

Gay and Professional: Earnings Differentials of Doctors and Lawyers based on Sexual Orientation

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This study aims to investigate earnings differentials by sexual orientation in the professional labor markets, especially those of doctors, dentists, and lawyers using the 2000 U.S. Census 5% Public Use Micro-data. The main focus is to observe whether homosexual doctors/dentists and lawyers earn less than their heterosexual counterparts, holding other factors that might influence one's yearly salary constant. Additionally, this study attempts to examine the effect of antidiscrimination policies on gay and lesbian doctors and lawyers. For men, marital status, rather than sexual orientation, appears to be responsible for a large portion of earnings differentials between homosexual and heterosexual doctors/lawyers. There is no statistically significant difference between the earnings differentials of gay and heterosexual unmarried men, and both earn less than their married counterparts. For men, neither was a significant difference found between states that had policies banning sexual orientation employment discrimination and those that did not. For women, the result is more interesting. Lesbian doctors are estimated to earn 9 percent less than both married and unmarried heterosexual female doctors. Lesbian lawyers, although the differential is insignificant across the country, are estimated to earn 9.8 percent less than their heterosexual counterparts in absence of antidiscrimination policies. Unlike their male counterparts, both lesbian doctors and lawyers appear to benefit from antidiscrimination policies.

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I. INTRODUCTION

Earning differentials as signals of employment discrimination based on race and gender have been discussed widely for decades. Although these differentials still exist in the labor market, policymakers have been making efforts to create workplace environments in which individuals earn according to their productivity, rather than “who they are” (Badgett, 726, 1995). The Civil Rights Act of 1964 prohibits employment discrimination based on race, color, religion, or national origin. Also, there are other laws that forbid employment discrimination based on an individual’s age or physical or mental disability. One type of discrimination, that has not been receiving much deserved attention, however, is that of sexual orientation. Protection against employment discrimination at the federal level does not extend to sexual orientation, which means that it is still legal to discriminate against lesbian, gay or bisexual workers in the United States (Badgett, 1995).

This study aims to investigate earnings differentials by sexual orientation in the professional labor markets, especially of doctors, dentists, and lawyers. The main focus is to observe whether homosexual doctors/dentists and lawyers earn less than their heterosexual counterparts, holding other factors that might influence one’s yearly salary constant. People tend to believe that education leads to a higher level of tolerance, believing that highly educated people do not discriminate and are not discriminated against as frequently. I seek to examine the

accuracy of this commonly-held assumption. According to most past studies concerning gays and lesbians in the labor market, homosexuality has a negative effect on gay men's earnings, but no significant effect on lesbian women's earnings. I will examine whether a similar trend holds among these highly educated individuals. If so, this income differential might indicate labor market discrimination against gay and lesbian doctors and lawyers.

Additionally, this study tries to examine the effect of antidiscrimination policies on gay and lesbian doctors and lawyers. As of November 2007, only 19 states provide protection against sexual orientation discrimination in the workplace in both public and private sectors. Another 11 states protect against sexual orientation discrimination in public sector workplaces only, and 20 states offer no protection against sexual orientation employment discrimination¹. This means that it is legal to discriminate against gays and lesbians workers in the private sector in more than a half of the states in the United States. If one can show that antidiscrimination policies lead to earnings gaps for gay and lesbian lawyers, it will give policymakers more incentive to push for federal legislation that protects gays and lesbians in the labor market.

¹ Policies include laws, executive orders or court decisions.

II. LITERATURE REVIEW

Employment Discrimination hinders the interests of efficiency and equity of an economy. In his pioneering work on the economic analysis of discrimination, Becker (1971) predicts that prejudiced employers will hire more than the optimal number of majority workers and less than the optimal number of minority workers. The inefficient combination of majority and minority workers reduces profits, but the model assumes that employers view the loss of profits as a tolerable price for the satisfaction of their “taste for discrimination” (p.8). Ultimately, discrimination reduces the total output of an economy. Also, wage discrimination has other negative effects. For example, as Baldwin and Johnson (1996) demonstrate in their study of discrimination against African-American men, discrimination discourages people from staying in the labor market and leads them to seek public assistance. They argue that if discrimination lowers the relative reward for investment for African American men in comparison to white men, African American men would be discouraged from investing in human capital such as education. As a result, potentially productive members of the labor market will remain undiscovered, thus lowering productivity as a whole. It is important to investigate the issue of employment discrimination against gays and lesbians because if a substantial number of economic studies can demonstrate that discrimination against gay, lesbian, and bisexual workers does exist, federal legislation to outlaw such discrimination could be justified “on the grounds of efficiency and

equity” (Clain & Leppel, 2001, p.37).

Economists have been investigating sexual orientation discrimination in the labor market for a little over a decade. There are two prevailing ways to classify workers’ sexual orientation using available datasets: one identifying gay and lesbian individuals behaviorally with the General Social Survey and the other identifying them socially as same-gender “unmarried partners” with the Census data (Badgett, 2007, p.29). The General Social Survey asks respondents to provide the frequency of same-sex sexual behavior. Using the GSS, some economists classify individuals as gay or lesbian if he or she had more same-sex partners than different-sex partners. Others classify gays or lesbians by the number of same-sex partners one has had in the past five years. Alternatively, the census allows gays and lesbians to identify themselves by providing the unmarried partner category to the list of household relationships. The GSS is more accurate in terms of identifying and defining one’s sexual orientation, but the census provides a greater number of observations necessary for certain types of studies. The California Health Interview Survey, a telephone survey, contains information on self-reported sexual orientation and marital status. The CHIS provides the most accurate definition of the gay variable, but as it is only administered in one state, the number of observations is limited, making it difficult to produce statistically significant results.

Badgett (1995) was the first to apply econometric tools used for race and gender

discrimination to the question of sexual orientation discrimination. Using the 1989-1991 General Social Survey data, she demonstrated that income differences do exist between people of different sexual orientations. According to Badgett, gay/bisexual men earn from 11% to 27% less than heterosexual men. Blandford (2003), also using the General Social Survey data from 1989 to 1996, showed that openly gay or bisexual men make 30% to 32% less than married heterosexual men. Using the 1990 Census, Clain and Leppel (2001) found that college educated gay men earn 16% lower salaries than their married counterparts, and in general, regardless of education, gay workers earn 22% less than men living without partners or spouses. Several other studies also show consistent results pointing to a negative wage differential for gay or bisexual male workers, even though they used different datasets and categorization strategies. All the studies have controlled for other factors known to influence wages, such as age, experience, geographic location, marital status, race, and gender (Badgett, 1995). These lower earnings may suggest that equally qualified and productive gay men are being discriminated against because of their sexual preference.

One interesting way to look at income differentials between gay and heterosexual men is to examine the male marriage premium, which shows that married men earn statistically significantly higher salaries than their unmarried counterparts. Carpenter (2006) questions whether an employer uses marriage as a signal for an employee's heterosexuality, assuming that

a gay man is less likely to marry and consequently earn lower salaries since the cost of signaling heterosexuality through marriage is too high. He finds that employers with “a taste for heterosexual workers” (Carpenter, 2006, p.89) might screen a worker’s sexual orientation by his marital status. He finds that jobs that are the least likely to be occupied by gay men exhibit the smallest marriage-wage bonuses, whereas ones that are the most likely to be populated by gay men grant a high marriage premium to married workers. He also finds that married men in cities and occupations in which an unmarried man’s sexual orientation is not clear receive large wage bonuses. He uses these anecdotes as suggestive evidence for the possibility that the male marriage premium serves as a reward for sending a heterosexual signal, hypothesizing that the male marriage premium shows “a taste of discrimination” against gay men rather one favoring married men. In conclusion, it has been consistently demonstrated that gay men earn less than their heterosexual counterparts in studies regarding gay workers in the labor market.

The results for lesbian or bisexual women are not as consistent; they appear to be more sensitive to the classification method. Badgett (1995) finds that lesbian/bisexual women earn 18% less than heterosexual women, but her finding is not statistically significant. Many other studies have shown that there is no statistical difference in income among women of different sexual orientation. Klawitter and Flatt (1998) could not find any statistically significant difference in earnings for women working full-time, regardless of their sexual orientation. The

lack of statistical significance could be due to the small size of the sample of lesbians or the fact that it is impossible to adequately control for unobservable differences between lesbians and heterosexual women.

Later Studies, however, have shown that lesbian or bisexual women earn higher salaries than heterosexual women. For example, Blandford (2003) found that lesbian and bisexual women earn 17 to 38% higher incomes than married heterosexual women. In sum, one may safely conclude that lesbians and bisexual women do not make less than heterosexual women, even though this does not necessarily mean that they earn more than heterosexual women. This result is inconsistent with the view that the earnings gap between gay and heterosexual men points to possible employment discrimination based on sexual orientation.

