

**The Sexual Orientation Wage Gap:
The Role of Human Capital, Occupational Choice, and Discrimination**

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Abstract

In this paper, we explore the determinants of the sexual orientation wage differentials and why these differentials differ by gender. We utilize data from the 2000 U.S. Census to estimate log wage equations by sexual orientation and gender, and compare three alternative explanations for the wage differentials: discrimination, human capital differences, and occupational sorting. We find lesbian women earn more than their heterosexual counterparts irrespective of marital status while gay men earn less than their heterosexual (married and cohabitating) and married counterparts but more than their cohabitating counterparts. Using the Oaxaca-Blinder decomposition we find that differences in human capital (particularly education) accumulation is the main reason behind the observed wage advantages, while discrimination and occupational sorting play a minimal role at best. Wage penalties, on the other hand, are largely explained by unobservable characteristics (i.e., discrimination). Interestingly, while we do find there are some differences in the relative roles of our three alternative explanations across the wage distribution using the DiNardo, Fortin, Lemieux decomposition, the main conclusions from the Oaxaca-Blinder decomposition persist.

Keywords: Discrimination; Human Capital; Occupational Choice; Sexual Orientation Wage Differentials

JEL-Code: J24, J31, J71

I. Introduction

Gay and lesbian Americans have been at the forefront of public policy debate and legislation in the recent past. One specific area of acrimonious debate focuses on the expansion of civil rights protection to include sexual orientation as a protected group. Perhaps surprisingly, much of debate has generally not been based on empirical evidence (Black et al. 2003). In order to inform policy makers, one needs to know the determinants of the sexual orientation wage gap based on empirical evidence as opposed to casual empiricism.

The existing empirical literature in the United States documents the existence of the sexual orientation wage gap. In particular, gay men are generally found to earn less than heterosexual men (Badgett 1995; Klawitter and Flatt 1998; Clain and Leppel 2001; Alegretto and Arthur 2001; Berg and Lien 2002; Black et al. 2003; Blandford 2003; Carpenter 2007)¹ while lesbian women are generally found to earn more than heterosexual women (Klawitter and Flatt 1998; Clain and Leppel 2001; Berg and Lien 2002; Black et al. 2003; Blandford 2003).² The existing empirical literature, however, does not generally attempt to formally test why the sexual orientation wage gap exists, nor why it differs for men and women.

In this paper, we explore the determinants of the sexual orientation wage differentials and why these differentials differ by gender. We examine three potential explanations. Specifically, we focus on labor market discrimination (a demand side explanation). This explanation, however, seems unlikely given some same-sex groups enjoy a wage advantage relative to their

¹ The one exception is Carpenter (2005) who examines the sexual orientation wage gap in California. While he does not find a wage penalty for gay men relative to heterosexual men, he does generally find a wage disadvantage for bisexual men relative to heterosexual men.

² There are a number of exceptions. In particular, Badgett (1995) finds that lesbian women face a wage penalty relative to heterosexual women, but this is not statistically significant at conventional levels. Klawitter and Flatt (1998) find that the wage advantage lesbian women enjoy relative to their heterosexual counterparts becomes much smaller in magnitude and insignificant when the sample is restricted to full-time, full-year workers. In California, there does not appear to a wage advantage for lesbian women relative to heterosexual women, but bisexual women do tend to earn less than their heterosexual counterparts (Carpenter 2005).

heterosexual counterparts while other same-sex groups suffer a wage penalty relative to their heterosexual counterparts. Second, we focus on differences in human capital accumulation (a supply side explanation). While this may be relevant for same-sex groups that enjoy a wage advantage, it is unlikely to explain the earnings differential for same-sex groups that suffer a wage penalty given the education attainment of same-sex individuals (irrespective of gender) is higher than their heterosexual counterparts (Black et al. 2000; Black et al. 2007). Finally, we examine occupational sorting (either a demand side or supply side explanation). This explanation seems relevant for both male and female same-sex individuals as we can test whether lesbian women (gay men) are more likely to sort into male (female) dominated occupations relative to their heterosexual counterparts.

We utilize data from the 2000 U.S. Census to estimate log wage equations by sexual orientation and gender. Unlike earlier studies which generally only include a dummy variable for sexual orientation, we use the standard Oaxaca-Blinder (1973) decomposition approach to analyze the determinants of the sexual orientation wage gap.³ The Oaxaca-Blinder decomposition approach permits us to not only allow for differential returns to observable characteristics by sexual orientation, but also to determine the relative importance of our three alternative explanations: discrimination, human capital differences, and occupational sorting. This approach, however, is an analysis of the mean sexual orientation wage gap which overlooks that the gap may not be uniform along the entire distribution of wages. Therefore, we further explore the determinants of the sexual orientation wage gap using the DiNardo, Fortin, Lemieux

³ We know of only one study, Berg and Lien 2002, which uses the Oaxaca-Blinder decomposition. The decomposition, however, is not the main focus of their analysis, that is, their main analysis uses the dummy variable approach for sexual orientation. Moreover, they do not break up the decomposition to determine the relative importance of different observable characteristics (such as, human capital factors). In other words, they simply look at the total observable and unobservable components of the gap.

(1996) decomposition, which allows one to decompose the sexual orientation wage gap along the entire distribution of wages.

We find lesbian women earn more than their heterosexual counterparts irrespective of marital status while gay men earn less than their heterosexual (both married and cohabitating) and married counterparts but more than their cohabitating counterparts. Using the Oaxaca-Blinder decomposition we find that differences in human capital (particularly education) accumulation is the main reason behind the observed wage advantages, while discrimination and occupational sorting play a minimal role at best. Wage penalties, on the other hand, are largely explained by unobservable characteristics (i.e., discrimination). Interestingly, while we do find there are some differences in the relative roles of our three alternative explanations across the wage distribution using the DiNardo, Fortin, Lemieux decomposition, the main conclusions from the Oaxaca-Blinder decomposition persist.

The next section briefly reviews the literature. Section III discusses the data. Sections IV and V present the Oaxaca-Blinder and DiNardo, Fortin, Lemieux decompositions and results, respectively. The conclusions are presented in Section VI.

II. Literature Review

In her seminal paper, Badgett (1995) examines wage differences between heterosexual and behaviorally gay/lesbian workers using an econometric framework. In particular, she used General Social Survey (GSS) data from 1989-1991 to study the determinants (i.e., education, marital status, race, potential experience, geographic location, and occupation) of annual income. Badgett (1995) finds that behaviorally gay and bisexual males earn between 11 and 27 percent less than their heterosexual counterparts depending on the definition of sexual orientation used

(sexual orientation is defined a number of different ways depending on the presence of a same-sex partner).⁴ While she finds a similar wage disadvantage for behaviorally lesbian and bisexual women relative to heterosexual women; the results are statistically insignificant.

Badgett's work led to further detailed examinations of the sexual orientation wage gap. Specifically, a number of studies based on the GSS extended her analysis by including additional waves of data and considering alternative definitions of sexual orientation⁵ (Berg and Lien 2002, Black et al. 2003, Blandford 2003). All of these studies confirm the results in Badgett for men, i.e., behaviorally gay men earn less than their heterosexual counterparts. Unlike Badgett, these studies find that behaviorally lesbian women earn more than their heterosexual counterparts. For example, Black et al. (2003) find behaviorally gay men (lesbian women) earn between 14 (20) and 16 (34) percent less (more) than their heterosexual counterparts depending on the definition of sexual orientation used.

Alternative data sources have also been used to examine the sexual orientation wage gap. The main alternative data source used is the 1990 United States Census. Unlike the GSS, the census definition of sexual orientation is based on a new category, unmarried partner, which was added to the list of household relationships in 1990. In particular, if one partner is designated as the household head, then the other partner can be identified as the unmarried partner. If that unmarried partner is of the same (opposite) sex, then the cohabitating couple is determined to be

⁴ The behavioral definitions of sexual orientation considered in Badgett (1995) are: (1) having one or more same-sex partners since the age of 18, (2) having had more than one same-sex partner since the age of 18, (3) having had at least as many same-sex partners as opposite sex-partners since the age of 18, and (4) having had either more than one same-sex partner or at least as many same-sex partners as opposite sex-partners since the age of 18.

⁵ Berg and Lien (2002) considered a respondent as behaviorally "homosexual" if the respondent reported having at least one same-sex partner in the past 5 years. The behavioral definitions of sexual orientation considered in Black et al. (2003) are: (1) having one or more same-sex partner since the age of 18, (2) having had at least as many same-sex partners as opposite sex-partners since the age of 18, (3) having had same-sex or both sex partners during the last year, and (4) having had same-sex or both-sex partners in the past 5 years. Blandford (2003) considered a respondent "openly" gay/lesbian or bisexual if they had sex with same-sex or both sex partners in the past twelve months (or past 5 years if the respondent did not have sex in the past 12 months) and are currently unmarried.

a same-sex (opposite-sex) unmarried couple. Moreover, married opposite-sex couples can be determined from the list of household relationships. While the assumption that the same-sex unmarried partners identified in the Census are truly gay or lesbian cannot be tested in the Census, it can be illustrated that this measure of sexual orientation is consistent with behaviorally based measures of sexual orientation using independent data sources (Carpenter 2004).

To date, three studies have utilized the 1990 US Census to analysis the sexual orientation wage gap. The findings are generally in line with the results found in the GSS. Specifically, Klawitter and Flatt (1998) find that gay men earn less than their married heterosexual counterparts (but similar amounts relative to their unmarried heterosexual counterparts), while lesbian women earn more than both their married and unmarried heterosexual counterparts (conditional on a broad set of control variables).⁶ Clain and Leppel (2001) also find that gay men (lesbian women) tend to earn less (more) than their heterosexual counterparts.⁷ Similarly, Alegretto and Arthur (2001) find that gay males earn 15.6 (2.4) percent less than heterosexual married (cohabitating) males after controlling for observable characteristics.⁸

Two other alternative data sources to the GSS have been employed. The findings from these studies relative to the results using the GSS are mixed. Carpenter (2007), using data from the Third National Health and Nutrition Examination Survey (NHANES III), confirms the results in the GSS for men, that is, that behaviorally gay men face a large wage penalty relative to their

⁶ However, Klawitter and Flatt (1998) find that if the sample is restricted to full-time, full-year workers, the wage advantage enjoyed by lesbians relative to their heterosexual counterparts is substantially reduced and is no longer statistically significant.

⁷ Clain and Leppel (2001) do not distinguish between married and unmarried heterosexual couples.

⁸ Interestingly, Alegretto and Arthur (2001) suggest that much of the wage disadvantage between gay males and heterosexual males can be explained by the marriage premium.

heterosexual counterparts.⁹ However, using data from the California Health Interview Survey (CHIS), Carpenter (2005) finds that gay men (lesbian women) do not earn significantly less (more) than their heterosexual counterparts. He does find evidence, however, that bisexual men and women earn less than their heterosexual counterparts. His results may be at odds with those in the GSS, NHANES III and the 1990 US Census due to the fact that his data is based on California only, which is generally perceived to be a relatively liberal state, and/or because this study relies on a definition of sexual orientation based on self-identification as opposed to behavioral sexual orientation.

Overall, the existing literature generally finds that gay males face a wage penalty relative to heterosexual males while lesbian women enjoy a wage advantage relative to heterosexual females (although the magnitude of the penalty/advantage varies across studies).¹⁰ The interpretations of the patterns found vary. Some argue the wage penalty faced by men is due to discrimination (Badgett 1995). Others argue that non-conformity to traditional gender roles leads to differential pay for gays and lesbians relative to their heterosexual counterparts (Blandford 2003). Still others argue the level of effort exerted by gays and lesbians differs as a result of different budget constraints (Berg and Lien 2002). Finally, others suggest the wage

⁹ Carpenter (2007) considers three definitions of behaviorally gay: (1) any lifetime same-sex sexual behavior, (2) at least as many lifetime same-sex partners as opposite-sex partners, and (3) more lifetime same-sex partners than opposite-sex partners.

¹⁰ The sexual orientation wage gap has also been examined in other countries. Arabsheibani et al. (2004) and Frank (2006) examine the sexual orientation wage gap in the United Kingdom. While the former finds that gay men earned less and lesbian women earned more than their heterosexual counterparts, the latter does not find any differences in salaries by sexual orientation irrespective of gender. The results may differ because Arabsheibani et al. (2004) use a national representative sample while Frank (2006) examines faculty and staff at 6 British Universities. Plug and Berkhout (2004) examine the sexual orientation wage gap among young college educated individuals in the Netherlands. They find a small earnings gap (premium) for gay men (lesbian women) relative to their heterosexual counterparts, however no difference is found between bisexual and heterosexuals irrespective of gender. Carpenter (2006) examines the sexual orientation wage gap in Canada. He finds gay men, bisexual men, and bisexual women earn less than their heterosexual counterparts, while lesbian women earn more than their heterosexual counterparts. Finally, Weichselbaumer (2001), using an experimental approach, finds that the interview call-back rates of lesbian women in Austria are substantially lower than their heterosexual counterparts, suggestive of discrimination against lesbian women.

penalty (advantage) of gays (lesbians) is due to the differential investment in human capital investment associated with household specialization theories (Black et al. 2003; Black Sanders and Taylor 2007). While these interpretations are intriguing, the existing literature does not formally test these interpretations.

This paper expands on the existing literature in a number of ways. First, we use the 2000 United States Census, as opposed to the 1990 United States Census. Second, we not only document the mean sexual orientation wage gap, but we examine the variation in the sexual orientation wage gap across the entire wage distribution. Moreover, we explicitly account for differences in observable characteristics by using two decomposition approaches, the Oaxaca-Blinder (1973) decomposition which is evaluated at the mean of the wage distribution, and the DiNardo, Fortin, and Lemieux (1996) decomposition which is evaluated across the entire wage distribution. To the best of our knowledge, the literature does not attempt to explicitly examine the role of observable characteristics.¹¹ Specifically, the existing studies generally only include a gay/lesbian dummy variable in their wage regressions. This approach has two potential shortcomings, it does not allow for differential returns to personal characteristics, nor does it allow one to formally determine the relative importance of alternative theories for the sexual orientation wage gap.¹² Which leads to our final innovation, we explicitly examine the relative

¹¹ We know of only one study, Berg and Lien 2002, which uses the Oaxaca-Blinder decomposition. The main focus of their analysis, however, uses the dummy variable approach for sexual orientation. Furthermore, they simply look at the total observable and unobservable components of the sexual orientation gap using the decomposition approach, that is, they do not attempt to determine the relative importance of observable characteristics (such as, human capital factors).

¹² There are a number of studies that do allow for some differential returns to observable characteristics, however, these studies do not attempt to formally determine the relative importance of alternative theories for the sexual orientation wage gap. In particular, Badgett (1995) allows for an interaction effect between an indicator for lesbian and potential experience. Klawitter and Flatt (1998) allow for interaction effects between sexual orientation status and policy variables and an indicator for urban. Clain and Leppel (2001) also allow for some interaction effects between sexual orientation status and observable characteristics (these interactions vary depending on gender). Finally, Alegretto and Arthur (2001) do estimate regressions separately by sexual orientation, yet when they turn to

importance of three alternative explanations in explaining the sexual orientation wage gap, differences in human capital factors (i.e., education and experience), occupational sorting, and discrimination.

