Gay Bucks: Demographic and Occupational Characteristics of Gay Men

Using "Never-Married" as a Proxy Measure for Homosexuality in 1990

by

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## Introduction

This research focuses on the incomes and occupations of gay men in America. Given the difficulties in measuring hidden populations, this research proposes a novel measure of homosexuality. The association between personal income, occupation, and sexual orientation will be examined through the establishment of a proxy measure based on marital status—specifically men who never marry—to determine the sexual orientation of individuals. This method allows the examination of census data, thus avoiding many of the pitfalls inherent in typical, survey-data research on homosexuality.

Research on "hidden" populations represents a particular challenge to the social-scientist. Traditional sociological research on homosexuality suffers from severe methodological flaws as a result of the non-random nature of many samples and the belief that "closeted" homosexuals will be open and truthful when answering researchers' questions. In order to avoid the pitfalls inherent in interview and questionnaire research methods as they relate to homosexuality, a proxy measure is used to determine sexual-orientation among a limited sample of people from 1990 U.S. census data. This sample consists of all white men, 45-64, with at least a ninth-grade education, who are not institutionalized, are not clergy, and do not have any physical or mental work limitations. Within this sample group, the proxy measure for homosexuality is marital status. Within the sample, never having married and having no children is considered synonymous with being gay. In 1990 it is important to remember that the phrase -- much less the concept -- of "gay marriage" was not the public discourse.

The validity of this measure is supported by the small percentage of the men in the sample who have never married, 4.2 percent; the concentration of these never-married men in cities known for having many gays such as San Francisco; and the similarities found between my methods and the research of Laumann et al. (1994) and Badgett (1995).

Research on the marriage differential in men's wages suggests that human capital differences, compensating wages, employer discrimination, and employee attitude towards work and "quit behavior" contribute to the lesser income of gay men. The census data used in this study show that gay men earn, on average, 35 percent less than straight men. Taking into account occupation, age, education, area of residence, and the average number of hours of work per week, regression analysis shows that being gay reduces wages by 33 percent.

In this paper I will examine existing accounts—both academic and popular—regarding the income of homosexuals. This section includes a brief discussion on problems inherent in the existing research on homosexuality and the problems in defining homosexuality. The second section introduces a proxy measure for sexual orientation based on marital status and presents a hypothesis on the findings. The third section, Data and Methods, explains and defends the validity of the never-married proxy measure for homosexuality. The final section presents additional findings from the data regarding the places of residence, the occupations, and the lesser incomes of gay men.

## Studying the Income of Homosexuals

Sociologists have long studied income inequalities associated with race, gender, and marital status. Too few academics, however, have studied the income inequalities associated with sexual orientation. The scarcity of appropriate models and data is one cause for this limited research (Klawitter 1998). This research hopes to provide another tool to facilitate the research of homosexuality.

*Popular Press Accounts of Homosexuality*

The popular press and various marketing surveys emphasize the high *disposable incomes* of gay men. The greater disposable nature of homosexuals' income may obscure the possibility of lower *wage incomes* for gay men.

Because gay advocacy groups may appear to be better informed about homosexuality than other groups, figures promoted by advocacy groups can be taken as authoritative even when they are based on guesswork or unreliable data (Best 1989). In addition, the reliability of these figures often remains unquestioned provided they can at least be attributed to an apparently knowledgeable source (Lee 1993). Yet the processes that led to the production of advocacy estimates are generally not accessible to researchers (Lee 1993).

Overlooked Opinions, a now defunct Chicago organization founded in 1989, billed itself as "the gay market experts." Among Overlooked Opinions' claims were a total gay market size of 18.5 million adults with a value of $514 billion, a 1992 average household income (male only) of $51,624, "management" as the most common occupational category (12.6 percent of the gay workforce), and that gay men dine out an average of 10.2 times per month (Gay Market Report, 1992). Overlooked Opinions' data were based on a large, non-random sample of the gay community. Their basic conclusions were easily available and widely reported in the press.

The Gay and Lesbian Market Study (1996), conducted by Simmons Market Research in conjunction with Mulryan/Nash, a New York-based advertising agency that specializes in reaching gay consumers, surveyed 3,896 gay men and lesbians through a self-administered questionnaire. Their conclusions include claims that 28 percent of the respondents have personal income above $50,000 and that 21 percent reported household incomes over $100,000 per year. Median household income for gays is reported at $55,670. Seventy percent hold professional or managerial jobs, 48 percent are college educated, and 22 percent hold graduate degrees. Other findings include greater consumption of books, electronics, culture, and super-premium liquor.

These conclusions were presented as "confirmation" of the "affluence and spending patterns [for gay men and lesbians] for which there previously has been only anecdotal evidence" (PR Newswire 1997). The Simmons' Survey also uses a non-random sample in which gay respondents were disproportionately white, urban, and well-educated—all factors associated with higher incomes.

*Existing Academic Research*

Laumann (1994), Badgett (1995), Allegrette and Arthur (2001), and Black et al. (2003) all show homosexual men earning less money than heterosexual men. Laumann's (1992) data on income, unpublished, show that gays—defined as those who are not currently married and identify themselves as homosexual, bisexual, or something else—have wages approximately $2,500 to $7,000 (or 15 to 30 percent) less than straights. Laumann's data show that only 1.6 percent of men currently or previously married identify as gay (Laumann et al. 1994, table 8.2).