The conflicting results of men and women have been interpreted different ways, leading to different explanations. Clain and Leppel (2001) provide the rather sexist explanation that employers, other employees, and/or consumers might in fact discriminate against gay and bisexual men and heterosexual women in favor of heterosexual men and lesbian women. Gay men might earn less because of their feminine characteristics, rather than their sexual orientation itself. Similarly, since lesbian women exhibit personality traits that heterosexual men traditionally are known to possess, they are favored over heterosexual women. In this case, according to Clain and Leppel, the earnings differentials point to discrimination based on

personality characteristics rather than sexual orientation. Badgett (1995) suggests that the type of discrimination lesbian and bisexual women face might be different from that faced by gay and bisexual men. Women are already known to earn less because of their gender, so it is difficult to measure the indirect discrimination coming from their sexual orientation. Blandford (2003) hypothesizes that there are unknown labor market factors are contributing to the contrasting wage effects of sexual orientation against men and women. He argues that there are “subtle occupational clustering effects” (p.639) that are not captured by the one or two-digit occupation classification controls used in many studies. The effect of sexual orientation on income may be overestimated because of “highly nuanced and gender-specific” (p.639) trends pointed out by occupational patterns associated with sexual orientation. Lesbian and bisexual women have been known to be successful in male-dominant, usually more lucrative, job categories. Gay and bisexual men are heavily populated in female-dominant occupations that are relatively less lucrative, thus lowering average salaries of gay men compared to heterosexual male workers. Blandford explains that more detailed classification with the three-digit controls that captures “the orientation and gender composition” (p. 639) in these occupations is necessary to capture the relationship between sexual orientation and the occupational clustering effects.

Antidiscrimination policies are also important to consider when studying the possibility of labor market discrimination. Klawitter and Flatt (1998) examine the effects of state and local

sexual orientation antidiscrimination policies on the earnings of gays and lesbians. The existence of antidiscrimination policies has been known to produce positive effects on the incomes of women and racial minorities. Klawitter and Flatt, however, conclude that employment protection for sexual orientation does not increase earnings of a same-sex household. All households, regardless of the sexual orientation, appear to make more in states with more worker protection, but this is due to worker and area characteristics, arguing that protection for sexual orientation alone does not have a direct effect on anyone's income. Although the authors agree that antidiscrimination policies are necessary regardless of their economic implications, they conclude that the earning differentials are more closely related to one's marital status than sexual orientation, since same-sex households and unmarried different-sex households had similar negative earning differentials.

There is not much literature that focuses on a specific group of gays and lesbians, for example by occupation, education, or race. Preston (2007) investigates employment discrimination against gays and lesbians who graduated from highly selective liberal arts colleges. She finds that among these highly educated men and women, gay/bisexual men and bisexual women earn less than their heterosexual counterparts, while lesbian women earn wages similar to heterosexual women. Preston suggests that the difference in wages based on sexual orientation comes from the different choices they make after college. According to Preston, gays,

lesbians, and bisexuals all “shy away” (p.27) from professional degrees, choosing to pursue masters or PhDs rather than going to law, medical, or business schools. Also, fewer gay and bisexual men work in the private business sector, while more lesbian and bisexual women work in the nonprofit sector, both consequently earning lower salaries than others who pursued professional degrees after college. Preston suggests that this choice is influenced by their perceptions of the treatment they might receive at more “lucrative” workplaces. She finds that gay and lesbian workers who graduated from highly selective liberal arts colleges have suffered wage loss in “gay unfriendly” (p.28) workplaces after coming out, and that the loss can be viewed as an outcome of discrimination based on sexual orientation. I would like to see, then, how sexual orientation affects earnings of highly educated gays and lesbians who chose to pursue professional degrees after college. Would those who did not “shy away” from entering lucrative industries still earn less because of their sexual orientation? I will investigate earnings differentials based on sexual orientation for individuals with professional degrees, focusing specifically on doctors and lawyers.

III. THE DATA

The data for this study comes from the 2000 U.S. Census 5% Public Use Micro-data Sample. The data was used to identify three groups of people: married heterosexuals, heterosexuals living with unmarried partners, and homosexuals living with unmarried partners. Since 1990, the U.S. census made it possible for gay and lesbian couples to identify themselves by adding the “unmarried partner” category to the lists of household relationships. I identified individuals who are not currently married and live with an unmarried partner of the same gender, and assumed that the two people in these same-sex households are either gays or lesbians. I also assumed that if two householders of the same gender live in one household, they are gay or lesbian couples.

One problem with using the census data is that there is no way to behaviorally identify sexual orientation, so we can only include individuals who are married or living with unmarried partners. I had to exclude single doctors and lawyers because it is impossible to distinguish their sexual orientation. It is also unfortunate that I had to disregard all bisexual individuals. In addition, it is not clear if one is open about his or her sexuality at work; coworkers and employers might be aware of one’s homosexuality, but also might not be. It is impossible to consider one’s disclosure of his or her homosexuality at work because of this ambiguity. Another big caveat is that by assuming that two same-sex householders are gay or lesbian

couples, I might have also included those who are in fact brothers/sisters, friends, or roommates.

These uncertainties are the tradeoff for having a relatively large sample size that will produce statistically significant results. Even though the General Social Survey gives more specific descriptions of one's sexual orientation, the number of observations is too small to conduct an occupation-specific study.

I identified individuals with professional degrees by occupation since the specific professional degree information does not exist in the data; it is safe to assume that lawyers hold JDs and doctors and dentists hold MDs and DDSs, respectively. Originally, I wanted to consider individuals with MBAs as well, but it was extremely difficult to classify all occupations with the degree. Since people with MBAs go into numerous different sectors (they could be financial analysts, marketing consultants, accountants, investment bankers, and many more), it is difficult to identify them by occupation.

IV. STATISTICAL MODEL

a. Equation and Variables

To examine the effect of sexual orientation on earnings, other variables that may influence one's income must be held constant. These include gender, race, work sector, region, and other human capital variables. To examine the earning differentials for homosexual doctors and lawyers, the following OLS regression with the natural log of yearly earnings as the dependent variable² was estimated:

$$\text{Ln}(\text{earnings}_i) = a + b(\mathbf{GL}_i) + c(\mathbf{Hetero}_i) + d(\mathbf{X}_i) + e(\mathbf{Y}_i) + f(\mathbf{Z}_i) + g(\mathbf{Interact}_i) + e_i$$

\mathbf{GL}_i is a dummy variable for gay and lesbian included to represent homosexuality and its effect on earnings. \mathbf{Hetero}_i , a dummy for heterosexual unmarried doctors and lawyers who are living with a partner, is also included to avoid confusion between the effect of being gay/lesbian and the effect of being unmarried. \mathbf{X}_i is a vector of human capital variables. A race dummy is used to control for the effect of being white on one's yearly income. Both experience and square of experience variables are also included to capture a negative pattern in one's income after certain years of work experience. A variable for hours worked per week is included to control for the effect of hours worked on one's yearly salary. An education variable is excluded because it is

² An identical OLS regression using the natural log of hourly wages as the dependent variable was also estimated. Full time status was included in the model instead of hours worked per week to control for one's work efforts. The result was not included because it was almost identical to the one presented in the study.

reasonable to assume that all doctors and lawyers have completed the same amount of education. Y_i is a vector of work characteristics, specifically, of different work sectors. There are four dummy variables that represent government, private sectors, nonprofit industries, and self-employed. Only government, private sectors, and self-employed are included in the regression, with private sector omitted as a reference group.

Z_i is the vector of geographic variables and is divided into two different categories. One is the common Northeast-South-Midwest-West division defined by the U.S. Census Bureau. A dummy representing the south is omitted from the regression to be used as a reference region. A second category is classified by the existence of antidiscrimination policies in different states. 50 states and Washington D.C are divided into three dummy variables: one with policies banning sexual orientation discrimination in public and private sectors, one with policies only in public sectors, and one with no sexual orientation antidiscrimination policy. A dummy for states with no antidiscrimination policy is dropped in order to compare the earnings differentials for gay/lesbian doctors and lawyers living in states with antidiscrimination policies to those living in states with no protection. *Interact_i* represents interaction terms of the gay dummy variable with the antidiscrimination policy regional dummies. A gay variable is interacted with two dummies representing states with employment protection for LGB workers in all sectors and only in public sectors, and the two interaction terms will allow us to observe variations in earnings differentials

among gay/lesbian doctors and lawyers living in states with different antidiscrimination policies.

One caveat of this regression model is that a few variables that are informative for the income differential analysis have been omitted. I was not able to obtain information on the existence of children for these couples, which probably has some influence on one's work effort and earnings. Also, partner's income was not controlled for in the analysis, which means that there is a possible omitted variable bias.