III. Data

The data set used for the analysis is the 2000 United States Census 5 percent Public Use Microdata sample. This data set is ideal because it includes detailed variables on labor market outcomes (e.g., employment status, wages, weeks worked, occupation), sexual orientation groups (e.g., married, cohabitating, same-sex) and demographics (e.g., age, region, education) and the large sample size allows one to obtain reasonably precise results by sexual orientation group.

The sample includes individuals who are either the head of the household or are partners (either married or cohabitating) of the head of the household who are between the ages 25 and 59 and who are employed.¹³ We restrict our analysis to white workers because we do not want to confound racial differences with sexual orientation differences.¹⁴ In mixed race relationships, the white partner is included in our sample. Our sample further excludes immigrants, self-employed workers and observations with imputed values for our variables of interest. We exclude individuals with imputed values because of misgivings about the accuracy of the 2000 U.S. Census data's identification of the same-sex cohabiting population due to coding errors.¹⁵

their analysis of the sexual orientation gap, they pool individuals by sexual orientation and simply include a dummy variable for gay male.

¹³ We exclude employed individuals with estimated hourly wages less than \$2/hour or greater than \$250/hour.

¹⁴ For a discussion of the African American sexual orientation wage disadvantage see Badgett et al. 2005.

¹⁵ For detailed discussion of coding errors in the 2000 U.S. Census, see Black et al. (2002).

The elimination of potentially miscoded heterosexual couples from the same-sex couple data ensures estimates that are more reliable.¹⁶

Respondents in the sample are in one of three mutually-exclusive couple types: married, cohabiting, and same-sex couples. Henceforth, we refer to same-sex couples as gay for males and lesbian for females. We define these variables using the respondent's relationship to the head of the household. For married couples, we assign a value of one if the respondent indicates that he or she is married to a female or male partner, respectively, and zero otherwise. For cohabiting couples, we assign a value of one if the respondent indicates that he or she is in an unmarried partnership with a female or male partner, respectively, and zero otherwise. Similarly, for lesbian and gay couples, we assign a value of one if the respondent indicates that she or he is in an unmarried partnership with a female or male partner, respectively, and zero otherwise. As it is unclear whether gay and lesbian couples more closely mirror married couples or cohabiting couples, or are simply a combination of the two, we create a fourth couple type, heterosexual which takes a value of one if the individual is either married or cohabiting, and zero otherwise. There are 815,278 males and 676,449 females in the sample. Heterosexuals compose 99.30 and 99.14 percent of the male and female samples, respectively, while gay males and lesbian females make up 0.70 and 0.86 percent of the male and female samples, respectively.

We assign workers to one of 21 mutually exclusive Standard Occupation Classification (SOC) major group occupation categories (See Table 3 for a complete list of occupation categories). Because of the limited number of gays and lesbians working in farming, fishing and forestry and military occupations, workers in these two occupations are excluded from the

¹⁶ An alternative strategy would have been to exclude only households for which both partners are flagged. However, this does not guarantee a completely clean sample of gay and lesbian households, thus we err on the side of caution by eliminating all households with any partner flagged.

sample. To explore the potential role of occupational sorting in explaining sexual orientation wage differentials, we create an alternative occupational measure which ranks occupations based upon the percentage of males that work in the occupation. Specifically, we create an occupational male density score which calculates the percentage of workers between the ages of 18 and 65 employed in the occupation who are male.¹⁷ The male density score ranges between 11.8 percent in healthcare support occupations to 97.2 percent in construction and extraction occupations (See Table 3). We then create 8 indicator variables based upon the occupational male density score of the occupation ranging from an indicator variable for 10-20 percent male to an indicator variable for 90-100 percent male (See Table 2 for a complete list of occupational male density indicator variables). We discuss differences in occupational sorting and occupational choice by sexual orientation in detail below.

IV. The Sexual Orientation Wage Gap

Gay males earn roughly 3.4 percent less than heterosexual males while lesbian women earn roughly 19.1 percent more than their heterosexual counterparts (See Table 1). Interestingly, for women breaking the heterosexual group into married and cohabitating females does not change the overall finding, that is, lesbian women earn substantially more than married women and cohabitating women. However, the wage gap is much larger between lesbian women and cohabitating women (27.5%) than between lesbian women and married women (18.3%). For gay males the story is very different. While gay males continue to suffer a small

¹⁷ Another way to calculate occupational male density is to define the percentage of hours worked by males in the occupation. While the percentages do vary slightly under the two definitions, both lead to the same ordinal ranking of occupations by male density.

wage penalty relative to their married male counterparts (5.5%), they actually enjoy a large wage advantage relative to their cohabitating male counterparts (24.8%).

These raw wage differentials are generally consistent with those found using the 1990 Census. In particular, Alegretto and Arthur (2001) find the average hourly earnings of heterosexual married, heterosexual unmarried, and gay males are \$15.52, \$11.43, and \$14.53, respectively (in 1989 dollars). Thus, gay men face a wage penalty (advantage) relative to their heterosexual married (cohabitating) counterparts. This result for men is confirmed in Klawitter and Flatt (1998) based on average annual wages, while Clain and Leppel (2001) find that gay men earn the same as their unmarried heterosexual counterparts but less than their married heterosexual counterparts on average. This difference however may largely be driven by the fact that Clain and Leppel (2001) only look at full-time full-year workers. Moreover, Klawitter and Flatt (1998) find the average annual income of lesbian women is substantially higher (\$17,497) than their heterosexual married (\$9,308) and cohabitating (\$11,857) female counterparts. Similarly, Clain and Leppel (2001) find lesbian women enjoy a wage advantage relative to their heterosexual counterparts irrespective of marital status.

These overall patterns may hide some important differences by cohort. Therefore, we break the sample down into three cohorts to investigate this, 25-34, 35-44, and 45-59. Interestingly, the pattern for males is generally the same irrespective of the age group considered (See Table 1). Specifically, gay males tend to earn less than heterosexual males and married males but earn more than cohabitating males. However, the wage gap between gay males and heterosexual/married males are less pronounced for all age cohorts, ranging between 0-2.0% (2.1-3.7%) for gay males and heterosexual (married) males. Further, the wage advantage that gay males enjoy relative to their cohabitating male counterparts is least pronounced in the

youngest cohort (14.0%), followed by the oldest cohort (20.2%), and the middle cohort (27.3%). While intuitively it makes sense that the youngest cohort has the smallest advantage, it is unclear why it is the middle cohort that has the largest.

Turning to women, it can be seen that while lesbian women continue to enjoy a wage advantage relative to their heterosexual counterparts, irrespective of marital status, this wage advantage between lesbians and heterosexual and married women almost entirely disappears in the youngest cohort (2.78% and 1.4%, respectively). Moreover, the wage advantage between lesbian women and cohabitating women is substantially reduced (10.0%). The middle cohort, as in the overall sample, reveals that lesbian women enjoy a larger wage advantage (33.0%) relative to cohabitating women than to married women (21.6%), while for the oldest cohort the wage advantage is roughly the same for cohabitating or married women relative to their lesbian counterparts (33.0%). Given the main patterns in the sexual orientation wage gap are the same irrespective of cohort or gender, for the remainder of the analysis we focus on the overall sample.

What can account for these differences? It is unlikely that there will be a simple explanation that explains the sexual orientation gap given the patterns we observe. In fact, it seems likely that the reasons likely differ depending on whether the sexual orientation group under consideration enjoys a wage premium or suffers from a wage penalty relative to their heterosexual counterparts. Thus, we explore three potential explanations. Specifically, we focus on differences in human capital accumulation, occupational sorting, and labor market discrimination. According to Table 2, gay men and lesbian women have approximately 3 years less (potential) experience relative to their heterosexual or married counterparts, but roughly one more year of (potential) experience than their cohabitating counterparts. Given these patterns, differences in human capital accumulation based on labor market experience are unlikely to

perfectly explain the sexual orientation gap for lesbian women. Specifically, differences in labor market experience may help explain the wage advantage lesbian women enjoy relative to cohabitating females as lesbian women have more labor market experience, but it does not explain the wage advantage they have relative to heterosexual and married women given lesbian women have less labor market experience. On the other hand, for gay males, labor market experience may be a good explanation for the patterns we observe in the sexual orientation wage gap. In particular, gay males earn less (more) than heterosexual and married (cohabitating) males and also acquire less (more) labor market experience.

Moreover, both gay males and lesbian females acquire more education than their heterosexual counterparts, irrespective of marital status. For example, 33.2 (29.4) percent of gay males (lesbian females) have graduated college relative to 18.4 (20.5) and 23.7 (22.1) of cohabitating and married males (females), respectively.¹⁸ Thus, differences in human capital accumulation as measured by educational attainment may explain wage advantages enjoyed by same-sex groups relative to their heterosexual counterparts but are unlikely to be an explanation for wage penalties suffered by same-sex groups relative to their heterosexual counterparts. Overall, therefore it is unclear how big of a role differences in human capital accumulation will play given we observe conflicting levels of support for the hypothesis depending on the measure of human capital considered.

Turning to occupational sorting, it can be seen that gay males are much less likely to be in occupations that are over 70 percent male relative to their heterosexual, married, and cohabitating counterparts (See Table 2). Specifically, gay men are less likely to be in the following occupations: protective, transportation, architecture/engineering, installation/repair,

¹⁸ Similar patterns are found for our three cohorts, 25-34, 35-44, and 45-59. These results are available upon request.

and construction/extraction (See Table 3).¹⁹ Alternatively, lesbian women are more likely to be in male dominated occupations, and therefore less likely to be in female dominated occupations, than their heterosexual, married, and cohabitating counterparts (See Table 2). However, these differences, while generally statistically significant, tend to be small, particularly in male dominated occupations.²⁰ For instance, 4.7 percent of lesbians are in occupations that are 80-90 percent male while 2.2 and 3.2 percent of married and cohabitating women are in these occupations, respectively. Interestingly, lesbian women are less likely to be in certain “pink-collar” occupations, including office administration and sales (See Table 3).²¹ Given male-dominated occupations tend to pay high wages, this may help account for the wage disadvantage experienced by gay males relative to heterosexual/married males and the wage advantage experienced by lesbian females relative to their heterosexual counterparts (irrespective of marital status), but does not help explain the wage advantage gay males enjoy relative to cohabitating males.

Labor market discrimination is the final explanation we examine. It is unclear how big of a role this will play given the sexual orientation wage gap tends to favor some same-sex groups but disfavor other same-sex groups. To more formally assess the relative roles of our three main explanations in explaining the sexual orientation wage gap, the remainder of the paper focuses on two types of wage decompositions, the Oaxaca (1973) decomposition and the DiNardo, Fortin and Lemieux (1996) decomposition.

¹⁹ Similar patterns are found for our three cohorts, 25-34, 35-44, and 45-59 and are available upon request.

²⁰ Perhaps not surprisingly, the patterns are more pronounced for women in the youngest cohort (25-34) compared to the older two cohorts (35-44 and 45-59). Overall, however, the patterns are similar and available upon request.

²¹ Summary statistics for all remaining variables are presented in Appendix Table 1.

V. Determinants of the Sexual Orientation Wage Gap

As a first attempt to formally identify the underlying causes of the sexual orientation wage gap, we perform a Oaxaca-Blinder (1973) decomposition. Specifically, we estimate log wage equations of the following form separately by sexual orientation group:

$$W_{ig} = \alpha_g + \beta_g X_{ig} + \varepsilon_{ig} \quad (1)$$

where W is log wages, i and g represent individuals and sexual orientation groups (heterosexual, married, cohabitating, and same-sex), respectively, X is a vector of individual characteristics (defined below) and ε is an error term with the usual properties.

Before discussing the decomposition, we present the results from equation (1). We estimate three specifications. Specification 1 includes controls for education, (potential) experience, part-time status, metropolitan area, and region, specification 2 includes specification 1 plus controls for categorical occupational male density, and specification 3 includes specification 1 plus controls for 21 occupational categories. For ease, we present the results for education, (potential) experience, part-time status, metropolitan area, and region based on specification 3 in Table 4, as the results are similar across specifications.²² In addition, we present the results for our two measures of occupation in specifications 2 and 3 in Tables 5 and 6, respectively.

Interestingly, for men there are generally no differences in the returns to observable characteristics by sexual orientation (See Table 4).²³ The only discernable difference by sexual orientation relates to region. For example, relative to the Pacific, gay males earn 32.4 percentage points less in the East South Central region while heterosexual, married, and cohabitating males

²² Results from specification 1 and 2 are available upon request.

²³ The main exception is the returns to post-college which are substantially lower (i.e., 7 percentage points) for gay males relative to their heterosexual and married counterparts.

earn 13.3, 13.9 and 15.6 percentage points less in this region, respectively. For women, we do observe more differences. Specifically, lesbian women earn lower returns to post-college degrees than their heterosexual counterparts, irrespective of marital status. For example, lesbian (heterosexual) women earn 57.7 (65.3) percentage points more for a post-college degree relative to a high school degree (See Table 4). Similarly, lesbian women earn 6 percentage points less for a college degree (relative to a high school degree) compared to their cohabitating counterparts. Moreover, lesbian women's experience-earnings profile has a very different shape from that of heterosexual, married or cohabitating women. Interestingly, unlike males, there are no differences in returns to region for females by sexual orientation.

Focusing on the returns to occupational male density in Table 5, it is once again apparent that the returns differ more so for lesbian women than for gay men. In particular, the only category for which there is a statistically significant difference by sexual orientation for men is for those occupations that are 70-80 percent male. In these occupations, gay males earn 16.7 percentage points more relative to occupations that are 50-60 percent male while heterosexual (married) males only earn 6.8 (6.1) percentage points more relative to occupations that are 50-60 percent male. For lesbian women there are differences in returns across the entire male density distribution. Interestingly, at the lower end of the distribution (i.e., female dominated occupations) lesbian women face a larger wage penalty than their heterosexual counterparts. Perhaps surprisingly, this wage penalty persists for lesbian women at the higher end of the distribution (i.e., male dominated occupations) but not for heterosexual women irrespective of marital status. This is suggestive that lesbian women fare better in occupations that are relatively evenly mixed by gender. This does not mean they earn the highest wages in these occupations as

the returns to occupations with higher male densities (i.e., 60-70 and 70-80 percent male) are higher for lesbian women.

