

# The Sexual Orientation Glass Ceiling in the United States: Are Straight Men More Privileged for Top Jobs? (1990 - 2013)

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## Abstract

Using the 2000 Census, I investigate whether male homosexual workers face a glass ceiling or a sticky floor in the United States. Decomposition results of the sexual orientation wage gap across the wage distribution indicate a gay glass ceiling in the labor market that the wage gap is wider at the top end of the distribution. The magnitude of the glass ceiling varies across different occupations. Homosexuals in female-dominated occupations tend to face a more severe glass ceiling problem. However, compared with married heterosexual workers, homosexual workers encounter a sticky floor in that the wage gap is wider at the bottom of the distribution. Detailed decomposition results suggest that either the glass ceiling or the sticky floor is more linked to discrimination instead of productivity differences. Having analyzed the 1990 Census and 2008-13 ACS, I conclude that discrimination against homosexuals remains a concern despite the amelioration of homosexual working conditions in the labor market.

**Keywords:** Sexual Orientation Wage Gap, Glass Ceiling, Discrimination

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# 1 Introduction

In 1995, Badgett asked a pioneering question regarding the sexual orientation wage gap in the United States. Since her seminar work, further research (e.g., Allegretto and Arthur 2001, Carpenter 2007, Antecol et al. 2008, Badgett 2018) concluded that homosexual male workers earn less than their heterosexual counterparts. Previous work on the average sexual orientation gap greatly revealed the true working condition of sexual minorities in the labor market; however, less attention was paid to study whether sexual minorities encounter a glass ceiling or a sticky floor in the United States.<sup>1</sup> In this paper, inspired by previous work, I aim to investigate the sexual orientation wage difference across the wage distribution. Moreover, I tend to investigate whether this sexual orientation wage gap is linked to discrimination against sexual minorities.

Despite the extensive research studying the glass ceiling and the sticky floor faced by female workers (e.g., Arulampalam et al. 2007, Adams and Funk 2012, Jafarey and Maiti 2015, Bertrand et al. 2018), research on this aspect of sexual minorities is relatively limited. The seminal work studying this specific problem is the one conducted by Aksoy et al. (2019) that indicated the gay glass ceiling in the UK. The discussion on sexual orientation wage difference at the top and bottom end of the wage distribution is of research significance. On the one hand, as suggested by Hambrick and Mason (1984), the possible exclusion of homosexual managerial authorities will possibly induce a cognitive bias and potentially generate a homogeneous decision. On the other hand, preventing low-income workers to promote is inconsistent with the profit-maximization goal (Dezső and Ross 2012, Lückerrath – Rovers 2013). Overall, discrimination in the labor market is costly (Becker 1971).

Since previous research mainly reported a gay, instead of lesbian, wage penalty, I aim to delve deeper into the gay wage penalty and thus only focus on gay workers in this paper. This study’s primary dataset is 2000 5% US Census data, which has intrinsic merit in its data capacity. Moreover, using the variable “relationship to household head” in the dataset, I can

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<sup>1</sup>According to Christofides et al. (2013), “glass ceiling” is the scenario that the wage gap is wider at the top of the wage distribution, while “sticky floor” is the scenario that the wage gap is wider at the bottom of the wage distribution.

indirectly identify those male respondents who form an “unmarried partner” relationship with the household head as homosexual. Besides, to eliminate the potential bias due to race, using 2000 US Census data, I only focus on white males in this study. Following this approach, I successfully identified 1,989,489 heterosexual men and 6,532 homosexual men (0.3%) . To investigate the time trend of the gay glass ceiling effect, I also use the 1990 US Census and 2008-13 ACS data for analysis.

Consistent with previous research, my results also indicate an overall gay wage penalty at the mean level. Further, based on quantile level Oaxaca-style decomposition results, I find that gay workers face a glass ceiling in the labor market that the sexual orientation wage gap is higher at the top end of the wage distribution. My findings are consistent with Aksoy et al. (2019) although they studied the gay glass ceiling in the UK. The magnitude of the gay wage penalty varies substantially across wage distributions of different occupations and of different heterosexual marital statuses. If only focusing on male employees in the female-dominated occupations, I find a strong level of glass ceiling. Furthermore, compared with married heterosexuals, homosexual employees tend to face a sticky floor that the wage gap is of a larger magnitude at the bottom end of the wage distribution.

I then turn to explanations. By constructing a counterfactual gay wage distribution, the Oaxaca-style decomposition allows researchers to decompose the sexual orientation wage gap into the composition effect and the structural effect. The former is the part of the wage gap that is linked to different endowments, for instance, education and experience. The latter one is the part of the wage gap that is linked to different returns in the labor market given different sexual orientations and is commonly interpreted as discrimination (e.g., Chi and Li 2008, Arulampalam et al. 2007). Taking advantage of this approach, I derive some results that are of research interests. First, homosexual workers should have earned slightly more than their straight counterparts due to their better productivity attributes, say, a higher educational level. However, the difference is not large, indicating that the productivity difference is not the main reason causing the sexual orientation wage gap. Second, the major contributor to the gay wage gap is the structural effect of a relatively considerable magnitude. The

comparison between the composition effect and the structural effect indicates that the wage gap is more linked to discrimination against sexual minorities.

The remainder of the paper is organized as below. In Section 2, I describe the data source and the methodology I used. Section 3 reports the mean and quantile decomposition results of the whole sample and different samples of 2000 Census. Section 4 reports the decomposition results using 1990 Census and 2008 - 13 ACS. Section 5 concludes this paper.

## 2 Data and Methods

### 2.1 Data

In this paper, I used the 1990 and 2000 U.S. Census 5% Public Use Microdata Sample as well as the 2018 - 13 American Community Survey (ACS) data (Ruggles et al. 2003) for three reasons. Firstly, it has a desirable data capacity. For instance, the 2000 Census includes more than 6.184 million households and 14.081 million individuals. Secondly, it collects detailed information about labor market outcomes and allows researchers to eliminate self-employed workers from the discussion. The Census also includes standard demographic variables (e.g., age, sex, marital status, and race) that allows researchers to add necessary control variables. Thirdly, its variable “relationship to household head” offers a possible method for researchers to identify homosexual individuals. If a man reports his relationship with the household as an “unmarried partner”, this man is identified as gay. Intrinsically, this sample excludes other ambiguous relationship, for instance, same-sex roomers. Using data from the Center for Disease Control, Carpenter (2004) argued that using Census to identify homosexual individuals would not induce significant bias.