I ran four different sets of regressions for male doctors, male lawyers, female doctors, and female lawyers. The observations are divided into four subsamples in order to compare earning differentials by occupation and gender. As discussed in the literature review, the effect of homosexuality on earnings is expected to be different for gay and lesbian doctors and lawyers. Also, by looking at doctors and lawyers separately, I hope to examine a general trend in earnings differentials for workers with professional degrees, while still attempting to capture occupational distinctions.

b. Summary Statistics: Male Subgroup

Summary statistics of the variables used in Equation 1 are presented in Tables 1 through 4 for the four different subsamples. Table 1, which gives the statistics for male doctors, displays a large, significant difference in both hourly wages and earnings between married and gay doctors. The difference in yearly earnings between gay and unmarried heterosexual male doctors is not significant, which may indicate that income differentials vary because of marital status rather than sexual orientation. Heterosexual unmarried doctors, however, make about five dollars more than gay doctors do an hour, difference being statistically different; it is unclear why the unmarried heterosexual and gay doctors make similar yearly salaries when there is a significant difference in their hourly wages. One noticeable difference is that married doctors are older and more experienced than both gay and heterosexual unmarried doctors. Married men's higher earnings may be explained by the positive correlation between work experience and salaries. Also, married doctors are significantly more likely to be white than their gay counterparts, whereas heterosexual unmarried doctors are significantly less likely to be so. It is surprising that there is no significant difference between the hours worked per week by married and unmarried doctors. Traditionally, the male marriage premium has been explained by the hypotheses that married workers put in more effort in order to provide for their families.

Table 1.

Variable Means and Percentages by Sexual Orientation and Marital Status for Male Doctors

	Married	Heterosexual Unmarried	Gay
N	16939	864	1240
Age (years)	46.04*	42.37	42.12
Experience (years)	21.92*	18.21	18.91
Percentage White (%)	79.49*	71.88*	76.78
Hours Worked/ Week	52.72	52.35	52.07
Sectors of Work (%)			
Self-employed	36.18*	26.97	24.11
Non-profit	15.92*	20.95	21.29
Government	11.00*	12.50	14.03
Private Sector	36.90*	39.58	40.56
Location (%)			
Northeast	21.67	22.80	21.13
Midwest	16.55*	11.57	12.42
West	24.87*	29.28	27.90
South	36.90	36.34	38.55
States with no LGB protection	31.15	30.55	30.16
States protecting LGB workers in public and private sectors	49.67*	52.89	53.31
States protecting LBG workers only in public sectors	19.17*	16.55	16.53
Earnings in 1999 (\$)	189428.8*	147537.0	145890.1
Hourly Wage in 1999 (\$)	74.37*	66.58*	60.82

*statistically different from its gay counterpart at the 95 percent confidence level

Significantly greater percentages of married doctors are self-employed than their gay counterparts, whereas bigger percentages of gay doctors work for nonprofit and government organizations. It is possible that more married doctors are self-employed for financial reasons, since they may have more incentives to earn more to provide for their families. This could also explain the earnings differential between married and unmarried doctors, since the self-employed

would make more on average, especially for doctors. Gay doctors might find nonprofit and governmental organizations more appealing since they would not have to attract their own patients as they do in private practice. In terms of geographic location, married doctors are significantly more likely to be living in the Midwest than gay doctors, while gay doctors more likely to be living in the west. Also, significantly fewer married doctors live in the states with antidiscrimination policies that protect gay and lesbian workers in both public and private sectors. This may be due to the fact that gay doctors might find the liberal west region more comfortable, the same reason they would be attracted to states with antidiscrimination policies.

Summary statistics for the male lawyers displayed in Table 2 follow similar patterns observed with male doctors. Married male lawyers earn significantly higher hourly wages and yearly salaries than gay lawyers, but gay and unmarried heterosexual lawyers earn about the same amount. Means of age and experience variables and percentage distribution of race, work sector, and region variables means also follow similar patterns to male doctors. One difference is that a significantly higher percentage of gay lawyers live in the south, while gay doctors are more likely to live in the west. An interesting point to consider with male lawyers is that there may be a different appeal to being self-employed, rather than the higher salaries. It is possible that married lawyers chose to be self-employed because of the work-hour flexibility, since private law firms are notorious for their workload and time requirements. Married lawyers who

are self-employed can devote more time to their families, while still enjoying relatively higher salaries.

Table 2.

Variable Means and Percentages by Sexual Orientation and Marital Status for Male Lawyers

	Married	Heterosexual Unmarried	Gay
N	13278	1045	1398
Age (years)	44.12*	38.02	39.46
Experience (years)	20.07*	14.99	15.44
Percentage White (%)	92.89*	87.66	87.84
Hours Worked/Week	49.78*	48.38	48.65
Sectors of Work (%)			
Self-employed	26.88*	15.79	14.88
Non-profit	2.09*	3.54	3.51
Government	17.65*	20.57	22.68
Private Sector	53.39*	60.10	58.94
Location (%)			
Northeast	22.44	23.35	21.82
Midwest	14.09*	9.67	11.16
West	26.07	28.61	26.39
South	37.40*	38.37	40.63
States with no LGB protection	27.34	28.71	27.90
States protecting LGB workers in public and private sectors	56.28*	55.12	52.86
States protecting LBG workers only in public sectors	16.38*	16.17	19.24
Earnings in 1999 (\$)	139603.00*	96611.81	97467.51
Hourly Wage in 1999 (\$)	57.00*	41.82	40.62

*statistically different from its gay counterpart at the 95 percent confidence level

b. Summary Statistics: Female Subgroup

As displayed in Table 3, and as found in many previous studies, lesbian doctors earn slightly higher salaries on average than their heterosexual counterparts, although the difference is not significant. It is interesting that lesbian doctors earn lower hourly wages than married female doctors even though they earn higher yearly salaries. There is no significant difference in yearly earnings and hourly wages between all heterosexual female doctors and lesbian doctors. Different from their male counterparts, there is no significant difference in age and experience for female doctors. Lesbian doctors, however, are significantly more likely to work longer hours than both married and unmarried heterosexual female doctors. Married women probably do not work as much because they have to take care of their children and home. They also may have less incentive to work since their husbands are likely to be the major provider of the family. Unmarried female doctors, even though they can afford to put more hours into work than married doctors, still have less incentive to work than lesbian doctors; it is safe to assume that unmarried heterosexual couples probably make more than lesbian couples, as male partners probably bring in higher salaries than lesbian partners do.

The differences in the work sector distribution are not as big as they were for the male doctors and are not significant. Whereas there were disparities in all four work sectors between married and unmarried male doctors, female doctors are distributed quite similarly across

different sectors, only with 2-3 percent differences in government and private sectors. As observed with male doctors and probably for similar reasons, significantly more married female doctors live in the Midwest, while significantly more lesbian doctors live in the West.

Table 3.

Variable Means and Percentages by Sexual Orientation and Marital Status for Female Doctors

	Married	Heterosexual Unmarried	Lesbian
N	5251	455	342
Age (years)	40.56	40.25	40.81
Experience (years)	16.47	16.11	16.74
Percentage White (%)	69.64	70.49	68.22
Hours Worked/Week	45.75*	49.59*	52.07
Sectors of Work (%)			
Self-employed	16.03	14.29	15.58
Non-profit	21.70	23.42	21.50
Government	15.21	18.27	18.07
Private Sector	47.06	44.03	44.86
Location (%)			
Northeast	21.72	21.55	21.50
Midwest	15.77*	11.48	9.66
West	29.63*	33.96	37.38
South	32.88	33.02	31.46
States with no LGB protection	25.33	25.53	26.17
States protecting LGB workers in public and private sectors	57.18	59.48	60.44
States protecting LGB workers only in public sectors	17.49	14.99	13.39
Earnings in 1999 (\$)	108814.90	104252.00	112148.60
Hourly Wage in 1999 (\$)	51.35	43.66	47.18

*statistically different from its gay counterpart at the 95 percent confidence level

Presented in Table 4 are summary statistics for the female lawyer subgroup. Percentage distributions for variables are more significantly different for female lawyers than female doctors.

Lesbian doctors earn the highest yearly salaries, but the lowest hourly wages, yet the difference again is not significant. Even though in very small margins, lesbian lawyers are significantly less experienced and younger than married female lawyers, and significantly older and more experienced than heterosexual unmarried female lawyers. Married female lawyers again work significantly fewer hours than their lesbian counterparts. Another noticeable difference is that married lawyers are significantly more likely to be self-employed. The same reasoning for male lawyers can be applied to this difference; since law firms are extremely demanding in work hours, married women might find the flexibility that comes from being self-employed more appealing.

Unlike female doctors, regional distributions are significantly different for female lawyers. Lesbian lawyers are significantly less likely to live in the northeast and more likely to live in the west than both married and unmarried heterosexual female lawyers; it is interesting that the differences between lesbian and heterosexual unmarried lawyers are also significant. It is also odd that significantly higher percentages of lesbian doctors live in states with no antidiscrimination policy; only with female lawyers was a significant difference in this variable distribution observed. It is possible that lesbians are more accepted and successful in the legal field than they would be in other industries because of their high work effort. The fact that a significantly lower percentage of lesbian lawyers live in states with policies protecting GLB workers in public sectors may support this hypothesis.

Table 4.