To explore this further, we examine occupational categories in Table 6. For ease, we present the categories from lowest male density percentage to highest male density percentage (these percentages are replicated from Table 3 in the first column of Table 6) with sales as the omitted category which is 49.6 percent male. For men there is no difference in the returns to occupation (relative to sales) by sexual orientation once the percent male in an occupation exceeds 60 percent (i.e., from the science occupation to the construction/extraction occupation). Gay males do generally experience higher returns (relative to sales) and/or lower wage penalties for occupations where male representation is less than 50 percent. In particular, in health care gay (cohabitating) men earn 18.3 (3.7) percentage points more than in sales, while in the legal occupation gay men earn 44.2 percentage points more than sales while heterosexual, married and cohabitating males earn 27.7, 27.4, and 28.4 percentage points more, respectively. Similarly, the wage disadvantage is much less severe for gay men in education, social service, and food/serving occupations (between 10 to 23 percentage points less depending on the occupation).

For lesbian women, the pattern is reversed. They suffer a larger wage disadvantage (or a lower return) in occupations that are less than 50 percent male relative to sales than their heterosexual counterparts, ranging from 5 to 18 percentage points lower depending on occupation, although most wage penalties are roughly 15 percentage points lower. Further, lesbian women also experience lower returns at the top of the male occupation distribution. These differences at the top are even more pronounced than for female dominated occupations, that is, they range from 8 to 22 percentage points lower depending on the occupation, with roughly half being 20 percentage points or above. Again, these results illustrate that the wage

penalty is smallest in the most evenly mixed occupation, i.e., sales, for lesbian women. Lesbian women, however, do earn more (relative to sales) in many occupations, including healthcare, business/financial, and legal (all of which are “female” dominated occupations), as well as in management, computer/math, and architecture/engineering (all of which are “male” dominated occupations).

Taken together, these results suggest that differences in returns to characteristics by sexual orientation play a bigger role for women than for men.²⁴ Thus, ignoring these differences, as many of the previous studies do, may lead to incorrect conclusions about the magnitude of the unexplained component, e.g., discrimination, plays in explaining the sexual orientation wage gap. Moreover, by not allowing the returns to differ by sexual orientation one cannot fully discern the relative roles of each of the observable characteristics in explaining the sexual orientation wage gap (this is discussed further below). The remainder of the paper presents the decomposition results.

Quantification of sexual orientation earnings gaps requires computing what “same-sex” (SS) workers would earn if they had the same characteristics as “heterosexual” (H) workers. Following Oaxaca-Blinder (1973), the decomposition can then be given by:

$$\overline{W^H} - \overline{W^{SS}} = (\overline{X^H} - \overline{X^{SS}})\hat{\beta}^H + \overline{X^{SS}}(\hat{\beta}^H - \hat{\beta}^{SS}) + (\hat{\alpha}^H - \hat{\alpha}^{SS}) \quad (2)$$

where H represents either heterosexual, married or cohabitating couples and SS represents either gay or lesbian couples. Bars denote means and hats denote predicted values from equation (1).

²⁴ While we find similar patterns in the returns to observable characteristics by age for males, some differences by age do emerge for females. In particular, relative to the total female sample, the youngest female cohort (25-34) does not experience differences in returns for occupational male density by sexual orientation and the middle female cohort (35-44) does not experience differences in returns for (potential) experience. Results are available upon request.

This equation is using “heterosexual” weights as opposed to “same-sex” weights; however, similar results are found and available upon request using “same-sex” weights.

The decomposition results are reported in Panel A and Panel B of Table 7 for men and women, respectively. The “explained” column reports the proportion of the total wage differential attributable to differences in average socioeconomic characteristics. The final three rows of each panel report the total explained portion of the log wage differential, the total unexplained portion of the log wage differential, and total log wage differential, respectively. The unexplained portion is often referred to as discrimination in this literature but can be thought of more generally as differences due to unobservable characteristics.

For gay men relative to either heterosexual men or married men, the wage disadvantage can largely be explained by differences in experience and occupational density, although observable characteristics as a whole explain none of the wage gap. This is because some observable characteristics, such as education suggest that if gays had the same education levels as either heterosexual men or married men they would do even worse. Interestingly, when a looser definition of occupation is used, occupational sorting no longer plays a role.

The story is very different for same-sex groups that enjoy a wage advantage relative to their heterosexual counterparts. Specifically, observable characteristics account for almost the entire wage advantage (i.e., between 83 and 91 percent depending on the specification) that gay men enjoy relative to cohabitating men. The main driver is education which explains between 58 and 73 percent depending on the specification, although experience and occupation (as measured by occupational categories) do play a small role as well. Once again the results for occupation are mixed, in this case if gay men had the occupational density of cohabitating males, they would fare worse, i.e., their wage advantage would be reduced. As with the wage advantage of gay

males relative to cohabitating males, the lesbian wage advantage relative to their heterosexual counterparts (irrespective of marital status) can largely be explained by education, with a smaller role for experience and occupation. In particular, education explains roughly 70 (62) percent of the wage gap observed between lesbian and heterosexual/married (cohabitating) women and experience explains 9 percent of the wage advantage lesbian women have relative to cohabitating women. Unlike for men, both measures of occupation help to explain the observed difference in earnings between lesbians and their heterosexual counterparts, and occupational categories (the looser definition) plays a bigger role than one would intuitively expect. For example, occupational density explains 6 percent of the wage advantage lesbian women enjoy relative to cohabitating women while occupational categories explain 14 percent. Moreover, observable characteristics either explain or almost explain the entire wage premium depending on the specification considered.²⁵

How do these results compare to those based on the estimation technique traditionally presented in the literature? To answer this, we re-estimate equation (1) pooled by sexual orientation and include a dummy variable for same-sex partner. This specification forces the returns on observable characteristics to be the same for heterosexual and same-sex partners (we continue to estimate three specifications, the first excludes controls for occupation, the second includes occupational density, and the final includes occupational categories).²⁶ The coefficient on same-sex partner can be interpreted as the portion of the sexual orientation wage gap that is attributed to unobservable characteristics holding observable characteristics fixed. While we find the unexplained components are roughly the same as those found using the Oaxaca

²⁵ Similar results are found by cohort for both men and women. The main exception is experience generally plays a smaller role in explaining the sexual orientation wage gap. This is not surprising, given the smaller age groups examined. Results are available upon request.

²⁶ These results are available upon request.

decomposition (that is, roughly the entire wage penalty (advantage) between gay males and heterosexual/married (cohabitating) males is unexplained (explained) while roughly the entire wage advantage between lesbian women and their heterosexual counterparts (irrespective of marital status) is explained), this approach does not allow one to determine the relative explanatory power of each of the observable characteristics (that is, the relative importance of say education versus (potential) labor market experience in explaining the sexual orientation wage gap).

The Oaxaca-Blinder decomposition results suggest that differences in human capital accumulation (a supply side explanation) is the main reason behind the observed sexual orientation wage advantage, while discrimination and occupational sorting play a minimal role at best. On the other hand, unobservable characteristics, i.e., discrimination (a demand side explanation), largely explain the observed sexual orientation wage penalty.

Unfortunately, analysis of the mean sexual orientation wage gap overlooks that the gap may not be uniform along the entire distribution of wages. Figure 1 shows the sexual orientation wage gap at each wage percentile by subtracting the gay (lesbian) wage at that percentile from the heterosexual, married, or cohabitating male (female) wage at the same percentile within each sexual orientation group's wage distribution. Figure 1 allows us to compare earnings not only at the median and quartiles, but for all wage percentiles between the 4th to the 96th.²⁷ As before, positive (negative) values denote a wage penalty (wage advantage) for gays/lesbians relative to heterosexuals at the same wage percentile within each respective wage distribution.

According to Figure 1, lesbian women enjoy a wage advantage relative to heterosexual women, irrespective of marital status, at every wage percentile. The median wage advantage

²⁷ Trimming the wage percentiles at the tails within each sexual orientation group decreases the influence of outliers.

between lesbian women and heterosexual (20.9 percent), married (19.8 percent) and cohabitating (28.3 percent) women is slightly larger than the mean advantage (19.1, 18.3, and 27.5 percent, respectively). While the wage gap is fairly uniform along the entire distribution of earnings for cohabitating women, the wage advantage relative to heterosexual and married women declines by roughly a fifth in the top quartile of earnings. The pattern for gay males is quite different. Specifically, the median wage advantage enjoyed by gay men relative to cohabitating men (21.9 percent) is lower than the mean wage advantage (24.8 percent) whereas the median wage penalty suffered by gay men relative to heterosexual (5.3 percent) and married (6.9 percent) men is larger than the mean wage penalty (3.4 and 5.5 percent, respectively). The wage advantage enjoyed by gay men relative to cohabitating men is forty percent larger in the top quarter of the earnings distribution than in the bottom three quarters (31.8 percent vs. 22.4 percent). Figure 1 also shows that the sexual orientation wage penalty suffered by gay relative to heterosexual or married men falls to near zero for the top quarter of earnings distribution indicating near parity in the log wages of top earning gay and heterosexual or married men.²⁸

The wage penalty or advantage experienced by each sexual orientation group is not a uniform phenomenon over the entire wage distribution. Given the differences in the size of the sexual orientation wage gap along the distribution of earnings, it is possible that the relative importance of our three alternative explanations of the sexual orientation wage gap, human capital factors, occupational sorting, and discrimination, will vary along the distribution of earnings. Thus, the remainder of the paper examines an alternative decomposition approach that allows us to examine the role of these alternative explanations along the entire distribution of the sexual orientation wage gap.

²⁸ The wage penalty relative to heterosexual (married) men falls from an average of 4.0 percent (6.1 percent) for the bottom three quarters of earners to 0.1 percent (1.8 percent) for the top quarter.

V. Decomposition of the Sexual Orientation Wage Gap over the Distribution of Wages

The traditional Oaxaca decomposition approach in Section IV can only explain the role of socioeconomic characteristics and their returns for differences in mean wages. To analyze the explanatory power of our three potential sources of the sexual orientation wage gap over the entire distribution of wages, we adopt a DiNardo, Fortin and Lemieux (1996) (henceforth referred to as DFL) decomposition approach, which has not previously been used in the sexual orientation wage gap literature.

DFL introduce a technique to decompose differences along the entire distribution of wages. Specifically, the DFL technique uses a counterfactual distribution of wages to estimate how differences in covariates contribute towards differences in the distribution of wages between two groups. The technique is particularly well suited for our purposes as it allows us to estimate the role of human capital factors and occupational sorting along the distribution of wages, as well as allowing us to determine the unexplained component (i.e., discrimination) along the gap. The DFL decomposition estimates a counterfactual distribution of gay (lesbian) wages assuming that gay males (lesbian females) had the same distribution of human capital and exhibited the same occupational sorting as their heterosexual counterparts. The procedure provides a way to fully control for the role of observed differences in the distribution of human capital and occupational sorting factors between the gay (lesbian) and heterosexual male (female) wage distributions. Like the mean decomposition procedure, the method is a partial equilibrium exercise; it takes prices as exogenous and hence ignores possible general equilibrium effects.

The simple general regression model of Section IV, which is replicated here for explanatory ease, is given by:

$$W_{ig} = \alpha_g + \beta_g X_{ig} + \varepsilon_{ig} \quad (1)$$

where W , X , i , and g , represent log wages, individual characteristics, individual, and sexual orientation group, respectively. Each observation has an inverse probability weight (θ) associated with its probability of being included in the sample given the sample design.²⁹ So, the average measures of log wages and covariates of each group are the weighted sum of the individual observations:

$$\overline{W}_g = \sum_i \theta_{ig} W_{ig} \quad (3)$$

and similarly,

$$\overline{X}_g = \sum_i \theta_{ig} X_{ig} \quad (4)$$

where θ_{ig} denotes the sample weight of individual i in sexual orientation group g .

We are interested in the density of wages for all observations in sexual orientation group SS (i.e., same sex). This density of wages is equal to the integral over the joint distribution of wages and individual characteristics for observations in group SS. We denote this as:

$$f_{SS}(W) = \int_{X \in \Omega_X} dF(W, X | g = SS) \quad (5)$$

where $f_{SS}(W)$ is the density of wages for group SS and Ω_X represents the universe of covariates.

If sexual orientation group is considered a variable in the multivariate density function, then equation (5) can be rewritten as the integral of the density of wages conditional on attributes X observed for group SS, multiplied by the distribution of covariates observed for the SS group:

$$\int_{X \in \Omega_X} dF(W, X | g = SS) = \int_{X \in \Omega_X} f(W | X, g = SS) dF(X | g = SS) \quad (5')$$

²⁹ If all observations were equally likely to be included in the 2000 Census 5 percent Public Use Microdata sample, then each observations sample weight would be one.

where $f(W | X, g = SS)$ denotes the distribution of wages conditional on individual characteristics for the SS sexual orientation group and $dF(X | g = SS)$ denotes the distribution of characteristics conditional on membership in the SS group.

Following DFL, we define equation (5') as:

$$f(W; g_{w|x} = SS, g_x = SS) \equiv \int_{X \in \Omega_x} f(W | X, g = SS) dF(X | g = SS) \quad (6)$$

where $f(W; g_{w|x} = SS, g_x = SS)$ is the density of wages with wages conditional on covariates observed for the SS group ($g_{w|x} = SS$) and the distribution of covariates observed from the SS group ($g_x = SS$). This is the actual distribution of wages for the group.

If we assume that the conditional distribution $f(W | X, g = SS)$ does not depend on the distribution of covariates, we can construct a counterfactual density using equation (5'):

$$\begin{aligned} f(W; g_{w|x} = SS, g_x = H) &= \int_{X \in \Omega_x} f(W | X, g = SS) dF(X | g = H) \\ &= \int_{X \in \Omega_x} f(W | X, g = SS) \psi_x(X) dF(X | g = SS) \end{aligned} \quad (7)$$

where:

$$\psi_x(X) = \frac{dF(X | g = H)}{dF(X | g = SS)} \quad (8)$$

Equations (7) and (8), which lie at the heart of our analysis, allow us to estimate a counterfactual density of wages if the SS group had the same distribution of human capital, and exhibited the same occupational sorting as the heterosexual (H) group. $\psi_x(X)$ is the reweighting function based on an individual's observable covariates. Specifically, the reweighting function

decreases the weight of individuals in the SS group who are relatively less common in the H group than the SS group and increases the weight of individuals who are relatively more common in the H group than the SS group. Multiplying each observation of the SS group by its reweighting factor $\psi_X(X_{iSS})$ provides a counterfactual distribution of wages for the SS group if the group had the same distribution of covariates as the H group.

For example, 31.3 percent of 35 year-old gay males have earned a college degree. For 35 year-old cohabitating males the corresponding figure is 12.4 percent. The reverse pattern is found for a high school degree only. Only 11.1 percent of 35 year-old gay males report a high school degree only, compared to 40.7 percent of 35 year-old cohabitating males. Thus, college graduates (high school graduates) are over-represented (under-represented) in the same-sex male sample relative to the cohabitating male sample by a factor of roughly 0.40 [$\approx 0.124/0.313$] (3.67 [$\approx 0.407/0.111$]). The reweighting function adjusts the distribution of covariates in the gay sample to correct for these relative differences in human capital accumulation.

