

At-risk Cities:
Predictors of Sexual Orientation Based Hate Crimes

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Abstract

Much of the research around hate crimes has focused on descriptions of perpetrators and their victims in an attempt to explain how and why hate crimes occur. However, there is mounting evidence that macro-level factors can also have an impact on the prevalence of hate crimes. Utilizing census data, FBI Uniform Crime Reports and a variety of other sources of city-level information, this research explores cities in California to determine what features can predict violence aimed at sexual minorities. Findings suggest that numerous factors such as percent white, number of gay and lesbian community members, gender inequality, poverty, and the general crime index can all help to predict the number of sexual orientation based hate crimes in a city. Research also suggests that predictors may be different for big vs. small cities. Implications for prevention and future research are discussed.

Introduction

Lesbian, gay, and bisexual (LGB) people are victims of violence across the United States and internationally. A prototypical case is that of Matthew Shepard. He met his attackers in a bar in urban Laramie, Wyoming, but was then taken out into the rural area outside Laramie where he was killed. However, although Laramie can be considered 'urban,' it is not the image of urban that many people think of when considering New York or San Francisco. Although research has made startling advances in the last fifteen years in understanding victims and perpetrators of hate crimes based on sexual orientation, little research has directly addressed location as a predictor of crime. Thus, utilizing prior research on perpetrators and victims, as well research on physical and social environments, this research examines cities in California to determine if there are certain cities that are more 'at-risk' for experiencing increased levels of hate crime.

Limited information collected by local agencies, the FBI, and the NCAVP have all focused on micro-level location data. For example, the Los Angeles County Commission on Human Relations (LACCHR) found that 34% of sexual-orientation based hate crimes occurred in public places, 32% occurred in victims' residences, 17% in businesses, and 10% in schools (Los Angeles County Commission on Human Relations, 2005). In addition, other research has found that gay men are more likely to be victimized in public locations by strangers, while lesbians are more likely to be victimized at home (Kuehnle and Sullivan, 2001). However, no data has addressed larger social locations as a variable for determining when and where hate crimes might occur. This seems particularly relevant because of the contradictory nature of the increased hate crimes in gay neighborhoods. For example, in Los Angeles County, the LACCHR reports that most hate crimes based on sexual orientation occur in and around West Hollywood, a city which is southern California's most densely gay-populated city. This is particularly relevant

to predicting hate crimes because police officers have identified that these locations serve to attract bashers (Phillips, 2006), and increased visibility makes for more available targets. However, the role of density is not clear-cut. Although there is clustering of crimes reported in this area, it could also be that there is strength in numbers, and that the per capita probability of being a victim for any one gay man or lesbian in West Hollywood is low compared to the only gay man or lesbian in a small rural town.

Although little research has focused on cities themselves, there are other types of information that suggest where hate crimes might occur: presence of potential victims, characteristics of the perpetrators, and conditions within a city itself.

Conditions within Cities

Availability of Victims

Thanks in large part to the identity work done by the LGBT community over the last two decades, more sexual minorities are living lives 'out of the closet' than ever before. There are an estimated 8.8 million adults who claim gay, lesbian, or bisexual identities in the United States (Gates, 2006). In addition, LGB people are also shown to be distributed similarly to other minorities across the United States in both urban and rural settings, and to reflect similar demographic attributes as other subgroups (Sears, Gates, and Lau, 2006). Depending on the source, there have been many different opinions for how many LGB people there are in the United States. However, one conventional (???) source is the U.S. Census. In 2000BLAH BLAH (Can you explain this hear Dani?).

However, it is unclear what the benefits vs. the perks of being in densely LGB populated locations vs. sparsely populated areas. Benefits of more LGB density is more access to social service organizations sensitive to or focusing on LGB issues, more supportive immediate

communities, and a community of peers (**saying you have a bunch of people who share your life experience – need a new word for that**). However, a negative side of high LGB density is that perpetrators know where to find potential victims, such as thrill-seekers looking to ‘beat up some fags’ for a good time (Levin and McDevitt, 1993). So one clear aspect of a city that might impact the number of sexual orientation based hate crimes that the city experiences is the number of LGB people within the city itself.