It is worth noting that homosexual individuals identified by this research do not represent the whole homosexual population. Instead, the identified homosexual individuals are more likely to have already formed a stable and committed relationship with their partners. Hence, they are also more likely to have already publicly disclosed their sexual orientation identity. Thought it would be perfect to have data on homosexuals who have already “come out of

the closet” in the labor market, the data offered by the Census can serve as a substitution.

To eliminate potential bias induced by race, I only focus on white males who are in their working age (15-64) and work for wages. In all, I identified 1,989,489 heterosexual males and 6,532 homosexual males (0.3 %). Previous researchers specifically focused on the impacts of marriage and occupation on the sexual orientation wage gap. Following their thoughts, I divide the whole population into different samples according to marital status and occupations. In all, I identified 1,256,349 married heterosexual males and 41,348 cohabiting heterosexual males.

## 2.2 Methods

### 2.2.1 OLS

Consistent with previous research, I used the OLS to examine the gay wage gap in the first place. The regression takes the form of

$$\ln(\text{incwage})_{ij} = \alpha + \beta_1 \text{GAY}_{ij} + \beta_2 C_{ij} + \gamma_{ij} + \epsilon_j \quad (1)$$

where  $\ln(\text{incwage})_{ij}$  is the log wage and salary income for individual  $i$  in state  $j$ , the dummy variable  $\text{GAY}_{ij}$  is the key explanatory variable,  $\gamma_j$  is the state fixed effect,  $\epsilon_{ij}$  is the standard error, and  $\alpha$  is the constant term.  $C_{ij}$  represents all control variables that includes age, education and working experience.

Unlike previous research of Allegretto and Arthur (2001), I do not add the marital status as a control due to the concern of “bad control” problem. On the one hand, homosexual individuals have not been able to get married due to legal constraints before the 21st Century. On the other hand, Ciscato et al. (2020) suggests that homosexual individuals follow different assortative matching pattern in the marriage market. Hence, the marital status would be an outcome of the sexual minority identity. Introducing this control variable might induce selection bias. Following similar thoughts, the baseline OLS regression also does not control the occupation fixed effect in that homosexual individuals may face barrier when entering an

industry due to the discrimination against sexual minorities. Moreover, given different levels of sexual-minority acceptance within an occupation, gay workers will make their occupational choice accordingly. Under this scenario, occupation is also a choice made by gay workers and should also be considered as a bad control if adding to the regression.

### 2.2.2 Oaxaca-Blinder Decomposition

To further decompose the wage gap, I go beyond the traditional OLS regression and applies the Oaxaca-Blinder decomposition (Blinder 1973, Oaxaca 1973) to investigating the sexual orientation wage gap at the *mean* level. This decomposition approach takes use of OLS estimates and decomposes the wage gap into two components. The wage is specified as the following where  $so$  represents the sexual orientation,  $S$  represents “straight”,  $G$  represents “gay”, and  $\epsilon_{so}$  represents the error term.

$$Y_{so} = X\beta_{so} + \epsilon_{so} \quad \text{for } so = S, G \quad (2)$$

After taking the expectations over  $X$ , one can write the overall *mean* wage gap as:

$$\begin{aligned} \Delta_O^\mu &= E[Y_S|D_S = 1] - E[Y_G|D_S = 0] \\ &= (E[X|D_S = 1] - E[X|D_S = 0])\beta_S + E[X|D_S = 0](\beta_S - \beta_G) \\ &= \text{composition effect} + \text{structural effect} \\ &= \Delta_X^\mu + \Delta_S^\mu \end{aligned} \quad (3)$$

Here, one can interpret  $\beta_S$  and  $\beta_G$  as the wage structure of heterosexual and homosexual male workers.  $X$  represents the endowment, which includes the years of education, working experience, occupation, working place metropolitan status and state. Hence,  $E[X|D_S = 0]\beta_S$  is the counterfactual wage that gay should have earned if treated as their heterosexual counterparts. With this counterfactual wage, one can interpret the composition effect  $(E[X|D_S = 1] - E[X|D_S = 0])\beta_S$  as the wage difference due to endowment differences, while the structural effect  $E[X|D_S = 0](\beta_S - \beta_G)$  as the difference due to different wage

structures, which is commonly linked to discrimination.

Specifically, if the composition effect is negative, it indicates that gay men should have earned more than their counterparts if being treated the same way in the labor market due to better productivity attributes, and vice versa. If the structural effect is positive, then it indicates that heterosexual males are rewarded more strongly than their homosexual counterparts in the labor market. Hence, it can be referred to as discrimination.

### 2.2.3 Quantile Level Decompositions

To examine the wage gap across the wage distribution, I use the decomposition method from Sergio Firpo et al. (2009) that relies on Recentered Influence Function(RIF) unconditional quantile regression estimates, representing how individual observation influences distributional statistics, for instance, quantile. The RIF take the form of:

$$RIF(Y; q_\tau, F_Y) = q_\tau + \frac{\tau - I(Y \leq q_\tau)}{f_Y(q_\tau)} \quad (4)$$

where  $F_Y$  and  $f_Y$  are the cumulative distribution function and the probability density function of  $Y$ .  $I(\cdot)$  is the indicator function.

$$E[RIF(Y; q_\tau, F_Y)|X] = X\beta \quad (5)$$

where  $\beta$  measures the unconditional quantile partial effects, which is the marginal effect of  $X$  on quantile  $q_\tau$ . Since RIF has the same property as OLS, one can take advantage of RIF to apply Oaxaca-style decomposition at different quantile levels.

## 3 Results

### 3.1 Descriptive Results

Table 1 presents the descriptive statistics on demographic characteristics, labor market outcomes, productivity, and occupations. On average, heterosexuals earn 14.3 % more than

their homosexual counterparts. Table 1 also lists the average income of homosexual and heterosexual workers of different income levels. The preliminary descriptive results already indicate the possible existence of a gay glass ceiling in the labor market in that the sexual orientation wage gap is of a larger magnitude for higher-income groups. In terms of productivity, homosexuals tend to have a weak advantage over heterosexuals because they are younger and more educated, though less experienced. The differences are, however, not of a large magnitude. Besides, consistent with the work of Antecol et al. (2008), facts also suggest that most homosexual workers (56%) work in occupations that have more than 50% female workers, or female-dominated occupations.

Figure 1 complements the result of Table 1 and presents the wage distribution of workers of different sexual orientations. The important features of this figure are (i) the mean income of heterosexual workers is higher than that of homosexual workers; (ii) more heterosexual workers earn an income at the top end of the wage distribution. Based on those results, I hypothesize a gay wage penalty at the mean level and a glass ceiling across the wage distribution. Moreover, those results shed light on understanding the source of the sexual orientation wage gap. Despite similar productivity endowments between homosexual and heterosexual workers, the sexual orientation wage gap is noticeable, indicating the possible existence of discrimination against homosexual workers.