Lee Badgett (1995) uses General Social Survey (GSS) data and the admission of previous same-sex sexual partners as an indicator of bisexual or homosexual orientation. Her study, the first to explicitly examine the income of homosexuals, finds that gay men earn 7 percent less than heterosexual men. When controls are included for other factors influencing income, her findings show that the income penalty for gay or bisexual men could be as high as 26.7 percent. Her data suggest that, "gay/bisexual men are in higher-paying occupations but earn less than heterosexual men within these broad categories."

Given the dispropensity for gays to marry, the issues related to income inequality of sexual orientation are very likely related to the marriage differential in men's wages. The effect of marriage usually increases income 10 to 20 percent (Hersch 1991; Kenny, et al 1979; Korenman and Neumark 1991; Malkiel and Malkiel 1973; Osterman 1979; Reed and Harford 1988). Divorced men make more than never-married men by 8 or 9 percent (Carliner 1980; Korenman and Neumark 1991).

Gorman (1997) has characterized the literature on marriage differential as having three basic theories: one emphasizes human capital differences or productivity (Becker 1991, Keeley 1977, Kenny 1983, Korenman and Neumark 1991, Nakosteen and Zimmer 1987), the second involves compensating wages or the idea that married men earn more for selecting rougher work (Duncan and Holmund 1983; Hersch 1991, Reed and Harford 1989), and the third examines employer discrimination against single men (Kanter 1977, Malkiel and Malkiel 1973, Osterman 1979). Gorman makes a strong case for a fourth causal effect: that of attitude towards work and "quit behavior." Married men feel they need higher levels of pay than do single men (Gorman 1997). The effect of these beliefs plays out through different attitudes towards "quit behavior." Married men are more likely than single men to engage in on-the-job searches and quit only after a new job has been secured, which leads to higher wage gains (Campbell and Rosenfeld 1985).

In addition to any marriage effect in general, there is evidence that employers discriminate against homosexuals in particular (Badgett 1995, Brause 1989, Friskopp and Silverstein 1995). Badgett et al. (1992) reviewed 21 surveys and found that between 16 percent and 46 percent of gay respondents have experienced harassment or some form of discrimination in hiring, promotion, or firing. In addition, gays lack legal recourse in most workplaces (Badgett 1995). Perhaps, like the "glass ceiling" that exists for many women in the work place, a sort of "pink ceiling" exists for many gays.

Allegretto and Arthur (2001) account more the "marriage effect." Using same-sex and opposite-sex "partnered" households as a proxy for sexual orientation, they conclude that a 14.1 percent wage gap exists between straight and gay men. Black et at. (2003) place the wage differential between gays and straights (lower for gay men but higher for gay women) into theoretical context.

Until the late 1990s, 10 percent was the accepted figure for the prevalence of homosexuality in society (Kinsey, Pomoroy, and Martin 1948; Kinsey et al. 1953). While Kinsey's research was groundbreaking, the study used a non-random sample, biasing many of the results. The 10 percent figure was developed, in the words of Laumann et al. (1994), as an "interesting compromise" popularized (perhaps) by Bruce Voeller (1990), then chair of the National Gay Task Force. Studies showing homosexuals to represent less than ten percent of the population have been publicly attacked by gay rights groups (The Extent of Monogamy in Britain, 1994).

In Laumann's (1992) data, the rates of same-sex experience for men vary from 2.7 percent in the past year, to 4.1 percent in the past five years and 4.9 percent since age eighteen. Nine percent of Laumann's male sample reported some same-sex experience since puberty. This is significantly lower than Kinsey's figure of 37 percent. Figures in other studies have been similar to those reported by Laumann. Wellings et al. (1994) show homosexuality between 1.1 percent (past year) to 6.1 percent (ever). A French study (Spira et al. 1993) ranges between 1.1 percent and 4.1 percent. Studies show a higher level of homosexual behavior in large cities (Laumann 1994, Wellings et al 1994, Spira et al. 1993, Fay et al. 1989, Rogers and Turner 1991, and Billy et al. 1993). Laumann's data show that 14.3 percent of men in large cities have had a

same-sex sex partner in the past five years (compared to 4.1 percent overall). Badgett (1995) places the percentage of homosexuals—based exclusively on an admission of past same-sex sexual experience—between 3.0 percent and 4.8 percent.

*Problems in Homosexual Identification: Miscounts and non-random missing data*

The US Census does not ask about sexual orientation. Some have attempted to tease sexual orientation by sampling men who live with a non-relative of the same sex. This, however, ignores gay men who do not live with a male roommate, romantic or otherwise. Likewise non-romantic roommates are falsely counted as gay.

Survey data specific to sexual orientation is also questionable. Despite the overall quality of survey data from the GSS and NORC, the validity of data concerning homosexual behavior is questionable. Combining same-sex related responses to income data is even more questionable. Respondents may willingly give false responses to sensitive question. Giving the stigmatization of homosexuality and the fact that many homosexuals are not open about their sexual orientation, it is quite likely that homosexuals are less likely than heterosexuals to answer questions asking about same-sex sexual encounters. While some data indicate that secretive populations are less likely to respond to questionnaires in general (Lee 1993), non-response bias to specific questions is of greater concern as it questions an essential assumption of quantitative analysis: the random nature of missing data.

Using GSS data (1989-1994), gay men—as defined by the never-married/gay proxy measure this paper proposes (45- to 64-year-old never-married white men excluding clergy, institutionalized, uneducated, and work disabled people)—are twice as likely as straight men to have missing data on same-sex sex. One-third of gay men refuse to answer the question on same-sex sex. In fact, a literal interpretation of GSS data reveals that there are more men over 45 who are virgins than are gay. While *this* would be a truly significant finding, more likely it simply to reliability issues from the non-random nature of missing data. If one counts as missing data those who fill in "zero" in response to sex questions (one way to connote, "none of your business!"), then 44.2 percent of gay men refuse to answer questions on same-sex sexual activity.

