	-.0809284	.0474325	-1.71	0.088	-.1738946	.0120377
occfem_2740	.0755437	.1221939	0.62	0.536	-.1639522	.3150395
occfem_2750	-.0071193	.0736176	-0.10	0.923	-.1514073	.1371688
occfem_2800	.2535298	.0780142	3.25	0.001	.1006247	.4064349
occfem_2810	.0194235	.0851416	0.23	0.820	-.1474512	.1862983
occfem_2825	-.0932054	.0610283	-1.53	0.127	-.2128187	.026408
occfem_2830	-.0191772	.0540178	-0.36	0.723	-.1250503	.086696
occfem_2840	.2038373	.0709614	2.87	0.004	.0647554	.3429192
occfem_2850	-.0567506	.0610408	-0.93	0.353	-.1763884	.0628872
occfem_2860	.0890664	.048506	1.84	0.066	-.0060038	.1841365
occfem_2900	.0638863	.0746748	0.86	0.392	-.0824738	.2102463
occfem_2910	.017246	.0451785	0.38	0.703	-.0713023	.1057943
occfem_2920	-.0861667	.1058378	-0.81	0.416	-.2936052	.1212719
occfem_3030	.1684626	.0776593	2.17	0.030	.0162531	.3206722
occfem_3110	.0445183	.063837	0.70	0.486	-.0805999	.1696366
occfem_3200	.127852	.0852499	1.50	0.134	-.0392348	.2949388
occfem_3220	.0831397	.0324372	2.56	0.010	.0195639	.1467154
occfem_3245	.0611028	.0656788	0.93	0.352	-.0676254	.189831
occfem_3255	.0849997	.0194186	4.38	0.000	.0469398	.1230595
occfem_3300	.0690217	.0283222	2.44	0.015	.0135112	.1245322
occfem_3310	.0101212	.0996408	0.10	0.919	-.1851714	.2054139
occfem_3320	.0543271	.0230981	2.35	0.019	.0090556	.0995987
occfem_3400	.0285381	.0248833	1.15	0.251	-.0202322	.0773085
occfem_3420	.049617	.0219288	2.26	0.024	.0066373	.0925968
occfem_3500	.0903329	.0225883	4.00	0.000	.0460606	.1346053
occfem_3510	.0148761	.0469274	0.32	0.751	-.0771	.1068522
occfem_3520	-.0116094	.0479214	-0.24	0.809	-.1055336	.0823148
occfem_3535	-.0411598	.0341627	-1.20	0.228	-.1081175	.0257978
occfem_3540	-.0201772	.0480563	-0.42	0.675	-.1143658	.0740115
occfem_3600	.0801127	.0185145	4.33	0.000	.043825	.1164004
occfem_3610	.1841979	.0945117	1.95	0.051	-.0010418	.3694376
occfem_3620	.0924809	.0411775	2.25	0.025	.0117744	.1731875
occfem_3630	.0808041	.0482162	1.68	0.094	-.0136981	.1753062
occfem_3640	.1619319	.0462156	3.50	0.000	.0713509	.2525128
occfem_3645	.0777755	.0293567	2.65	0.008	.0202374	.1353135
occfem_3647	.0495312	.0665129	0.74	0.456	-.0808319	.1798943
occfem_3648	.1036038	.0690274	1.50	0.133	-.0316876	.2388952

Table A.3 continued

occfem_3649	.0918451	.0416613	2.20	0.027	.0101904	.1734998
occfem_3655	-.0249189	.0332467	-0.75	0.454	-.0900814	.0402435
occfem_3700	-.0257985	.0394296	-0.65	0.513	-.1030791	.0514822
occfem_3710	.0475895	.0411119	1.16	0.247	-.0329884	.1281674
occfem_3720	.0542649	.0981349	0.55	0.580	-.1380762	.246606
occfem_3740	.0889491	.041037	2.17	0.030	.008518	.1693801
occfem_3750	.1946785	.1065899	1.83	0.068	-.014234	.403591
occfem_3800	.0435309	.0202503	2.15	0.032	.0038409	.0832209
occfem_3820	.0134647	.0397646	0.34	0.735	-.0644727	.091402
occfem_3840	.0931117	.0970337	0.96	0.337	-.0970709	.2832944
occfem_3850	.0940648	.0219007	4.30	0.000	.0511401	.1369895
occfem_3900	.1717729	.0785774	2.19	0.029	.0177638	.325782
occfem_3910	.0638962	.0457777	1.40	0.163	-.0258266	.1536189
occfem_3930	.1214643	.0195786	6.20	0.000	.0830909	.1598378
occfem_3940	.242321	.0812569	2.98	0.003	.0830602	.4015817
occfem_3945	.2181344	.0622465	3.50	0.000	.0961334	.3401355
occfem_3955	-.1235516	.055953	-2.21	0.027	-.2332175	-.0138856
occfem_4000	.0799088	.0253418	3.15	0.002	.0302397	.1295778
occfem_4010	.0071272	.0208046	0.34	0.732	-.0336491	.0479036
occfem_4020	.0260752	.0178633	1.46	0.144	-.0089363	.0610867
occfem_4030	.1200608	.0230761	5.20	0.000	.0748325	.1652892
occfem_4040	.0434601	.0241259	1.80	0.072	-.0038259	.0907462
occfem_4050	.0468808	.0304498	1.54	0.124	-.0127997	.1065614
occfem_4060	.3226162	.0629693	5.12	0.000	.1991986	.4460338
occfem_4110	-.012027	.0191568	-0.63	0.530	-.0495738	.0255197
occfem_4120	-.0278152	.0373244	-0.75	0.456	-.1009696	.0453393
occfem_4130	-.0456074	.0344453	-1.32	0.185	-.1131189	.0219041
occfem_4140	.1679055	.0446413	3.76	0.000	.0804101	.2554009
occfem_4150	-.084566	.0657611	-1.29	0.198	-.2134556	.0443236
occfem_4200	-.1390309	.0276629	-5.03	0.000	-.1932493	-.0848125
occfem_4210	-.0851494	.0683611	-1.25	0.213	-.2191349	.048836
occfem_4220	-.10301	.0178329	-5.78	0.000	-.1379618	-.0680582
occfem_4240	.1005127	.0814587	1.23	0.217	-.0591437	.2601691
occfem_4250	.1122345	.0303647	3.70	0.000	.0527207	.1717483
occfem_4300	.0462561	.0438128	1.06	0.291	-.0396156	.1321278
occfem_4320	-.0649706	.0369138	-1.76	0.078	-.1373204	.0073793
occfem_4340	-.0710524	.0673226	-1.06	0.291	-.2030024	.0608977
occfem_4350	.184291	.0355969	5.18	0.000	.1145223	.2540597
occfem_4400	.0839129	.0350692	2.39	0.017	.0151783	.1526474
occfem_4410	-.0392373	.2738144	-0.14	0.886	-.5759041	.4974296

Table A.3 continued

occfem_4420	.0789921	.1259796	0.63	0.531	-.1679237	.3259078
occfem_4430	.2316519	.0425309	5.45	0.000	.1482928	.315011
occfem_4460	.0370801	.1232093	0.30	0.763	-.204406	.2785662
occfem_4465	-.0526297	.0618382	-0.85	0.395	-.1738305	.0685712
occfem_4500	.0797304	.051854	1.54	0.124	-.0219017	.1813625
occfem_4510	.0517205	.0276657	1.87	0.062	-.0025033	.1059443
occfem_4520	.171723	.0350726	4.90	0.000	.1029819	.2404641
occfem_4530	.0443848	.053748	0.83	0.409	-.0609594	.1497289
occfem_4540	.1381195	.0808964	1.71	0.088	-.0204347	.2966738
occfem_4600	-.05816	.0334973	-1.74	0.083	-.1238136	.0074936
occfem_4610	.0842079	.0213807	3.94	0.000	.0423025	.1261133
occfem_4620	-.0639693	.0291053	-2.20	0.028	-.1210146	-.0069239
occfem_4640	.1418407	.0539517	2.63	0.009	.0360972	.2475841
occfem_4700	-.0209046	.0166268	-1.26	0.209	-.0534926	.0116835
occfem_4710	.0864042	.0191168	4.52	0.000	.048936	.1238725
occfem_4720	.0276081	.0184141	1.50	0.134	-.0084828	.0636991
occfem_4740	-.0583896	.0436847	-1.34	0.181	-.1440102	.027231
occfem_4750	.0115462	.0427812	0.27	0.787	-.0723036	.0953959
occfem_4760	-.0353984	.0173247	-2.04	0.041	-.0693542	-.0014426
occfem_4800	.0389908	.0333622	1.17	0.243	-.0263979	.1043795
occfem_4810	.0107837	.0230463	0.47	0.640	-.0343863	.0559537
occfem_4820	.0917665	.0331025	2.77	0.006	.0268866	.1566463
occfem_4830	.0555649	.0567475	0.98	0.328	-.0556583	.1667882
occfem_4840	-.0003223	.0220532	-0.01	0.988	-.0435458	.0429013
occfem_4850	.0130239	.0192702	0.68	0.499	-.024745	.0507928
occfem_4900	.0152488	.0936006	0.16	0.871	-.1682052	.1987028
occfem_4920	-.0583255	.0242362	-2.41	0.016	-.1058276	-.0108234
occfem_4940	.0267826	.0436208	0.61	0.539	-.0587128	.1122779
occfem_4950	.110285	.0483564	2.28	0.023	.0155081	.205062
occfem_5000	.0625247	.0178466	3.50	0.000	.027546	.0975035
occfem_5010	-.0952533	.0759144	-1.25	0.210	-.244043	.0535363
occfem_5020	.0904537	.0597835	1.51	0.130	-.0267199	.2076273
occfem_5100	.121593	.0282913	4.30	0.000	.066143	.177043
occfem_5110	.0678042	.0278379	2.44	0.015	.0132428	.1223656
occfem_5120	.0540405	.0212046	2.55	0.011	.0124803	.0956007
occfem_5130	.4019643	.1021645	3.93	0.000	.2017253	.6022032
occfem_5140	.1305479	.0396709	3.29	0.001	.0527943	.2083015
occfem_5150	.0878844	.0548963	1.60	0.109	-.0197103	.1954792
occfem_5160	.0511515	.0311852	1.64	0.101	-.0099703	.1122734
occfem_5200	.0292228	.1569673	0.19	0.852	-.2784277	.3368734