Multiplying each observation's weight by the reweighting factor generates a population of gay males or lesbian females with the distribution of observable covariates equal to the distribution of observable covariates of their heterosexual counterparts (heterosexual, married, or cohabitating). This can be denoted as:

$$\overline{X}_H = \sum_i \theta_{iH} X_{iH} \approx \sum_i \psi_X(X_{iSS}) \theta_{iSS} X_{iSS} \quad (9)$$

The equation holds with strict equality when X contains only discrete variables and can be divided into a limited number of cells.³⁰

The effect of reweighting individual covariates to their heterosexual levels can be estimated by approximating the reweighting function in stages:

³⁰ Lemieux (2002).

$$f(W; g_{W|X_1, X_{\neq 1}} = SS, g_{X_1|X_{\neq 1}} = SS, g_{X_{\neq 1}} = SS) =$$

$$\int \int_{X \in \Omega_X} f(W | X_1, X_{\neq 1}, g = SS) dF(X_1 | X_{\neq 1}, g = SS) dF(X_{\neq 1} | g = SS) \quad (10)$$

To estimate the counterfactual distribution of wages that would prevail if only the distribution of covariate X_1 was the same for the SS and H groups, we must again derive a reweighting factor that compares the conditional likelihood of X_1 based on the observation's other covariates for groups SS and H:

$$f(W; g_{W|X_1, X_{\neq 1}} = SS, g_{X_1|X_{\neq 1}} = H, g_{X_{\neq 1}} = SS) =$$

$$\int \int_{X \in \Omega_X} f(W | X_1, X_{\neq 1}, g = SS) dF(X_1 | X_{\neq 1}, g = H) dF(X_{\neq 1} | g = SS) =$$

$$\int \int_{X \in \Omega_X} f(W | X_1, X_{\neq 1}, g = SS) \psi_{X_1|X_{\neq 1}}(X_1, X_{\neq 1}) dF(X_1 | g = SS) dF(X_{\neq 1} | g = SS) \quad (11)$$

where

$$\psi_{X_1|X_{\neq 1}}(X_1, X_{\neq 1}) = \frac{dF(X_1 | X_{\neq 1}, g = H)}{dF(X_1 | X_{\neq 1}, g = SS)} \quad (12)$$

To estimate the role of occupational sorting on the distribution of wages for the SS group while leaving all other covariates at their original levels, we estimate the probability of being in each occupation based upon the other covariates for each sexual orientation group. The reweighting factor then is the simple ratio of these two probabilities. Suppose there are two occupations, healthcare and construction. If 80 percent of thirty-five year-old college graduate gay males work in healthcare occupations, but only 60 percent of thirty-five year-old college graduate

cohabitating males work in healthcare, the reweighting factor is 0.75 (0.60/0.80) for each gay male working in healthcare and 2.0 (0.40/0.20) for each gay male working in construction.³¹

To summarize, the DFL method allows for estimates of the effect of differences in covariates not only at the mean, but along the entire distribution of wages. If the observations W_{iss} are weighted by the product of their inverse probability weight, θ_{iss} , and their reweighting factor, $\psi_X(X)$, the resulting wage distribution represents the density of gay (lesbian) wages if the covariate distribution (e.g., human capital and occupational sorting) of the gay (lesbian) sample is changed such that it is equivalent to that of the selected heterosexual group, but any differences in the returns to covariates between the two groups remain unchanged. In this way the DFL procedure allows us to fully capture the role of human capital and occupational sorting explanations for the wage gap along the entire distribution of wages, as well as allows us to determine the unexplained component (i.e., discrimination) for the wage gap along the entire distribution of wages.

Using the DFL decomposition we plot the counterfactual sexual orientation wage gap over the distribution of wages for males (females) in Figures 2-4 (Figures 5-7). For expositional ease, Panel A of each figure replicates Figure 1 in pink, which as previously discussed, shows the raw sexual orientation wage gap. Positive (negative) values denote a wage penalty (wage advantage) for gays/lesbians relative to heterosexuals at the same wage percentile within each respective wage distribution. Panel A of each figure also shows the counterfactual wage gap (in blue), if conditional upon all other factors, the distribution of occupational sorting of the same

³¹ The order in which covariates are decomposed affects the size of their estimated effect on the counterfactual distribution of wages. The same covariate has a slightly larger estimated effect if it is accounted for earlier in the decomposition ordering. Similar patterns for our results are found when the sequential decompositions are conducted in reverse order. These results are available upon request.

sex group is changed such that it is equivalent to that of their heterosexual counterparts.³² If occupational sorting is the primary determinant of the sexual orientation wage gap, then the wage gap would be zero and the blue line would lie along the X-axis (i.e., the same-sex counterfactual wage density and the actual heterosexual wage density would be identical).

Panels B-C and Panels D-F of each figure explore human capital factors (education and (potential) experience) and personal characteristics (part-time status, metropolitan area, and region), respectively, of the wage gap. We follow the same convention of showing the pre-adjustment counterfactual wage gap in pink and the post-adjustment wage gap in blue. Hence the blue line in Panel A becomes the pink line in Panel B, the blue line in Panel B becomes the pink line in Panel C, and so on. For regions along the wage distribution where the blue line is closer to the X-axis than the pink line, the human capital/personal determinant plays a role in explaining the sexual orientation wage gap at that percentile. The final panel of each figure, (Panel G), shows the role of unexplained factors (i.e., discrimination) in the wage gap. Panel G shows the actual raw wage gap at each percentile in pink (this is the same as the pink line illustrated in Panel A) followed by the counterfactual wage gap after controlling for occupational sorting, human capital differences, and personal characteristic differences in blue. The distance between the pink line and the blue line shows the role of observable factors in explaining the wage gap at that wage percentile. The distance between the blue line and the X-axis shows the role of unexplained factors.

According to Panel A of Figures 2-7, the blue line generally never overlaps with the X-axis along the entire wage distribution. Thus, for both males and females we find a limited role

³² The DFL decompositions are based on our second measure of occupations, that is, 21 SOC occupation categories listed in Table 3. Given the order in which occupation is included in the decomposition (i.e., it is included as the first variable in each sequential decomposition), we are giving the largest possible explanatory power to theories relating to occupational sorting. However, results are similar if the order is changed (i.e., human capital factors are included as the first variable in each sequential decomposition).

for occupational sorting in explaining the sexual orientation wage gap. However there are some interesting differences above and below the median. Specifically, while occupational sorting theories cannot explain differences in the wages between gay and heterosexual and married males below the median wage, they do have some explanatory power above the median wage (see Panel A of Figures 2 and 3). Interestingly, Panel A of Figure 4 shows the reverse pattern for gay and cohabitating males, i.e., occupational sorting theories have more explanatory power for wages below the median than above it. The patterns for women are different. Panel A of Figure 5 (6) shows that differential sorting into occupations explains part of the wage advantage enjoyed by lesbian women relative to heterosexual (married) women for wages above the median, but would lead us to expect an even bigger wage advantage for workers in the bottom quarter of earnings. While occupational sorting plays a role for the wage advantage between middle earning lesbian and cohabitating females, it would lead us to expect a larger wage advantage for top earning lesbian women than we find empirically (see Panel A of Figure 7).

Given the limited role found for occupation sorting theories, can differences in human capital accumulation explain the sexual orientation wage gap? We find that differences in educational attainment, after controlling for occupational sorting, play a large role in explaining the sexual orientation wage advantage across the entire wage distribution for all groups. We can explain virtually the entire wage advantage enjoyed by gay males relative to cohabitating males after controlling for occupational sorting and differences in educational attainment (see Panel B of Figure 4); and we can explain anywhere from a half to three-quarters of the wage advantage enjoyed by lesbian females relative to their heterosexual counterparts (depending on the marital status of the comparison group) after controlling for occupational sorting and differences in educational attainment (see Panel B of Figures 5-7).

Occupational sorting and human capital differences in educational attainment cannot explain the wage penalty suffered by gay males relative to heterosexual or married males (see Panel B of Figures 2 and 3). Accounting for differences in occupation and education between the gay and married male groups would actually lead us to expect a much larger wage penalty than we find empirically. This is because if gay males are constrained to have the same distribution of education and occupations as married men, the relative proportion of college graduates and post-college graduates would fall in the in the gay male sample.³³

Accounting for differences in (potential) experience has more of an effect for explaining the wage differential for high earning workers (see Panel C of Figures 2-7). This may be a result of a higher premium for experience in higher earning, human capital intensive jobs than in lower earning, less human capital intensive jobs. Controlling for differences in selection into occupation, education and experience explains nearly the entire wage advantage enjoyed by gay males relative to cohabitating males (see Panel C of Figure 4). Yet when comparing gay males (lesbian females) to their heterosexual and married counterparts, controlling for differences in (potential) experience would actually increase the unexplained portion of the wage penalty (advantage) (see Panel C of Figures 2-3 and Figures 5-6 for males and females, respectively).

Panels D, E and F of Figures 2-7 adjust sequentially for differences in part-time status, metropolitan area and region between same-sex and heterosexual workers. Differences in working part-time or in a city do not play a significant role in explaining the sexual orientation wage gap for either gender. For all samples, adjusting for regional differences leads to a decrease in gay male (lesbian female) wages and increases (decreases) the sexual orientation

³³ Precisely, the distribution of occupation and education is constrained to be equal conditional on (potential) experience, part-time status, metropolitan area and region.

wage penalty (advantage) observed. This is because gay males and lesbian females are more likely to work in higher paid regions of the country.

The final panel of each figure illustrates the relative importance of unobservable factors, i.e., discrimination. Unobservable factors are most important for same-sex groups that suffer a wage penalty relative to their heterosexual counterparts. In particular, unexplained factors account for more than the entire wage penalty suffered by gay men relative to their heterosexual/married counterparts (see Panel G of Figures 2 and 3). Thus unexplained factors favor heterosexual/married males relative to gay males (i.e., the blue line lies *above* the X-axis). The relative importance of the unexplained component is greater than the raw gap as a result of educational differences between the groups, that is, we would expect gay males to out earn their married counterparts given their higher levels of educational attainment. Moreover, for gay males, unexplained factors leading to a wage penalty relative to heterosexual/married men are 20 percent larger for wages below the median than for those above.

While unobserved factors generally play a more limited role for same-sex groups that enjoy a wage advantage relative to their heterosexual counterparts, some interesting patterns still emerge. Unexplained factors contribute more towards the wage advantage enjoyed by lower earning lesbian women relative to higher earners. Specifically, the role of unexplained factors leading to a wage advantage for lesbian women is nearly twice as large below the median as above it (see Panel G of Figures 6 and 7). Moreover, unexplained factors favor lesbian women relative to heterosexual women (i.e., the blue line lies *below* the X-axis) which suggests that if discrimination is the primary driver of these unexplained factors, it is discrimination *in favor* of lesbian women at the expense of heterosexual women.

Taken together, like our analysis of the mean sexual orientation wage gap, these results imply that human capital factors (i.e., education and experience) play an important role in explaining the sexual orientation wage advantage enjoyed by lesbian women relative to their heterosexual counterparts (irrespective of marital status) and gay men relative to their cohabitating counterparts, while occupational sorting and discrimination play a more limited role. Yet the wage penalty suffered by gay men relative to their heterosexual/married counterparts is largely explained by unobservable characteristics (i.e., discrimination).

VII. Conclusion

Recent public and legislative debate has focused on earnings differentials between gay and lesbian Americans relative to their heterosexual counterparts. Sound policy must be based on addressing the underlying causes of these wage differentials. Using the 2000 Census we show that gay men face a wage penalty relative to their heterosexual (both married and cohabitating) and married counterparts, but enjoy a wage advantage relative to their cohabitating counterparts. Moreover, lesbian women enjoy a wage advantage relative to their heterosexual counterparts irrespective of marital status.

Given these patterns, it is unlikely that there will be a simple explanation of the sexual orientation wage differentials. In fact, the explanations likely differ depending on whether the sexual orientation group under consideration enjoys a wage premium or suffers from a wage penalty relative to their heterosexual counterparts. We therefore explore three potential explanations, differences in human capital accumulation, occupational sorting, and labor market discrimination, using an analysis of the mean wage gap. Specifically, using the Oaxaca-Blinder (1973) decomposition we find that differences in human capital accumulation, particularly education, is the main reason behind the observed wage advantage enjoyed by lesbian females

and their heterosexual counterparts (irrespective of marital status) and gay males and their cohabitating counterparts, while occupational sorting and discrimination play only a modest role. However, we find that the entire wage penalty suffered by gay males relative to their heterosexual/married counterparts is driven by unobservable factors (i.e., discrimination). In fact, the wage penalty would be even higher if gay males had the education levels of their heterosexual/married counterparts.

Unfortunately, analysis of the mean sexual orientation wage gap overlooks that the gap is not uniform along the entire distribution of wages, thus we expand our analysis by examining the determinants of the sexual orientation wage gap along the entire wage distribution using a DiNardo, Fortin, Lemieux (DFL) decomposition. We find that while gay males experience an average wage penalty relative to heterosexual/married males, top earning gay males earn wages nearly identical to their heterosexual and married counterparts. In addition, the wage advantage of top earning lesbian females relative to their heterosexual counterparts is smaller than the average advantage. The non-uniformity in the sexual orientation wage gap along the entire distribution of wages does lead to some small differences in the relative roles of our three alternative explanations across various portions of the wage distribution however the main conclusions from the analysis of the mean wage gap persist.

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Table 1. Log Hourly Wages by Gender, Sexual Orientation, and Cohort

Panel A: Males				
	Heterosexual	Married	Cohabiting	Gay
	(1)	(2)	(3)	(4)
Overall				
Log Hourly Wage	2.953 (0.615)	2.974 (0.613)	2.672 (0.570)	2.920 (0.621)
Wage Gap*	0.034	0.055	-0.248	
25-34				
Log Hourly Wage	2.740 (0.534)	2.765 (0.530)	2.587 (0.529)	2.727 (0.542)
Wage Gap*	0.013	0.037	-0.140	
35-44				
Log Hourly Wage	2.990 (0.604)	3.007 (0.601)	2.713 (0.570)	2.986 (0.636)
Wage Gap*	0.003	0.021	-0.273	
45-59				
Log Hourly Wage	3.076 (0.634)	3.084 (0.633)	2.854 (0.619)	3.056 (0.627)
Wage Gap*	0.020	0.028	-0.202	
Panel B: Females				
	Heterosexual	Married	Cohabiting	Lesbian
	(1)	(2)	(3)	(4)
Overall				
Log Hourly Wage	2.616 (0.575)	2.624 (0.576)	2.532 (0.559)	2.807 (0.579)
Wage Gap*	-0.191	-0.183	-0.275	
25-34				
Log Hourly Wage	2.554 (0.535)	2.567 (0.535)	2.481 (0.524)	2.581 (0.514)
Wage Gap*	-0.027	-0.014	-0.100	
35-44				
Log Hourly Wage	2.640 (0.597)	2.649 (0.598)	2.535 (0.573)	2.865 (0.584)
Wage Gap*	-0.225	-0.216	-0.330	
45-59				
Log Hourly Wage	2.639 (0.576)	2.639 (0.575)	2.647 (0.595)	2.969 (0.557)
Wage Gap*	-0.330	-0.331	-0.323	

Notes: The reported statistics are averages of the natural logarithm of hourly wage, with standard errors in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in mean log hourly wages in columns 1, 2, and 3 relative to column 4. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively.