The missing data for gay men in found *only* for questions relating to sex. Even though twice as likely to withhold responses regarding same-sex sexual encounters, gay men were *more* likely then straight men to answer income-related questions (7.5 percent non-response for gays compared to 10 percent non-response for straights).

In Laumann's study, 8.6 to 16.4 percent of male respondents did not respond to questions concerning same-sex sexual encounters (in addition to a general non-response rate of 21.4 percent). The GSS data used by Badgett have an overall non-response rate of about 25 percent (Davis and Smith 1991) with an additional 18.2 percent of data missing for the question on same-sex sexual experience. While generally considered very good, non-response rates of 20 to 30 percent may not be good enough when the target population is small and the non-respondents are selective.

The reliability of same-sex data is even weaker when linked to income. In the GSS data, those who respond to the question on same-sex sex have an income of $38,424 while those who do not respond to the question have an income of $34,664. Laumann's data show similarly lower incomes for those who do not respond to questions on homosexual experience. While some (Michael and Veldman 1992) have found similar levels of non-response in income and sex-related questions, a more detailed analysis reveals a non-response bias concerning homosexuality in general and homosexuality and income in particular.

## *Defining Homosexuality*

> The funny thing about gayness is that there are a lot of men that are gay and don't think they are. Like when you go to jail, you be runnin' with these hard niggas who be havin' sex with men, and they don't think that's gay. Real niggas be talkin', "Yeah, I'm gonna fuck him." And the same nigga'll get back on the streets and be a man. It's a gray area.

—Rapper Ice T, *Interview*, June 1996

Defining a person as homosexual is more complicated than many think. Definitions of homosexual or heterosexual orientation are usually based on psychological or behavioral definitions. A psychological definition of sexuality is based on the sex of the people to whom an individual is sexually attracted; a behavioral definition is based on previous sexual experience.

"Perceived" orientation is a more sociological way to define homosexuality. The important factor from a perceived definition of homosexuality is neither attraction nor experience, but rather the perception of others. The possible categorizations of homosexuality are illustrated in Table 1. Of course this table is far from complete in its exploration of the varieties of sexuality, but it is a useful way to compare a perceived definition of homosexuality.

A behavioral definition of homosexuality would classify a person with previous homosexual experience as gay (cells E, F, G, and H). A psychological definition would classify a man as gay if he presented himself as gay—regardless of previous homosexual experience (cells A, B, E, and F). A perceived definition is dependent on whether *others* believe the person is gay (cells A, C, E, and G).

Most social-science research uses admission of past homosexual behavior as the determining factor for homosexuality. But there would be some benefits to a perception-based definition. A man with previous homosexual experiences may be or try to "pass" as straight (cells G and H). As he tries to "pass," he would be less likely to admit homosexual behavior to an interviewer or questionnaire. As the percentage of gay men trying to "pass" as straight (cells G and H) increases, the reliability of behavior-based questionnaire-style research suffers.

Another consideration, however, is that gay men who try to "pass" as straight can be unsuccessful in their attempts (cell G). While a behavioral definition would consider this man gay, the man would classify himself as straight on social-science surveys. A perceived definition, in this case, would be more accurate.

A gay man who successfully "passes" as straight (cell H) presents the most acute example of where a perceived definition of sexual orientation differs from the psychological definition. Take, for example, a "happily" married "gay" man. Many would say (in hindsight) that this man was gay because his internalized sexual urges were directed towards other men. A perceived definition argues that his man should be considered straight as long as society views him as straight. A perceived definition of homosexuality sees the social construction of his "straight" life (as viewed by his family, friends, and co-workers) as more important than the psychological issues involved.

A final question concerns those men who may be behaviorally heterosexual or asexual, yet for some reason—be it a lack of an opposite-sex sexual partner or behavior or mannerisms associated with homosexuals—are considered by others to be gay (cells A and C). A perceived definition argues that the perception of others is a more meaningful measure of sexual orientation than self definition or previous sexual behavior.

Like any definition of homosexuality, the perceived definition is not the most appropriate for all situations. Nevertheless, from a research perspective, a perceived definition may yield

better data on the basic demographic characteristics of a "hidden" population than more traditional means.

## Theory and Hypothesis

Existing research finds an income gap between straight and gay men. There is reason to believe, however, that openly gay men who volunteer information on their income and sexual orientation have higher incomes than gay men who do not volunteer such information. Therefore the actual income gap between straight and gay men may be higher than previously estimated. Demonstrating this requires a new sampling methodology.

In order to access a large and reliable data set, a method was developed to "tease" sexual orientation from census data. A likely demographic characteristic of gay people is a dispropensity to marry people of the opposite sex. From this assumption, an attempt was made to isolate gay men in a never-married subset of the population. The sociological use of a proxy measure is not new. "Jewish names" have long been used to determine the size of a Jewish population (Waterman and Kosmin 1986, Himmelfarb et al. 1983). Yet the use of marital status as a proxy measure to infer sexual orientation is novel.

## Data and Methods

The primary source of data is the 1990 Public Use Microdata Samples (PUMS). Both the PUMSA (5 percent) and the PUMSB (1 percent) samples are used. Additional data include the General Social Survey (GSS) for the years 1989-1994 and the National Health and Social Life Survey (Laumann et al. 1992).