Table A.3 continued

occfem_5220	.0885431	.0476052	1.86	0.063	-.0047614	.1818477
occfem_5230	-.0112979	.0625265	-0.18	0.857	-.1338478	.111252
occfem_5240	.09956	.0172177	5.78	0.000	.0658139	.133306
occfem_5250	.0525129	.0562399	0.93	0.350	-.0577153	.1627411
occfem_5260	.0774326	.0281078	2.75	0.006	.0223422	.1325229
occfem_5300	.0740787	.0340328	2.18	0.030	.0073757	.1407818
occfem_5310	-.0024123	.0431523	-0.06	0.955	-.0869894	.0821648
occfem_5320	.214404	.0763302	2.81	0.005	.0647994	.3640086
occfem_5330	.1254891	.0372472	3.37	0.001	.0524858	.1984923
occfem_5340	-.0679236	.0914125	-0.74	0.457	-.2470889	.1112417
occfem_5350	.1182088	.0307875	3.84	0.000	.0578664	.1785511
occfem_5360	.0820735	.0541882	1.51	0.130	-.0241335	.1882806
occfem_5400	.0743705	.0237241	3.13	0.002	.0278722	.1208689
occfem_5410	.0370015	.0333317	1.11	0.267	-.0283274	.1023305
occfem_5500	.0866674	.0696136	1.24	0.213	-.0497729	.2231077
occfem_5510	-.0064051	.0348712	-0.18	0.854	-.0747515	.0619413
occfem_5520	.047522	.0222451	2.14	0.033	.0039223	.0911217
occfem_5530	.0779408	.0676946	1.15	0.250	-.0547383	.2106198
occfem_5540	.125647	.0309028	4.07	0.000	.0650786	.1862153
occfem_5550	.0800559	.0217555	3.68	0.000	.0374158	.122696
occfem_5560	.117178	.036573	3.20	0.001	.0454962	.1888598
occfem_5600	-.1021634	.0234709	-4.35	0.000	-.1481656	-.0561613
occfem_5610	.0801112	.0200069	4.00	0.000	.0408984	.1193241
occfem_5620	.0992627	.0182014	5.45	0.000	.0635886	.1349368
occfem_5630	-.0585805	.0355489	-1.65	0.099	-.1282551	.0110942
occfem_5700	.0733488	.0206707	3.55	0.000	.0328349	.1138628
occfem_5800	-.0418657	.0343023	-1.22	0.222	-.109097	.0253656
occfem_5810	.0364743	.0253909	1.44	0.151	-.013291	.0862396
occfem_5820	.0818211	.0287442	2.85	0.004	.0254834	.1381588
occfem_5840	.1126016	.0271579	4.15	0.000	.0593731	.1658301
occfem_5850	.0351087	.037077	0.95	0.344	-.037561	.1077783
occfem_5860	.0810543	.0204377	3.97	0.000	.0409971	.1211115
occfem_5900	.0850697	.0548615	1.55	0.121	-.0224569	.1925964
occfem_5910	-.1554918	.1694954	-0.92	0.359	-.4876971	.1767134
occfem_5920	.0626531	.0698082	0.90	0.369	-.0741687	.1994748
occfem_5940	.0325205	.0221433	1.47	0.142	-.0108796	.0759206
occfem_6005	-.1505387	.064501	-2.33	0.020	-.2769586	-.0241189
occfem_6010	.0640505	.0871556	0.73	0.462	-.1067716	.2348725
occfem_6040	-.2268905	.0599209	-3.79	0.000	-.3443335	-.1094475
occfem_6050	-.1635449	.0254292	-6.43	0.000	-.2133853	-.1137044

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Table A.3 continued

occfem_6100	-.3379473	.1526983	-2.21	0.027	-.6372308	-.0386637
occfem_6120	-.107041	.1436226	-0.75	0.456	-.3885364	.1744544
occfem_6130	-.0478323	.1393178	-0.34	0.731	-.3208904	.2252258
occfem_6200	-.0381518	.0373564	-1.02	0.307	-.111369	.0350654
occfem_6220	-.00028	.1496674	-0.00	0.999	-.293623	.2930629
occfem_6230	-.0202828	.0462246	-0.44	0.661	-.1108814	.0703158
occfem_6240	-.0791302	.1637581	-0.48	0.629	-.4000906	.2418302
occfem_6260	.0193369	.0314312	0.62	0.538	-.0422671	.080941
occfem_6320	.0762944	.0578888	1.32	0.188	-.0371658	.1897545
occfem_6330	-1.345527	.0981295	-13.71	0.000	-1.537857	-1.153196
occfem_6355	-.029818	.0390606	-0.76	0.445	-.1063754	.0467394
occfem_6400	-.1199506	.1447298	-0.83	0.407	-.4036161	.163715
occfem_6420	.02286	.0434273	0.53	0.599	-.062256	.107976
occfem_6440	-.1558217	.0525449	-2.97	0.003	-.2588078	-.0528356
occfem_6515	-.0278726	.1298416	-0.21	0.830	-.2823578	.2266126
occfem_6520	-.0121809	.0619793	-0.20	0.844	-.1336583	.1092964
occfem_6530	.010865	.1168976	0.09	0.926	-.2182502	.2399803
occfem_6600	.133898	.1247195	1.07	0.283	-.110548	.3783441
occfem_6660	-.0599219	.0563448	-1.06	0.288	-.1703558	.050512
occfem_6720	-.0106968	.0741751	-0.14	0.885	-.1560774	.1346839
occfem_6730	.0626181	.0758368	0.83	0.409	-.0860194	.2112555
occfem_6765	.0359921	.1102654	0.33	0.744	-.1801244	.2521086
occfem_6830	.0277868	.1142988	0.24	0.808	-.196235	.2518087
occfem_6840	.108974	.0874509	1.25	0.213	-.0624268	.2803748
occfem_6940	.1251447	.0933485	1.34	0.180	-.0578152	.3081047
occfem_7000	.0902907	.0343749	2.63	0.009	.022917	.1576644
occfem_7010	.1444592	.0344349	4.20	0.000	.0769679	.2119505
occfem_7020	.0992137	.0401834	2.47	0.014	.0204556	.1779719
occfem_7030	.1246229	.0864643	1.44	0.149	-.0448442	.29409
occfem_7040	.0070418	.1068345	0.07	0.947	-.2023503	.2164339
occfem_7100	-.1940241	.1014619	-1.91	0.056	-.3928859	.0048378
occfem_7120	-.2749836	.1205153	-2.28	0.023	-.5111894	-.0387778
occfem_7130	.0024338	.1201482	0.02	0.984	-.2330526	.2379203
occfem_7140	.0394395	.0439657	0.90	0.370	-.0467319	.1256108
occfem_7150	.0065728	.0956198	0.07	0.945	-.1808388	.1939843
occfem_7200	.1168447	.0437228	2.67	0.008	.0311496	.2025398
occfem_7210	.0910284	.0695003	1.31	0.190	-.0451898	.2272467
occfem_7220	-.0021015	.0896994	-0.02	0.981	-.1779093	.1737063
occfem_7260	.0990746	.1829067	0.54	0.588	-.2594164	.4575656
occfem_7300	.2283986	.1141758	2.00	0.045	.0046179	.4521792

Table A.3 continued

occfem_7315	.1830944	.0737928	2.48	0.013	.0384631	.3277257
occfem_7330	.0382442	.0403015	0.95	0.343	-.0407454	.1172338
occfem_7340	.0629351	.0354992	1.77	0.076	-.0066422	.1325124
occfem_7350	.0891031	.1276919	0.70	0.485	-.1611687	.3393749
occfem_7360	-.1846391	.1344225	-1.37	0.170	-.4481027	.0788245
occfem_7410	.1332441	.1085791	1.23	0.220	-.0795672	.3460554
occfem_7420	.1788572	.0536998	3.33	0.001	.0736074	.2841069
occfem_7430	-.0774985	.0581882	-1.33	0.183	-.1915454	.0365485
occfem_7510	.0360906	.0721053	0.50	0.617	-.1052333	.1774145
occfem_7540	-.2336659	.1323075	-1.77	0.077	-.4929841	.0256522
occfem_7610	.2281404	.1251742	1.82	0.068	-.0171967	.4734776
occfem_7630	.0669848	.0461754	1.45	0.147	-.0235174	.1574871
occfem_7700	-.0821116	.0193921	-4.23	0.000	-.1201194	-.0441039
occfem_7710	-.1917278	.1146097	-1.67	0.094	-.416359	.0329033
occfem_7720	-.0068265	.0283725	-0.24	0.810	-.0624355	.0487826
occfem_7730	.0364002	.108512	0.34	0.737	-.1762797	.2490801
occfem_7740	.3175358	.1401671	2.27	0.023	.042813	.5922587
occfem_7750	-.0081796	.0182115	-0.45	0.653	-.0438735	.0275144
occfem_7800	.0575642	.0295066	1.95	0.051	-.0002677	.1153962
occfem_7810	-.0520983	.02914	-1.79	0.074	-.1092118	.0050151
occfem_7830	.08755	.1114523	0.79	0.432	-.1308927	.3059927
occfem_7840	-.0816058	.0377743	-2.16	0.031	-.1556421	-.0075694
occfem_7850	.0376883	.1071964	0.35	0.725	-.1724129	.2477896
occfem_7900	-.0332184	.0510135	-0.65	0.515	-.1332032	.0667663
occfem_7920	-.1111498	.096486	-1.15	0.249	-.3002589	.0779594
occfem_7940	-.1926009	.1061321	-1.81	0.070	-.4006162	.0154144
occfem_7950	-.0139975	.0329218	-0.43	0.671	-.0785231	.0505282
occfem_8030	-.0989556	.0380273	-2.60	0.009	-.1734878	-.0244234
occfem_8040	.0853975	.1157947	0.74	0.461	-.1415562	.3123511
occfem_8100	-.1185927	.0532795	-2.23	0.026	-.2230188	-.0141666
occfem_8130	.1735149	.1142581	1.52	0.129	-.0504271	.3974568
occfem_8140	-.1372739	.0282857	-4.85	0.000	-.1927129	-.0818349
occfem_8220	-.0605176	.0226786	-2.67	0.008	-.1049669	-.0160683
occfem_8250	-.065656	.0542184	-1.21	0.226	-.1719222	.0406102
occfem_8255	-.10859	.0303638	-3.58	0.000	-.168102	-.0490781
occfem_8256	-.1053706	.0642729	-1.64	0.101	-.2313433	.0206021
occfem_8300	.0207367	.0320371	0.65	0.517	-.0420549	.0835283
occfem_8310	-.0175466	.0573626	-0.31	0.760	-.1299753	.0948821
occfem_8320	.1580036	.0336519	4.70	0.000	.092047	.2239601
occfem_8330	-.0072649	.1009382	-0.07	0.943	-.2051003	.1905704