Table 2. Experience, Education and Occupational Male Density by Gender and Sexual Orientation

	Males				Females			
	Heterosexual (1)	Married (2)	Cohabiting (3)	Gay (4)	Heterosexual (1)	Married (2)	Cohabiting (3)	Lesbian (4)
Experience	21.277 (9.225)	21.621 (9.153)	16.663 (8.939)	17.938 (7.956)	20.857 (9.474)	21.259 (9.402)	16.674 (9.204)	17.931 (7.993)
<i>Education</i>								
Less than HS Grad	0.046 (0.210)	0.044 (0.205)	0.079 (0.270)	0.015 (0.120)	0.030 (0.170)	0.028 (0.165)	0.048 (0.213)	0.017 (0.128)
HS Grad	0.271 (0.444)	0.265 (0.441)	0.348 (0.476)	0.123 (0.328)	0.277 (0.448)	0.276 (0.447)	0.294 (0.456)	0.123 (0.329)
Some College	0.240 (0.427)	0.238 (0.426)	0.255 (0.436)	0.256 (0.436)	0.257 (0.437)	0.255 (0.436)	0.277 (0.448)	0.232 (0.422)
Associates degree	0.079 (0.270)	0.080 (0.271)	0.072 (0.259)	0.082 (0.274)	0.108 (0.310)	0.109 (0.311)	0.099 (0.298)	0.091 (0.287)
College Grad	0.234 (0.423)	0.237 (0.426)	0.184 (0.388)	0.332 (0.471)	0.220 (0.414)	0.221 (0.415)	0.205 (0.403)	0.294 (0.456)
Post-College	0.130 (0.337)	0.135 (0.342)	0.061 (0.240)	0.193 (0.395)	0.108 (0.311)	0.111 (0.315)	0.077 (0.267)	0.243 (0.429)
<i>Occupational Male Density</i>								
10-20% Male	0.002 (0.048)	0.002 (0.047)	0.003 (0.058)	0.008 (0.090)	0.028 (0.166)	0.028 (0.164)	0.035 (0.183)	0.016 (0.127)
20-30% Male	0.115 (0.319)	0.116 (0.320)	0.105 (0.306)	0.244 (0.429)	0.484 (0.500)	0.493 (0.500)	0.387 (0.487)	0.340 (0.474)
40-50% Male	0.084 (0.277)	0.084 (0.278)	0.073 (0.261)	0.150 (0.357)	0.135 (0.341)	0.133 (0.339)	0.153 (0.360)	0.146 (0.353)
50-60% Male	0.129 (0.336)	0.129 (0.335)	0.131 (0.338)	0.191 (0.393)	0.118 (0.323)	0.115 (0.320)	0.148 (0.355)	0.120 (0.325)
60-70% Male	0.308 (0.462)	0.312 (0.463)	0.264 (0.441)	0.259 (0.438)	0.180 (0.384)	0.178 (0.382)	0.206 (0.404)	0.244 (0.429)
70-80% Male	0.058 (0.234)	0.059 (0.235)	0.055 (0.228)	0.073 (0.260)	0.026 (0.158)	0.025 (0.157)	0.029 (0.168)	0.056 (0.230)
80-90% Male	0.139 (0.346)	0.138 (0.345)	0.145 (0.352)	0.047 (0.212)	0.023 (0.149)	0.022 (0.146)	0.032 (0.176)	0.047 (0.211)
90-100% Male	0.165 (0.371)	0.160 (0.367)	0.223 (0.416)	0.028 (0.165)	0.006 (0.079)	0.006 (0.077)	0.011 (0.102)	0.031 (0.173)

Notes: The reported statistics are averages, with standard errors in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in means in columns 1, 2, and 3 relative to column 4. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively. Occupational male density categorizes the percentage of workers 18-65 who are male in 21 Standard Occupational Classification (SOC) major group occupations (see Table 3 for detailed occupations).

Table 3. Occupational Statistics by Male Density Percentage

Occupation	Males					Females			
	Male Density	Employment in Occupation				Employment in Occupation			
	% Male (1)	Heterosexual (2)	Married (3)	Cohabiting (4)	Gay (5)	Heterosexual (2)	Married (3)	Cohabiting (4)	Lesbian (5)
Healthcare Support	11.7%	0.002	0.002	0.003	0.008	0.028	0.028	0.035	0.016
Healthcare	21.8%	0.025	0.026	0.018	0.055	0.104	0.107	0.071	0.104
Personal Care	23.2%	0.004	0.004	0.007	0.023	0.020	0.020	0.024	0.016
Office Admin	25.1%	0.061	0.061	0.066	0.131	0.283	0.285	0.260	0.146
Education	28.8%	0.024	0.025	0.014	0.035	0.076	0.081	0.033	0.074
Social Service	41.7%	0.014	0.015	0.005	0.017	0.019	0.019	0.015	0.042
Food/Serving	42.0%	0.009	0.007	0.026	0.032	0.029	0.027	0.056	0.021
Business/Financial	43.6%	0.049	0.050	0.034	0.081	0.071	0.072	0.065	0.061
Legal	43.7%	0.011	0.012	0.008	0.021	0.015	0.015	0.017	0.022
Sales	49.6%	0.113	0.114	0.110	0.140	0.101	0.099	0.124	0.087
Arts	52.3%	0.016	0.016	0.021	0.050	0.017	0.016	0.024	0.034
Science	60.1%	0.013	0.013	0.011	0.014	0.009	0.009	0.011	0.023
Management	60.6%	0.163	0.167	0.100	0.203	0.109	0.109	0.107	0.161
Maintenance	60.9%	0.016	0.016	0.023	0.009	0.009	0.009	0.013	0.008
Production	67.8%	0.116	0.115	0.130	0.033	0.053	0.051	0.075	0.052
Computer/Math	69.7%	0.042	0.042	0.040	0.069	0.022	0.022	0.023	0.043
Protective	77.9%	0.017	0.017	0.015	0.004	0.004	0.004	0.006	0.013
Transportation	84.8%	0.089	0.087	0.110	0.026	0.015	0.014	0.023	0.030
Architecture/Eng.	86.6%	0.050	0.051	0.035	0.021	0.008	0.008	0.009	0.017
Install/Repair	95.0%	0.085	0.084	0.096	0.016	0.004	0.004	0.006	0.016
Construction/Ext.	97.2%	0.079	0.076	0.127	0.012	0.002	0.002	0.005	0.015

Notes: The reported statistics present the percentage of workers in each sample employed in the occupation. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in means in columns 1, 2, and 3 relative to column 4. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively.

Table 4. Selected OLS Coefficients (Dependent Variable: Log hourly wages)

	Males				Females			
	Specification 3				Specification 3			
	Heterosexual	Married	Cohabiting	Gay	Heterosexual	Married	Cohabiting	Lesbian
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Less than HS grad	-0.197 (0.003)	-0.189 (0.003)	-0.196 (0.009)	-0.203 (0.071)	-0.176 (0.004)	-0.169 (0.004)	-0.210 (0.012)	-0.248 (0.049)
Some College	0.102 (0.002)	0.100 (0.002)	0.090 (0.006)	0.082 (0.025)	0.111 (0.002)	0.108 (0.002)	0.127 (0.006)	0.119 (0.024)
Associates degree	0.142 (0.002)	0.137 (0.003)	0.131 (0.009)	0.098 (0.032)	0.198 (0.002)	0.196 (0.003)	0.209 (0.009)	0.206 (0.031)
College Grad	0.418 (0.002)	0.413 (0.002)	0.367 (0.009)	0.396 (0.026)	0.424 (0.002)	0.420 (0.002)	0.439 (0.009)	0.384 (0.025)
Post-College	0.624 (0.003)	0.617 (0.003)	0.559 (0.016)	0.550 (0.032)	0.653 (0.003)	0.651 (0.003)	0.624 (0.013)	0.577 (0.029)
Experience	0.111 (0.002)	0.112 (0.002)	0.093 (0.007)	0.097 (0.024)	0.082 (0.002)	0.084 (0.002)	0.067 (0.007)	0.046 (0.022)
Experience ² /100	-0.523 (0.017)	-0.533 (0.018)	-0.515 (0.060)	-0.444 (0.203)	-0.445 (0.017)	-0.460 (0.018)	-0.380 (0.058)	0.003 (0.190)
Experience ³ /1000	0.115 (0.005)	0.118 (0.006)	0.135 (0.020)	0.096 (0.069)	0.106 (0.006)	0.110 (0.006)	0.105 (0.020)	-0.055 (0.066)
Experience ⁴ /10000	-0.010 (0.001)	-0.010 (0.001)	-0.013 (0.002)	-0.008 (0.008)	-0.009 (0.001)	-0.009 (0.001)	-0.011 (0.002)	0.009 (0.008)
Part Time	-0.073 (0.006)	-0.059 (0.007)	-0.107 (0.015)	-0.064 (0.042)	-0.116 (0.002)	-0.120 (0.002)	-0.071 (0.009)	-0.118 (0.029)
Metro Area	0.146 (0.002)	0.149 (0.002)	0.131 (0.006)	0.166 (0.031)	0.160 (0.002)	0.159 (0.002)	0.179 (0.006)	0.118 (0.022)
New England	-0.024 (0.003)	-0.025 (0.004)	-0.027 (0.011)	-0.090 (0.033)	-0.033 (0.003)	-0.034 (0.004)	-0.024 (0.010)	-0.071 (0.030)
Middle Atlantic	-0.006 (0.003)	-0.007 (0.003)	-0.028 (0.010)	-0.024 (0.031)	-0.045 (0.003)	-0.046 (0.003)	-0.039 (0.009)	-0.002 (0.027)
East North Central	-0.039 (0.003)	-0.043 (0.003)	-0.046 (0.009)	-0.207 (0.026)	-0.107 (0.003)	-0.110 (0.003)	-0.091 (0.008)	-0.089 (0.025)
West North Central	-0.129 (0.003)	-0.134 (0.003)	-0.120 (0.011)	-0.270 (0.001)	-0.160 (0.003)	-0.166 (0.003)	-0.123 (0.011)	-0.133 (0.032)
South Atlantic	-0.110 (0.003)	-0.112 (0.003)	-0.129 (0.009)	-0.170 (0.024)	-0.122 (0.003)	-0.125 (0.003)	-0.111 (0.008)	-0.103 (0.022)
East South Central	-0.133 (0.003)	-0.139 (0.003)	-0.156 (0.014)	-0.324 (0.037)	-0.189 (0.003)	-0.193 (0.004)	-0.190 (0.013)	-0.130 (0.043)
West South Central	-0.120 (0.003)	-0.124 (0.003)	-0.145 (0.011)	-0.189 (0.029)	-0.171 (0.003)	-0.176 (0.003)	-0.149 (0.011)	-0.128 (0.032)
Mountain	-0.115 (0.003)	-0.117 (0.003)	-0.120 (0.011)	-0.205 (0.033)	-0.143 (0.003)	-0.146 (0.004)	-0.121 (0.011)	-0.128 (0.032)
Constant	1.870 (0.010)	1.885 (0.011)	1.934 (0.032)	1.893 (0.105)	1.821 (0.009)	1.828 (0.010)	1.829 (0.028)	1.979 (0.095)
Observations	809582	753957	55625	5696	670665	617273	53392	5784
R-Squared	0.30	0.29	0.24	0.32	0.31	0.31	0.31	0.29

Notes: The dependent variable is the natural logarithm of the hourly wage. The coefficients are estimated by ordinary least squares, and robust standard errors are in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in estimated coefficients in columns 1, 2, and 3 relative to column 4. In addition to the variables listed, each regression contains controls for the 21 SOC major group occupation categories listed in Table 3.

Table 5. Occupational Male Density OLS Coefficients (Dependent Variable: Log hourly wages)

	Males				Females			
	Specification 2				Specification 2			
	Heterosexual (1)	Married (2)	Cohabiting (3)	Gay (4)	Heterosexual (1)	Married (2)	Cohabiting (3)	Lesbian (4)
<i>Occupational Male Density</i>								
10-20% Male	-0.339 (0.013)	-0.346 (0.014)	-0.249 (0.038)	-0.314 (0.058)	-0.132 (0.004)	-0.131 (0.005)	-0.144 (0.014)	-0.247 (0.051)
20-30% Male	-0.118 (0.003)	-0.119 (0.003)	-0.110 (0.011)	-0.104 (0.025)	0.005 (0.003)	0.006 (0.003)	-0.005 (0.008)	-0.102 (0.027)
40-50% Male	-0.093 (0.004)	-0.095 (0.004)	-0.072 (0.013)	-0.041 (0.029)	0.025 (0.003)	0.032 (0.003)	-0.039 (0.009)	-0.113 (0.032)
60-70% Male	0.065 (0.003)	0.065 (0.003)	0.038 (0.009)	0.084 (0.026)	0.127 (0.003)	0.134 (0.003)	0.071 (0.009)	0.021 (0.029)
70-80% Male	0.068 (0.003)	0.061 (0.003)	0.163 (0.013)	0.167 (0.031)	0.303 (0.005)	0.305 (0.005)	0.276 (0.014)	0.110 (0.038)
80-90% Male	-0.042 (0.003)	-0.043 (0.003)	-0.036 (0.010)	-0.054 (0.042)	0.059 (0.005)	0.065 (0.006)	0.018 (0.015)	-0.041 (0.038)
90-100% Male	0.020 (0.003)	0.020 (0.003)	0.029 (0.009)	0.018 (0.049)	0.163 (0.010)	0.171 (0.011)	0.121 (0.026)	-0.030 (0.052)

Notes: The dependent variable is the natural logarithm of the hourly wage. The coefficients are estimated by ordinary least squares, and robust standard errors are in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in estimated coefficients in columns 1, 2, and 3 relative to column 4. The sample sizes for samples are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively. In addition to the variables listed, each regression contains a constant, a quartic in potential experience and indicator variables for 7 education categories, 9 regions, part-time status, and lives in a metro area.