The sample extract is a combination of PUMSA (5 percent) and PUMSB (1 percent) microdata. The extract selected all white men age 45 to 64 with nine or more years of education, excluding those who are work-limited, clergy, and institutionalized. With these restrictions, the 5 percent sample contains all never-married men (n = 30,359); the 1 percent sample (n = 153,350) contains all men. Comparisons between gays and straights were conducted with the 1 percent sample. Income and occupational data on gays were taken from the combination of the never-married men from the two data sets (n = 36,277).

### *The Never-Married Proxy Measure for Homosexuality*

If one assumes that homosexuals comprise a small but stable percentage of the overall population, and that the majority of gay men do not marry women, it follows that as the percentage of never-married men in a sample decreases, the homosexual percentage of that set of never-married men will increase. Furthermore, if one assumes that gays represent between 3 and 5 percent of the overall population, it follows that as the percentage of never-married men in a sample decreases to 3 to 5 percent, the more "pure" that gay sample will be.

There are three possible reasons a man will not marry: 1) he is unable to find a spouse, 2) he does not want to find a spouse, and 3) the law does not allow a man to marry his potential spouse. Recent gay marriage ceremonies are likely to increase the number of gays who report themselves as married. But this is not seen as a significant factor for these 1990 data. Reanalysis with 2005 data, however, could be problematic.

The goal of this sample selection is to eliminate any "unmarriable" people from the sample so that the only men who remain unmarried are those who are unmarried by choice or law. In order to accurately infer homosexuality from a never-married status, one must decrease the number of men in the sample who simply cannot find a spouse. The presence of any

"unmarriageable" men in a never-married sample would contaminate the sample, especially with regards to income, if one wishes to infer homosexuality from a never-married sample. Data indicate, for instance, that very low levels of education decrease the likelihood of marriage and sexual partners (Smith 1993).

Unfortunately, the presence of some straight men in a never-married category cannot be avoided. But by eliminating the "unmarriables" from the population and shrinking the size of the never-married percentage, one can hope that the never-married sample will become an adequate proxy measure for homosexuality.

*Sample Restriction*

The sample population is restricted to white men in order to limit the influence of outside variables. Black men are less likely to ever marry than white men—over 10 percent of black men remain never-married—which would lessen the validity of a sexual-orientation indicator based on married status. Married women, unlike married men, have incomes which are substantially lower than the income of non-married women. Women are also more likely than men to remain never-married.

This study examines only white men 45 to 64 years old. Age is the most important variable in reaching a sample with a low percent of never-married men. The percentage of men never-married decreases rapidly by age (Figure 1). Most men who ever marry, marry before they reach the age of 45; by age 45, only 6.3 percent of all men remain never-married. This low percentage, 6.3 percent, bodes well for the validity of the never-married homosexual proxy measure. Simply put: if a certain percentage of a population is never-married and gay, then the percentage of never-married men indicates an approximate upper-limit for the percentage of homosexuality. And the lower the percentage of never-married men, the more accurate "gay" this sample is. In effect, this proposition says that if there are gays somewhere, they are likely to be in the never-married category.

The percent of never-married men who do marry in any given year decreases after the age of 45. A 45 to 64 year-old age span is used in order to maximize the sample size, keep the sample active in the workforce, and to make the data more easily comparable to published data. The gay-straight income ratio remains relatively constant throughout the age span in the sample.

The work-prevented or work-limited, the institutionalized, and clergy are all excluded from the sample. Men who are mentally or physically limited or prevented in the work they can do—9.0 percent of the population—are twice as likely not to marry as men not work-limited. Institutionalized men—0.4 percent of the population—are seven times as likely as non-institutionalized men never to marry. Clergy are excluded from the sample since some clergy are barred from marriage.

The sample has a minimum nine years of school. Men with less than a high-school education (12 years) are much less likely to marry than men with at least a high-school education. After the sample is restricted to those not work-limited, however, the never-married percentage remains relatively constant (around 4.2 percent) at and above nine years of education. Men with at least a ninth-grade education but without a high-school diploma are just as likely to marry (in fact, they are more likely to do so) as are men with college degrees. The gay/straight income ratio remains relatively similar throughout all levels of education. Excluding those without at least 9 years of education eliminates 15.0 percent of the population from the sample.

After selecting for these factors, a final variable was examined: the presence of a man's child in the household. One would expect gay men to be less likely to live with their own

children—especially in a 1990 data set of men between 45 and 65 years old. Of the never-married men, 1.6 percent had a child present. These men were classified as straight.

*The Final Sample*

The sample consists of all white men, 45 to 64, who have at least 9 years of education, are not institutionalized, are not limited in the work they can do, are not clergy, and do not have their child in the household. The analyses of income and occupation were selected further to exclude the long-term unemployed and those who worked less than an average of 30 hours per week. Of this sample, 4.2 percent are never-married and assumed to be gay.

This sample suffers from four obvious limitations: 1) a certain percentage of "gay" men are married to women, 2) a certain percentage of gay men consider themselves married to other men, 3) a certain percentage of gay men were previously married, and 4) a certain percentage of straight men remain single. The first category can be resolved by the use of the perceived definition of homosexuality: all men married to women are considered straight. The second category is very small. While gay marriage has been a great topic in recent years, gay marriage was not a significant issue in 1990 as is not believed to be a significant factor in these 1990 data. The existence of the latter two categories remains more problematic. Everybody, seemingly, knows a uncle who has remained single. But of the men in the sample, only 4.2 percent remain never-married. Only three possibilities exist to explain the presence of a large number of straight men in this small subset of never-married men: 1) most gays have been married, 2) far less than 4.2 percent of men are gay, or 3) your uncle is gay.