Variable Means and Percentages by Sexual Orientation and Marital Status for Female Lawyers

	Married	Heterosexual Unmarried	Lesbian
N	5176	741	548
Age (years)	39.35*	37.07*	38.15
Experience (years)	15.32*	13.03*	14.10
Percentage White (%)	87.00*	79.00	80.15
Hours Worked/ Week	44.11*	47.83	47.41
Sectors of Work (%)			
Self-employed	9.34*	7.23	6.55
Non-profit	5.25	4.17	5.20
Government	28.68	31.57	28.71
Private Sector	56.73	57.02	59.54
Location (%)			
Northeast	23.57*	25.03*	17.92
Midwest	11.57*	7.79	7.32
West	28.55*	31.01*	42.00
South	36.32	36.16	32.76
States with no LGB protection	23.09*	22.81	27.75
States protecting LGB workers in public and private sectors	61.19	62.73	62.62
States protecting LBG workers only in public sectors	15.72*	14.46*	9.63
Earnings in 1999 (\$)	84511.66	83072.04	87101.89
Hourly Wage in 1999 (\$)	40.91	38.35	37.18

*statistically different from its gay counterpart at the 95 percent confidence level

V. RESULTS

a. Male Subgroup

Table 5 presents coefficients on the gay dummy variable in OLS regression for male doctors. Column 1 gives preliminary estimates with no controls, and the estimated gay and heterosexual unmarried differentials on earnings are -0.345 and -0.337 respectively, both significant at the 99 percent level. Column 2 presents the results found when we add race, experience, and hours worked, and here the differentials drop to -0.160 and -0.156. This reveals that experience and hours worked are responsible for a big portion of the earnings gap; gay and unmarried heterosexual doctors are less experienced and work fewer hours, thus earn lower salaries. In Column 3, we add sector variables, and the differential declines further since gay and unmarried heterosexual doctors are less likely to be self-employed, which is the highest paying sector. Column 4 adds region variables, but there is only a slight change in the coefficients of gay and unmarried heterosexual dummies, which shows that location does not have a big influence on earnings.

As discussed above, I interacted the gay dummy variable with the variables representing states with policies protecting gays and lesbians against employment discrimination in all sectors and only in public sectors to understand the effect of antidiscrimination policies on earnings. The interaction terms for male doctors are not jointly statistically significant, and the coefficients on

gay and heterosexual unmarried people do not seem to be affected by them³. Since the earnings differentials for gay and unmarried heterosexual doctors are virtually identical, it appears that marital status is largely responsible for the negative differential of gay doctors, rather than sexual orientation.

Table 5.
Coefficients in Gay/Lesbian Dummy Variable in OLS Regression for Male Doctors
(Dependent Variable: natural log of earnings)

	(1)	(2)	(3)	(4)	(5)
gay/lesbian dummy	-0.345*** (0.023)	-0.160*** (0.021)	-0.147*** (0.020)	-0.146*** (0.020)	-0.152*** (0.037)
Heterosexual unmarried dummy	-0.337*** (0.027)	-0.156*** (0.024)	-0.151*** (0.024)	-0.150*** (0.024)	-0.150*** (0.024)
GL x protect both private and public sectors					0.019 (0.046)
GL x protect only public sectors					-0.023 (0.061)
controls	None	White, Experience, Experience ² , Hours/Week	White, Experience, Experience ² , Hours/Week, Work Sectors	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies, Interaction Dummies
N	19043	19043	19043	19043	19043
R ²	0.0188	0.2185	0.2404	0.2412	0.2412

***significant at the 99% level, **significant at the 95% level, *significant at the 90% level

³ F value is significant only at about the 25 percent level; therefore, we cannot reject the null hypothesis that the two interaction terms have no impact on the gay coefficient. See Figure 4a in the appendix.

Table 6 shows the same OLS regression analysis for the male lawyers. In Column 1, before adding any controls, the gay and heterosexual unmarried earnings differentials are -0.362 and -0.379, respectively, both significant at the 99 percent level. After a race dummy, experience variables, and a work-hour variable are added, the gay/heterosexual unmarried earnings differentials become much smaller (Column 2), falling to -0.174/-0.168, indicating that gay and heterosexual unmarried lawyers are also relatively inexperienced and working fewer hours. Displayed in Column 3, the negative earnings differentials for gay and heterosexual unmarried lawyers become smaller as work sectors are added, since married lawyers are more likely to be self-employed, while unmarried doctors are more likely to work for nonprofit and governmental organizations. Again, we can see in Column 4 that location is not a big factor in determining earnings for lawyers, as the differentials do not change very much after region variables are added.

Displayed in Column 5, the addition of interaction dummies appears to have a more interesting impact on gay lawyers. Before adding these interaction dummies, the negative differentials were not very different for gay and heterosexual unmarried doctors. After we add these interaction dummies, however, the negative earnings differential for gay lawyers becomes greater (-0.154 to -0.196), whereas the differential for heterosexual unmarried lawyers stays roughly the same. This may mean that antidiscrimination policies have a positive effect on gay

lawyers' yearly salaries, but the interaction terms are not jointly statistically significant⁴ and the coefficients on gay and heterosexual unmarried are not significantly different from each other⁵. It appears that marital status is also responsible for the negative differential for gay lawyers.

Table 5.

Coefficients in Gay/Lesbian Dummy Variable in OLS Regression for Male Lawyers

(Dependent Variable: natural log of earnings)

	(1)	(2)	(3)	(4)	(5)
gay/lesbian dummy	-0.362*** (0.020)	-0.174*** (0.018)	-0.154*** (0.018)	-0.154*** (0.017)	-0.196*** (0.033)
heterosexual unmarried dummy	-0.379*** (0.023)	-0.168*** (0.021)	-0.157*** (0.020)	-0.159*** (0.020)	-0.159*** (0.020)
GL x protect both private and public sectors					0.063 (0.040)
GL x protect only public sectors					0.047 (0.051)
controls	None	White, Experience, Experience ² , Hours/Week	White, Experience, Experience ² , Hours/Week, Work Sectors	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies, Interaction Dummies
6. N	15721	15721	15721	15721	15721
7. R ²	0.0338	0.2333	0.2846	0.2963	0.2964

***significant at the 99 % level, **significant at the 95% level, *significant at the 90% level

⁴ F value is significant only at about the 70 percent level; therefore, we cannot reject the null hypothesis that the two interaction terms have no impact on the gay coefficient. See Figure 4b in the appendix.

⁵ F value is significant only at about the 70 percent level; therefore, we cannot reject the null hypothesis that the gay and heterosexual unmarried coefficients are statistically the same. See Figure 5 in the appendix.

b. Female Subgroup

Table 7 presents coefficients on the gay dummy variable for female doctors. Column 1 gives preliminary estimates with no controls. The estimated gay and heterosexual unmarried differentials on earnings are -0.018 and -0.040, respectively, and neither coefficient is statistically significant. After race, experience, and hours worked are added in Column 2, the earnings differential for lesbian doctors drops to -0.091 and become statistically significant at the 95 percent level, while the differential for heterosexual unmarried doctors becomes slightly smaller and stays statistically insignificant. This reveals that even though lesbian doctors may earn higher yearly salaries, they actually make less when hours and experience are controlled for. In Column 3 and 4, we add sector and region variables, but the coefficients for both lesbian and heterosexual unmarried doctors do not change very much. Work sectors and geographic location do not appear to have a big impact on female doctors' yearly earnings.

In Column 5, antidiscrimination policy interaction dummies are added to the OLS regression. Addition of the interaction terms makes the earnings differential for lesbian doctors decline and increases its statistical significance to the 99 percent, whereas it does not change the differential for heterosexual unmarried female doctors. Unlike their male counterparts, the interaction terms for female doctors are jointly statistically significant at the 90 percent

confidence level⁶, meaning that the differentials on earnings for lesbian doctors vary in states with different antidiscrimination policies.

Table 7.

Coefficients in Gay/Lesbian Dummy Variable in OLS Regression for Female Doctors
(Dependent Variable: natural log of earnings)

	(1)	(2)	(3)	(4)	(5)
Gay/Lesbian dummy	-0.018 (0.044)	-0.091** (0.040)	-0.088** (0.039)	-0.090** (0.040)	-0.193*** (0.077)
heterosexual unmarried dummy	-0.040 (0.039)	-0.037 (0.035)	-0.037 (0.035)	-0.034 (0.035)	-0.034 (0.053)
GL x protect both private and public sectors					0.118 (0.092)
GL x protect only public sectors					0.245* (0.131)
controls	None	White, Experience, Experience ² , Hours/Week	White, Experience, Experience ² , Hours/Week, Work Sectors	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies, Interaction Dummies
N	5706	5706	5706	5706	5706
R ²	0.0002	0.2014	0.2104	0.2109	0.2114

***significant at the 99% level, **significant at the 95% level, *significant at the 90% level

⁶ F value is significant only at about the 85 percent level, but we are going to consider it significant at the 90 percent level since gayprotectpublic is significant at the 90 percent level. We can then reject the null hypothesis that the two interaction terms have no impact on the gay coefficient. See Figure 4c in the appendix.