Table A.3 continued

occfem_8350 |	-.092923	.0616293	-1.51	0.132	-.2137143	.0278682
occfem_8400 |	-.150368	.1333609	-1.13	0.260	-.4117508	.1110148
occfem_8410 |	-.0201438	.1145169	-0.18	0.860	-.244593	.2043054
occfem_8420 |	.0316442	.0913575	0.35	0.729	-.1474135	.2107019
occfem_8450 |	.0297505	.0776193	0.38	0.702	-.1223806	.1818816
occfem_8460 |	-.0472255	.0751206	-0.63	0.530	-.1944594	.1000083
occfem_8500 |	.0332128	.0917912	0.36	0.717	-.1466948	.2131205
occfem_8510 |	.0343768	.110215	0.31	0.755	-.1816409	.2503945
occfem_8530 |	.0786706	.0886631	0.89	0.375	-.095106	.2524471
occfem_8540 |	.0965876	.0912212	1.06	0.290	-.0822028	.2753779
occfem_8550 |	-.2548968	.126676	-2.01	0.044	-.5031774	-.0066161
occfem_8600 |	-.0362219	.0790285	-0.46	0.647	-.191115	.1186712
occfem_8610 |	-.2073527	.0800486	-2.59	0.010	-.3642452	-.0504602
occfem_8620 |	.082176	.0649276	1.27	0.206	-.0450798	.2094319
occfem_8630 |	-.2900373	.084863	-3.42	0.001	-.4563659	-.1237088
occfem_8640 |	-.0986113	.0663666	-1.49	0.137	-.2286877	.031465
occfem_8650 |	.0487039	.0481944	1.01	0.312	-.0457555	.1431633
occfem_8710 |	-.0154834	.0487722	-0.32	0.751	-.1110753	.0801086
occfem_8720 |	.0316405	.063469	0.50	0.618	-.0927565	.1560376
occfem_8730 |	-.0509994	.1281593	-0.40	0.691	-.3021873	.2001885
occfem_8740 |	-.1188454	.018992	-6.26	0.000	-.1560691	-.0816217
occfem_8750 |	.1555793	.0685988	2.27	0.023	.021128	.2900307
occfem_8760 |	-.0180669	.0362156	-0.50	0.618	-.0890482	.0529144
occfem_8800 |	-.0076909	.0252274	-0.30	0.760	-.0571357	.041754
occfem_8810 |	-.0357922	.040122	-0.89	0.372	-.1144299	.0428455
occfem_8830 |	-.0705725	.0585342	-1.21	0.228	-.1852976	.0441525
occfem_8850 |	-.1776181	.0979477	-1.81	0.070	-.3695923	.014356
occfem_8910 |	-.1137944	.1138214	-1.00	0.317	-.3368804	.1092916
occfem_8920 |	-.0924444	.1031743	-0.90	0.370	-.2946626	.1097738
occfem_8930 |	-.2950428	.0651276	-4.53	0.000	-.4226907	-.167395
occfem_8940 |	.0894399	.107931	0.83	0.407	-.1221013	.300981
occfem_8950 |	.0188101	.0729387	0.26	0.796	-.1241473	.1617675
occfem_8965 |	-.0715551	.0182776	-3.91	0.000	-.1073785	-.0357316
occfem_9000 |	-.0854477	.0291409	-2.93	0.003	-.1425629	-.0283325
occfem_9030 |	-.3280319	.1040183	-3.15	0.002	-.5319043	-.1241595
occfem_9040 |	-.0570147	.0568968	-1.00	0.316	-.1685305	.0545011
occfem_9050 |	-.0759466	.0506966	-1.50	0.134	-.1753101	.023417
occfem_9110 |	-.0222547	.0873422	-0.25	0.799	-.1934424	.1489329
occfem_9120 |	-.0738462	.0219847	-3.36	0.001	-.1169355	-.0307569
occfem_9130 |	-.0511769	.019674	-2.60	0.009	-.0897373	-.0126164

Table A.3 continued

occfem_9140	.0597993	.033767	1.77	0.077	-.0063828	.1259814
occfem_9200	.0174301	.0847005	0.21	0.837	-.14858	.1834401
occfem_9240	-.0131265	.0876036	-0.15	0.881	-.1848266	.1585736
occfem_9260	.0818764	.108653	0.75	0.451	-.1310799	.2948326
occfem_9300	-.168307	.1019897	-1.65	0.099	-.3682035	.0315894
occfem_9310	-.177439	.1157941	-1.53	0.125	-.4043915	.0495136
occfem_9350	.170797	.0710298	2.40	0.016	.031581	.3100129
occfem_9360	-.0074969	.0465607	-0.16	0.872	-.0987542	.0837605
occfem_9410	-.1689135	.0595878	-2.83	0.005	-.2857035	-.0521235
occfem_9415	-.0737117	.0799391	-0.92	0.356	-.2303896	.0829662
occfem_9420	.1808111	.0855282	2.11	0.035	.0131788	.3484435
occfem_9510	.1677502	.1116652	1.50	0.133	-.0511098	.3866101
occfem_9560	.1170708	.1121546	1.04	0.297	-.1027483	.3368899
occfem_9600	.1577461	.0270347	5.83	0.000	.1047591	.2107331
occfem_9610	.085681	.0335257	2.56	0.011	.0199718	.1513903
occfem_9620	.0059837	.0182049	0.33	0.742	-.0296974	.0416647
occfem_9630	-.0948096	.0636032	-1.49	0.136	-.2194696	.0298505
occfem_9640	.0250054	.0232224	1.08	0.282	-.0205097	.0705204
occfem_9650	-.1119759	.1351775	-0.83	0.407	-.3769193	.1529674
occfem_9720	-.075156	.0603097	-1.25	0.213	-.1933608	.0430489
occfem_9750	-.0682144	.0635814	-1.07	0.283	-.1928317	.056403
occhrs_10	-.0459926	.0630945	-0.73	0.466	-.1696557	.0776704
occhrs_20	.00338	.0600816	0.06	0.955	-.1143778	.1211379
occhrs_40	.4997484	.2536879	1.97	0.049	.0025288	.996968
occhrs_50	.5837994	.0676922	8.62	0.000	.4511249	.7164739
occhrs_60	.1188059	.29516	0.40	0.687	-.4596976	.6973094
occhrs_100	.296757	.1015231	2.92	0.003	.0977752	.4957387
occhrs_110	.2655056	.0785057	3.38	0.001	.1116372	.419374
occhrs_120	.7348605	.0671965	10.94	0.000	.6031576	.8665634
occhrs_136	.2820096	.0772701	3.65	0.000	.1305628	.4334565
occhrs_137	-.2564268	.1440509	-1.78	0.075	-.5387616	.0259079
occhrs_140	.1584185	.0824732	1.92	0.055	-.0032263	.3200632
occhrs_150	.3410211	.1101934	3.09	0.002	.1250458	.5569963
occhrs_160	.3017794	.0795442	3.79	0.000	.1458755	.4576834
occhrs_205	-.3689718	.0615936	-5.99	0.000	-.489693	-.2482505
occhrs_220	.0047641	.064777	0.07	0.941	-.1221966	.1317248
occhrs_230	.0281836	.0896256	0.31	0.753	-.1474795	.2038468
occhrs_300	.1941925	.1438869	1.35	0.177	-.087821	.4762059
occhrs_310	.2003154	.0585981	3.42	0.001	.0854652	.3151656
occhrs_330	.0698889	.2109095	0.33	0.740	-.3434865	.4832643

Table A.3 continued

occhrs_340	-.0356677	.1012096	-0.35	0.725	-.2340351	.1626997
occhrs_350	.1864536	.0745458	2.50	0.012	.0403464	.3325608
occhrs_410	.1761513	.0759354	2.32	0.020	.0273204	.3249821
occhrs_420	-.0337205	.0925455	-0.36	0.716	-.2151065	.1476654
occhrs_425	-.3580477	.2521218	-1.42	0.156	-.8521978	.1361024
occhrs_430	.0958377	.0553879	1.73	0.084	-.0127208	.2043962
occhrs_500	.1141327	.2385915	0.48	0.632	-.3534984	.5817639
occhrs_510	.7231158	.4079192	1.77	0.076	-.076392	1.522624
occhrs_520	.6723811	.1024405	6.56	0.000	.4716013	.8731609
occhrs_530	.2275898	.1016059	2.24	0.025	.0284457	.426734
occhrs_540	-.0119852	.0950136	-0.13	0.900	-.1982086	.1742383
occhrs_565	.4703186	.1068436	4.40	0.000	.2609087	.6797285
occhrs_600	.160105	.1089022	1.47	0.142	-.0533395	.3735495
occhrs_630	.2471288	.0730997	3.38	0.001	.1038558	.3904019
occhrs_640	.2188346	.2123201	1.03	0.303	-.1973056	.6349748
occhrs_650	.0676565	.1189897	0.57	0.570	-.1655593	.3008724
occhrs_700	.1614456	.1007676	1.60	0.109	-.0360556	.3589467
occhrs_710	.2592641	.0821575	3.16	0.002	.0982383	.42029
occhrs_725	.4404763	.1642997	2.68	0.007	.1184544	.7624982
occhrs_726	.5493121	.2409164	2.28	0.023	.0771241	1.0215
occhrs_735	.7502879	.1299541	5.77	0.000	.4955822	1.004994
occhrs_740	.3268642	.1068425	3.06	0.002	.1174565	.5362719
occhrs_800	.3335535	.0749619	4.45	0.000	.1866307	.4804763
occhrs_810	.1034327	.1476703	0.70	0.484	-.1859961	.3928615
occhrs_820	.1886168	.3123575	0.60	0.546	-.4235932	.8008268
occhrs_830	.0263219	.4991679	0.05	0.958	-.9520303	1.004674
occhrs_840	.1019215	.2887863	0.35	0.724	-.4640898	.6679328
occhrs_850	.4841486	.1276351	3.79	0.000	.2339882	.7343091
occhrs_860	.5631504	.1542562	3.65	0.000	.2608134	.8654873
occhrs_900	-.3200002	.5937316	-0.54	0.590	-1.483694	.8436935
occhrs_910	.8783799	.0973195	9.03	0.000	.6876369	1.069123
occhrs_930	.1172417	.2488254	0.47	0.638	-.3704477	.6049311
occhrs_940	-.0268326	.2024878	-0.13	0.895	-.4237018	.3700366
occhrs_950	.172083	.1563893	1.10	0.271	-.1344346	.4786007
occhrs_1006	.1285056	.0935678	1.37	0.170	-.0548842	.3118954
occhrs_1007	.2730762	.1929012	1.42	0.157	-.1050035	.6511559
occhrs_1010	.0674945	.0975252	0.69	0.489	-.1236515	.2586406
occhrs_1020	.1178376	.081468	1.45	0.148	-.0418368	.277512
occhrs_1030	-.0757298	.1291187	-0.59	0.558	-.3287981	.1773386
occhrs_1050	.4829138	.0780138	6.19	0.000	.3300093	.6358182