## *Defending the Validity of the Never-Married/Gay Proxy Measure for Homosexuality*

*Place of Residence*

Gays are believed to migrate from less tolerant and less gay small towns and rural environments to larger cities (Laumann 1994). If the never-married proxy measure were valid for homosexuals, one would expect large cities—San Francisco in particular—to show a much higher percentage of never-married/gay men. This is exactly what the data show: 34 percent of the San Francisco sample is never-married (Figure Two).

Overall, gays comprise 10.0 percent of large American cities' population; 30.5 percent of gays live in cities compared to 11.9 percent of straights. The largest cities in America all have over 10 percent of the sample never-married. Three cities—San Francisco, Oakland, and Boston—are over 20 percent never-married. One-third of San Francisco is gay. Smaller, conservative cities—such as Salt Lake City—and cities that lack a traditional urban center—such as San Jose—have extremely small percentages of never-married men (1.8 percent and 4 percent, respectively[1]). The city-specific data is excellent prima facie proof of validity; if the never-married proxy measure doesn't reflect sexual orientation, what does it reflect?

*Occupation*

Using the never-married/gay proxy measure, Table 2 shows the specific occupations with the highest and lowest percentage of gay involvement for homosexuality. Occupations often considered feminine and sometimes associated with homosexuals show high gay involvement; occupations often considered "macho" show very low gay involvement. Occupations with the

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[1] Due to the city's small size, the data on Salt Lake City include the entire metropolitan area.

highest percentage of gay involvement are miscellaneous food preparation (23.3 percent), typists (21.5 percent), librarians (20.8 percent), waiters and waitresses (20.2 percent), art, drama, and music teachers (18.1 percent), hairdressers (17.8 percent), receptionists (17.1 percent), and actors and directors (15.9 percent). Occupations with the lowest percentage of gay participation are electrical power installers and repairers (0.4 percent), sheriffs and bailiffs (0.6 percent), butchers and meat cutters (1.0 percent), industrial engineers (1.1 percent), airplane pilots and navigators (1.1 percent), telephone installers and repairers (1.1 percent), construction supervisors (1.1 percent), dentists (1.2 percent), motor vehicle and boat sales workers (1.2 percent), and heavy equipment mechanics (1.3 percent).

*Agreement With Other Data Sources*

Using the never-married proxy measure, gays comprise 4.2 percent of the sample. This reflects existing research on the prevalence of homosexuality in the population and is greater than the percentage of gay self-identification, believed to be under representative (Fay et al. 1989, Rogers and Turner 1991, Billy et al. 1993, Laumann et al. 1994, Badgett 1995).

Using the never-married proxy measure, gays earn, on average, $24,985; straights earn $38,315. Laumann's data (unpublished) also indicate that gays earn less than straights. Badgett's data show that the income of gays could be as much as 26.7 percent less than straights.

One way to judge the never-married proxy is to check for admitted homosexual behavior for those in the never-married/gay category. Attempting to apply the never-married/gay proxy measure to Laumann's data achieves an unacceptably small gay sample size of five individuals. Laumann's data is biased towards youth and is cut off at 60 years old. GSS data, however, include a question on previous same-sex sexual experience beginning in 1989.

Using a similar method to Badgett, GSS data from 1989 to 1994 were compiled. All white men 45 to 64 who worked more than 30 hours the previous week and had at least a ninth-grade education were selected.[2]

These data were compared to the standard behavioral definition of homosexuality used by Badgett—having had two or more same-sex experiences or having had more same-sex sex than opposite-sex partners—and with the never-married proxy measure. The behavioral and the never-married measure for homosexuality correlate at .318 (significant at the .01 level).

By both a behavioral definition and the never-married proxy, those married with no admitted gay behavior (cell 'D' of Table 1, "straight") are considered straight and those never married with admitted gay behavior are considered gay (cell 'E', "gay"). The never-married/perceived definition does not count those married but with admitted gay behavior as gay (cell 'H', "well closeted"). This category, however, represents only 0.5 percent of valid data for those considered straight by the ever-married standard.

More significant are those who are never married but have no admitted gay behavior (cell 'A', "the celibate"). Only 29.2 percent of those considered gay by the never-married standard admit to previous homosexual behavior (cells 'E' and 'G'). The issue here, again, is the reliability of survey data. One interpretation is simply that 70 percent of gay men aged 45-64 in 1990 were not willing to discuss their sexual history to social-science researchers.

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[2] This selection process was meant to be identical the selection process used in the census data. The data labels, however, are not exactly comparable; the most similar variables were used.

*Allowing for Sample Bias*

Undoubtedly, there are misclassifications in the never-married/gay proxy measure. Despite education and employment, undoubtedly some in the never-married sample are straight but cannot or do not want to marry. Likewise there are gay men who were married to women. But as a never-married proxy is not a perfect measure of homosexuality, neither is the traditional questionnaire-based behavioral definition without flaws. I proxy measure is simply another tool in the social scientist's tool belt. It will be assumed, however, that compared to the ever-married category, the never-married category is very disproportionately gay and therefore can be used as a proxy measure for homosexuality.

## Findings

### *Lower incomes*

Gays make significantly less than straights (Table 3). Whether measured by total earnings, wage income, or household income, gays make from 35 percent to 38 percent less than heterosexuals.

Linear regression was used to determine the effect of sexual orientation on income. The dependent variable was the log of wage or salary income. Independent variables were sexual orientation, age, average number of hours worked per week in the previous year, education, and area of residence. Dummy variables were created for Education and Area of Residence. Being gay lowers income by 38 percent (Table 4). An additional regression was run adding dummy variables for different occupational categories. Taking the occupational categories into account, gays make 33 percent less than straights (Table 5). This suggests that gays are disproportionately found in lesser paying occupations, but that these occupations account for only about 5 percent of the gay/straight income gap.