The gay coefficient, -0.193, now becomes the earnings differential for lesbian doctors living in states with no sexual discrimination antidiscrimination policy. The earnings differential for lesbian doctors in states with antidiscrimination policies in both public and private sectors becomes $(-0.193+0.118) = -0.075$, showing that they are expected to earn higher wages than those who live in states with no protection. Even Lesbian doctors who live in states with antidiscrimination policies only in the public sector have a positive earnings differential, $(-0.193+0.245) = 0.052$, which means that they are expected to earn higher salaries than both heterosexual unmarried and married female doctors. This shows that lesbian doctors living in states with no protection earns significantly lower salaries than heterosexual female doctors, regardless of their marital status, in the absence of the antidiscrimination policies. These findings contradict many previous studies that concluded there is no statistically significant difference between the earnings of lesbians and heterosexual workers.

Table 8 gives estimates of the earnings differential based on sexual orientation for female lawyers. In Column 1, the estimated earnings differential for lesbian lawyers is 0.031 and the differential for heterosexual unmarried lawyers is -0.0089, but neither of them is statically significant. In Column 2, the positive earnings differential for lesbian lawyers drops to 0.013, while the negative differential for heterosexual unmarried lawyers increases to -0.015. From Column 2 to 4, even after race, experience, hours, work sectors, and region variables are added,

the earnings differentials for both lesbian and heterosexual unmarried lawyers stay fairly consistent and statistically insignificant. This indicates that even though lesbian lawyers appear to earn slightly higher salaries than their heterosexual counterparts, the difference is not statistically significant, revealing that we cannot necessarily conclude lesbian lawyers earn higher salaries than their heterosexual counterparts.

Addition of the interaction terms in Column 5 turns the positive earnings differential for lesbian doctors negative and statistically significant at the 95 percent level, whereas the heterosexual unmarried coefficient stays the same. The interaction terms were jointly statistically significant for female lawyers at the 95 percent level⁷, which shows that the earnings gaps for female lawyers also differs by the existence of antidiscrimination laws. Whereas lesbian lawyers in states with no sexual orientation antidiscrimination law have a negative earnings differential of -0.098, lesbian lawyers in states with antidiscrimination law have positive earnings differentials. Lesbian lawyers in states with protection in both public and private sectors have the differential of $(-0.098+0.157)= 0.057$, and lesbian lawyers in states with antidiscrimination policies only in private sectors have the differential of $(-0.098+0.162)=0.064$. Lesbian lawyers in states with sexual orientation antidiscrimination law are estimated to earn higher salaries, whereas lesbian

⁷ F value is significant at the 95 percent level; therefore, we can reject the null hypothesis that the two interaction terms have no impact on the gay coefficient. See Figure 4d in the appendix.

lawyers in states with no such policy are estimated to earn 9.8% less than their heterosexual counterparts.

Table 8.

Coefficients in Gay/Lesbian Dummy Variable in OLS Regression for Female Lawyers
(Dependent Variable: natural log of earnings)

	(1)	(2)	(3)	(4)	(5)
gay/lesbian dummy	0.031 (0.030)	0.013 (0.026)	0.018 (0.026)	0.015 (0.026)	-0.098** (0.048)
heterosexual unmarried dummy	-0.0089 (0.026)	-0.015 (0.023)	-0.003 (0.023)	-0.009 (0.022)	-0.008 (0.022)
GL x protect both private and public sectors					0.157*** (0.058)
GL x protect only public sectors					0.162* (0.093)
controls	None	White, Experience, Experience ² , Hours/Week	White, Experience, Experience ² , Hours/Week, Work Sectors	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies	White, Experience, Experience ² , Hours/Week, Work Sectors, Regions, Antidiscrimination Policies, Interaction Dummies
N	6054	6054	6054	6054	6054
R ²	0.0002	0.2441	0.2761	0.2957	0.2966

***significant at the 99% level, **significant at the 95% level, *significant at the 90% level

VI. CONCLUSION/DISCUSSION

In this study, lesbian doctors and lawyers were found to earn significantly less than their heterosexual married and unmarried counterparts. For men, marital status seems to be largely responsible for the earnings differentials of gay doctors and lawyers. There is no significant difference between earnings of gay doctors and heterosexual unmarried male doctors, even after the interaction terms are added, which means that gay doctors earn similar amounts as heterosexual unmarried doctors do regardless of existence of antidiscrimination policies. Gay lawyers have a higher earnings differential than heterosexual unmarried lawyers when the interaction terms are added, but the coefficients on the two variables are not significantly different from each other. Also, the interaction terms are not jointly statistically significant for both male doctors and lawyers, which means that their earnings do not vary by states with different antidiscrimination policies. There appears to be no evidence for earnings discrimination based on sexual orientation among male doctors and lawyers in this study; marital status is the major explainable factor for the negative earning differential for gay doctors and lawyers.

For women, however, marital status does not appear to have much influence in earnings for female doctors and lawyers. Lesbian doctors are experiencing significantly lower earnings differentials compared to heterosexual female doctors across the country. There seems to be no

statistically significant difference in earnings between heterosexual and lesbian lawyers, but lesbian lawyers show negative differentials once the state policy interaction terms are added, revealing that lesbian lawyers in states with no antidiscrimination policy earn significantly less than their heterosexual counterparts. This is inconsistent with the results of many past studies that lesbian workers are expected to earn higher salaries. It has been shown in this study that equally qualified lesbian workers with the same work efforts actually earn lower salaries, which means that higher earnings found in past studies might be due to higher work efforts. It is safe to assume that the negative earnings differentials of lesbian doctors and lawyers found in this study might be a sign of discrimination against lesbian workers in the legal fields, even though it is not clear why the negative differential does not exist across all occupations.

It is intriguing that the earnings differential trend is reversed for men and women in the legal and medical field. In general, gay men are expected to earn less than their unmarried heterosexual counterparts and women are expected to earn more; however, the opposite was found in this study. Blandford's (2003) hypothesis of occupational cluttering may explain this difference. Gay men in female-dominant industries who might be responsible for lowering average gay earnings are not included in this study, making the negative differential disappear between gay and heterosexual unmarried men. Professional lesbian women who might have been pushing up the average salary for lesbians in general could be earning less when

considered by themselves. It would be interesting to look at gay and lesbian workers in blue collar or less lucrative industries and examine their earnings differentials, since there seems to be some occupational effects that cannot be determined in this study.

Lesbian doctors and lawyers appear to benefit from antidiscrimination policies, as evident in changes in the gay dummy coefficients and their statistical significance after the addition of the interaction terms. Lesbian lawyers seem to benefit relatively more than lesbian doctors, the coefficient for lesbian lawyers turns statistically significant in a negative direction from being positive and insignificant. This may be due to the conservative nature of the legal field; a greater percentage of lesbian lawyers than doctors work in private sectors, and law firms traditionally have been considered to be a conservative workplace. It is possible that law firms reward married lawyers for sending a heterosexual signal, whereas patients who interact with self-employed lesbian doctors and dentists may be oblivious or more open-minded about their doctors' sexuality. Regardless, this is an interesting result since antidiscrimination policies have been known to have little effect on gay and lesbian workers (Klawitter and Flatt, 1998), which has been used by some as a justification for refusing to extend protection to sexual orientation. It is possible that, as Klawitter and Flatt hypothesized, these policies only influence a few individuals, not creating a large enough effect to shift earnings for gays and lesbians in general, which is why the negative differential was not found when all industries were considered.

Nevertheless, this study demonstrated that the lack of antidiscrimination policies actually hinders lesbian doctors and lawyers from earning according to their productivity.

It is critical to extend employment protection on the federal level to homosexual workers. It will encourage many qualified homosexual individuals to enter into more lucrative industries, causing different types of talents to be more evenly distributed in different sectors of the labor market. Also, as demonstrated in this study for lesbian doctors and lawyers, the existence of these policies will lead gay and lesbian workers to earn in proportion to their productivity, rather than their sexual orientation, which should be a right for anyone. Money, however, is not the only reason that the implement of antidiscrimination policies is necessary. As Klawitter and Flatt stated, the social outcomes from providing equal opportunity and guaranteeing equal pay for gay and lesbian workers will “far outweigh any changes in [their] paychecks” (p.677). The very fact that there is no federal level employment protection for gay, lesbian, and bisexual workers in America shows that discrimination against these groups exists, and having the government recognize it will educate many individuals that discrimination is wrong and deter any disadvantage gays and lesbians may face in the future.