Table 1: Labor Market Characteristics by Sexual Orientation (2000 Census)

	Heterosexual	Homosexual	Difference	/Homosexual %
<b>N(obs)</b>	1,989,489	6,532		
<b>Age</b>	39.06	38.80		
<b>Years of Education</b>	13.52	14.02		
<b>Working Experience</b>	20.35	19.64		
<b>Occupations</b>				
Female Dominated	33%	56%		
Male Dominated	67%	44%		
<b>Annual Income</b>				
<i>by Income Group</i>				
Mean	43,939.72	38,432.84	5,506.88***	14.33%
< 10pct	5,873.84	6,636.57	-789.73***	-12.45%
10 - 30pct	17,853.66	16,326.91	1,526.75***	9.34%
30 - 50pct	29,810.32	26,222.13	3,588.19***	13.68%
50 - 70pct	41,366.52	35,900	5,466.52***	15.23%
70 - 90pct	59,896.27	52,876.26	7020.01***	13.27%
> 90pct	140,570.90	121,214.50	19,356.38***	15.97%
<i>by Heterosexual Marital Status</i>				
Married Heterosexuals	51,072.19	40,284.02	10,788.16***	
Cohabiting Heterosexuals	32,948.69	40,284.02	-7,335.34***	
<i>by Occupation</i>				
Female Dominated	44,192.92	35,673.11	8,519.80***	
Male Dominated	43,815.87	41,965.10	1,850.77***	

**Note:** (1) The used sample is that of the 2000 5% Census; (2) Results in the “Difference” column are derived using t-tests; (3) \*, \*\*, and \*\*\* respectively indicates significance at the 10%, 5%, and the 1% significance level.

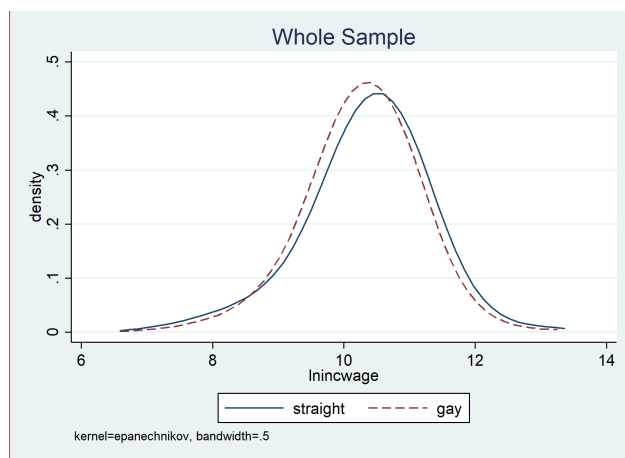


Figure 1: Whole Sample - All Gay and Heterosexual Male

## 3.2 OLS Results: Gay Wage Penalty

In Table 2, I investigate whether the gay wage penalty persists after controlling productivity endowments, metropolitan status, and state fixed effects. Column 1 provides direct evidence of the gay wage penalty that homosexual identity is significantly associated with a worse labor market outcome. On average, gay workers tend to earn 20.5% less than their heterosexual counterparts of same attributes and situations. If additionally controlling the occupation fixed effect, the gay wage gap still exists though with a smaller magnitude (11.8%).

Further, I find that the magnitude of the gay wage penalty varies across different samples. Column 3 and Column 4 compares homosexuals with heterosexuals of different marital statuses and homosexuals. It is worth noting that both sample does not include individuals with children. Results suggest that the gay wage penalty is much more pronounced between gay workers and their married heterosexual counterparts than that between gay and their cohabiting heterosexual counterparts. Column 5 and Column 6 focus on male workers in occupations that are of different dominated genders. Results indicate that gay men are worse off if working in female-dominated occupations. However, the difference between those two columns is not as salient as the one shown in Column 3 and Column 4. Overall, OLS results suggest the necessity to conduct a further in-depth investigation of male homosexuals' working conditions in different categories.

Table 2: Gay Wage Penalty: OLS Estimation (2000 Census)

Outcome Variable:  $\ln(\text{incwage})$ , Sample: 2000 Census

	Whole Sample		Marital Status		Occupation(>50%)	
	(1)	(2)	Married	Cohabiting	Female	Male
	(1)	(2)	(3)	(4)	(5)	(6)
GAY	-0.205*** (0.002)	-0.118*** (0.013)	-0.225*** (0.019)	-0.017*** (0.002)	-0.196*** (0.019)	-0.146*** (0.017)
<b>Controls</b>						
Productivity	YES	YES	YES	YES	YES	YES
City	YES	YES	YES	YES	YES	YES
<b>FE</b>						
State	YES	YES	YES	YES	YES	YES
Occupation	NO	YES	NO	NO	NO	NO
<b>N(observ)</b>	40,918,649	40,918,649	8,824,479	645,221	13,966,107	26,952,542

**Notes:** (1) The used sample is that of 2000 Census; (2) Column 3 focuses on the sample of gay and married heterosexual males who do not have children, Column 4 focuses on the sample of gay and cohabiting heterosexual males who do not have children; Column 5 focuses on the sample of males in female dominated occupations (the percentage of females is greater than 50%), Column 6 focuses on the sample of males in male dominated occupations (the percentage of males is greater than 50%); (3) robust standard errors are clustered at the state level; (4) the sample is weighted by PERWT, which is the population represented by each individual in the sample; (5) \*, \*\*, and \*\*\* respectively indicates significance at the 10%, 5%, and the 1% significance level.

### 3.3 Mean-Level Sexual Orientation Wage Gap

I begin by investigating the extent to which the sexual orientation wage gap can be attributed to differences in productivity characteristics among homosexuals and heterosexuals. Table ?? presents results of Oaxaca-Blinder decomposition where the wage difference is decomposed into the composition effect and the structural effect. The composition effect is attributed to different endowments (for instance, education and experience), while the structural effect is attributed to difference in the wage structure of homosexuals and heterosexuals in the labor market.

Regardless of the chosen sample, the raw wage gap (straight – gay) remains positive, suggesting that homosexuals earn less than their heterosexual counterparts. The result is consistent with Table 2 and corroborates the result of the gay wage penalty derived from the OLS estimation.