### *Potential for Higher Disposable Incomes*

While gays earn significantly less than straights, it remains possible that the average gay man has more disposable income than the average straight man. Examining per capita household income (determined by dividing the total household income of each individual by the number of persons in that household) reveals that the per capita income in gay houses is 15 percent *higher* than the per capita household income in straight houses ($27,582 compared to $23,993).

### *Occupations*

Dividing occupations into 14 general census categories, gay men earned 14 percent to 32 percent less than straight men in all categories. Gays are under-represented in executive and management occupations and occupational categories including mechanics, construction, protective services (includes law enforcement), and precision production occupations (includes machine workers). Gays are over-represented in administrative support occupations and the service industry.

Table 2 shows the income levels for the specific occupations with the highest and lowest percentage of gay involvement. With one exception (typists), the income of gay men is less than straight men in occupations both over-represented under-represented by gays.

## Discussion and Conclusion

In 1990, one could use a never-married proxy measure to infer homosexuality. Today, as gay marriage becomes more common, this indicator would have little if any validity. The

advantage of a proxy-measure for sexual orientation, however dated, is that it allows comparison between gay and straight men with regards to income and occupation, something that has never been done with any degree of scientific rigor. One can also infer the prevalence of homosexuality in society, something which most likely remains constant over time. Until recently, ascertaining sexual-orientation through marital status offered potential for further research on this hidden population.

Using a never-married proxy measure to infer homosexuality, gays earn significantly less than straight men. Taking into account the variables of age, education, place of residence, and average number of hours worked per week, regression analyses reveal a gay income effect of 33 percent (taking occupational category into account) to 38 percent (without occupation). Due to smaller household sizes, however, gays may have more disposable income than straight men despite lower incomes overall.

The income gap between gays and straights can be partially explained by a general marriage effect regarding such factors as productivity, occupational selection, and discrimination against non-married men. If one assumes that the marriage effect is in the range of 10 to 20 percent (Hersch 1991; Kenny, et al 1979; Korenman and Neumark 1991; Malkiel and Malkiel 1973; Osterman 1979; Reed and Harford 1988), this would account for roughly half of the gay/straight income effect of 33 percent. In the census sample used in this research, married men make 25 percent more than separated or previously married men, and 57 percent more than never-married/gay men. Employer discrimination against homosexuals likely accounts for a significant part of the differential remaining after the marriage effect is taken into account.

Figure 1: Percent of men never married, by age (1990)
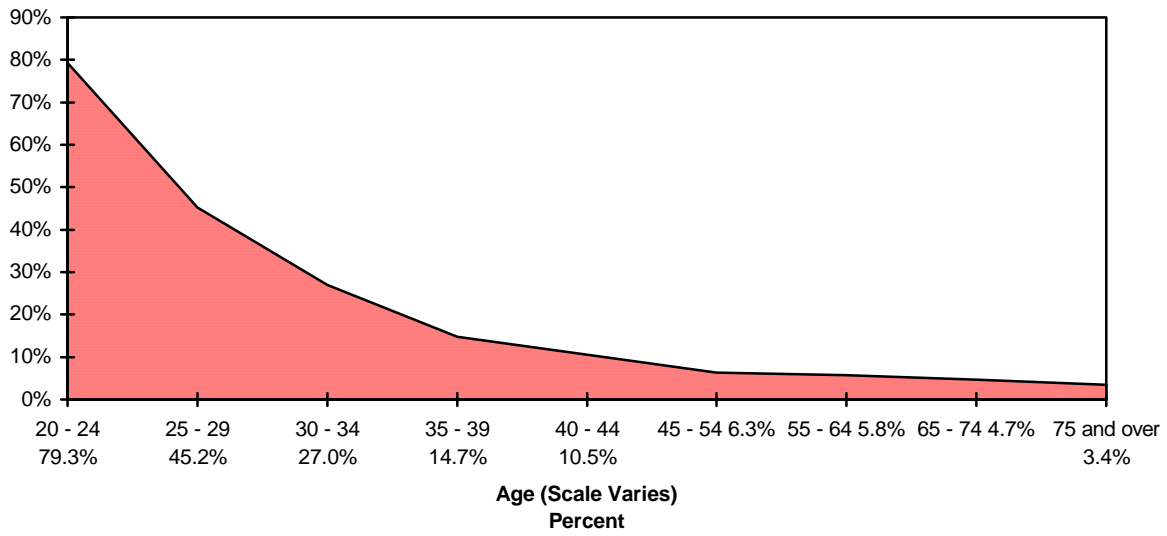


Source: U.S. Bureau of the Census, *Statistical Abstract of the United States: 1992* (112th edition.), table no. 51, Washington, DC, 1992