VII. Appendix

Figure 1. STATA Variable Name and Description

Variable Name	Description
Dependent Variable	
ln(earn)	Natural log of person's total earnings in 1999
Sexual Orientation	
Gay	1= living with a same-sex partner; gay or lesbian 0= married or heterosexual unmarried living with a partner
heterosexual_unmarried	1= heterosexual unmarried living with a partner 0= married or gay/lesbian
Controls	
white	1= white, 0= non-white
exp	potential experience
expsq	experience ²
hours	Hours worked per week in 1999
Work Sector	
government	1= employee of federal, state, or local government, 0=otherwise
private	1= employee of private for-profit company, 0=otherwise
selfemp	1= self-employed, 0=otherwise
nonprofit	1= employee of private not-for-profit company, 0=otherwise
Location	
west	1= works in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. 0=otherwise
northeast	1= works in either Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, or Pennsylvania. 0=otherwise

midwest	1= works in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin. 0=otherwise
protectboth	1= works in states with antidiscrimination policies in both public and private sectors. 0=otherwise
protectpublic	1= works in states with antidiscrimination policies only in public sector. 0=otherwise
Interaction Terms	
gayprotectboth	gay x protectboth
gayprotectpublic	gay x protectpublic

Figure 2. List of States with Different State/Local Policies Banning Sexual Orientation Employment Discrimination

States with no policy banning sexual orientation employment discrimination	States with policies banning sexual orientation employment discrimination in both public and private sectors	States with policies banning sexual orientation employment discrimination only in public sector
<ol style="list-style-type: none"> 1. Idaho 2. Utah 3. Wyoming 4. North Dakota 5. South Dakota 6. Nebraska 7. Texas 8. Missouri 9. Arkansas 10. Oklahoma 11. Mississippi 12. Alabama 13. Florida 14. Georgia 15. South Carolina 	<ol style="list-style-type: none"> 1. Washington 2. Oregon 3. Colorado 4. California 5. Nevada 6. New Mexico 7. Washington DC 8. Hawaii 9. Vermont 10. Maine 11. New Hampshire 12. Wisconsin 13. Illinois 14. Minnesota 15. Iowa 	<ol style="list-style-type: none"> 1. Montana 2. Arizona 3. Kansas 4. Michigan 5. Indiana 6. Ohio 7. Pennsylvania 8. Delaware 9. Virginia 10. Louisiana 11. Alaska

16. North Carolina	16. Massachusetts	
17. Tennessee	17. New York	
18. Kentucky	18. New Jersey	
19. West Virginia	19. Maryland	
	20. Connecticut	
	21. Rhode Island	

Figure 3. Stata Output for Regression Build-ups for the Four Subgroups

a. Male Doctors.

```
. regress llearn gay hetero
```

	Source		SS	df	MS		Number of obs = 19043
-----+-----							
	Model		218.872225	2	109.436113		F(2, 19040) = 182.33
	Residual		11428.1416	19040	.600217523		Prob > F = 0.0000
-----+-----							
	Total		11647.0139	19042	.611648664		R-squared = 0.0188

							Adj R-squared = 0.0187
							Root MSE = .77474

	llearn		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+-----							
	gay		-.3451034	.0227921	-15.14	0.000	-.389778 -.3004288
	hetero_unm~d		-.3374318	.0270209	-12.49	0.000	-.3903952 -.2844684
	_cons		11.90197	.0059527	1999.44	0.000	11.8903 11.91364

```
. regress llearn gay hetero white exp expsq hours
```

	Source		SS	df	MS		Number of obs = 19043
-----+-----							
	Model		2544.84939	6	424.141565		F(6, 19036) = 887.04
	Residual		9102.16448	19036	.47815531		Prob > F = 0.0000
-----+-----							
	Total		11647.0139	19042	.611648664		R-squared = 0.2185

							Adj R-squared = 0.2183
							Root MSE = .69149

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gay	-.1595772	.0205381	-7.77	0.000	-.1998338	-.1193207
hetero_unm~d	-.1563181	.0242759	-6.44	0.000	-.2039009	-.1087352
white	.1319507	.0123663	10.67	0.000	.1077115	.1561898
exp	.1195047	.0023351	51.18	0.000	.1149277	.1240817
expsq	-.0021638	.000052	-41.62	0.000	-.0022657	-.0020619
hours	.0106925	.0003493	30.61	0.000	.0100078	.0113772
_cons	9.84068	.0315133	312.27	0.000	9.778912	9.902449

. regress llearn gay hetero white exp expsq hours government private selfemp

Source	SS	df	MS	Number of obs = 19043	
Model	2799.6415	9	311.071278	F(9, 19033) =	669.20
Residual	8847.37236	19033	.464843817	Prob > F =	0.0000
				R-squared =	0.2404
				Adj R-squared =	0.2400
Total	11647.0139	19042	.611648664	Root MSE =	.68179

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gay	-.1465	.020265	-7.23	0.000	-.1862213	-.1067787
hetero_unm~d	-.1512153	.023942	-6.32	0.000	-.1981437	-.1042868
white	.1179299	.01221	9.66	0.000	.0939971	.1418626
exp	.1127022	.0023245	48.48	0.000	.1081459	.1172585
expsq	-.0020569	.0000515	-39.96	0.000	-.0021578	-.001956
hours	.0107955	.0003449	31.30	0.000	.0101196	.0114715
government	-.2265174	.0191251	-11.84	0.000	-.2640043	-.1890305
private	.0480451	.0146306	3.28	0.001	.0193679	.0767224
selfemp	.1693446	.0150172	11.28	0.000	.1399095	.1987797
_cons	9.880797	.0331797	297.80	0.000	9.815761	9.945832

. regress llearn gay hetero white exp expsq hours government private selfemp west

northeast midwest protectboth protectpublic

Source	SS	df	MS	Number of obs = 19043
-----+-----				F(14, 19028) = 432.00
Model	2809.09692	14	200.64978	Prob > F = 0.0000
Residual	8837.91694	19028	.464469043	R-squared = 0.2412
-----+-----				Adj R-squared = 0.2406
Total	11647.0139	19042	.611648664	Root MSE = .68152

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+-----					
gay	-.1457362	.0202711	-7.19	0.000	-.1854693 -.1060031
hetero_unm~d	-.149718	.0239435	-6.25	0.000	-.1966493 -.1027867
white	.1170172	.0122638	9.54	0.000	.0929791 .1410552
exp	.1126447	.0023246	48.46	0.000	.1080882 .1172012
expsq	-.0020548	.0000515	-39.92	0.000	-.0021557 -.0019539
hours	.0108031	.0003451	31.30	0.000	.0101266 .0114795
government	-.2325026	.0193707	-12.00	0.000	-.2704709 -.1945342
private	.0440371	.0147228	2.99	0.003	.0151792 .072895
selfemp	.1644539	.0151762	10.84	0.000	.1347071 .1942006
west	-.0248163	.0188919	-1.31	0.189	-.0618461 .0122135
northeast	-.0166283	.0187993	-0.88	0.376	-.0534766 .02022
midwest	.0243748	.0191076	1.28	0.202	-.0130778 .0618275
protectboth	-.0140825	.0182913	-0.77	0.441	-.049935 .0217701
protectpub~c	-.0452078	.0182471	-2.48	0.013	-.0809737 -.009442
_cons	9.906506	.0344271	287.75	0.000	9.839026 9.973986

regress llearn gay hetero white exp expsq hours government private selfemp west
 northeast midwest protectboth protectpublic gayprotectboth gayprotectpublic

Source	SS	df	MS	Number of obs = 19043
-----+-----				F(16, 19026) = 378.01
Model	2809.37964	16	175.586227	Prob > F = 0.0000
Residual	8837.63423	19026	.464503008	R-squared = 0.2412

```

-----+-----
Total | 11647.0139 19042 .611648664      Adj R-squared = 0.2406
Root MSE = .68154
-----+-----

llearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
    gay |  -.1519534   .0365232    -4.16  0.000   - .2235421   - .0803647
hetero_unm~d |  -.1496233   .0239447    -6.25  0.000   - .196557   - .1026896
    white |  .1169788   .0122644     9.54  0.000   .0929396   .141018
    exp |  .1126604   .002325     48.46  0.000   .1081032   .1172177
    expsq |  -.0020551   .0000515   -39.92  0.000   - .002156   - .0019542
    hours |  .010804    .0003451    31.30  0.000   .0101275   .0114805
government |  -.2325849   .0193718   -12.01  0.000   - .2705553   - .1946145
    private |  .0439272   .0147241     2.98  0.003   .0150666   .0727878
    selfemp |  .164294    .0151784    10.82  0.000   .1345431   .1940449
    west |  -.0250027   .0188942    -1.32  0.186   - .0620369   .0120316
northeast |  -.0167401   .0188006    -0.89  0.373   - .053591   .0201108
    midwest |  .0244651   .0191088     1.28  0.200   - .0129899   .0619202
protectboth |  -.0152817   .0185223    -0.83  0.409   - .0515871   .0210238
protectpub~c |  -.0438983   .018607     -2.36  0.018   - .0803696   - .007427
gayprotect~h |  .0190567   .0456378     0.42  0.676   - .0703975   .1085109
gayprotect~c |  -.0232613   .0610704    -0.38  0.703   - .1429648   .0964421
    _cons |  9.906817   .0344741   287.37  0.000   9.839245   9.974389
-----+-----

```

b. Male Lawyers

. regress llearn gay hetero

```

Source |      SS      df      MS      Number of obs = 15721
-----+-----
Model | 281.800005      2 140.900003      F( 2, 15718) = 275.31
Residual | 8044.2702 15718 .511787136      Prob > F      = 0.0000
-----+-----
Total | 8326.07021 15720 .529648232      R-squared      = 0.0338
Adj R-squared = 0.0337
Root MSE     = .71539
-----+-----