Table A.3 continued

occhrs_1060	.6925393	.1701781	4.07	0.000	.3589961	1.026083
occhrs_1105	-.1797375	.0968154	-1.86	0.063	-.3694925	.0100175
occhrs_1106	.2587833	.1190789	2.17	0.030	.0253928	.4921739
occhrs_1107	.2597082	.0813662	3.19	0.001	.1002331	.4191832
occhrs_1220	.1018906	.1824617	0.56	0.577	-.2557281	.4595093
occhrs_1300	.1981318	.1840189	1.08	0.282	-.162539	.5588026
occhrs_1310	-.2472999	.2640824	-0.94	0.349	-.7648924	.2702925
occhrs_1320	-.5542256	.209753	-2.64	0.008	-.9653344	-.1431168
occhrs_1350	.0084836	.3026694	0.03	0.978	-.5847381	.6017054
occhrs_1360	-.0380282	.1206609	-0.32	0.753	-.2745194	.198463
occhrs_1400	.2199328	.1894728	1.16	0.246	-.1514273	.591293
occhrs_1410	.4341892	.1398694	3.10	0.002	.16005	.7083285
occhrs_1430	.0480051	.1164694	0.41	0.680	-.1802709	.2762812
occhrs_1450	-.2654445	.3052714	-0.87	0.385	-.863766	.332877
occhrs_1460	.0599478	.1167959	0.51	0.608	-.1689681	.2888637
occhrs_1530	.0683344	.1001414	0.68	0.495	-.1279394	.2646082
occhrs_1540	.2185655	.1131868	1.93	0.053	-.0032766	.4404077
occhrs_1550	.1813244	.0687285	2.64	0.008	.046619	.3160299
occhrs_1560	.2895773	.1182888	2.45	0.014	.0577353	.5214192
occhrs_1600	.0592369	.3903773	0.15	0.879	-.7058893	.8243632
occhrs_1860	.8652472	.2840723	3.05	0.002	.3084751	1.422019
occhrs_1900	.1582627	.176223	0.90	0.369	-.1871284	.5036537
occhrs_1910	-.1693308	.263754	-0.64	0.521	-.6862797	.347618
occhrs_1920	.1576902	.1439258	1.10	0.273	-.1243995	.4397799
occhrs_1930	-.0909851	.1418891	-0.64	0.521	-.369083	.1871127
occhrs_1965	.3194192	.1204756	2.65	0.008	.0832911	.5555473
occhrs_2000	-.0035261	.1014682	-0.03	0.972	-.2024004	.1953482
occhrs_2010	.0670437	.0938496	0.71	0.475	-.1168984	.2509857
occhrs_2015	.0617062	.2578732	0.24	0.811	-.4437166	.5671289
occhrs_2016	-.0176743	.1278585	-0.14	0.890	-.2682726	.2329239
occhrs_2025	.5468397	.1593693	3.43	0.001	.2344814	.8591981
occhrs_2040	-.3124869	.0923393	-3.38	0.001	-.4934689	-.131505
occhrs_2050	-.3255787	.2042208	-1.59	0.111	-.7258444	.0746871
occhrs_2145	.0008181	.0981261	0.01	0.993	-.1915057	.1931419
occhrs_2160	.1414539	.1181846	1.20	0.231	-.0901839	.3730917
occhrs_2300	.0608372	.0956189	0.64	0.525	-.1265726	.2482471
occhrs_2330	.0762706	.2065184	0.37	0.712	-.3284985	.4810396
occhrs_2340	.2679515	.0708782	3.78	0.000	.1290327	.4068703
occhrs_2400	.4345271	.3191878	1.36	0.173	-.1910702	1.060124
occhrs_2430	.2605447	.3596128	0.72	0.469	-.4442842	.9653736

Table A.3 continued

occhrs_2440	.1260268	.3222405	0.39	0.696	-.5055536	.7576071
occhrs_2540	.1922775	.072449	2.65	0.008	.05028	.3342751
occhrs_2550	-.0730751	.1348765	-0.54	0.588	-.3374284	.1912781
occhrs_2600	.1508216	.121965	1.24	0.216	-.0882257	.389869
occhrs_2630	.1172435	.0747564	1.57	0.117	-.0292765	.2637635
occhrs_2700	.1462029	.3714227	0.39	0.694	-.581773	.8741788
occhrs_2710	.2159796	.1256063	1.72	0.086	-.0302046	.4621637
occhrs_2720	.3531045	.1095937	3.22	0.001	.1383046	.5679043
occhrs_2740	.1926066	.3326138	0.58	0.563	-.4593051	.8445184
occhrs_2750	.133021	.1577968	0.84	0.399	-.1762553	.4422973
occhrs_2800	-.1922881	.1792246	-1.07	0.283	-.5435622	.158986
occhrs_2810	.7168554	.2536239	2.83	0.005	.2197612	1.21395
occhrs_2825	.0225781	.1935968	0.12	0.907	-.356865	.4020213
occhrs_2830	.2423055	.1680044	1.44	0.149	-.0869775	.5715884
occhrs_2840	.4923455	.261124	1.89	0.059	-.0194486	1.00414
occhrs_2850	-.3419277	.1961189	-1.74	0.081	-.7263141	.0424587
occhrs_2860	.449577	.1740392	2.58	0.010	.1084662	.7906879
occhrs_2900	-.106334	.1076139	-0.99	0.323	-.3172536	.1045856
occhrs_2910	.343152	.1242511	2.76	0.006	.099624	.58668
occhrs_2920	.3937344	.190928	2.06	0.039	.0195221	.7679467
occhrs_3030	.2555984	.2223929	1.15	0.250	-.180284	.6914809
occhrs_3110	.3813884	.2016558	1.89	0.059	-.0138501	.7766269
occhrs_3200	.3882135	.540591	0.72	0.473	-.6713266	1.447753
occhrs_3220	-.0027635	.1068438	-0.03	0.979	-.2121738	.2066467
occhrs_3245	.1303273	.2940221	0.44	0.658	-.445946	.7066006
occhrs_3255	-.1447951	.058891	-2.46	0.014	-.2602194	-.0293708
occhrs_3300	.0605294	.0996045	0.61	0.543	-.134692	.2557508
occhrs_3310	-.5518328	.172602	-3.20	0.001	-.8901268	-.2135388
occhrs_3320	.0765314	.0846083	0.90	0.366	-.0892981	.2423608
occhrs_3400	-.0454157	.0635832	-0.71	0.475	-.1700366	.0792052
occhrs_3420	.389694	.0771757	5.05	0.000	.2384322	.5409558
occhrs_3500	.0154534	.0647009	0.24	0.811	-.1113582	.142265
occhrs_3510	.2795833	.1460419	1.91	0.056	-.0066538	.5658204
occhrs_3520	.354536	.1962697	1.81	0.071	-.0301458	.7392179
occhrs_3535	.2374819	.1205796	1.97	0.049	.00115	.4738138
occhrs_3540	.1072772	.1361588	0.79	0.431	-.1595894	.3741438
occhrs_3600	-.0966394	.0573049	-1.69	0.092	-.2089551	.0156762
occhrs_3610	.0507651	.4018968	0.13	0.899	-.7369388	.8384691
occhrs_3620	-.2383482	.1812199	-1.32	0.188	-.593533	.1168367
occhrs_3630	-.3671496	.131849	-2.78	0.005	-.6255691	-.1087301

Table A.3 continued

occhrs_3640	-.2182997	.1023071	-2.13	0.033	-.4188182	-.0177813
occhrs_3645	-.0718479	.0795299	-0.90	0.366	-.2277237	.084028
occhrs_3647	.5105967	.2605193	1.96	0.050	-.0000122	1.021206
occhrs_3648	.7030797	.2473332	2.84	0.004	.2183151	1.187844
occhrs_3649	.0749499	.1275125	0.59	0.557	-.1749703	.3248701
occhrs_3655	.2809488	.1193241	2.35	0.019	.0470777	.5148199
occhrs_3700	-.707819	.1214011	-5.83	0.000	-.9457611	-.4698769
occhrs_3710	-.0895165	.1055605	-0.85	0.396	-.2964115	.1173786
occhrs_3720	-.1868349	.0945472	-1.98	0.048	-.3721443	-.0015256
occhrs_3740	-.2049641	.0595205	-3.44	0.001	-.3216223	-.0883059
occhrs_3750	.2000564	.2039032	0.98	0.327	-.1995871	.5996998
occhrs_3800	-.3282255	.0666885	-4.92	0.000	-.4589326	-.1975184
occhrs_3820	.1028252	.11008	0.93	0.350	-.1129279	.3185783
occhrs_3840	-.6946509	.3555495	-1.95	0.051	-1.391516	.0022141
occhrs_3850	-.2313378	.0610916	-3.79	0.000	-.3510752	-.1116004
occhrs_3900	.09384	.3824995	0.25	0.806	-.6558459	.843526
occhrs_3910	.362463	.1638094	2.21	0.027	.041402	.6835239
occhrs_3930	.3606347	.0645961	5.58	0.000	.2340286	.4872409
occhrs_3940	.6318063	.2727342	2.32	0.021	.0972566	1.166356
occhrs_3945	.4684302	.2944978	1.59	0.112	-.1087754	1.045636
occhrs_3955	.1093652	.1843382	0.59	0.553	-.2519313	.4706617
occhrs_4000	.3963835	.0639458	6.20	0.000	.2710519	.521715
occhrs_4010	.4264306	.06587	6.47	0.000	.2973276	.5555335
occhrs_4020	.1619614	.0592869	2.73	0.006	.0457611	.2781617
occhrs_4030	.1011342	.0804086	1.26	0.208	-.0564638	.2587323
occhrs_4040	-.244307	.0835485	-2.92	0.003	-.4080592	-.0805548
occhrs_4050	.2801456	.1151535	2.43	0.015	.0544487	.5058425
occhrs_4060	-.452901	.2017396	-2.24	0.025	-.8483038	-.0574983
occhrs_4110	-.0797216	.0644522	-1.24	0.216	-.2060456	.0466024
occhrs_4120	.0361255	.1507584	0.24	0.811	-.2593558	.3316069
occhrs_4130	.0005357	.1260512	0.00	0.997	-.2465203	.2475917
occhrs_4140	.2803458	.1369742	2.05	0.041	.011881	.5488107
occhrs_4150	-.2096722	.201511	-1.04	0.298	-.6046269	.1852824
occhrs_4200	.2621094	.084749	3.09	0.002	.0960042	.4282146
occhrs_4210	.068336	.0901299	0.76	0.448	-.1083156	.2449875
occhrs_4220	.2446693	.0601206	4.07	0.000	.1268349	.3625037
occhrs_4240	.0731235	.1199327	0.61	0.542	-.1619406	.3081876
occhrs_4250	.1011603	.0667964	1.51	0.130	-.0297584	.232079
occhrs_4300	-.1470158	.1423168	-1.03	0.302	-.4259518	.1319202
occhrs_4320	-.1111493	.1013695	-1.10	0.273	-.3098301	.0875315