The magnitude of the composition effect indicates a small contribution of endowment difference on the wage gap. This result can also be inferred from Table 1 that reports a small endowment difference between homosexual men and heterosexual. Moreover, except for column 2, we can find that homosexual workers should have earned slightly more than their heterosexual counterparts, given their better productivity attributes. The major contributor to the raw gap is the positive structural effect. It indicates that homosexual men are rewarded less strongly than heterosexual men in the labor market and implies that discrimination is the key factor that shapes the sexual orientation wage gap. Column 3, on the other hand, indicates that the critical factor behind gay men’s higher income is the endowment differences; that is, compared to cohabiting heterosexual men, gay men tend to earn more because of an advantage in productivity endowments, which aligns the results in Table 1 - homosexual men receive more years of education than heterosexual men.

Overall, gay men are penalized the most strongly if comparing them with married heterosexuals and the least strongly if comparing them with cohabiting heterosexuals. This difference points out the necessity of studying each category in a more detailed manner.

Table 3: Sexual Orientation Mean Wage Gap Decomposition (2000)

Raw Gap = Straight-Gay	Method:Oaxaca-Blinder Decompositions				
	Whole Sample	Marital Status		Occupation(> 50%)	
	(1)	Married (2)	Cohabiting (3)	Female (4)	Male (5)
Raw Gap	0.081 (0.002)	0.341 (0.002)	-0.189 (0.002)	0.058 (0.003)	0.030 (0.003)
Composition Effect	-0.030 (0.002)	0.051 (0.002)	-0.136 (0.002)	-0.027 (0.001)	-0.092 (0.002)
Structural Effect	0.111 (0.002)	0.290 (0.002)	-0.053 (0.002)	0.084 (0.003)	0.122 (0.003)

**Note:** (1) The used sample is that of 2000 US Census; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (3) Results are all significant at the 1% significance level; (4) Column 1 focuses on the whole sample, Column 2 focuses on the sample of gay and married heterosexual males who do not have children, Column 3 focuses on the sample of gay and cohabiting heterosexual males who do not have children(the percentage of females is greater than 50%), Column 4 focuses on the sample of males in female dominated occupations, Column 5 focuses on the sample of males in male dominated occupations(the percentage of males is greater than 50%); (5) robust standard errors are clustered at the state level; (6) the sample is weighted by PERWT, which is the population represented by each individual in the sample.

### 3.4 Quantile-Level Sexual Orientation Wage Gap

#### 3.4.1 Overall Sexual Orientation Glass Ceiling

Table 4 provides a direct evidence of the gay glass ceiling by showing the decomposition results of sexual orientation wage gaps across the wage distribution. First, the magnitude of the raw wage gap shows an increasing trend as the income level increases. For the low-income (below 40th percentile) group, heterosexuals earn 2.2% more than homosexuals. For the middle-income (40th to 70th percentile) group, heterosexuals earn 12.7% more than homosexuals. The wage gap increases to 15.2% for the high-income (above 70th) group. overall, it indicates the existence of a gay glass ceiling. Second, similar to results of Table ??, the composition effect is not of a large magnitude across the wage distribution, indicating

that the endowment difference is not the key factor of the gay wage gap. Third, the major contributor of the raw gap is the structural effect, implying the key role of discrimination in determining the sexual orientation wage gap. Fourth, the magnitude of the structural effect increases as the raw gap increases, further corroborating the existence of the glass ceiling.

### **3.4.2 Gay Men and Married Heterosexual Men: Gay Sticky Floor**

Panel A of Table 5 suggests that gay workers face a sticky floor when compared with their married heterosexual counterparts in that the gay wage gap is of the largest magnitude at the bottom end of the wage distribution. The positive yet small composition effect serves as an evidence to conclude that the sexual orientation wage gap is not a result of productivity differences among homosexuals and heterosexuals. The structural effect, on the other hand, is the major contributor of the raw gap and reaches its maximum at the bottom end of the wage distribution. It delivers two important messages. First, the different wage scheme received by homosexuals and heterosexuals is why there exists a sexual orientation wage gap across the wage distribution. It strongly implies the discrimination against homosexual workers in the labor market. Second, since the magnitude of the composition effect does not vary substantially across the distribution, the sticky floor effect is a result of the larger structural effect at the bottom end of the wage distribution. The implication is that discrimination against gay workers is more severe in the low-income category.

I argue that the source of the discrimination is more associated with the constraint that impedes gay men to get married. In employers' eyes, marriage might be a signal that exhibits life stability and less chance of job switch. If that is the case, employers are more willing to promote those married males who can only be heterosexuals. For homosexuals, however, they were unlikely to send those signals before the year of 2000 given the legal constraint on the same-sex marriage. Consequently, homosexuals are more likely to be trapped in low-income jobs. Admittedly, the structural effect may include effects of other confounders that I cannot measure, for instance, motivation. If married men become more devoted to their jobs simply due to marriage, then it is likely that what the gay wage gap

actually reveals is the effect of motivation. This claim might make my conclusion regarding the existence of the sexual orientation discrimination less convincing. However, even if marriage *per se* motivates individuals to work hard, the prohibition of the same-sex marriage eliminates gay men from shouldering certain family responsibilities that help shape a better working motivation. Moreover, since I do not include married heterosexuals with children, the family responsibilities do not include the one brought by children raising, which is a major component of family responsibilities. Hence, it suggests that those married heterosexuals identified in this sample do not indeed have to shoulder as many family responsibilities as those with children. In conclusion, the sticky floor faced by gays in the labor market is very likely to be a result of the discrimination.

Panel B of Table 5 presents results of gay wage gap across the wage distribution in the sample of gay men and cohabiting heterosexual men. Compared with their cohabiting unmarried heterosexual counterparts, homosexuals earn more mainly due to productivity differences. According to the composition effect, if homosexuals received the same wage structure as heterosexuals, they should have earned more. This is consistent with results presented in Table 1 that homosexuals tend to have better productivity attributes, say, the educational level. Hence, even if gay men receive more in this category, this result cannot serve as the evidence to argue against the gay discrimination in the labor market. Instead, results of this sample can be considered as a benchmark of comparison. That is, when employers cannot use the marriage status to distinguish the sexual orientation identity of heterosexuals and homosexuals, they are willing to reward homosexuals more given their better productivity.