```

lnearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gay	-.362327	.0201154	-18.01	0.000	-.4017555	-.3228985
hetero_unm~d	-.3789773	.0229846	-16.49	0.000	-.4240298	-.3339248
_cons	11.58704	.0062084	1866.35	0.000	11.57487	11.59921

. regress lnearn gay hetero white exp expsq hours

Source	SS	df	MS	Number of obs = 15721		
Model	1942.65675	6	323.776125	F(6, 15714) = 797.04		
Residual	6383.41346	15714	.406224606	Prob > F = 0.0000		
				R-squared = 0.2333		
				Adj R-squared = 0.2330		
Total	8326.07021	15720	.529648232	Root MSE = .63736		

lnearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
gay	-.1744449	.0182089	-9.58	0.000	-.2101364	-.1387533
hetero_unm~d	-.1684901	.0207897	-8.10	0.000	-.2092402	-.12774
white	.1566114	.0189779	8.25	0.000	.1194126	.1938102
exp	.0708864	.0021897	32.37	0.000	.0665943	.0751784
expsq	-.0011217	.0000531	-21.14	0.000	-.0012256	-.0010177
hours	.0199303	.0005192	38.39	0.000	.0189127	.0209479
_cons	9.57603	.0369257	259.33	0.000	9.503651	9.648409

. regress lnearn gay hetero white exp expsq hours government private selfemp

Source	SS	df	MS	Number of obs = 15721		
Model	2369.95001	9	263.327779	F(9, 15711) = 694.60		
Residual	5956.1202	15711	.379105098	Prob > F = 0.0000		
				R-squared = 0.2846		
				Adj R-squared = 0.2842		
Total	8326.07021	15720	.529648232	Root MSE = .61572		

```

-----
      llearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
      gay |   -.1544209   .0176134   -8.77   0.000   -.1889452   -.1198965
hetero_unm~d | -.1570522   .0200956   -7.82   0.000   -.196442   -.1176625
      white |   .1097798   .0183867    5.97   0.000    .0737397    .1458199
      exp |   .0766586   .0021378   35.86   0.000    .0724683    .0808489
      expsq |  -.0012504   .0000515  -24.29   0.000   -.0013513   -.0011494
      hours |   .0162847   .0005137   31.70   0.000    .0152778    .0172916
government |  -.0277225   .0343327   -0.81   0.419   -.0950186    .0395737
      private |   .4113708   .0331414   12.41   0.000    .3464098    .4763318
      selfemp |   .3402131   .0339639   10.02   0.000    .2736398    .4067863
      _cons |   9.441983   .0480345  196.57   0.000    9.34783    9.536136
-----

```

```

. regress llearn gay hetero white exp expsq hours government private selfemp west
northeast midwest protectbot
> h protectpublic

```

```

-----
Source |      SS      df      MS              Number of obs = 15721
-----+-----
Model | 2467.22204    14 176.230146          F( 14, 15706) = 472.43
Residual | 5858.84816 15706  .373032482          Prob > F      = 0.0000
-----+-----
Total | 8326.07021 15720  .529648232          R-squared     = 0.2963
                                          Adj R-squared = 0.2957
                                          Root MSE     = .61076
-----

```

```

-----
      llearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
      gay |   -.1540449   .0174834   -8.81   0.000   -.1883143   -.1197755
hetero_unm~d | -.1592007   .0199441   -7.98   0.000   -.1982934   -.1201079
      white |   .1276284   .0183413    6.96   0.000    .0916774    .1635794
      exp |   .0764215   .0021217   36.02   0.000    .0722627    .0805803
      expsq |  -.0012521   .0000511  -24.51   0.000   -.0013522   -.001152
      hours |   .0160173   .0005105   31.38   0.000    .0150166    .0170179
-----

```

government		-.026493	.0340828	-0.78	0.437	-.0932991	.0403132
private		.4166685	.0328996	12.66	0.000	.3521814	.4811555
selfemp		.362192	.0337642	10.73	0.000	.2960103	.4283738
west		-.0738553	.016584	-4.45	0.000	-.1063618	-.0413488
northeast		-.1027142	.016577	-6.20	0.000	-.1352071	-.0702214
midwest		-.1894388	.0181931	-10.41	0.000	-.2250994	-.1537783
protectboth		.1887084	.0163334	11.55	0.000	.1566931	.2207237
protectpub~c		.057293	.0177545	3.23	0.001	.0224921	.0920939
_cons		9.388788	.0484146	193.92	0.000	9.29389	9.483686

```
. regress llearn gay hetero white exp expsq hours government private selfemp west
northeast midwest protectboth protectpublic gayprotectboth gayprotectpublic
```

Source	SS	df	MS	Number of obs = 15721		
-----+-----				F(16, 15704) = 413.54		
Model	2468.15176	16	154.259485	Prob > F	=	0.0000
Residual	5857.91844	15704	.373020787	R-squared	=	0.2964
-----+-----				Adj R-squared = 0.2957		
Total	8326.07021	15720	.529648232	Root MSE	=	.61075

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
gay	-.1963977	.0325999	-6.02	0.000	-.2602974	-.1324981
hetero_unm~d	-.1591905	.0199438	-7.98	0.000	-.1982826	-.1200983
white	.1275869	.0183417	6.96	0.000	.0916351	.1635387
exp	.0764417	.0021218	36.03	0.000	.0722828	.0806006
expsq	-.0012523	.0000511	-24.52	0.000	-.0013525	-.0011522
hours	.016021	.0005106	31.38	0.000	.0150201	.0170218
government	-.0253552	.0340925	-0.74	0.457	-.0921805	.04147
private	.4175181	.0329043	12.69	0.000	.3530218	.4820144
selfemp	.3629689	.0337687	10.75	0.000	.2967785	.4291593
west	-.0740539	.0165843	-4.47	0.000	-.106561	-.0415468
northeast	-.10308	.0165786	-6.22	0.000	-.1355759	-.0705841
midwest	-.1892499	.0181947	-10.40	0.000	-.2249137	-.1535861

protectboth		.1833009	.0166898	10.98	0.000	.150587	.2160147
protectpub~c		.0530173	.0184287	2.88	0.004	.0168951	.0891396
gayprotect~h		.06303	.0400568	1.57	0.116	-.0154859	.1415459
gayprotect~c		.0469124	.0509786	0.92	0.357	-.0530116	.1468364
_cons		9.391332	.0484421	193.87	0.000	9.29638	9.486284

c. Female Doctors

. regress llearn gay hetero

Source		SS	df	MS	Number of obs =	5706	
-----+							
Model		.67175611	2	.335878055	F(2, 5703) =	0.57	
Residual		3353.66263	5703	.588052364	Prob > F =	0.5649	
-----+							
Total		3354.33439	5705	.587963959	R-squared =	0.0002	
-----+							
						Adj R-squared =	-0.0002
						Root MSE =	.76685

llearn		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
-----+						
gay		-.0177018	.044165	-0.40	0.689	-.104282 .0688783
hetero_unm~d		-.0393035	.0386753	-1.02	0.310	-.1151218 .0365148
_cons		11.30374	.0108907	1037.93	0.000	11.28239 11.32509

. regress llearn gay hetero white exp expsq hours

Source		SS	df	MS	Number of obs =	5706	
-----+							
Model		675.727209	6	112.621202	F(6, 5699) =	239.61	
Residual		2678.60718	5699	.470013543	Prob > F =	0.0000	
-----+							
Total		3354.33439	5705	.587963959	R-squared =	0.2014	
-----+							
						Adj R-squared =	0.2006
						Root MSE =	.68558

llearn		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
--------	--	-------	-----------	---	------	----------------------

```

-----+-----
      gay | -.0911506  .0396958  -2.30  0.022  -.1689695  -.0133316
hetero_unm~d | -.0373944  .0347651  -1.08  0.282  -.1055471  .0307584
      white | .0181227  .0198671   0.91  0.362  -.0208243  .0570697
      exp | .096049  .0041792  22.98  0.000  .0878562  .1042419
      expsq | -.0018337  .0001089 -16.84  0.000  -.0020471  -.0016202
      hours | .0147515  .0006014  24.53  0.000  .0135725  .0159305
      _cons | 9.654687  .047767  202.12  0.000  9.561045  9.748328
-----+-----

```

. regress lnearn gay hetero white exp expsq hours government private selfemp

```

Source |      SS      df      MS              Number of obs =   5706
-----+-----
Model | 705.589694    9 78.3988549          F( 9, 5696) = 168.59
Residual | 2648.74469 5696  .46501838          Prob > F      = 0.0000
-----+-----
Total | 3354.33439 5705  .587963959          R-squared     = 0.2104
                                          Adj R-squared = 0.2091
                                          Root MSE     = .68192