Table 6. Occupation Category Coefficients (Dependent Variable: Log hourly wages)

	Males				Females			
	Specification 3				Specification 3			
	Heterosexual	Married	Cohabiting	Gay	Heterosexual	Married	Cohabiting	Lesbian
(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	
<i>Census Bureau Occupational Categories (Percent male in Occupation)</i>								
Healthcare Support (11.7%)	-0.366 (0.014)	-0.373 (0.014)	-0.268 (0.038)	-0.332 (0.062)	-0.138 (0.004)	-0.136 (0.005)	-0.155 (0.014)	-0.271 (0.053)
Healthcare (21.8%)	0.122 (0.006)	0.124 (0.007)	0.037 (0.027)	0.183 (0.042)	0.238 (0.003)	0.241 (0.004)	0.190 (0.012)	0.055 (0.039)
Personal Care (23.2%)	-0.295 (0.011)	-0.297 (0.012)	-0.211 (0.032)	-0.182 (0.059)	-0.196 (0.006)	-0.203 (0.006)	-0.142 (0.020)	-0.303 (0.063)
Office Admin (25.1%)	-0.150 (0.003)	-0.152 (0.003)	-0.116 (0.012)	-0.179 (0.029)	-0.004 (0.003)	-0.004 (0.003)	-0.003 (0.009)	-0.155 (0.034)
Education (28.8%)	-0.270 (0.005)	-0.275 (0.005)	-0.182 (0.025)	-0.108 (0.046)	-0.103 (0.004)	-0.102 (0.004)	-0.133 (0.016)	-0.175 (0.039)
Social Service (41.7%)	-0.585 (0.006)	-0.597 (0.006)	-0.269 (0.034)	-0.351 (0.057)	-0.138 (0.005)	-0.139 (0.005)	-0.132 (0.017)	-0.298 (0.043)
Food/Serving (42.0%)	-0.438 (0.007)	-0.429 (0.008)	-0.388 (0.016)	-0.343 (0.044)	-0.308 (0.005)	-0.308 (0.005)	-0.306 (0.013)	-0.457 (0.060)
Business/Financial (43.6%)	0.051 (0.004)	0.043 (0.004)	0.150 (0.017)	0.064 (0.035)	0.195 (0.004)	0.195 (0.004)	0.182 (0.012)	0.032 (0.044)
Legal (43.7%)	0.277 (0.009)	0.274 (0.009)	0.284 (0.039)	0.442 (0.064)	0.266 (0.007)	0.269 (0.007)	0.234 (0.023)	0.217 (0.058)
Arts (52.3%)	-0.092 (0.006)	-0.097 (0.006)	-0.003 (0.022)	0.034 (0.046)	0.060 (0.007)	0.058 (0.007)	0.080 (0.019)	-0.017 (0.053)
Science (60.1%)	-0.070 (0.006)	-0.068 (0.006)	-0.101 (0.028)	-0.162 (0.072)	0.107 (0.008)	0.117 (0.009)	0.022 (0.028)	-0.061 (0.052)
Management (60.6%)	0.165 (0.003)	0.162 (0.003)	0.179 (0.013)	0.171 (0.031)	0.250 (0.004)	0.254 (0.004)	0.206 (0.011)	0.108 (0.036)
Maintenance (60.9%)	-0.332 (0.005)	-0.334 (0.005)	-0.278 (0.017)	-0.393 (0.076)	-0.266 (0.007)	-0.265 (0.008)	-0.274 (0.023)	-0.364 (0.071)
Production (67.8%)	-0.055 (0.003)	-0.055 (0.003)	-0.039 (0.010)	-0.068 (0.049)	-0.016 (0.004)	-0.014 (0.004)	-0.022 (0.011)	-0.159 (0.042)
Computer/Math (69.7%)	0.155 (0.004)	0.146 (0.004)	0.265 (0.015)	0.207 (0.034)	0.385 (0.005)	0.387 (0.005)	0.365 (0.015)	0.165 (0.046)
Protective (77.9%)	-0.140 (0.005)	-0.147 (0.005)	-0.048 (0.022)	-0.044 (0.079)	0.091 (0.011)	0.087 (0.012)	0.123 (0.032)	-0.030 (0.058)
Transportation (84.8%)	-0.170 (0.003)	-0.171 (0.003)	-0.145 (0.011)	-0.231 (0.055)	-0.062 (0.006)	-0.057 (0.007)	-0.088 (0.018)	-0.142 (0.049)
Architecture/Eng. (86.6%)	0.093 (0.003)	0.086 (0.003)	0.186 (0.014)	0.157 (0.054)	0.279 (0.007)	0.281 (0.008)	0.260 (0.020)	0.078 (0.052)
Install/Repair (95.0%)	-0.046 (0.003)	-0.048 (0.003)	-0.012 (0.011)	0.051 (0.054)	0.200 (0.011)	0.201 (0.012)	0.195 (0.030)	-0.014 (0.073)
Construction/Ext. (97.2%)	-0.018 (0.003)	-0.013 (0.003)	-0.016 (0.011)	-0.115 (0.083)	0.083 (0.019)	0.102 (0.022)	0.019 (0.043)	-0.118 (0.068)

Notes: The dependent variable is the natural logarithm of hourly wage. The coefficients are estimated by ordinary least squares, and robust standard errors are in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in estimated coefficients in columns 1, 2, and 3 relative to column 4. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively. In addition to the variables listed, each regression contains a constant, a quartic in potential experience and indicator variables for 7 education categories, 9 regions, part-time status, and lives in a metro area.

Table 7. Oaxaca Decomposition

Panel A: Males									
	Heterosexual vs. Gay			Married vs. Gay			Cohabiting vs. Gay		
	Specification 1	Specification 2	Specification 3	Specification 1	Specification 2	Specification 3	Specification 1	Specification 2	Specification 3
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
<i>Education</i>	-0.103	-0.106	-0.088	-0.095	-0.099	-0.082	-0.175	-0.179	-0.142
<i>Experience</i>	0.036	0.036	0.036	0.040	0.040	0.040	-0.029	-0.029	-0.029
<i>Part Time</i>	0.003	0.003	0.002	0.003	0.003	0.001	0.001	0.001	0.001
<i>Metro Area</i>	-0.022	-0.022	-0.019	-0.023	-0.023	-0.020	-0.017	-0.017	-0.015
<i>Region</i>	-0.010	-0.010	-0.009	-0.011	-0.011	-0.010	-0.003	-0.003	-0.002
<i>Male Density</i>		0.024			0.025			0.021	
<i>Occupation</i>			-0.004			-0.002			-0.037
<i>Explained</i>	-0.096	-0.076	-0.083	-0.086	-0.066	-0.072	-0.222	-0.205	-0.223
<i>Unexplained</i>	0.133	0.113	0.120	0.144	0.124	0.130	-0.023	-0.041	-0.022
<i>Total Log Wage Gap</i>	0.037	0.037	0.037	0.058	0.058	0.058	-0.246	-0.246	-0.246

Panel B: Females									
	Heterosexual vs. Lesbian			Married vs. Lesbian			Cohabiting vs. Lesbian		
	Specification 1	Specification 2	Specification 3	Specification 1	Specification 2	Specification 3	Specification 1	Specification 2	Specification 3
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
<i>Education</i>	-0.133	-0.130	-0.116	-0.128	-0.126	-0.112	-0.170	-0.167	-0.142
<i>Experience</i>	0.008	0.009	0.009	0.010	0.010	0.011	-0.025	-0.024	-0.023
<i>Part Time</i>	-0.014	-0.012	-0.010	-0.015	-0.013	-0.011	-0.004	-0.004	-0.002
<i>Metro Area</i>	-0.019	-0.019	-0.017	-0.020	-0.020	-0.017	-0.015	-0.015	-0.013
<i>Region</i>	-0.019	-0.019	-0.018	-0.021	-0.021	-0.020	-0.007	-0.007	-0.006
<i>Male Density</i>		-0.024			-0.025			-0.016	
<i>Occupation</i>			-0.032			-0.032			-0.039
<i>Explained</i>	-0.177	-0.196	-0.184	-0.175	-0.194	-0.181	-0.221	-0.232	-0.225
<i>Unexplained</i>	-0.013	0.006	-0.006	-0.007	0.012	-0.001	-0.053	-0.042	-0.050
<i>Total Log Wage Gap</i>	-0.190	-0.190	-0.190	-0.182	-0.182	-0.182	-0.274	-0.274	-0.274

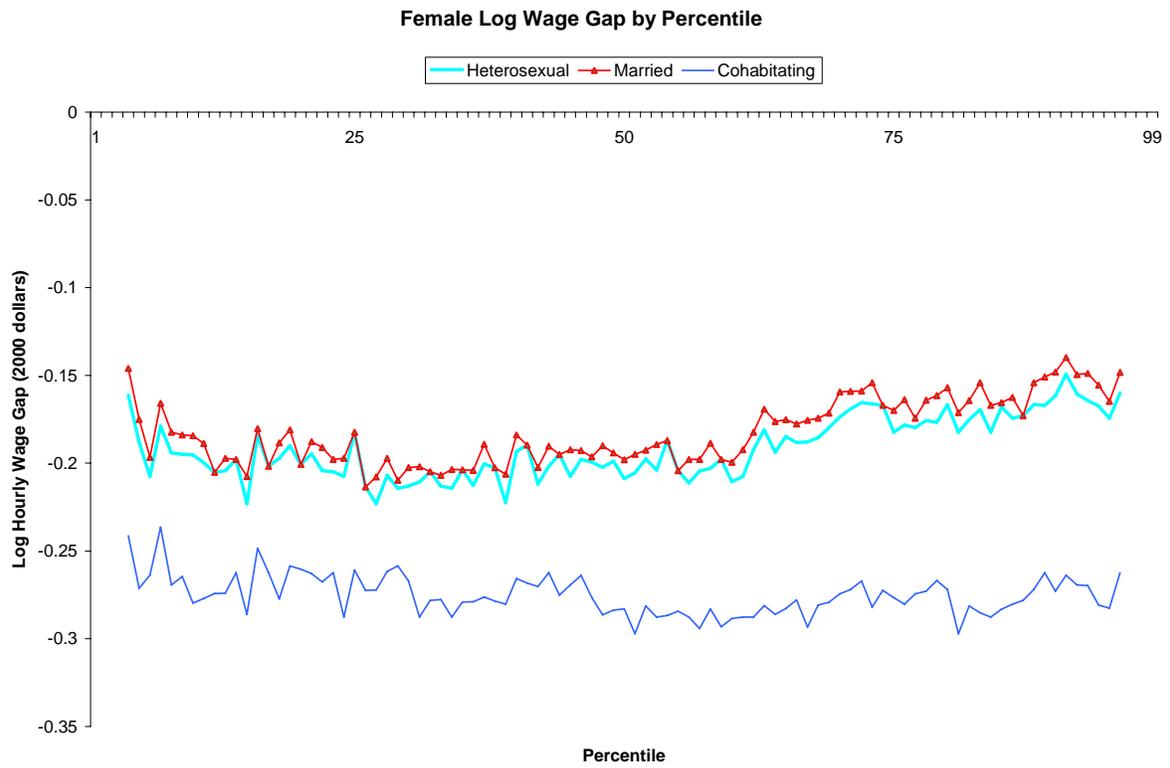
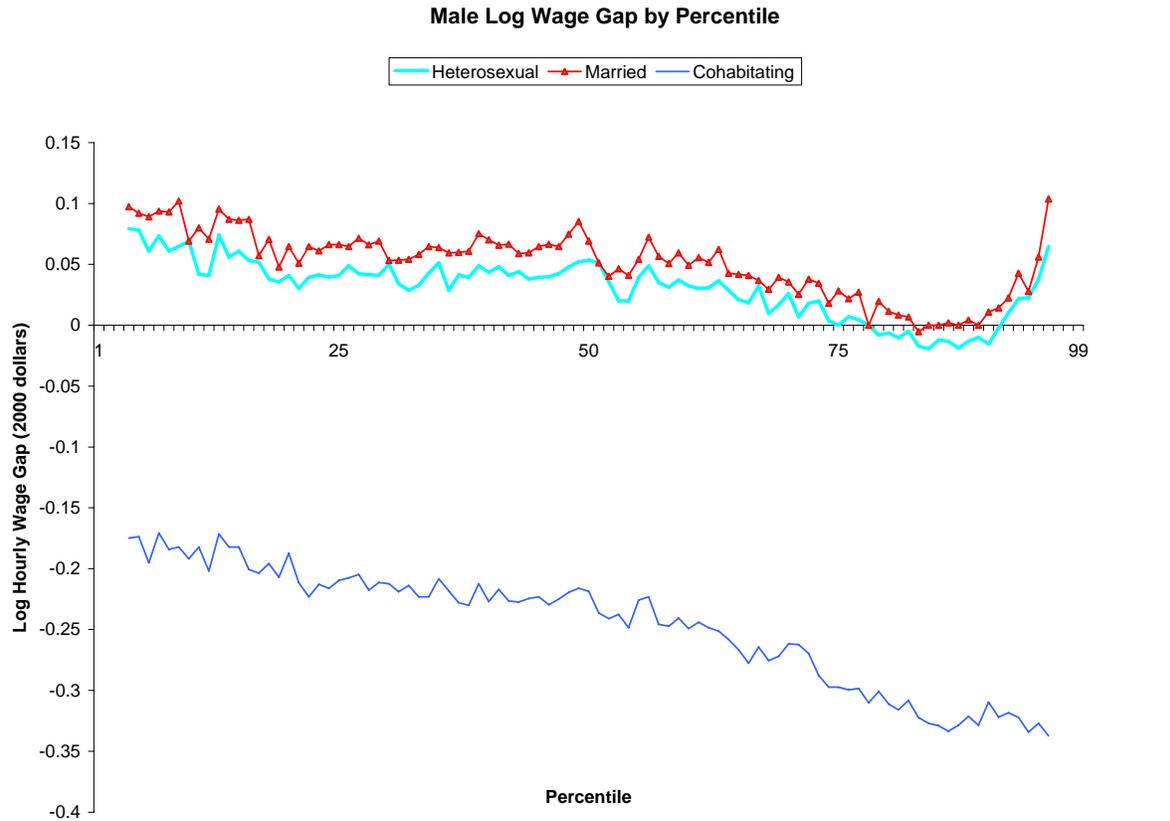
Notes: Presents Oaxaca Wage Decomposition results for the explained and unexplained portion of the log hourly wage gap between each heterosexual sample and the same sex sample. We further decompose the explained portion into subcategories to illustrate the relative importance of particular observable characteristics. Specifically, education represents the total explained effect of the 6 education dummies; experience represents the total explained effect of the quartic in potential experience; region represents the total explained effect by the 8 region dummies; male density represents the total explained effect of the 7 occupational male density dummies; and occupation represents the total explained effect of the 20 SOC major group occupation dummies. Within each specification, the heterosexual OLS coefficients from Tables 4 through 6 are used to weight the mean differences in observable characteristics between heterosexuals and same sex partners. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabiting, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabiting, and 5,784 for Lesbian women, respectively.