Table A.3 continued

occhrs_4340	.2986201	.1633188	1.83	0.067	-.0214792	.6187194
occhrs_4350	.1515108	.109224	1.39	0.165	-.0625645	.3655862
occhrs_4400	-.1437587	.140815	-1.02	0.307	-.4197514	.132234
occhrs_4410	.973027	.5690648	1.71	0.087	-.1423206	2.088375
occhrs_4420	.935662	.5228837	1.79	0.074	-.0891722	1.960496
occhrs_4430	.6978764	.1504683	4.64	0.000	.4029636	.9927892
occhrs_4460	.5605781	.349943	1.60	0.109	-.1252982	1.246454
occhrs_4465	.3973928	.1628798	2.44	0.015	.0781539	.7166317
occhrs_4500	-.9078366	.128142	-7.08	0.000	-1.15899	-.6566827
occhrs_4510	.0883963	.0716871	1.23	0.218	-.052108	.2289006
occhrs_4520	-.3610594	.0838887	-4.30	0.000	-.5254785	-.1966404
occhrs_4530	.2419425	.1695344	1.43	0.154	-.0903392	.5742241
occhrs_4540	-.2364788	.2012186	-1.18	0.240	-.6308605	.1579028
occhrs_4600	-.2748437	.0675173	-4.07	0.000	-.4071753	-.1425121
occhrs_4610	-.0605042	.0596291	-1.01	0.310	-.1773753	.0563669
occhrs_4620	-.132593	.0991209	-1.34	0.181	-.3268666	.0616806
occhrs_4640	.1975055	.1325797	1.49	0.136	-.0623462	.4573573
occhrs_4700	.5548626	.0546701	10.15	0.000	.447711	.6620142
occhrs_4710	.1867288	.0597004	3.13	0.002	.069718	.3037396
occhrs_4720	.3464417	.0631007	5.49	0.000	.2227665	.470117
occhrs_4740	.3621915	.1378742	2.63	0.009	.0919627	.6324202
occhrs_4750	.4244929	.1125968	3.77	0.000	.203807	.6451788
occhrs_4760	.6143302	.057064	10.77	0.000	.5024867	.7261736
occhrs_4800	.5193411	.1193776	4.35	0.000	.2853651	.753317
occhrs_4810	.3824428	.0807509	4.74	0.000	.2241739	.5407118
occhrs_4820	.5945536	.1095366	5.43	0.000	.3798656	.8092416
occhrs_4830	-.2849415	.2028339	-1.40	0.160	-.6824889	.112606
occhrs_4840	.4993819	.0704428	7.09	0.000	.3613165	.6374473
occhrs_4850	.3748012	.0603595	6.21	0.000	.2564987	.4931038
occhrs_4900	.5527896	.2853393	1.94	0.053	-.0064657	1.112045
occhrs_4920	.3101192	.072104	4.30	0.000	.1687979	.4514405
occhrs_4940	.4794324	.1793576	2.67	0.008	.1278977	.8309672
occhrs_4950	-.1746147	.1310225	-1.33	0.183	-.4314142	.0821849
occhrs_5000	.2708702	.0604061	4.48	0.000	.1524764	.3892641
occhrs_5010	.4729848	.2796963	1.69	0.091	-.0752104	1.02118
occhrs_5020	.4161393	.2740266	1.52	0.129	-.1209436	.9532222
occhrs_5100	.0143372	.12607	0.11	0.909	-.2327557	.2614301
occhrs_5110	.067135	.0856006	0.78	0.433	-.1006393	.2349093
occhrs_5120	.2105958	.0670564	3.14	0.002	.0791675	.3420241
occhrs_5130	.3473911	.4985075	0.70	0.486	-.6296667	1.324449

Table A.3 continued

occhrs_5140	-.1883389	.111446	-1.69	0.091	-.4067693	.0300915
occhrs_5150	.2785512	.204535	1.36	0.173	-.1223305	.6794329
occhrs_5160	.452647	.1369695	3.30	0.001	.1841914	.7211027
occhrs_5200	1.242917	.7001168	1.78	0.076	-.1292879	2.615122
occhrs_5220	-.2990668	.1739392	-1.72	0.086	-.6399817	.0418482
occhrs_5230	.0162609	.228675	0.07	0.943	-.4319343	.4644562
occhrs_5240	.5523415	.0604416	9.14	0.000	.433878	.6708049
occhrs_5250	-.0538373	.2390563	-0.23	0.822	-.5223795	.4147048
occhrs_5260	-.0799258	.1080079	-0.74	0.459	-.2916177	.131766
occhrs_5300	.0715858	.1520473	0.47	0.638	-.2264217	.3695933
occhrs_5310	-.1035399	.1467827	-0.71	0.481	-.3912289	.1841492
occhrs_5320	.1811028	.2434331	0.74	0.457	-.2960179	.6582235
occhrs_5330	.415466	.129952	3.20	0.001	.1607644	.6701675
occhrs_5340	.9518534	.4556637	2.09	0.037	.058768	1.844939
occhrs_5350	.2525246	.1414238	1.79	0.074	-.0246611	.5297104
occhrs_5360	.1911997	.1673644	1.14	0.253	-.1368288	.5192282
occhrs_5400	.0094937	.0757156	0.13	0.900	-.1389062	.1578937
occhrs_5410	.3231264	.1149428	2.81	0.005	.0978425	.5484103
occhrs_5500	.1077513	.2279027	0.47	0.636	-.3389303	.5544328
occhrs_5510	.4489213	.0900266	4.99	0.000	.2724723	.6253703
occhrs_5520	.0909773	.0740141	1.23	0.219	-.0540878	.2360424
occhrs_5530	-.020952	.2466505	-0.08	0.932	-.5043784	.4624745
occhrs_5540	.091848	.1363662	0.67	0.501	-.1754252	.3591211
occhrs_5550	.1139069	.0816774	1.39	0.163	-.046178	.2739918
occhrs_5560	.0430301	.1572331	0.27	0.784	-.2651413	.3512016
occhrs_5600	.259648	.0830075	3.13	0.002	.0969563	.4223398
occhrs_5610	.3334804	.0716924	4.65	0.000	.1929658	.473995
occhrs_5620	.4516587	.0646663	6.98	0.000	.324915	.5784024
occhrs_5630	.3147077	.1176176	2.68	0.007	.0841812	.5452341
occhrs_5700	.0656833	.058391	1.12	0.261	-.048761	.1801276
occhrs_5800	.1369969	.1386975	0.99	0.323	-.1348455	.4088393
occhrs_5810	.0936628	.0972382	0.96	0.335	-.0969209	.2842464
occhrs_5820	.0222431	.0996058	0.22	0.823	-.172981	.2174671
occhrs_5840	.2117108	.0958982	2.21	0.027	.0237537	.3996679
occhrs_5850	.2334539	.1792073	1.30	0.193	-.1177862	.584694
occhrs_5860	.1103979	.0703245	1.57	0.116	-.0274356	.2482315
occhrs_5900	.0768533	.2593501	0.30	0.767	-.4314641	.5851706
occhrs_5910	1.238313	.5040532	2.46	0.014	.250386	2.22624
occhrs_5920	.5894834	.3254002	1.81	0.070	-.0482899	1.227257
occhrs_5940	.2938165	.0773562	3.80	0.000	.142201	.4454321

Table A.3 continued

occhrs_6005	.0150389	.1127837	0.13	0.894	-.2060134	.2360911
occhrs_6010	.3115769	.2762083	1.13	0.259	-.229782	.8529357
occhrs_6040	-.041269	.2073833	-0.20	0.842	-.4477331	.3651952
occhrs_6050	-.0958136	.0608959	-1.57	0.116	-.2151674	.0235402
occhrs_6100	-.2064503	.1172928	-1.76	0.078	-.4363402	.0234397
occhrs_6120	.5779497	.2861486	2.02	0.043	.0171082	1.138791
occhrs_6130	.3155726	.1124258	2.81	0.005	.0952218	.5359234
occhrs_6200	.3108439	.057745	5.38	0.000	.1976658	.4240221
occhrs_6220	-.0895947	.1150752	-0.78	0.436	-.3151382	.1359487
occhrs_6230	-.159987	.063766	-2.51	0.012	-.2849661	-.0350079
occhrs_6240	-.1491773	.1201678	-1.24	0.214	-.384702	.0863474
occhrs_6260	.1385808	.059922	2.31	0.021	.0211358	.2560258
occhrs_6320	.3147309	.0659918	4.77	0.000	.1853891	.4440726
occhrs_6330	-.3111547	.1502625	-2.07	0.038	-.6056641	-.0166453
occhrs_6355	.1149889	.0619676	1.86	0.064	-.0064656	.2364433
occhrs_6400	-.3850264	.178939	-2.15	0.031	-.7357408	-.0343119
occhrs_6420	.1811448	.0826463	2.19	0.028	.0191609	.3431287
occhrs_6440	.03997	.0656437	0.61	0.543	-.0886894	.1686295
occhrs_6515	-.1408188	.1084102	-1.30	0.194	-.3532992	.0716616
occhrs_6520	-.1321439	.1058906	-1.25	0.212	-.3396859	.0753982
occhrs_6530	-.0159643	.1290066	-0.12	0.902	-.2688128	.2368841
occhrs_6600	.2980137	.1797604	1.66	0.097	-.0543106	.650338
occhrs_6660	-.0020967	.1301178	-0.02	0.987	-.2571231	.2529296
occhrs_6720	.6742335	.1938324	3.48	0.001	.2943285	1.054138
occhrs_6730	.2216987	.1200775	1.85	0.065	-.0136492	.4570466
occhrs_6765	.0507462	.1414914	0.36	0.720	-.226572	.3280645
occhrs_6830	-.162849	.1351021	-1.21	0.228	-.4276445	.1019465
occhrs_6840	.1215845	.078887	1.54	0.123	-.0330314	.2762003
occhrs_6940	.1894713	.0711502	2.66	0.008	.0500193	.3289233
occhrs_7000	.2667808	.0684125	3.90	0.000	.1326947	.400867
occhrs_7010	.2361121	.0921156	2.56	0.010	.0555686	.4166556
occhrs_7020	-.1732521	.0876819	-1.98	0.048	-.3451057	-.0013984
occhrs_7030	-.3843594	.1459217	-2.63	0.008	-.6703609	-.0983578
occhrs_7040	-.05373	.1534703	-0.35	0.726	-.3545267	.2470666
occhrs_7100	-.4312597	.1306864	-3.30	0.001	-.6874006	-.1751188
occhrs_7120	-.0899516	.1430282	-0.63	0.529	-.3702821	.1903788
occhrs_7130	.0243615	.1441318	0.17	0.866	-.258132	.3068549
occhrs_7140	-.3549255	.0759848	-4.67	0.000	-.5038533	-.2059978
occhrs_7150	.3609142	.0955929	3.78	0.000	.1735555	.548273
occhrs_7200	.0452435	.0609653	0.74	0.458	-.0742464	.1647335

Table A.3 continued

occhrs_7210	.0977131	.0685925	1.42	0.154	-.0367259	.232152
occhrs_7220	.2853685	.0693904	4.11	0.000	.1493657	.4213712
occhrs_7260	.0716373	.133859	0.54	0.593	-.1907217	.3339964
occhrs_7300	.0178157	.2136158	0.08	0.934	-.4008639	.4364953
occhrs_7315	.1032	.0755028	1.37	0.172	-.0447829	.2511829
occhrs_7330	.3839697	.0665947	5.77	0.000	.2534464	.5144929
occhrs_7340	.1647097	.0647073	2.55	0.011	.0378857	.2915338
occhrs_7350	.3884674	.1510311	2.57	0.010	.0924516	.6844832
occhrs_7360	.0842427	.1101631	0.76	0.444	-.1316732	.3001586
occhrs_7410	.2690185	.0885716	3.04	0.002	.0954213	.4426158
occhrs_7420	-.2736772	.0885328	-3.09	0.002	-.4471984	-.100156
occhrs_7430	.1320654	.1313482	1.01	0.315	-.1253726	.3895035
occhrs_7510	-.0529265	.1676392	-0.32	0.752	-.3814936	.2756406
occhrs_7540	-.4300055	.1729411	-2.49	0.013	-.7689641	-.0910468
occhrs_7610	-.4206055	.2668654	-1.58	0.115	-.9436527	.1024417
occhrs_7630	.1904532	.0755194	2.52	0.012	.0424379	.3384686
occhrs_7700	.2682719	.0586746	4.57	0.000	.1532718	.383272
occhrs_7710	.4124388	.4745419	0.87	0.385	-.5176472	1.342525
occhrs_7720	.3617075	.128361	2.82	0.005	.1101243	.6132907
occhrs_7730	.4508268	.2638379	1.71	0.088	-.0662864	.96794
occhrs_7740	.2140826	.1759096	1.22	0.224	-.1306943	.5588594
occhrs_7750	.3634751	.0642581	5.66	0.000	.2375314	.4894189
occhrs_7800	.2676667	.109933	2.43	0.015	.0522018	.4831316
occhrs_7810	.4180619	.0973965	4.29	0.000	.2271681	.6089557
occhrs_7830	.1125233	.3928879	0.29	0.775	-.6575235	.8825702
occhrs_7840	.1690601	.1441813	1.17	0.241	-.1135303	.4516505
occhrs_7850	.8645058	.3999933	2.16	0.031	.0805326	1.648479
occhrs_7900	.3768582	.1041262	3.62	0.000	.1727744	.5809419
occhrs_7920	.1765326	.2918034	0.60	0.545	-.3953921	.7484574
occhrs_7940	.7211488	.2392952	3.01	0.003	.2521383	1.190159
occhrs_7950	.4426017	.0914984	4.84	0.000	.263268	.6219354
occhrs_8030	.2904158	.0686101	4.23	0.000	.1559423	.4248893
occhrs_8040	.4823493	.18989	2.54	0.011	.1101714	.8545273
occhrs_8100	.6064351	.154001	3.94	0.000	.3045984	.9082718
occhrs_8130	.2884198	.1303035	2.21	0.027	.0330294	.5438102
occhrs_8140	.3761137	.0617812	6.09	0.000	.2550245	.4972028
occhrs_8220	.4104198	.0711811	5.77	0.000	.2709074	.5499323
occhrs_8250	.1482265	.2585671	0.57	0.566	-.3585562	.6550092
occhrs_8255	.1908142	.101232	1.88	0.059	-.0075971	.3892254
occhrs_8256	-.0104737	.2903739	-0.04	0.971	-.5795968	.5586493