Figure 2: Percentage of city gay, as reflected in white men age 45-64*



Percent Never-Married, 45-64
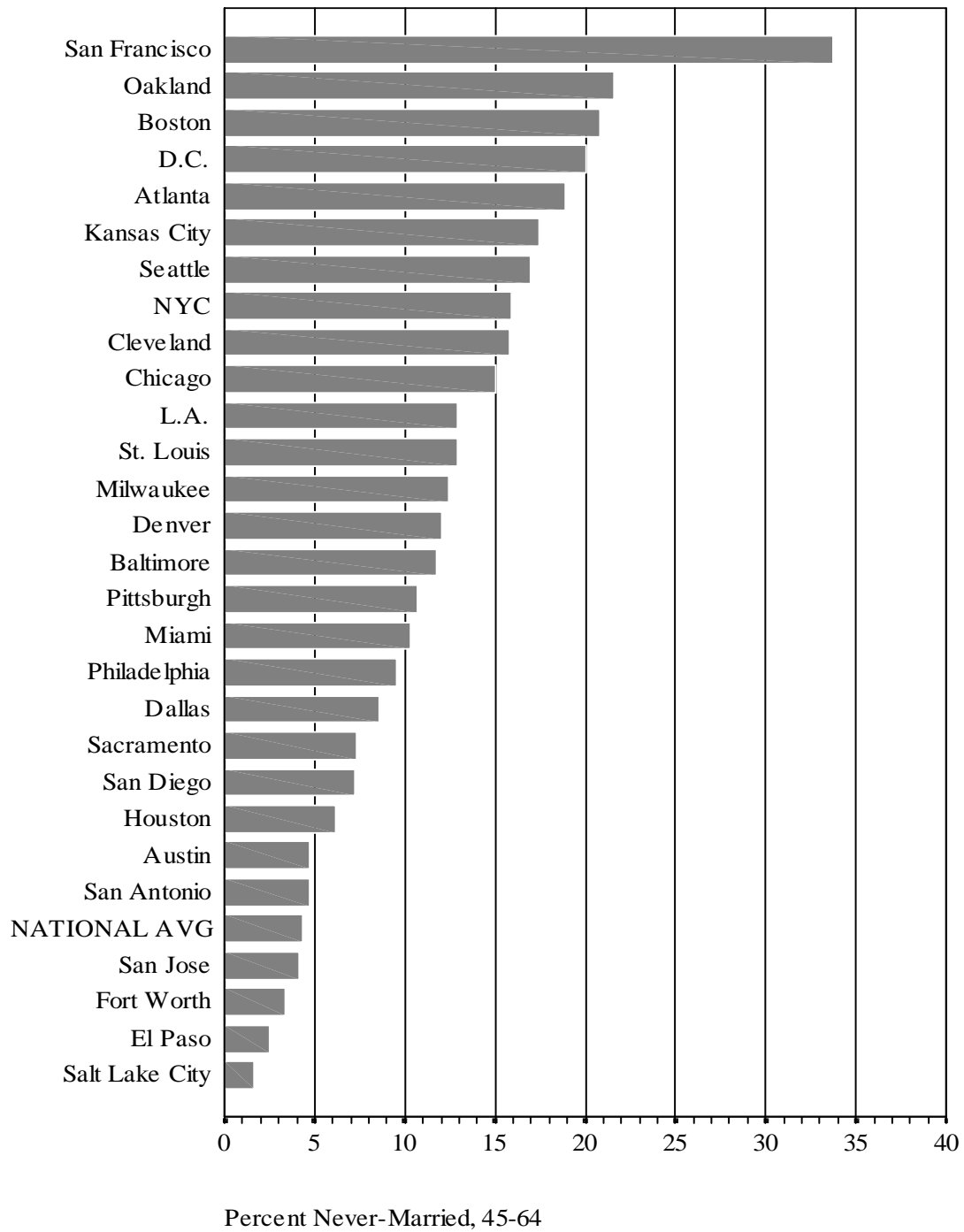
* active workers, non-institutionalized, non-clergy, minimum 9th grade education.

Source: Census of Population and Housing, 1990: Public Use Microdata Samples U.S. PUMSB 1% Sample/ prepared by the Bureau of the Census. Washington: The Bureau, 1992.

Table 1: Defining homosexuality: refining the "gay-dar"

No Previous Homosexual Behavior:

|  |  | Perception of Others | |
|---|---|---|---|
|  |  | Gay | Straight |
| Presentation of Self | Gay | **A: The celibate**<br>Behaviorally straight<br>Perceived gay<br>Psychologically gay | **B: The failed queen**<br>Behaviorally straight<br>Perceived straight<br>Psychologically gay |
| | Straight | **C: Metro-sexual**<br>Behaviorally straight<br>Perceived gay<br>Psychologically straight | **D: Straight**<br>Behaviorally straight<br>Perceived straight<br>Psychologically straight |

Previous Homosexual Behavior:

|  |  | Perception of Others | |
|---|---|---|---|
|  |  | Gay | Straight |
| Presentation of Self | Gay | **E: Gay**<br>Behaviorally gay<br>Perceived gay<br>Psychological gay | **F: Living a double life**<br>Behaviorally gay<br>Perceived straight<br>Psychological gay |
| | Straight | **G: Not well closeted**<br>Behaviorally gay<br>Perceived gay<br>Psychologically straight | **H: Well closeted**<br>Behaviorally gay<br>Perceived straight<br>Psychologically straight |

Table 2: Gay and straight incomes for the occupations with the highest and lowest percentage of gay involvement*