Table 4: Sexual Orientation Wage Gap Quantile Decomposition (2000 Census)

Raw Gap = Straight - Gay		Sample: 2000 Census, Method: Quantile Decompositions								
	<i>mean</i>	10	20	30	40	50	60	70	80	90
Raw Gap	0.081 (0.002)	-0.081 (0.006)	0.058 (0.003)	0.089 (0.003)	0.131 (0.002)	0.114 (0.002)	0.137 (0.002)	0.167 (0.002)	0.148 (0.002)	0.142 (0.003)
<i>Average</i>			<i>0.022</i>			<i>0.127</i>			<i>0.152</i>	
Composition Effect	-0.030 (0.002)	-0.043 (0.004)	-0.027 (0.003)	-0.024 (0.002)	-0.020 (0.002)	-0.016 (0.001)	-0.014 (0.002)	-0.008 (0.002)	-0.016 (0.002)	-0.035 (0.003)
<i>Average</i>			<i>-0.031</i>			<i>-0.017</i>			<i>-0.059</i>	
Structural Effect	0.111 (0.002)	-0.038 (0.007)	0.085 (0.004)	0.114 (0.003)	0.150 (0.003)	0.130 (0.002)	0.151 (0.002)	0.175 (0.002)	0.165 (0.002)	0.178 (0.004)
<i>Average</i>			<i>0.054</i>			<i>0.144</i>			<i>0.172</i>	

**Note:** (1) The used sample is all male workers surveyed in 2000 Census; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to the difference in the wage structure of homosexuals and heterosexuals; (3) Results are all significant at the 1% significance level; (4) the average row reports the average of estimates at the bottom end (10 - 30 percentile), the median (40 - 60 percentile), and the top end (70 - 90 percentile) of the wage distribution; (5) standard errors are clustered at the state level.



Table 5: Wage Gap Decomposition across the Wage Distribution (by Marital Status, 2000)

Raw Gap = Straight - Gay		Sample: 2000 Census, Method: Quantile Decompositions								
	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Cohabiting Gay + Married Heterosexual</b>										
Raw Gap	0.341 (0.002)	0.490 (0.006)	0.395 (0.003)	0.327 (0.003)	0.312 (0.002)	0.266 (0.002)	0.292 (0.002)	0.286 (0.002)	0.272 (0.003)	0.268 (0.003)
Composition Effect	0.051 (0.002)	0.047 (0.005)	0.070 (0.003)	0.069 (0.003)	0.064 (0.002)	0.050 (0.002)	0.069 (0.002)	0.071 (0.002)	0.061 (0.002)	0.044 (0.002)
Structural Effect	0.290 (0.002)	0.443 (0.008)	0.325 (0.004)	0.258 (0.003)	0.248 (0.003)	0.216 (0.002)	0.223 (0.003)	0.216 (0.003)	0.211 (0.003)	0.225 (0.004)
<b>Panel B: Cohabiting Gay + Cohabiting Heterosexual</b>										
Raw Gap	-0.189 (0.002)	-0.167 (0.006)	-0.200 (0.004)	-0.183 (0.003)	-0.197 (0.003)	-0.171 (0.002)	-0.194 (0.002)	-0.173 (0.002)	-0.160 (0.002)	-0.168 (0.003)
Composition Effect	-0.136 (0.002)	-0.187 (0.006)	-0.145 (0.003)	-0.123 (0.003)	-0.114 (0.002)	-0.103 (0.002)	-0.096 (0.002)	-0.120 (0.002)	-0.107 (0.002)	-0.135 (0.003)
Structural Effect	-0.053 (0.003)	0.020 (0.008)	-0.055 (0.005)	-0.061 (0.004)	-0.008 (0.003)	-0.067 (0.002)	-0.097 (0.003)	-0.054 (0.003)	-0.053 (0.003)	-0.033 (0.004)

**Note:** (1) The used sample is male workers that have no children in 2000 Census. Panel A used the sample that includes gay men and married heterosexual men, while Panel B used the sample that includes gay men and cohabiting heterosexual men. Non-cohabiting men are not discussed; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (3) Results are all significant at the 1% significance level; (4) Robust standard errors are clustered at the state level.

### 3.4.3 Gay Glass Ceiling in Female-Dominated Occupations

Panel A of Table 6 reports the gay wage gap across the wage distribution in the sample of males in female-dominated occupations whose percentage of female workers exceeds 50%. Compared to Table 4, Panel A indicates a stronger glass ceiling effect within the female-dominated occupations. The raw gap results suggest that the gay wage gap changes in both direction and magnitude as the income level increases. For low-income groups, homosexuals tend to earn more than their heterosexual counterparts. For instance, at the 20th percentile, heterosexual male earn 11.8% less than gay men. The negative gay wage gap persists in the low-income group. However, for middle-income and high-income groups, homosexuals tend to earn less. Moreover, the magnitude of the wage gap reaches its maximum at the top end of the wage distribution. At the 90th percentile, heterosexual men earn substantially (30.6%) more than their homosexual counterparts. The quantile level decomposition results provides supportive evidence regarding the gay glass ceiling in female dominated occupations.

Consistent with previous results, the major contributor of the raw gap is the structural effect, which is positive in most percentiles (except for 10th and 20th percentiles). Specifically, similar to the raw wage gap, its magnitude reaches its maximum at the top end of the wage distribution. The detailed analysis suggests the key role of discrimination against homosexuals in shaping the glass ceiling in female-dominated occupations.

Although this research cannot give a clear answer regarding the cause of this glass ceiling, I believe the results imply interesting interactions between female and male workers. First, we can expect that compared to male dominated occupations, in female dominated occupations, female workers' preferences affects the labor market outcomes of male workers to a larger extent. The gay glass ceiling might infer that high-income female workers may prefer heterosexual males over homosexual males. Second, it is likely that in female-dominated occupations, high-income heterosexual men may hold more authorities due to a lack of check and balance within the male gender. However, it still requires further investigation to explain this effect.

Table 7 aims to study the extent to which working in the female-dominated occupation

affect the gay wage penalty. Having added the interaction term  $GAY \times FemaleDominated$ , the regression results indicate that gay workers in female dominated occupations are worse off. Column 2, 3, 4 respectively studies the working conditions of low-income, middle-income, and high-income workers. Results indicate different working conditions of gay workers in different income-level categories. Unlike low-income gay workers who are better off working in female dominated occupations, high-income gay workers are worse off. Overall, the regression results also indicate that as income level increases, the working condition of gay workers exacerbates. It corroborates the decomposition results and point out to the existence of the gay glass ceiling within the female dominated occupation as well.

Panel B of Table 6 reports the gay wage gap across the wage distribution in the sample of males in male-dominated occupations. I do not find evidence of either glass ceiling or sticky floor as the raw gap does not differ much across the wage distribution. However, homosexuals in male-dominated occupations consistently face a gay wage penalty and the major contributor is still the structural effect, suggesting the existence of gay discrimination as well.