Table A.3 continued

occhrs_8300	.448937	.1186805	3.78	0.000	.2163273	.6815467
occhrs_8310	.9923021	.2378826	4.17	0.000	.5260604	1.458544
occhrs_8320	.5621335	.137161	4.10	0.000	.2933027	.8309643
occhrs_8330	-.5306985	.3701014	-1.43	0.152	-1.256085	.1946876
occhrs_8350	.0816156	.199682	0.41	0.683	-.3097543	.4729856
occhrs_8400	.1634571	.4463728	0.37	0.714	-.7114184	1.038333
occhrs_8410	.108576	.585815	0.19	0.853	-1.039601	1.256753
occhrs_8420	-.4058954	.4504605	-0.90	0.368	-1.288783	.4769919
occhrs_8450	.1469278	.2258928	0.65	0.515	-.2958145	.58967
occhrs_8460	.3556702	.3032801	1.17	0.241	-.2387485	.950089
occhrs_8500	.0628624	.1581096	0.40	0.691	-.247027	.3727518
occhrs_8510	.0227116	.4569356	0.05	0.960	-.8728665	.9182897
occhrs_8530	.6921715	.1785169	3.88	0.000	.3422845	1.042058
occhrs_8540	.1195818	.2837878	0.42	0.673	-.4366325	.6757962
occhrs_8550	-.0034937	.255397	-0.01	0.989	-.5040631	.4970756
occhrs_8600	-.0439792	.1195596	-0.37	0.713	-.278312	.1903536
occhrs_8610	.2348574	.1064356	2.21	0.027	.0262471	.4434676
occhrs_8620	-.100135	.1190903	-0.84	0.400	-.3335479	.133278
occhrs_8630	-.0096384	.1085961	-0.09	0.929	-.222483	.2032062
occhrs_8640	.486164	.1231763	3.95	0.000	.2447427	.7275853
occhrs_8650	.4329155	.1002281	4.32	0.000	.2364718	.6293593
occhrs_8710	.4785881	.1559742	3.07	0.002	.1728839	.7842924
occhrs_8720	.6186501	.1787514	3.46	0.001	.2683034	.9689969
occhrs_8730	.6097633	.2195818	2.78	0.005	.1793905	1.040136
occhrs_8740	.4138231	.0621844	6.65	0.000	.2919438	.5357025
occhrs_8750	-.0935305	.2152445	-0.43	0.664	-.5154023	.3283414
occhrs_8760	.1614594	.1485942	1.09	0.277	-.1297801	.4526989
occhrs_8800	.2739409	.097634	2.81	0.005	.0825815	.4653002
occhrs_8810	.2072356	.1020691	2.03	0.042	.0071836	.4072875
occhrs_8830	1.059015	.2515526	4.21	0.000	.5659802	1.552049
occhrs_8850	.5955355	.3753705	1.59	0.113	-.1401779	1.331249
occhrs_8910	.0540628	.4218871	0.13	0.898	-.7728214	.8809471
occhrs_8920	.2163215	.227189	0.95	0.341	-.2289612	.6616042
occhrs_8930	.6320883	.1990673	3.18	0.001	.2419232	1.022253
occhrs_8940	-.2255667	.2719841	-0.83	0.407	-.7586463	.307513
occhrs_8950	-.3098367	.178865	-1.73	0.083	-.660406	.0407326
occhrs_8965	.4359507	.0602759	7.23	0.000	.3178119	.5540895
occhrs_9000	.2140358	.0742205	2.88	0.004	.0685661	.3595054
occhrs_9030	-.1174946	.0985891	-1.19	0.233	-.310726	.0757367
occhrs_9040	-1.093652	.1750896	-6.25	0.000	-1.436822	-.7504828

Table A.3 continued

occhrs_9050	-.4149396	.1213194	-3.42	0.001	-.6527215	-.1771576
occhrs_9110	.0704857	.209969	0.34	0.737	-.3410464	.4820178
occhrs_9120	.3565762	.0740802	4.81	0.000	.2113816	.5017709
occhrs_9130	.2047562	.0535688	3.82	0.000	.0997631	.3097493
occhrs_9140	-.349802	.0750556	-4.66	0.000	-.4969084	-.2026956
occhrs_9200	-.1582191	.0939851	-1.68	0.092	-.3424266	.0259885
occhrs_9240	.0140531	.0949845	0.15	0.882	-.1721133	.2002196
occhrs_9260	.5859572	.1918784	3.05	0.002	.2098821	.9620323
occhrs_9300	-.0607275	.096009	-0.63	0.527	-.2489018	.1274468
occhrs_9310	.158056	.0919218	1.72	0.086	-.0221076	.3382196
occhrs_9350	-.1006935	.1495025	-0.67	0.501	-.3937133	.1923262
occhrs_9360	.3913495	.1255115	3.12	0.002	.1453512	.6373477
occhrs_9410	.1880802	.1328152	1.42	0.157	-.0722331	.4483936
occhrs_9415	.4685263	.2699645	1.74	0.083	-.0605948	.9976475
occhrs_9420	.2115869	.2216903	0.95	0.340	-.2229185	.6460923
occhrs_9510	.3723949	.0961651	3.87	0.000	.1839146	.5608752
occhrs_9560	.4408959	.1730562	2.55	0.011	.1017117	.7800801
occhrs_9600	.0822831	.0688007	1.20	0.232	-.0525638	.2171301
occhrs_9610	.1227746	.0930429	1.32	0.187	-.0595864	.3051356
occhrs_9620	.354919	.0582227	6.10	0.000	.2408045	.4690335
occhrs_9630	.2330481	.2047161	1.14	0.255	-.1681883	.6342846
occhrs_9640	.2753017	.0933335	2.95	0.003	.0923712	.4582322
occhrs_9650	.1193945	.1022945	1.17	0.243	-.0810992	.3198883
occhrs_9720	-.0605682	.1343121	-0.45	0.652	-.3238153	.202679
occhrs_9750	.1101821	.1234468	0.89	0.372	-.1317695	.3521336
_cons	-3.630158	.2492129	-14.57	0.000	-4.118606	-3.141709

Appendix B

EVIDENCE OF MULTICOLLINEARITY BETWEEN OCCUPATIONAL CHARACTERISTICS

In the text, I estimate 21 univariate OLS models to estimate the effect of occupational characteristics on the occupation-specific gender earnings gap. I choose to estimate 21 univariate models as opposed to one multivariate model due to evidence of multicollinearity between the O*NET occupational characteristics.

The first sign that indicates multicollinearity may be an issue in a multivariate model comes from an examination of the correlation matrix of the O*NET occupational characteristics, which is shown in Table B.1 below. The largest correlation value is 0.79 and it reflects the correlation between the freedom to make decisions and how structured or unstructured the work is. The correlation between coordinating the work of others and staffing organizational units is also exceptionally large at 0.75. Approximately 15% of the correlation coefficients have a magnitude of 0.5 or larger. While the majority of the correlation coefficients have a magnitude of 0.4 or less, the correlation coefficients may not reflect the only relationship between the variables. It is possible that a single variable is a linear combination of other variables and the correlation coefficient will not reflect that relationship.

Additional evidence of multicollinearity is apparent when a multivariate regression that includes all 21 variables is estimated. I present the results of that regression in Table B.2 below. In that regression, the joint test of significance is

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rejected at the 1% level of significance. However, for 17 variables, the estimated effect is individually statistically insignificant. Of the four statistically significant estimated coefficients, none are significant at the 1% level, only one is significant at the 5% level, and the remaining three are significant only at the 10% level. The lack of significance of the individual coefficient estimates while the joint test of significance produces the opposite result hints that multicollinearity may be a problem.

Moreover, joint tests of significance for the estimated coefficients that capture the five different aspects of an occupation hint that multicollinearity may be present in the multivariate model. For example, of the six variables that capture the importance of working with others, only one coefficient estimate is significant in the multivariate model (and it is only marginally significant at the 10% level). However, a joint test of significance for the six estimated coefficients shows that jointly the coefficient estimates are statistically different from zero. Table B.3 shows the results of this test. Of the other 4 aspects of an occupation (amount of responsibility, leadership roles, type of work, and work environment), two of the tests of joint significance are marginally significant at the 10% level. Tables B.4-B.7 show the results.

Given the evidence of multicollinearity, the estimates in the main text are for 21 separate univariate models. By estimating univariate models, I can see the magnitude of the effect of each characteristic individually. However, since I do not control for any other occupational traits in the models, the coefficient estimates in the 21 univariate models reflect the effect of the occupational characteristic included in the model as well as everything it is correlated with. However, in the multivariate model, the inability to identify potentially significant explanatory variables due to the

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issues brought about by multicollinearity makes the univariate approach more

attractive.