Appendix Table 1. Selected Descriptive Statistics by Gender and Sexual Orientation

	Males				Females			
	Heterosexual (1)	Married (2)	Cohabitating (3)	Gay (4)	Heterosexual (1)	Married (2)	Cohabitating (3)	Lesbian (4)
Age	41.366 (9.013)	41.765 (8.915)	36.030 (8.612)	38.961 (7.921)	40.849 (9.015)	41.280 (8.926)	36.373 (8.709)	39.097 (7.963)
Part Time	0.014 (0.117)	0.013 (0.113)	0.028 (0.165)	0.036 (0.186)	0.140 (0.347)	0.146 (0.353)	0.079 (0.270)	0.053 (0.223)
Metro Area	0.827 (0.378)	0.826 (0.379)	0.844 (0.362)	0.958 (0.201)	0.819 (0.385)	0.816 (0.387)	0.852 (0.355)	0.924 (0.266)
New England	0.058 (0.234)	0.057 (0.231)	0.073 (0.260)	0.059 (0.235)	0.059 (0.235)	0.057 (0.233)	0.073 (0.261)	0.087 (0.282)
Middle Atlantic	0.131 (0.338)	0.130 (0.337)	0.140 (0.347)	0.136 (0.343)	0.132 (0.339)	0.131 (0.337)	0.145 (0.352)	0.126 (0.332)
East North Central	0.194 (0.395)	0.194 (0.396)	0.185 (0.388)	0.141 (0.348)	0.193 (0.394)	0.193 (0.395)	0.188 (0.391)	0.142 (0.349)
West North Central	0.090 (0.286)	0.090 (0.287)	0.081 (0.273)	0.050 (0.219)	0.099 (0.299)	0.101 (0.301)	0.081 (0.272)	0.071 (0.257)
South Atlantic	0.178 (0.383)	0.178 (0.383)	0.178 (0.382)	0.209 (0.407)	0.181 (0.385)	0.181 (0.385)	0.175 (0.380)	0.186 (0.389)
East South Central	0.065 (0.247)	0.067 (0.250)	0.042 (0.200)	0.031 (0.174)	0.064 (0.245)	0.066 (0.249)	0.041 (0.197)	0.028 (0.165)
West South Central	0.101 (0.301)	0.103 (0.304)	0.074 (0.262)	0.092 (0.289)	0.098 (0.297)	0.101 (0.301)	0.069 (0.254)	0.078 (0.268)
Mountain	0.068 (0.252)	0.067 (0.251)	0.076 (0.265)	0.069 (0.253)	0.065 (0.247)	0.064 (0.245)	0.075 (0.264)	0.069 (0.253)
Pacific	0.115 (0.319)	0.112 (0.316)	0.153 (0.360)	0.212 (0.409)	0.110 (0.312)	0.105 (0.307)	0.153 (0.360)	0.213 (0.409)

Notes: The reported statistics are averages, with standard errors in parentheses. To facilitate comparisons between sexual orientation groups, bolded values in columns 1, 2, and 3, represent a statistically significant difference at the 5% level in means in columns 1, 2, and 3 relative to column 4. The sample sizes are 809,582 for Heterosexual, 753,957 for Married, 55,625 for Cohabitating, and 5,696 for Gay men and 670,665 for Heterosexual, 617,273 for Married, 53,392 for Cohabitating, and 5,784 for Lesbian women, respectively.

Figure 1: Sexual Orientation Wage Gap by Gender



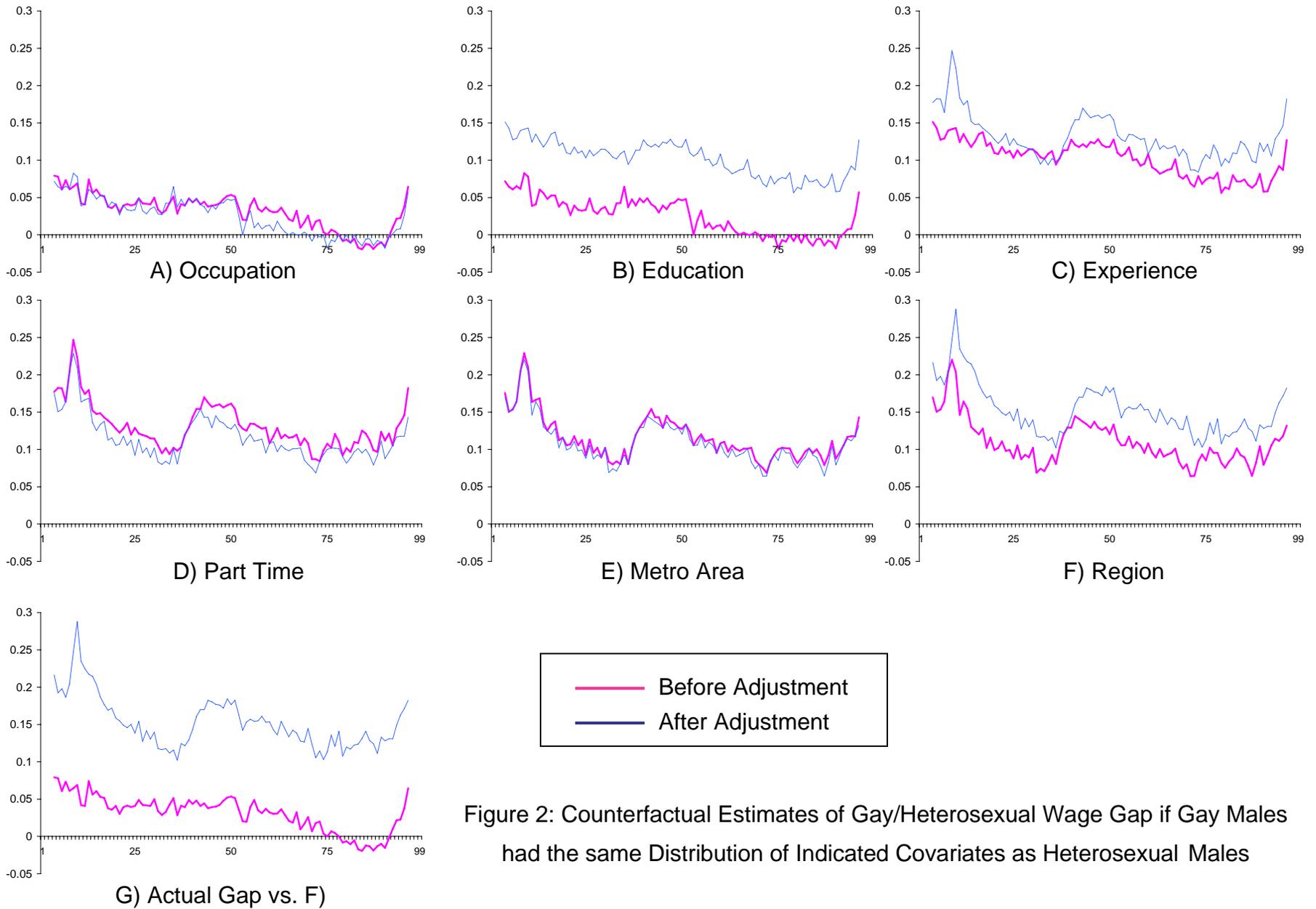


Figure 2: Counterfactual Estimates of Gay/Heterosexual Wage Gap if Gay Males had the same Distribution of Indicated Covariates as Heterosexual Males

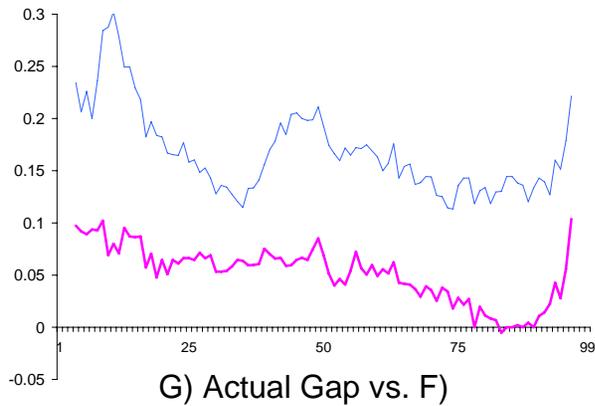
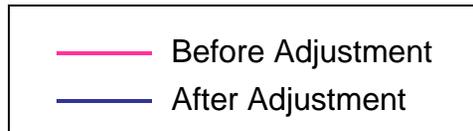
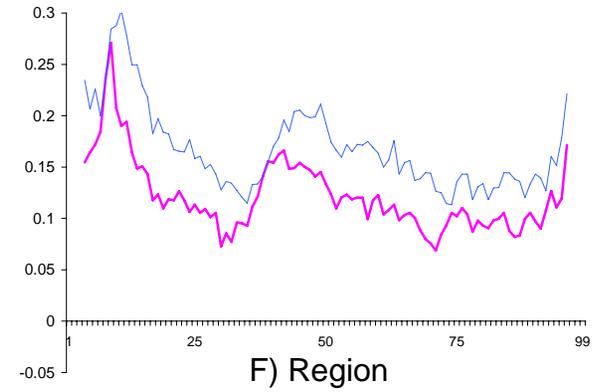
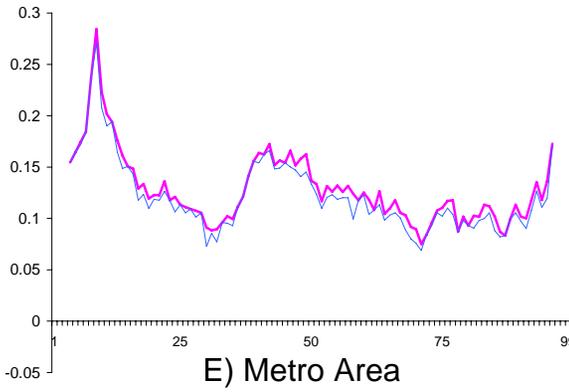
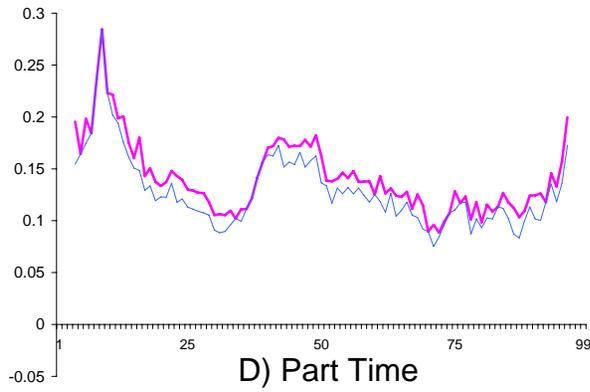
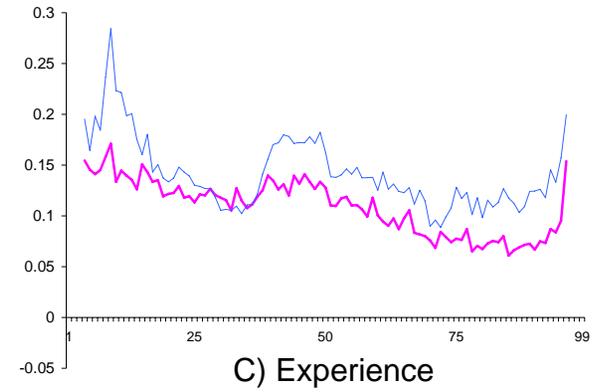
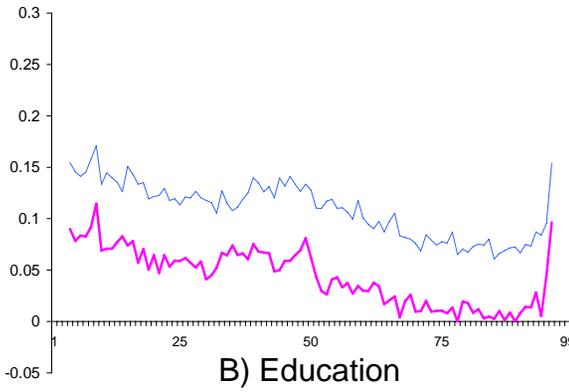
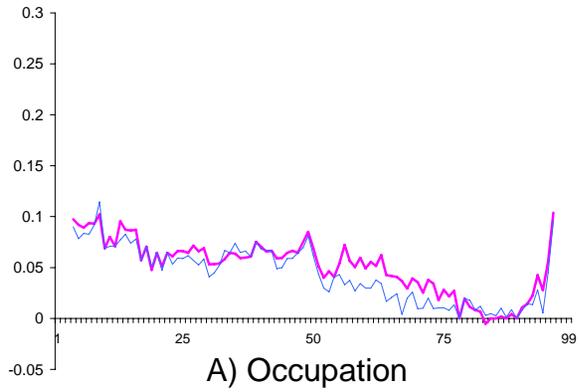


Figure 3: Counterfactual Estimates of Gay/Married Wage Gap if Gay Males had the same Distribution of Indicated Covariates as Married Males

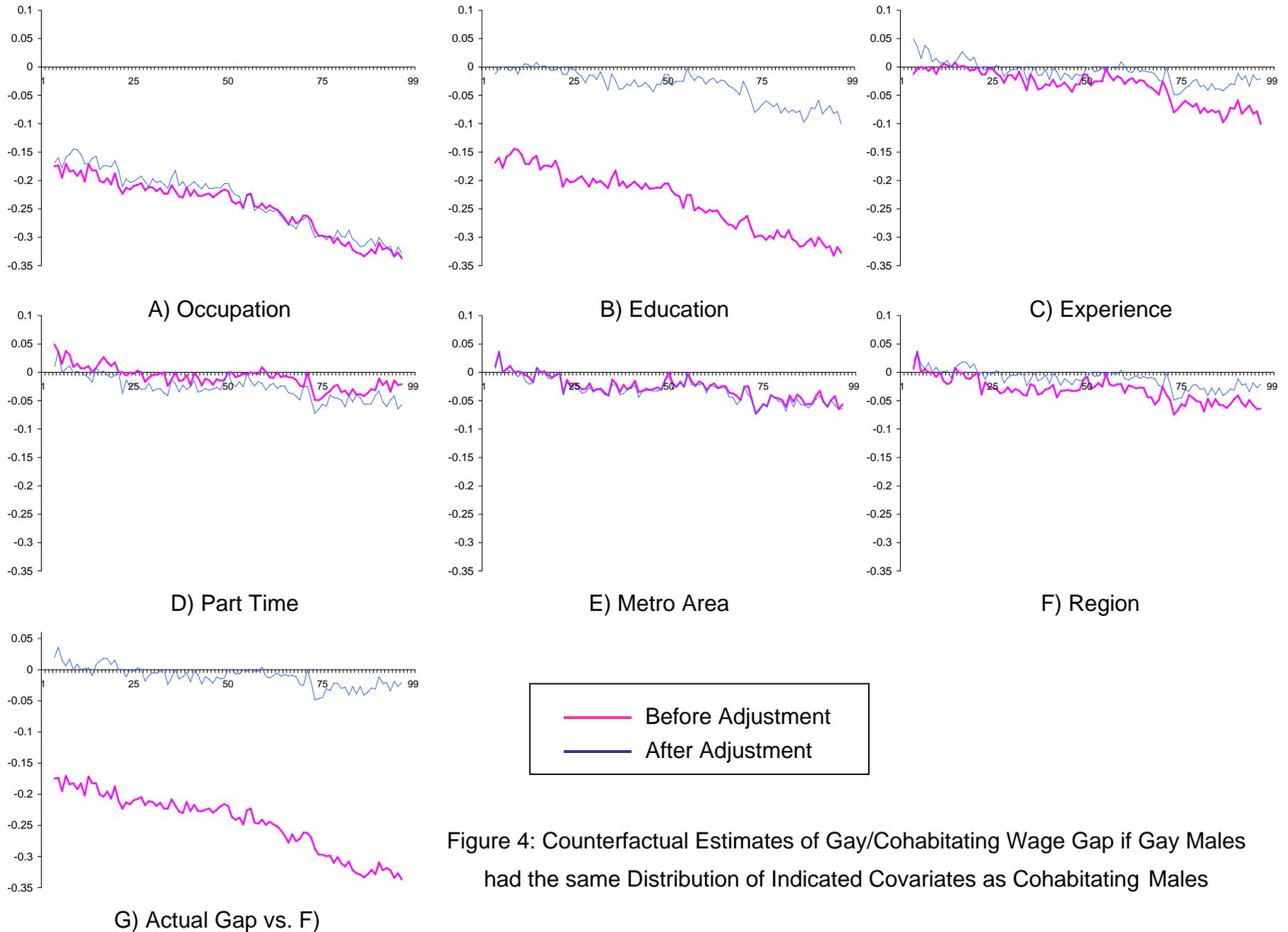


Figure 4: Counterfactual Estimates of Gay/Cohabiting Wage Gap if Gay Males had the same Distribution of Indicated Covariates as Cohabiting Males