Table 6: Wage Gap Decomposition across the Wage Distribution

	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Female Dominated Occupations</b>										
Raw Gap	0.058 (0.003)	-0.390 (0.006)	-0.118 (0.004)	-0.012 (0.003)	0.066 (0.003)	0.096 (0.002)	0.185 (0.003)	0.197 (0.003)	0.243 (0.003)	0.306 (0.004)
Composition Effect	-0.027 (0.001)	-0.047 (0.002)	-0.051 (0.002)	-0.045 (0.002)	-0.032 (0.001)	-0.021 (0.001)	-0.014 (0.001)	-0.011 (0.001)	-0.010 (0.002)	-0.006 (0.002)
Structural Effect	0.084 (0.003)	-0.343 (0.006)	-0.067 (0.004)	0.032 (0.003)	0.098 (0.003)	0.117 (0.002)	0.199 (0.002)	0.209 (0.002)	0.253 (0.003)	0.312 (0.004)
<b>Panel B: Male Dominated Occupations</b>										
Raw Gap	0.030 (0.003)	-0.017 (0.007)	0.052 (0.005)	0.053 (0.004)	0.050 (0.003)	0.049 (0.004)	0.024 (0.003)	0.055 (0.003)	0.049 (0.004)	0.031 (0.005)
Composition Effect	-0.092 (0.002)	-0.088 (0.003)	-0.081 (0.002)	-0.087 (0.002)	-0.078 (0.002)	-0.103 (0.002)	-0.086 (0.002)	-0.092 (0.002)	-0.104 (0.002)	-0.105 (0.002)
Structural Effect	0.122 (0.003)	0.071 (0.007)	0.133 (0.005)	0.140 (0.004)	0.128 (0.003)	0.151 (0.003)	0.110 (0.003)	0.147 (0.003)	0.153 (0.004)	0.136 (0.005)

**Note:** (1) The used sample is all male workers surveyed in 2000 US Census; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (3) Results are all significant at the 1% significance level; (4) standard errors are clustered at the state level; (5) Panel A used the sample that includes all males in female dominated occupations (the percentage of females is greater than 50%), while Panel B used the sample that includes all males in male dominated occupations (the percentage of males is greater than 50%).

Table 7: The Effect of Female Domination on Gay Wage Gap

	WholeSample (1)	LowIncome (2)	MedianIncome (3)	HighIncome (4)
Gay	-0.152*** (0.003)	-0.154*** (0.005)	-0.124*** (0.001)	-0.142*** (0.002)
Female Dominated	-0.200*** (0.000)	-0.147*** (0.000)	-0.010*** (0.000)	-0.013*** (0.000)
Gay $\times$ FemaleDominated	-0.017*** (0.004)	0.088*** (0.006)	0.001 (0.001)	-0.061*** (0.003)
<b>Control</b>				
Productivity	YES	YES	YES	YES
City	YES	YES	YES	YES
<b>FE</b>				
State FE	YES	YES	YES	YES
<b>N(obs)</b>	40,918,649	12,561,789	12,014,040	16,342,820

**Note:** (1) The used sample is that of 2000 US Census; (2) FemaleDominated is a dummy that equals 1 if the percentage of female workers in the occupation exceeds 50%, and equals 0 if not; (3) \*, \*\*, and \*\*\* respectively indicates significance at the 10%, 5%, and the 1% significance level; (4) Column 2 focuses on the sample of low-income homosexual and heterosexual workers (below the 30th percentile for each), Column 3 focuses on the sample of middle-income homosexual and heterosexual workers (30th percentile to 60th percentile for each), Column 4 focuses on the sample of high-income homosexual and heterosexual workers (above 60th percentile for each); (5) standard errors are clustered at the state level; (4) the sample is weighted by PERWT, which is the population represented by each individual in the sample.

## 4 Sexual Orientation Wage Gap Trend Analysis

To investigate the time pattern of the sexual orientation wage gap, I also use 1990 US Census and 2013 - 18 ACS data. Overall, the working condition of gay workers has improved. However, discrimination against homosexuals in the labor market remains a concern.

Table 8 reports the sexual orientation wage gap of the wage distribution in 1990. Table 9 and Table 10 respectively report the sexual orientation wage gap of samples of different heterosexual marital status and of different occupations. Unlike results of Table 4, there

does not exist a salient overall glass ceiling in 1990 as suggested by the results of Table 8 in that the middle-income group has the largest gay wage gap. Similar to the Panel A of Table 5, when compared with married heterosexuals, homosexuals tend to face a sticky floor although the extent is smaller than the one demonstrated in 2000. Moreover, results of the composition effect suggest that the major contributor of the raw wage gap is different productivity between homosexuals and heterosexuals. Although the structural effect is not as large as the one in 2000, its magnitude is larger at the bottom end of the wage distribution, indicating that low-income homosexual workers are more difficult to climb the income ladder. Panel B of Table 9 also suggests that cohabiting homosexuals earn more than their heterosexual counterparts. Regarding homosexuals' working conditions in different occupations, Panel A of Table 10 also suggests a glass ceiling in the female dominated occupations, which is consistent with Table 6. First, the overall raw wage gap shows an increasing trend as the income level increases. Second, the structural effect shows a same trend and is the major contributor of the raw wage gap. Since the extent of the glass ceiling is smaller than that in 2000, it may indicate that homosexual workers are faced with a even worse working condition in female dominated occupations.

Table 8: Sexual Orientation Wage Gap Decomposition across the Wage Distribution (1990)

Sample: 1990 Census, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
Raw Gap	0.183 (0.003)	0.068 (0.006)	0.127 (0.005) <i>0.123</i>	0.173 (0.004)	0.208 (0.003)	0.220 (0.004) <i>0.208</i>	0.196 (0.003)	0.204 (0.003)	0.210 (0.004) <i>0.196</i>	0.173 (0.004)
Composition Effect	0.049 (0.003)	0.093 (0.007)	0.057 (0.005) <i>0.061</i>	0.035 (0.004)	0.047 (0.004)	0.042 (0.004) <i>0.037</i>	0.023 (0.003)	0.041 (0.004)	0.052 (0.004) <i>0.043</i>	0.036 (0.005)
Structural Effect	0.134 (0.004)	-0.024 (0.009)	0.071 (0.006) <i>0.061</i>	0.138 (0.005)	0.161 (0.005)	0.178 (0.005) <i>0.170</i>	0.172 (0.004)	0.164 (0.004)	0.158 (0.005) <i>0.153</i>	0.137 (0.006)

**Note:** (1) The sample used is the whole sample that includes both gay men and heterosexual men of 1990 Census; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (3) Results are all significant at the 1% significance level; (4) the average row reports the average of estimates at the bottom end ( 10 - 30 percentile), the median (40 - 60 percentile), and the top end (70 - 90 percentile); (5) Standard errors are clustered at the state level.