Table B.1: *Correlation Matrix for O*NET Occupational Characteristics*

	Face To Face	Contact Others	Group/ Team	External Cust.	Outside Persons	Interper- sonal	Freedom Decision	Frequency Decision
Face to face	1.00							
Contact Others	0.44	1.00						
Group/ Team	0.52	0.50	1.00					
External Cust.	0.24	0.67	0.29	1.00				
Outside Persons	0.33	0.53	0.28	0.74	1.00			
Interpersonal	0.34	0.54	0.39	0.56	0.74	1.00		
Freedom Decision	0.40	0.26	0.09	0.30	0.43	0.33	1.00	
Frequency Decision	0.29	0.45	0.28	0.46	0.41	0.32	0.43	1.00
Consequence Error	0.18	0.02	0.18	-0.07	-0.10	-0.13	0.13	0.37
Outcomes	0.35	0.11	0.47	0.01	0.06	0.07	0.25	0.29
Others Health	0.15	0.00	0.26	-0.12	-0.29	-0.24	0.03	0.17
Coordinate Others	0.39	0.24	0.50	0.19	0.36	0.45	0.26	0.28
Staff Units	0.34	0.28	0.37	0.33	0.47	0.51	0.30	0.24
Automation	-0.08	-0.04	0.00	-0.14	-0.08	-0.05	-0.17	0.08
Exact	0.13	0.05	0.08	0.03	0.06	-0.03	0.05	0.25
Structured	0.42	0.30	0.12	0.31	0.50	0.43	0.79	0.34
Process Info	0.32	0.24	0.33	0.21	0.46	0.45	0.21	0.26
Think Creatively	0.30	0.11	0.24	0.17	0.47	0.53	0.37	0.10
Organize Work	0.42	0.31	0.37	0.33	0.61	0.69	0.38	0.26
Frequency Conflict	0.36	0.55	0.48	0.53	0.47	0.43	0.23	0.51
Competition	0.11	0.09	0.06	0.12	0.32	0.30	0.27	0.24

Table B.1 continued

	Conse-quence Error	Out-comes	Others Health	Coordinate Others	Staff Units	Automa-tion	Exact	Structured
Consequence Error	1.00							
Outcomes	0.29	1.00						
Others Health	0.51	0.59	1.00					
Coordinate Others	0.15	0.63	0.35	1.00				
Staff Units	0.05	0.52	0.21	0.75	1.00			
Automation	0.09	-0.01	-0.15	-0.12	-0.07	1.00		
Exact	0.24	0.10	-0.11	-0.09	-0.10	0.33	1.00	
Structured	0.02	0.24	-0.12	0.26	0.33	-0.10	0.07	1.00
Process Info	0.16	0.15	-0.24	0.24	0.28	0.34	0.43	0.33
Think Creatively	-0.08	0.18	-0.15	0.48	0.41	-0.29	-0.05	0.43
Organize Work	0.00	0.30	-0.13	0.56	0.54	-0.02	0.09	0.52
Frequency Conflict	0.19	0.32	0.19	0.38	0.44	0.02	0.02	0.21
Competition	0.02	0.22	-0.10	0.32	0.32	-0.02	0.14	0.32

Table B.1 continued

	Process Info	Think Creatively	Organize Work	Frequency Conflict	Competition
Process Info	1.00				
Think Creatively	0.31	1.00			
Organize Work	0.62	0.62	1.00		
Frequency Conflict	0.22	0.13	0.33	1.00	
Competition	0.20	0.45	0.34	0.12	1.00

Table B.2: *Estimation of the Effect of Occupational Characteristics in a Multivariate Model on the Occupation-Specific Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree*

Dependent Variable: ln (Occupation-Specific Gender Earnings Gap)		
	Independent Variable	*Coefficient Estimate*
Working with Others	Face-to-face discussions	-0.003 (0.009)
	Contact with others	0.002 (0.013)
	Work with a group or team	0.006 (0.009)
	Deal with external customers	0.011 (0.013)
	Communicate with outside persons	0.013 (0.012)
	Interpersonal relationships	0.021* (0.012)
Amount of Responsibility	Freedom to make decisions	-0.016 (0.010)
	Frequency of decision making	-0.007 (0.009)
	Consequence of error	-0.005 (0.007)
	Responsible for outcomes	-0.019* (0.010)
	Responsible for others' health	-0.006 (0.011)
Leadership Roles	Coordinate the work of others	-0.011 (0.014)
	Staff organizational units	0.020** (0.010)

Table B.2 continued

Type of Work	Degree of automation		-0.011*
			(0.007)
	Importance of being exact		0.010
			(0.009)
	Structured vs. Unstructured		0.002
			(0.011)
	Processing information		0.007
			(0.011)
	Thinking creatively		-0.006
			(0.010)
	Organizing/planning work		-0.008
			(0.010)
Work Environment	Frequency of conflict situations		0.0004
			(0.008)
	Level of competition		-0.006
			(0.008)
	Constant		-0.188***
			(0.006)
Model Statistics	R^2	0.1207	
	F value	2.59	
	Pr >F	0.0002	
	Sample Size	404	

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively, and robust standard errors are shown in parenthesis.

In the following tables, I will use the notation that β_1 is the coefficient on face-to-face discussions, β_2 is the coefficient on contact with others, β_3 is the coefficient on work with a group or team, and so on.

Table B.3: *Test of Joint Significance for the Coefficient Estimates on the Variables that Reflect Working with Others*

$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6$
$F_{(6,382)} = 2.67$
$Prob > F = 0.0152$

Table B.4: *Test of Joint Significance for the Coefficient Estimates on the Variables that Reflect the Amount of Responsibility*

$H_0: \beta_7 = \beta_8 = \beta_9 = \beta_{10} = \beta_{11}$
$F_{(5,382)} = 1.85$
$Prob > F = 0.1014$

Table B.5: *Test of Joint Significance for the Coefficient Estimates on the Variables that Reflect Leadership Roles*

$H_0: \beta_{12} = \beta_{13}$
$F_{(2,382)} = 2.30$
$Prob > F = 0.1016$

Table B.6:   *Test of Joint Significance for the Coefficient Estimates on the Variables that Reflect Type of Work*

$H_0: \beta_{14} = \beta_{15} = \beta_{16} = \beta_{17} = \beta_{18} = \beta_{19}$
$F_{(6,382)} = 0.93$
$Prob > F = 0.4710$

Table B.7:   *Test of Joint Significance for the Coefficient Estimates on the Variables that Reflect Work Environment*

$H_0: \beta_{20} = \beta_{21}$
$F_{(2,382)} = 0.33$
$Prob > F = 0.7176$

Appendix C

EARNINGS-HOURS ELASTICITY ESTIMATION ROBUSTNESS CHECK

When estimating the occupation-specific earnings-hours elasticities, controls for the gender effect in each occupation are included. The estimation results of the earnings-hours elasticities are shown in Table 8 and Figure 5 in the text. However, including the occupation-specific gender controls may incorrectly absorb some of the variation in the earnings-hours elasticity in occupations. Thus, I estimate the earnings-hours elasticities after dropping the occupation-specific gender controls. The estimation results of the elasticity values are essentially unchanged as shown below in Table C.1 and Figure C.1.

Table C.1:   *Comparison of the Distribution of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

	Occupation-Specific Earnings-Hours Elasticity estimated with occupation-specific gender controls (see Table 8)		Occupation-Specific Earnings-Hours Elasticity estimated without occupation-specific gender controls	
Mean	0.590		0.588	
Standard Deviation	0.249		0.254	
Median	0.576		0.579	
Max	1.661		1.684	
Min	-0.676		-0.669	
Frequency Distribution of the Occupation-Specific Earnings-Hours Elasticity	Frequency	Percent	Frequency	Percent
$X \leq 0$	11	2.72	12	2.97
$0 < X \leq 0.25$	40	9.90	39	9.65
$0.25 < X \leq 0.5$	101	25	103	25.50
$0.5 < X \leq 0.75$	144	35.64	141	34.90
$0.75 < X \leq 1$	76	18.81	78	19.31
$1 < X \leq 1.25$	22	5.45	21	5.20
$X > 1.25$	10	2.48	10	2.48

Source: Author's calculations using the American Community Survey 2012-2014.

Notes: The occupation-specific earnings-hours elasticities are estimated two ways: with and without occupation-specific controls for gender. The estimation results that include gender controls within occupation are show in the first column and are the estimated values found in Table 8 in the text. The estimation results that do not include controls for gender are shown in the second column. In both estimations, the occupation-specific earnings-hours elasticities are adjusted for demographic variables, education, and time worked. The average occupation-specific earnings-hours elasticities are weighted by the number of women working in each occupation.

(a) Frequency Distribution of the Occupation-Specific Earnings-Hours Elasticity Estimated with Occupation-Specific Gender Controls (Figure 5 in the text)
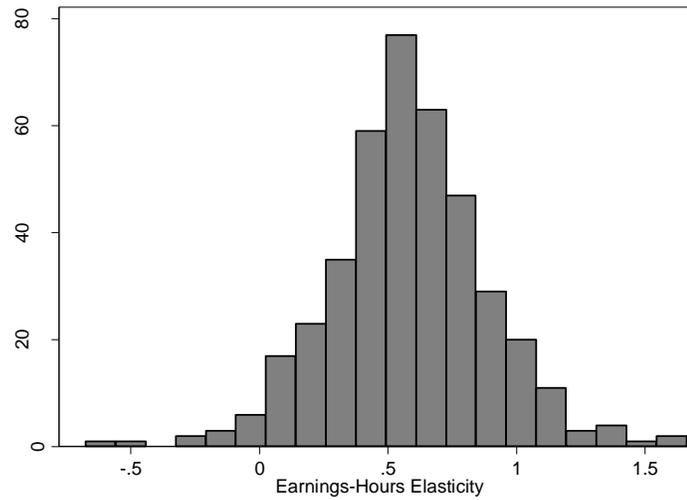
(b) Frequency Distribution of the Occupation-Specific Earnings-Hours Elasticity Estimated without Occupation-Specific Gender Controls
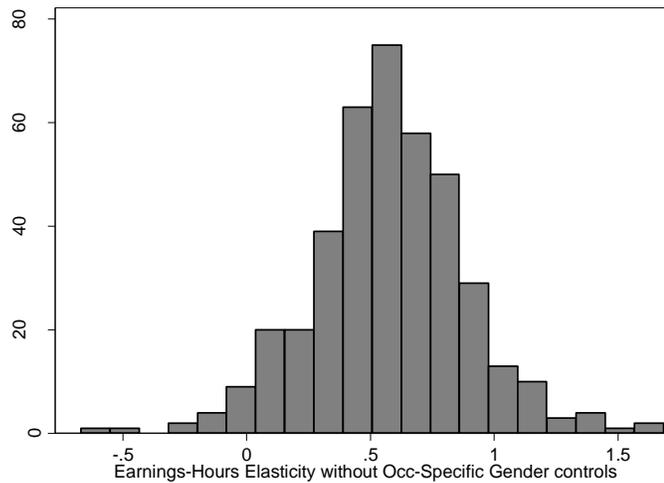

Figure C.1: *Frequency Distributions of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

When considering the relationship between the elasticity of earnings and the gender earnings gap within occupations, the relationship becomes stronger when the elasticity is estimated without occupation-specific gender controls. The slope estimate approximately doubles in size and becomes significant (see notes to Figure C.2), but the overall strength of the relationship remains limited.