| Occupation | Percent of occupation gay | Mean income, gay | Mean income, straight | Gay/straight income ratio | Unweighted n, gay |
|---|---|---|---|---|---|
| miscellaneous food preparation occupations | 23.3% | $10,217 | $13,096 | .78 | 102 |
| typists | 21.5% | $22,609 | $20,137 | 1.12 | 55 |
| librarians | 20.8% | $33,610 | $38,562 | .87 | 111 |
| waiters and waitresses and their assistants | 20.2% | $13,948 | $19,385 | .72 | 113 |
| art, drama, and music teachers | 18.1% | $28,892 | $39,991 | .72 | 25 |
| hairdressers and cosmetologists | 17.8% | $11,905 | $15,303 | .78 | 182 |
| receptionists | 17.1% | $14,387 | $21,166 | .68 | 25 |
| actors and directors | 15.9% | $29,841 | $66,672 | .45 | 94 |
| heavy equipment mechanics | 1.3% | $25,280 | $28,219 | .90 | 46 |
| sales workers, motor vehicles and boats | 1.2% | $18,360 | $26,101 | .70 | 77 |
| dentists | 1.2% | $45,681 | $56,971 | .80 | 49 |
| supervisors, construction | 1.1% | $21,826 | $32,641 | .67 | 111 |
| telephone installers and repairers | 1.1% | $31,190 | $34,033 | .92 | 61 |
| airplane pilots and navigators | 1.1% | $53,164 | $81,291 | .65 | 42 |
| industrial engineers | 1.1% | $41,085 | $43,389 | .95 | 46 |
| butchers and meat cutters | 1.0% | $21,322 | $24,652 | .86 | 51 |
| sheriffs and bailiffs | .6% | $24,459 | $28,593 | .86 | 22 |
| electrical power installers and repairers | .4% | $34,673 | $36,112 | .96 | 26 |

* white men, 45-64, active workers, non-institutionalized, minimum 9th grade education

Source: Census of Population and Housing, 1990: Public Use Microdata Samples U.S. PUMSB 1% & PUMSA 5% Sample/ prepared by the Bureau of the Census. Washington: The Bureau, 1992.

Table 3: Mean wage income, total earnings, and household income by sexual orientation*

|  | Wage Income | Total Earnings | Household Income |
|---|---|---|---|
| Straight | $34,188 | $38,345 | $60,469 |
| Gay | $22,455 | $25,087 | $41,474 |
| Gay income percentage of straight income | 66% | 65% | 69% |

* White men, 45-64, non-work prevented or disabled, non-institutionalized, minimum 9th grade education

Table 4: Regression of log income by gay, age, education, area of residence, and hours worked*

**Coefficients[a]**

|  | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
|  | B | Std. Error | Beta | t | Sig. |
| (Constant) | 9.741 | .003 |  | 3755.510 | .000 |
| GAY | -.378 | .001 | -.082 | -314.037 | .000 |
| age | -1.43E-02 | .000 | -.091 | -344.053 | .000 |
| less than HS | -.171 | .001 | -.065 | -224.511 | .000 |
| post HS | .207 | .001 | .106 | 348.869 | .000 |
| college grad | .434 | .001 | .220 | 719.741 | .000 |
| central city | .252 | .001 | .096 | 305.571 | .000 |
| suburb | .298 | .001 | .160 | 512.049 | .000 |
| Avg # hours work/week | 2.163E-02 | .000 | .250 | 951.623 | .000 |

[a]. Dependent Variable: Log of Wage or Salary Income
   Base Variables: Not living in MSA, High School Graduate

* white men, 45-64, active workers, non-institutionalized, minimum 9th grade education

Source: Census of Population and Housing, 1990: Public Use Microdata Samples U.S. PUMSB 1% Sample/ prepared by the Bureau of the Census.  Washington: The Bureau, 1992.

Table 5: Regression of log income by gay, age, education, area of residence, hours worked, and occupation*

**Coefficients[a]**

| | Unstandardized Coefficients | | Standardized Coefficients | | |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | t | Sig. |
| (Constant) | 10.156 | .003 | | 3880.164 | .000 |
| GAY | -.329 | .001 | -.072 | -282.154 | .000 |
| age | -1.43E-02 | .000 | -.091 | -355.559 | .000 |
| less than HS | -.118 | .001 | -.045 | -159.026 | .000 |
| post HS | 9.971E-02 | .001 | .051 | 165.938 | .000 |
| college grad | .211 | .001 | .107 | 309.549 | .000 |
| central city | .207 | .001 | .078 | 257.098 | .000 |
| suburb | .252 | .001 | .135 | 444.058 | .000 |
| Avg. # hours work/week | 2.093E-02 | .000 | .242 | 941.181 | .000 |
| mechanics | -.302 | .001 | -.083 | -283.838 | .000 |
| construction | -.352 | .001 | -.095 | -326.365 | .000 |
| extractive | -.286 | .004 | -.017 | -68.148 | .000 |
| precision production | -.198 | .001 | -.055 | -190.129 | .000 |
| machine related | -.352 | .001 | -.097 | -328.978 | .000 |
| transportation | -.506 | .001 | -.145 | -488.095 | .000 |
| laborers | -.652 | .001 | -.127 | -463.113 | .000 |
| military | -.341 | .006 | -.013 | -52.718 | .000 |
| professionals | -4.24E-02 | .001 | -.017 | -55.426 | .000 |
| technicians | -.138 | .001 | -.028 | -106.075 | .000 |
| sales | -.319 | .001 | -.118 | -393.612 | .000 |
| administrative support | -.362 | .001 | -.102 | -356.528 | .000 |
| private household | -1.410 | .016 | -.022 | -88.500 | .000 |
| protective service | -.482 | .001 | -.089 | -335.315 | .000 |
| service | -.750 | .001 | -.163 | -587.073 | .000 |
| agriculture | -1.027 | .002 | -.151 | -571.617 | .000 |

a. Dependent Variable: Log of Wage or Salery Income
   Base Variables: Not living in MSA, High School Graduate, and Managerial Occupations

* white men, 45-64, active workers, non-institutionalized, minimum 9th grade education

Source: Census of Population and Housing, 1990: Public Use Microdata Samples U.S. PUMSB 1% Sample/ prepared by the Bureau of the Census.  Washington: The Bureau, 1992.

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