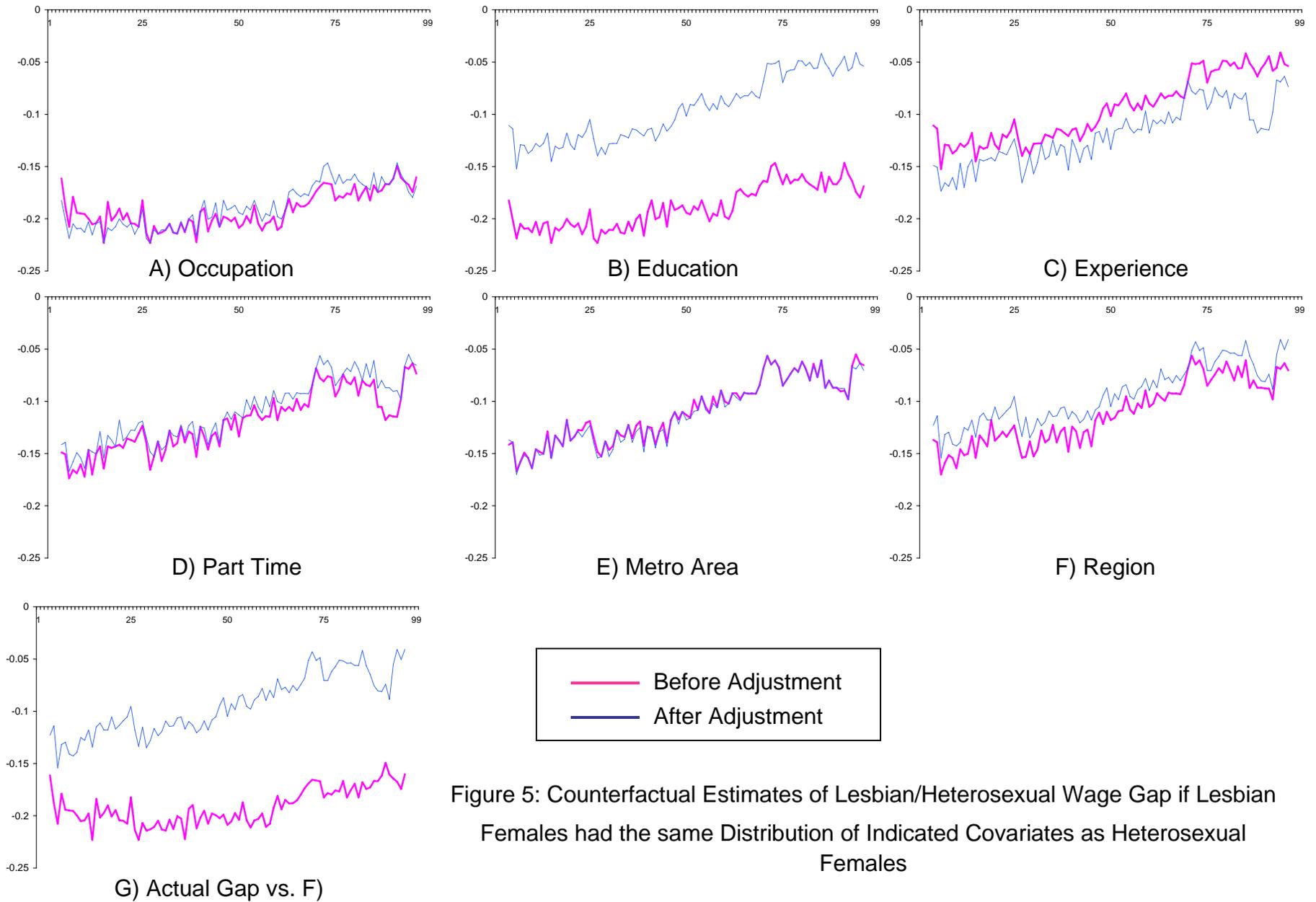


Figure 5: Counterfactual Estimates of Lesbian/Heterosexual Wage Gap if Lesbian Females had the same Distribution of Indicated Covariates as Heterosexual Females

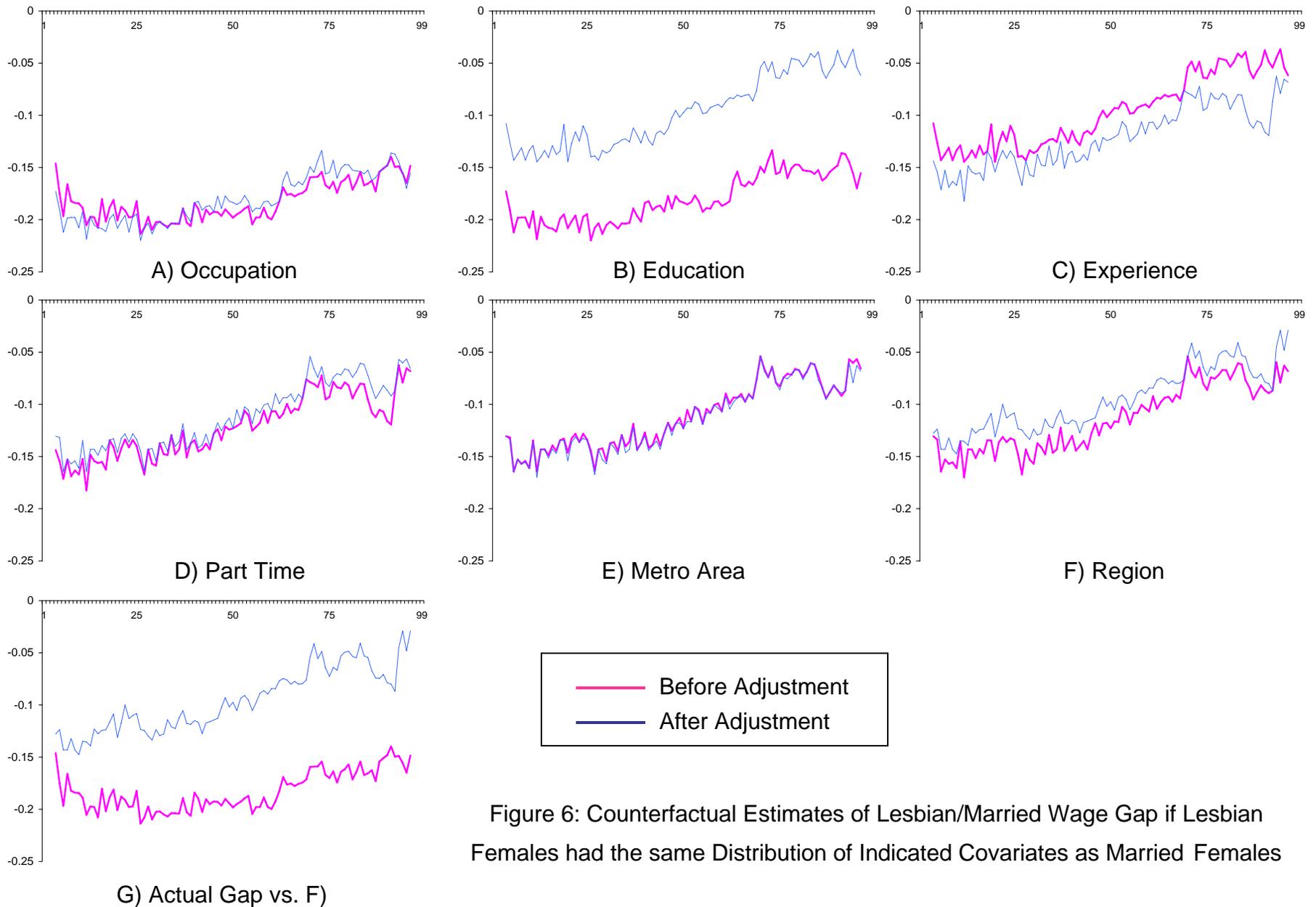
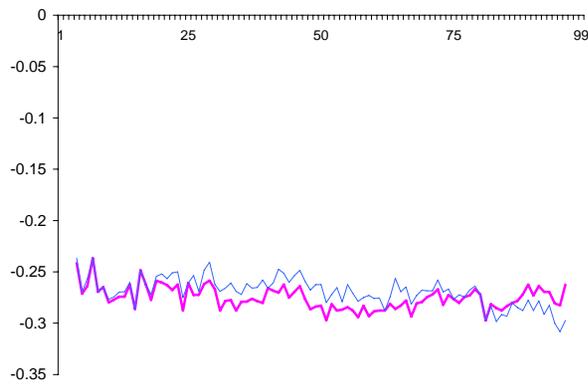
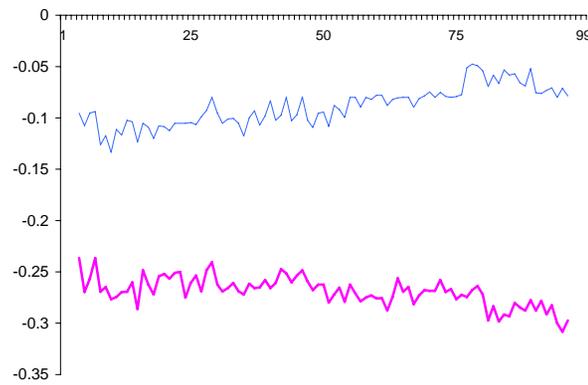


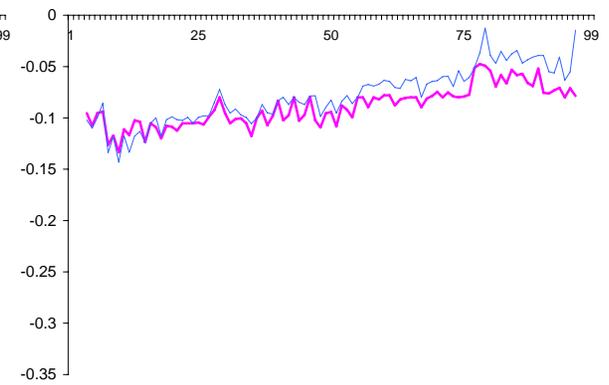
Figure 6: Counterfactual Estimates of Lesbian/Married Wage Gap if Lesbian Females had the same Distribution of Indicated Covariates as Married Females



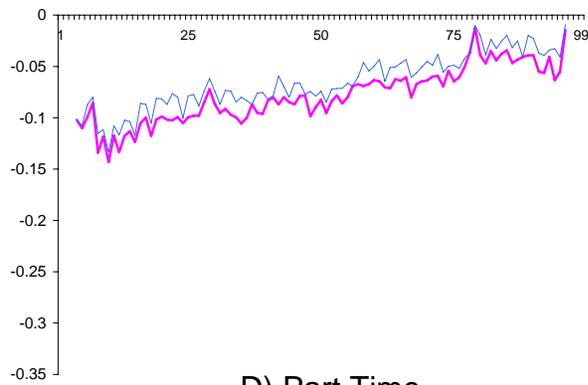
A) Occupation



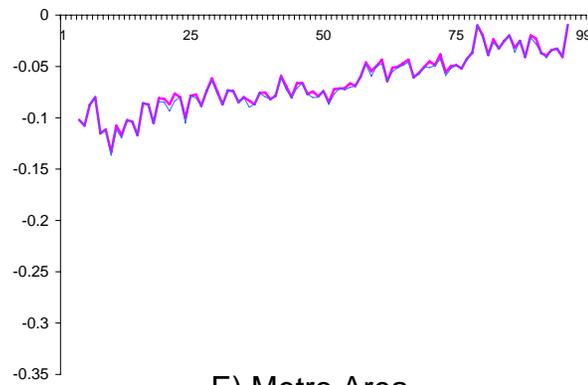
B) Education



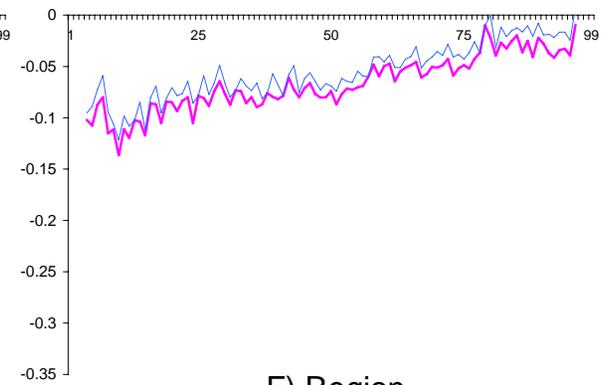
C) Experience



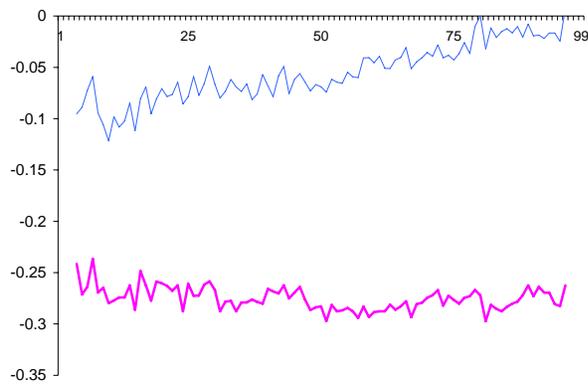
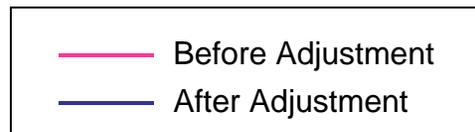
D) Part Time



E) Metro Area



F) Region



G) Actual Gap vs. F)

Figure 7: Counterfactual Estimates of Lesbian/Cohabiting Wage Gap if Lesbian Females had the same Distribution of Indicated Covariates as Cohabiting Females