a) The Occupation-Specific Gender Earnings Gap and Earnings-Hours Elasticity with Occupation-Specific Gender Controls (Figure 6 in the text)
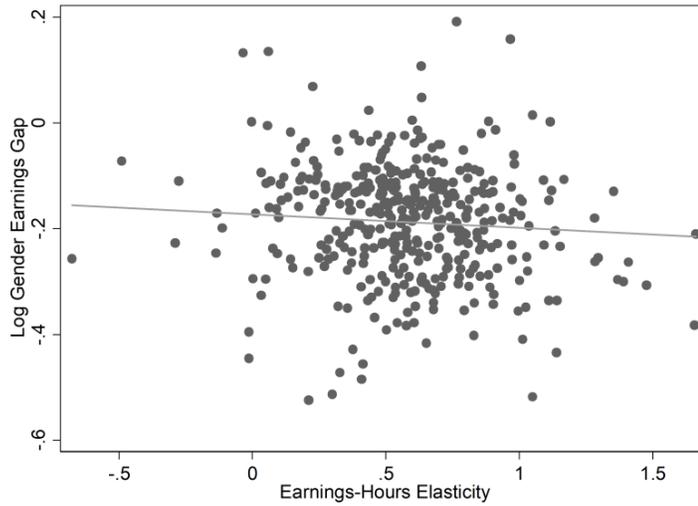
b) The Occupation-Specific Gender Earnings Gap and Earnings-Hours Elasticity without Occupation-Specific Gender Controls
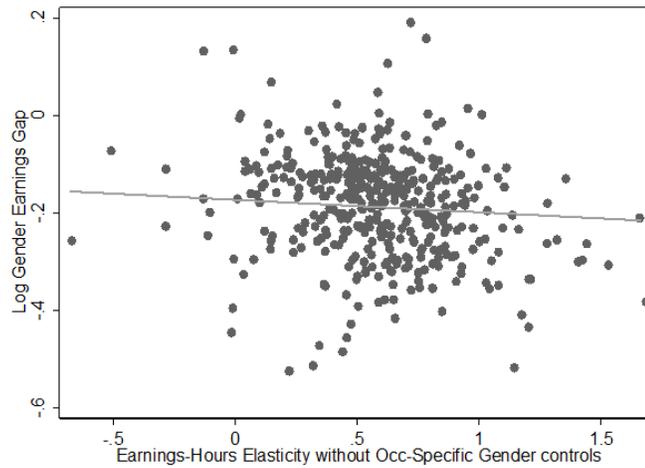
Figure C.2: *The Occupation-Specific Gender Earnings Gap and Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree*

Notes: Quantitatively, the relationship between the gender earnings gap and the earnings-hours elasticity within an occupation in Panel (a) is given by:

$\widehat{gap_k} = -0.173 - 0.026\widehat{\eta_{eh_k}}$, with the standard error of the slope estimate being 0.021. The relationship between the gender earnings gap and the earnings-hours elasticity becomes stronger if the occupation-specific gender effect controls are dropped from the estimation of the earnings-hours elasticity. The relationship is then given by:

$\widehat{gap_k} = -0.159 - 0.050\widehat{\eta_{eh_k}}$, with the standard error of the slope estimate being 0.020.

The occupational characteristics that are significantly associated with the occupation-specific earnings-hours elasticity remain unchanged when the elasticity estimated without occupation-specific gender controls is considered. To see this, consider the following table, which shows the estimation results of the effect of occupational characteristics on the occupation-specific earnings-hours elasticity with and without occupation-specific gender controls.

Table C.2: *Estimation of the Occupation-Specific Earnings-Hours Elasticity of Full-Time, Full-Year Workers Without a College Degree using Occupational Characteristics*

Independent Variable	Dependent Variable:	
	Occupation-Specific Earnings-Hours Elasticity estimated with occupation-specific gender controls (see Table 10)	Occupation-Specific Earnings-Hours Elasticity estimated without occupation-specific gender controls
Interpersonal relationships	0.035	0.031
	(0.025)	(0.025)
Freedom to make decisions	0.012	0.014
	(0.026)	(0.027)
Time Pressure	0.060***	0.059***
	(0.021)	(0.021)
Contact with others	0.002	0.001
	(0.023)	(0.023)
Structured vs. Unstructured	-0.029	-0.027
	(0.029)	(0.030)
Regularity of work schedules	-0.028*	-0.027*
	(0.015)	(0.015)
Duration of typical work week	0.011	0.009
	(0.022)	(0.022)
Pace determined by equipment	0.023	0.031
	(0.020)	(0.020)
Work with a group or team	0.005	0.005
	(0.022)	(0.022)
Importance of time management	-0.062***	-0.058**
	(0.023)	(0.024)
Intercept	0.581***	0.580***
	(0.015)	(0.015)
R^2	0.0641	0.0639
F value	2.24	2.24
Pr >F	0.0149	0.0149
Sample Size	404	404

Notes: ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively. Robust standard errors are shown in parenthesis.

Appendix D

FREQUENCY DISTRIBUTIONS OF THE OCCUPATION-SPECIFIC GENDER EARNINGS GAP WITHIN SERVICE INDUSTRIES
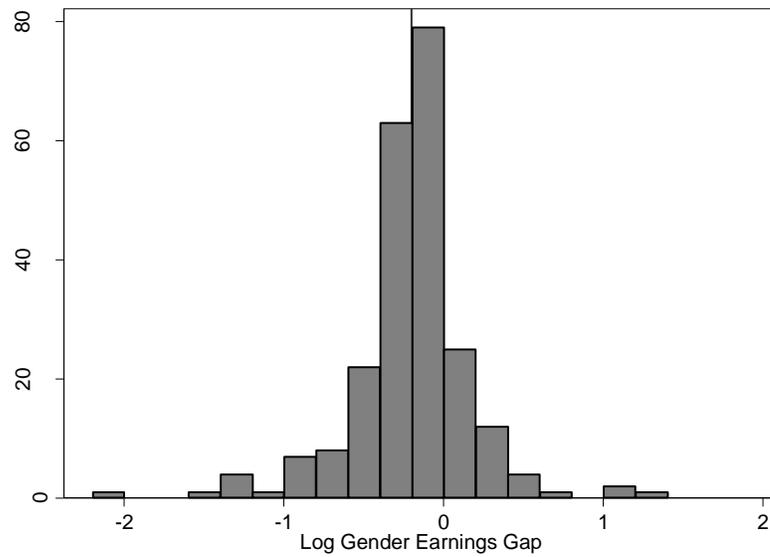

Figure D.1: *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree within the Professional, Scientific, and Technical Services Industry*
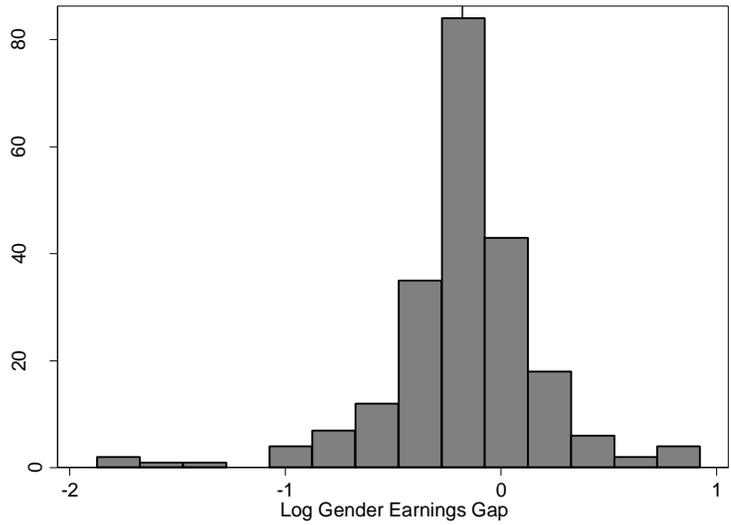
Figure D.2: *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree within the Educational Services Industry*
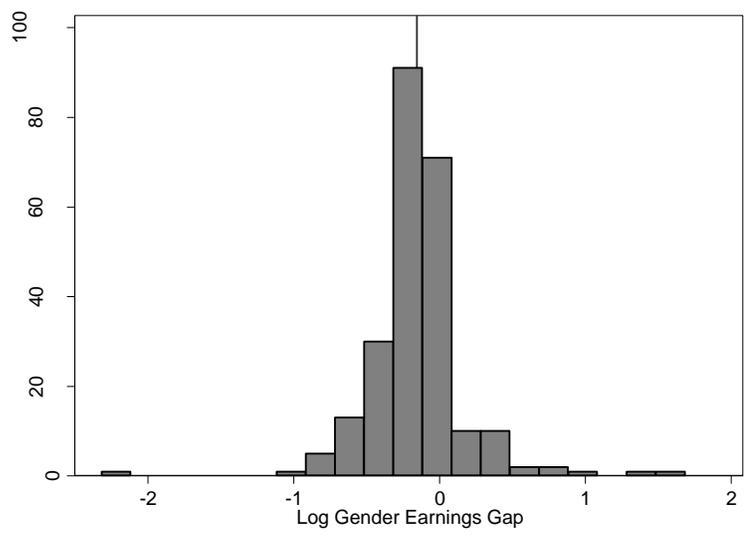
Figure D.3: *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree within the Health Care and Social Assistance Industry*

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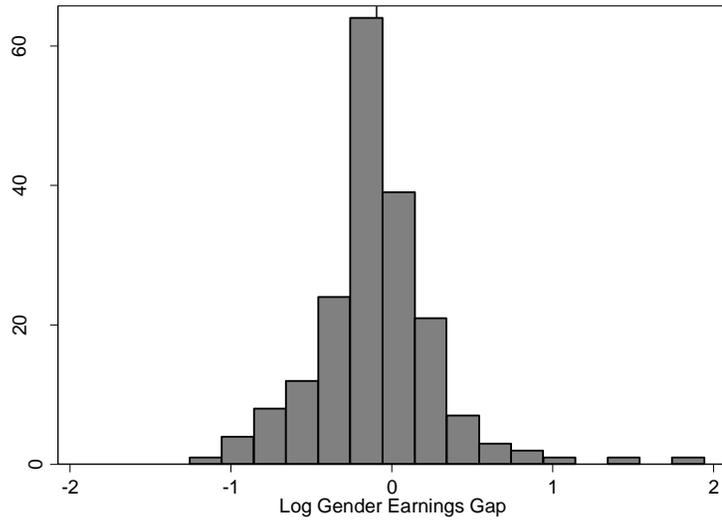
Figure D.4: *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree within the Arts, Entertainment, and Recreation Industry*
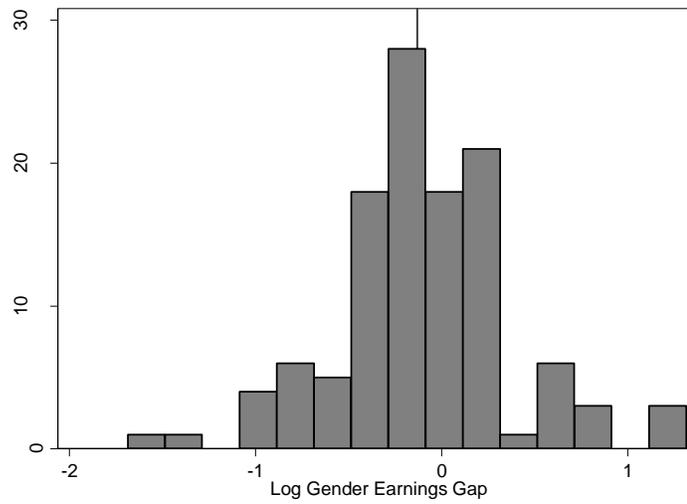

Figure D.5: *Frequency Distribution of the Occupation-Specific Log Gender Earnings Gap of Full-Time, Full-Year Workers Without a College Degree within the Food Services Industry*