```

```

-----+-----
lnearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
      gay | -.0883312  .0394873   -2.24  0.025   -0.1657414   -0.010921
hetero_unm~d | -.0336245  .0345854   -0.97  0.331   -0.101425   0.0341761
      white | .0166851  .0197826   0.84  0.399   -0.0220964   0.0554666
      exp | .0925679  .0041831  22.13  0.000   0.0843675   0.1007683
      expsq | -.0017613  .0001087 -16.21  0.000  -0.0019743  -0.0015482
      hours | .014821  .0006013  24.65  0.000   0.0136422   0.0159999
government | -.1185361  .0300239   -3.95  0.000  -0.1773944  -0.0596777
private | .0044336  .023555   0.19  0.851   -0.0417431   0.0506103
selfemp | .1410263  .0299993   4.70  0.000   0.0822162   0.1998365
      _cons | 9.678674  .0519179 186.42  0.000   9.576895   9.780452
-----+-----

```

. regress lnearn gay hetero white exp expsq hours government private selfemp west
northeast midwest protectboth protectpublic

Source	SS	df	MS	Number of obs =	5706
-----+-----					
				F(14, 5691) =	108.65
Model	707.485305	14	50.5346647	Prob > F	= 0.0000
Residual	2646.84908	5691	.465093847	R-squared	= 0.2109
-----+-----					
				Adj R-squared =	0.2090
Total	3354.33439	5705	.587963959	Root MSE	= .68198

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
gay	-.0895568	.0395475	-2.26	0.024	-.1670849	-.0120287
hetero_unm~d	-.0340867	.0346129	-0.98	0.325	-.1019412	.0337678
white	.016988	.0199058	0.85	0.393	-.022035	.0560111
exp	.0927168	.0041896	22.13	0.000	.0845036	.10093
expsq	-.001766	.0001088	-16.23	0.000	-.0019793	-.0015526
hours	.0148487	.0006027	24.64	0.000	.0136672	.0160302
government	-.1125736	.0303948	-3.70	0.000	-.172159	-.0529883
private	.0072627	.0236803	0.31	0.759	-.0391597	.0536852
selfemp	.1451116	.0302938	4.79	0.000	.0857242	.204499
west	.0157667	.0345834	0.46	0.648	-.0520299	.0835632
northeast	-.0147693	.0359167	-0.41	0.681	-.0851796	.0556411
midwest	.0283831	.0365321	0.78	0.437	-.0432337	.1
protectboth	.0079299	.0354596	0.22	0.823	-.0615844	.0774441
protectpub~c	-.0308879	.036164	-0.85	0.393	-.101783	.0400072
_cons	9.668373	.0553464	174.69	0.000	9.559873	9.776873

. regress llearn gay hetero white exp expsq hours government private selfemp west
northeast midwest protectboth protectpublic gayprotectboth gayprotectpublic

Source	SS	df	MS	Number of obs =	5706
-----+-----					
				F(16, 5689) =	95.33
Model	709.189572	16	44.3243482	Prob > F	= 0.0000
Residual	2645.14482	5689	.464957781	R-squared	= 0.2114
-----+-----					
				Adj R-squared =	0.2092

Total | 2577.6484 6053 .425846424 Root MSE = .55563

```
-----+-----
lnearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
      gay |   .0180306   .0259013     0.70   0.486   - .0327452   .0688063
hetero_unm~d | -.0027908   .0225769    -0.12   0.902   - .0470495   .0414679
      white | -.0257331   .0205224    -1.25   0.210   - .0659643   .0144981
      exp |   .0727893   .0031747    22.93   0.000   .0665659   .0790128
      expsq | -.0014532   .0000901   -16.14   0.000   - .0016298  -.0012767
      hours |   .0229023   .0006757    33.89   0.000   .0215777   .0242269
government |   .0284643   .0342513     0.83   0.406   - .0386803   .095609
      private | .2818308   .0331468     8.50   0.000   .2168512   .3468103
      selfemp |   .22182    .0398256     5.57   0.000   .1437476   .2998924
      _cons |  9.259442   .0528889   175.07   0.000   9.155761   9.363123
-----+-----
```

. regress lnearn gay hetero white exp expsq hours government private selfemp west
northeast midwest protectboth protectpublic

```
-----+-----
Source |      SS      df      MS                Number of obs =   6054
-----+-----
      Model | 762.232385    14  54.4451704          F( 14, 6039) = 181.11
      Residual | 1815.41602  6039  .300615336          Prob > F      = 0.0000
-----+-----
      Total | 2577.6484  6053  .425846424          R-squared     = 0.2957
                                  Adj R-squared = 0.2941
                                  Root MSE     = .54828
-----+-----
```

```
-----+-----
lnearn |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-----+-----
      gay |   .0151751   .0257032     0.59   0.555   - .0352124   .0655626
hetero_unm~d | -.0086473   .022292    -0.39   0.698   - .0523475   .0350529
      white | -.0152429   .0203566    -0.75   0.454   - .0551491   .0246632
      exp |   .0720069   .0031361    22.96   0.000   .0658591   .0781547
      expsq | -.0014439   .0000889   -16.24   0.000   - .0016182  -.0012696
      hours |   .0229113   .0006672    34.34   0.000   .0216034   .0242192
-----+-----
```

government		.0466631	.0338649	1.38	0.168	-.0197242	.1130503
private		.3013501	.0327743	9.19	0.000	.2371007	.3655995
selfemp		.2676343	.0395204	6.77	0.000	.1901601	.3451084
west		-.045873	.0232535	-1.97	0.049	-.0914581	-.0002879
northeast		-.0749394	.0239905	-3.12	0.002	-.1219694	-.0279094
midwest		-.1393864	.0278484	-5.01	0.000	-.1939793	-.0847935
protectboth		.2271117	.0242782	9.35	0.000	.1795177	.2747056
protectpub~c		.0617617	.0269556	2.29	0.022	.008919	.1146043
_cons		9.136727	.0539627	169.32	0.000	9.030941	9.242513

 regress llearn gay hetero white exp expsq hours government private selfemp west
 northeast midwest protectboth protectpublic gayprotectboth gayprotectpublic

Source	SS	df	MS	Number of obs = 6054		
-----+-----				F(16, 6037) = 159.10		
Model	764.520781	16	47.7825488	Prob > F = 0.0000		
Residual	1813.12762	6037	.300335866	R-squared = 0.2966		
-----+-----				Adj R-squared = 0.2947		
Total	2577.6484	6053	.425846424	Root MSE = .54803		

llearn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
-----+-----						
gay	-.0980285	.0484037	-2.03	0.043	-.192917	-.00314
hetero_unm~d	-.008452	.0222819	-0.38	0.704	-.0521324	.0352284
white	-.0166074	.020358	-0.82	0.415	-.0565163	.0233015
exp	.0721068	.0031348	23.00	0.000	.0659614	.0782523
expsq	-.0014451	.0000889	-16.26	0.000	-.0016193	-.0012708
hours	.0228948	.0006669	34.33	0.000	.0215874	.0242021
government	.046774	.0338619	1.38	0.167	-.0196075	.1131555
private	.3021108	.0327612	9.22	0.000	.2378872	.3663344
selfemp	.267398	.0395024	6.77	0.000	.1899593	.3448368
west	-.0503064	.0232998	-2.16	0.031	-.0959824	-.0046305
northeast	-.0773708	.0239956	-3.22	0.001	-.1244107	-.030331
midwest	-.1420281	.0278547	-5.10	0.000	-.1966332	-.087423

protectboth	.2146781	.0247176	8.69	0.000	.1662227	.2631334
protectpub~c	.0497143	.0275438	1.80	0.071	-.0042814	.10371
gayprotect~h	.1556229	.0578982	2.69	0.007	.0421216	.2691241
gayprotect~c	.1617223	.093416	1.73	0.083	-.0214064	.344851
_cons	9.148662	.0541129	169.07	0.000	9.042582	9.254743

Figure 4. STATA Output for Joint Significance Test of the Interaction Terms

a. Male Doctors

```
. test gayprotectboth gayprotectpublic
```

```
( 1) gayprotectboth = 0
( 2) gayprotectpublic = 0
```

```
F( 2, 19026) = 0.30
Prob > F = 0.7376
```

b. Male Lawyers

```
. test gayprotectboth gayprotectpublic
```

```
( 1) gayprotectboth = 0
( 2) gayprotectpublic = 0
```

```
F( 2, 15704) = 1.25
Prob > F = 0.2876
```

c. Female Doctors

```
. test gayprotectboth gayprotectpublic
```

```
( 1) gayprotectboth = 0
( 2) gayprotectpublic = 0
```

```
F( 2, 5689) = 1.83
Prob > F = 0.1601
```

d. Female Lawyers

```
. test gayprotectboth gayprotectpublic
```

```
( 1) gayprotectboth = 0
```

```
( 2) gayprotectpublic = 0
```

```
F( 2, 6037) = 3.81
```

```
Prob > F = 0.0222
```

Figure 5. STATA Output for Statistical Equality Test of the Gay and Heterosexual Unmarried Coefficients for Male Lawyers

```
. test gay=hetero
```

```
( 1) gay - hetero_unmarried = 0
```

```
F( 1, 15704) = 1.00
```

```
Prob > F = 0.3169
```

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