Table 9: Sexual Orientation Wage Gap Quantile Decomposition (by Marital Status, 1990)

Sample: 1990 Census, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Cohabiting Gay + Married Heterosexual</b>										
Raw Gap	0.330	0.374	0.339	0.319	0.335	0.345	0.280	0.281	0.309	0.287
	(0.003)	(0.006)	(0.005)	(0.004)	(0.004)	(0.004)	(0.003)	(0.004)	(0.004)	(0.005)
Composition	0.247	0.240	0.241	0.210	0.242	0.244	0.184	0.226	0.238	0.262
Effect	(0.006)	(0.012)	(0.009)	(0.007)	(0.007)	(0.008)	(0.006)	(0.)	(0.007)	(0.009)
Structural	0.083	0.133	0.098	0.109	0.093	0.101	0.095	0.055	0.072	0.025
Effect	(0.006)	(0.014)	(0.010)	(0.008)	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)	(0.010)
<b>Panel B: Cohabiting Gay + Cohabiting Heterosexual</b>										
Raw Gap	-0.080	-0.075	-0.165	-0.128	-0.094	-0.073	-0.141	-0.095	-0.054	-0.071
	0.003	0.007	0.005	0.004	0.004	0.004	0.004	0.004	0.004	0.005
Composition	-0.039	-0.004	-0.023	-0.037	-0.037	-0.072	-0.062	-0.048	-0.031	-0.037
Effect	0.003	0.007	0.005	0.004	0.004	0.005	0.004	0.004	0.004	0.005
Structural	-0.041	-0.072	-0.142	-0.091	-0.057	-0.001	-0.079	-0.046	-0.023	-0.035
Effect	0.004	0.010	0.007	0.006	0.005	0.006	0.005	0.005	0.005	0.007

**Note:** (1) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (2) Results are all significant at the 1% significance level; (3) robust standard errors are in parenthesis; (4) Panel A used the sample that includes gay men and married heterosexual men, while Panel B used the sample that includes gay men and cohabiting heterosexual men. Non-cohabiting men are not discussed; (5) The used sample is that of 2008 - 13 ACS.



Table 10: Sexual Orientation Wage Gap Quantile Decomposition (by Occupations, 1990)

Sample: 1990 Census, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Female Dominated Occupations</b>										
Raw Gap	0.123 (0.004)	-0.173 (0.008)	-0.070 (0.006)	0.059 (0.005)	0.164 (0.005)	0.187 (0.005)	0.192 (0.004)	0.210 (0.004)	0.261 (0.004)	0.243 (0.006)
Composition Effect	0.064 (0.003)	0.070 (0.005)	0.054 (0.004)	0.046 (0.003)	0.067 (0.003)	0.069 (0.004)	0.055 (0.003)	0.064 (0.003)	0.060 (0.003)	0.075 (0.004)
Structural Effect	0.058 (0.004)	-0.243 (0.010)	-0.124 (0.007)	0.012 (0.005)	0.097 (0.005)	0.119 (0.005)	0.137 (0.005)	0.146 (0.004)	0.202 (0.004)	0.167 (0.007)
<b>Panel B: Male Dominated Occupations</b>										
Raw Gap	0.143 (0.004)	0.108 (0.008)	0.172 (0.007)	0.166 (0.006)	0.184 (0.005)	0.153 (0.005)	0.158 (0.005)	0.149 (0.005)	0.094 (0.005)	0.113 (0.006)
Composition Effect	-0.019 (0.004)	0.039 (0.006)	-0.012 (0.006)	-0.016 (0.005)	-0.032 (0.004)	-0.041 (0.004)	-0.026 (0.004)	-0.033 (0.004)	-0.043 (0.005)	-0.046 (0.005)
Structural Effect	0.162 (0.005)	0.069 (0.010)	0.184 (0.008)	0.182 (0.007)	0.216 (0.006)	0.195 (0.006)	0.185 (0.005)	0.183 (0.006)	0.137 (0.006)	0.159 (0.007)

**Note:** (1) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (2) Results are all significant at the 1% significance level; (3) robust standard errors are in parenthesis; (4) Panel A used the sample that includes gay men and married heterosexual men, while Panel B used the sample that includes gay men and cohabiting heterosexual men. Non-cohabiting men are not discussed; (5) The used sample is that of 2008 - 13 ACS.

According to Table 11, Table 12 and Table 13, I find that the working condition of gay workers have greatly improved in the 21st century. First, homosexuals tend to earn more than their heterosexual counterparts across the wage distribution although the wage gap decreases as the income level increases. Consistent with the 2000 result, the raw wage gap is mainly attributed to the composition effect, suggesting that gay men earn more due to their better productivity. Second, Panel B of Table 12 demonstrates that homosexuals can receive a better payment than their heterosexual counterparts due to their better productivity. It is probably due to the removal of various legal constraints that previously hindered homosexual workers to get married or to enter certain industries. Third, Panel B of Table 13 suggests that in male-dominated occupations, homosexual workers no longer suffer from a wage penalty that is associated with their sexual orientation.

Despite the above results, I still hesitate to conclude that discrimination against homosexual workers is not a concern anymore nowadays. First, the structural effect shown in Table 11 still indicates that gay men should have earned more if being rewarded the same wage structure as their heterosexual counterparts. But for the structural effect, gay men should have earned around 15 % more than their heterosexual counterparts. The current raw wage gap is, however, around 1.5%. Second, Panel A of Table 12 suggests that homosexuals still face a sticky floor if being compared with married heterosexuals though the magnitude is smaller than that in 2000. The structural effect is larger at the bottom end of the wage distribution, as previously, suggesting that low-income homosexual workers still face a stronger resistance to move to a higher income group. Second, Panel A of Table 13 also indicates that homosexual workers face a glass ceiling in the female-dominated occupations. Though the magnitude is smaller than that in 2000, the glass ceiling still exists.

Table 11: Sexual Orientation Wage Gap Decomposition across the Wage Distribution (2008-13)

2008 - 13 ACS Whole Sample, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
Raw Gap	-0.056 (0.002)	-0.162 (0.005)	-0.128 (0.003)	-0.055 (0.003)	-0.053 (0.002)	-0.021 (0.002)	-0.024 (0.002)	-0.012 (0.002)	-0.024 (0.003)	-0.017 (0.003)
			<i>-0.115</i>			<i>-0.033</i>			<i>-0.018</i>	
Composition Effect	-0.130 (0.002)	-0.108 (0.004)	-0.121 (0.003)	-0.125 (0.002)	-0.117 (0.002)	-0.138 (0.002)	-0.136 (0.002)	-0.145 (0.002)	-0.145 (0.002)	-0.131 (0.003)
			<i>-0.118</i>			<i>-0.130</i>			<i>-0.140</i>	
Structural Effect	0.074 (0.002)	-0.054 (0.006)	-0.007 (0.004)	0.070 (0.003)	0.064 (0.003)	0.117 (0.003)	0.112 (0.003)	0.133 (0.003)	0.122 (0.003)	0.114 (0.004)
			<i>0.003</i>			<i>0.098</i>			<i>0.123</i>	

**Note:** (1) The sample used is the whole sample that includes both gay men and heterosexual men of 2008-13 ACS; (2) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (3) Results are all significant at the 1% significance level; (4) the average row reports the average of estimates at the bottom end ( 10 - 30 percentile), the median (40 - 60 percentile), and the top end (70 - 90 percentile); (5) robust standard errors are in parenthesis; (6)

Table 12: Sexual Orientation Wage Gap Quantile Decomposition (by Marital Status, 2008-13)

Sample: 2008 - 13 ACS, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Cohabiting Gay + Married Heterosexual</b>										
Raw Gap	0.140	0.198	0.183	0.177	0.145	0.126	0.138	0.114	0.084	0.092
	(0.002)	(0.006)	(0.003)	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Composition Effect	-0.020	0.035	-0.027	-0.027	-0.031	-0.026	-0.016	-0.016	-0.033	-0.015
	(0.002)	(0.007)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Structural Effect	0.160	0.163	0.210	0.205	0.176	0.152	0.154	0.129	0.117	0.107
	(0.003)	(0.008)	(0.005)	(0.004)	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.005)
<b>Panel B: Cohabiting Gay + Cohabiting Heterosexual</b>										
Raw Gap	-0.335	-0.318	-0.302	-0.288	-0.296	-0.316	-0.306	-0.340	-0.396	-0.394
	(0.002)	(0.006)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Composition Effect	-0.248	-0.252	-0.246	-0.248	-0.224	-0.250	-0.260	-0.268	-0.258	-0.233
	(0.002)	(0.007)	(0.004)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.004)
Structural Effect	-0.087	-0.066	-0.056	-0.041	-0.072	-0.065	-0.046	-0.072	-0.138	-0.161
	(0.003)	(0.009)	(0.005)	(0.004)	(0.003)	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)

**Note:** (1) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (2) Results are all significant at the 1% significance level; (3) robust standard errors are in parenthesis; (4) Panel A used the sample that includes gay men and married heterosexual men, while Panel B used the sample that includes gay men and cohabiting heterosexual men. Non-cohabiting men are not discussed; (5) The used sample is that of 2008 - 13 ACS.

Table 13: Sexual Orientation Wage Gap Quantile Decomposition (by Occupations, 2008-13)

Sample: 2008 - 13 ACS, Method: Quantile Oaxaca-style Decomposition

	<i>mean</i>	10	20	30	40	50	60	70	80	90
<b>Panel A: Female Dominated Occupations</b>										
Raw Gap	-0.027 (0.003)	-0.298 (0.006)	-0.198 (0.004)	-0.122 (0.003)	-0.043 (0.003)	0.017 (0.003)	0.039 (0.003)	0.054 (0.003)	0.081 (0.004)	0.154 (0.004)
Composition Effect	-0.087 (0.002)	-0.084 (0.003)	-0.100 (0.002)	-0.093 (0.002)	-0.086 (0.002)	-0.086 (0.002)	-0.078 (0.002)	-0.090 (0.002)	-0.088 (0.002)	-0.066 (0.002)
Structural Effect	0.060 (0.003)	-0.215 (0.006)	-0.098 (0.004)	-0.029 (0.003)	0.043 (0.003)	0.103 (0.003)	0.117 (0.003)	0.144 (0.003)	0.169 (0.004)	0.220 (0.004)
<b>Panel B: Male Dominated Occupations</b>										
Raw Gap	-0.148 (0.003)	-0.225 (0.005)	-0.182 (0.005)	-0.180 (0.004)	-0.130 (0.004)	-0.136 (0.004)	-0.145 (0.003)	-0.133 (0.004)	-0.110 (0.004)	-0.132 (0.005)
Composition Effect	-0.232 (0.003)	-0.182 (0.004)	-0.256 (0.004)	-0.250 (0.003)	-0.272 (0.003)	-0.250 (0.003)	-0.233 (0.003)	-0.232 (0.003)	-0.217 (0.003)	-0.189 (0.004)
Structural Effect	0.084 (0.003)	-0.044 (0.006)	0.074 (0.006)	0.070 (0.005)	0.142 (0.004)	0.114 (0.004)	0.088 (0.004)	0.099 (0.004)	0.107 (0.005)	0.057 (0.005)

**Note:** (1) Raw Gap = straight wage - gay wage, Composition Effect is attributed to endowment difference, while Structural Effect is attributed to difference in wage structure; (2) Results are all significant at the 1% significance level; (3) robust standard errors are in parenthesis; (4) Panel A used the sample that includes gay men and married heterosexual men, while Panel B used the sample that includes gay men and cohabiting heterosexual men. Non-cohabiting men are not discussed; (5) The used sample is that of 2008 - 13 ACS.

## 5 Conclusion

This paper complements the existing literature on sexual orientation wage gap by investigating the glass ceiling and the sticky floor faced by homosexual workers. Using the 2000 5% U.S. Census data, this paper finds an overall gay glass ceiling that the gay wage gap increases as the income increases. Oaxaca-style decomposition results indicate that this is more linked to gay discrimination instead of productivity differences. To discover the possible channel that result in the gay glass ceiling, this paper further studies the sample that includes heterosexual men of different marital status and the sample that includes men in female or male dominated occupations. Results indicate a gay sticky floor effect when comparing gay men with their married heterosexual counterparts, and a gay glass ceiling effect in female-dominated occupations. I further suggest that the overall glass ceiling effect is a mixed result of gay working condition in different settings.

Further, I include the 1990 Census and 2008 - 13 ACS into discussion. Following same methodology, I find that despite an amelioration of homosexual workers' working condition in the labor market, discrimination against sexual minorities remains a major concern. Although homosexuals tend to earn more than their heterosexual counterparts nowadays, they still face a sticky floor if comparing with married heterosexuals and a glass ceiling if working in female-dominated occupations.

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