Perpetrator Characteristics

Statistics from a variety of sources suggest that the majority of hate crimes are perpetrated by a white male, frequently a *young* white male (Comstock, 1991; Perry, 2001; FBI, 2004) usually under the age of 21 (Comstock, 1991; Herek and Berrill, 1992). Perpetrators have also been found to have low employment, poor educational histories, (Ray and Smith, 2002) and prior experiences with the criminal justice system, (Ray and Smith, 2002; Turpin-Petrosino, 2002). The media and anecdotal experience often casts the presence of potential perpetrators as a main predictor of hate crimes. People imagine groups of white youth with too much free time looking for a good time, or “thrill-seekers” according to Levin and McDevitt’s (1993) taxonomy of hate crime perpetrators. Thus, just the presence of a large number of potential perpetrators in a city might in and of itself be a predictor of where hate crimes will occur. [We need to expand on each of the characteristics in this section as much as possible. We make them seem very important when we talk about operationalizing our variables. All the theoretical/empirical reasons to include a variable in the analysis should be discussed here. Only how we operationalized a concept discussed here should be discussed in the methods section.]

Geographic Characteristics

Within cities there are both geographic/environmental and population relevant factors that might predict hate crimes. In this case, there are only two geographic/environmental features that were particularly relevant – density of the city and county the city is located in. Because size of city is determined by population, a rural city that spans thousands of acres could have a similar population to a small urban, densely inhabited city. In the past, general crime rates have also been correlated with density (do we know this is true?). For California, county is also a very salient feature. About one third of the cities in California fall into Los Angeles County alone. Thus, the city of Compton does not have a completely discreet identity separated from its location near to Los Angeles, whereas a similarly sized city like Monterey (which is about two hours from San Francisco) is not attached to any major metropolis and clearly has a different type of environment. **This is awkward.**

Population Characteristics

Beyond these two geographic/environmental features, are a variety of population relevant factors as well. Economics, particularly economic strain, has been suggested as one possible reason for intergroup tensions and hate crimes. For example, economic changes have been used to try to explain lynchings in the south (i.e. Beck & Tolnay, 1990; Tolnay, Beck, and Massey, 1989; Tolnay, Deane & Becky, 1996), though different analysis have yielded results that implicate interpretations of economic downturns rather than the downturns themselves (Green, Glaser, & Rich, 1998). In addition, too much free time due to unemployment has been used to try to explain hate crimes (Medoff, 1999). This violence based on economics could be exacerbated by the fact that stereotypes about gay men in particular are often tied to economic wealth. Therefore, people who are suffering from the strain of *poverty* might find release by attacking

those they perceive as unduly well-off. Thus, the general level of economic strain in a community has the potential to be another predictor of hate crimes against sexual minorities.

Prior research has also suggested that economics and gender are intricately tied together. Franklin (2000) has suggested that anti-gay violence is just one means by which men can prove their masculinity to the world, and Ault (1997) has suggested that anti-lesbian behaviors are anti-woman, but anti-gay behaviors are also anti-woman in the sense that many people confuse the differences between sexual identities and gender identities. Alden and Parker (2005) tested the connection between gender, violence, and economics. They found that when cities had smaller gaps in the economic power between men and women (measured by the wage gap between men and women's salaries, and the unemployment rate gap between men and women) they were more likely to have incidences of sexual orientation based hate crimes in major cities across the United States. They hypothesized that when men hold a large portion of the economic power in a city, they feel comfortable in their position of power, and do not need to demonstrate their masculinity by assaulting LGB people. However, when women are holding too much of the economic power, and men's superiority is not as clear, men feel compelled to demonstrate their masculinity in other ways, such as attacking LGB people who are seen as gender-nonconforming. Thus, preliminary results from Alden and Park (2005) and others suggest that a city's level of *gender equality* is a predictor of the rate of hate crimes based on sexual orientation documented in that city.

However, economics is not the only population relevant characteristics that could predict sexual orientation based hate crimes. Homophobia is often cited academically and in mainstream culture as reason for victimizing sexual minorities. Increased levels of religiosity have been shown to also be correlated with increased levels of homophobia (Johnson, Brems, and Alford-

Keating, 1997), and being more educated leads to less homophobia (Weissman, 1992). Thus, both the overall *religiosity* of a city's population and the general *educational attainment* of a city's population might also be significant predictors of where LGB people will be victimized.

Last but not least among population characteristics is the general level of crime and criminality in a city. Some opponents of hate crime laws have suggested that they are not a unique category of crime, and in fact are simply a way of patrolling unwanted and socially undesirable thoughts rather than a new species of crime (i.e. Jacobs, 1993; Jacobs & Potter, 2000). If hate crimes are truly like other crimes, then one would anticipate that the general crime in a city would be highly predictive of hate crimes in a city as well. In addition, GIS analysis suggests that hate crimes cluster in areas with higher frequencies of crime, often perpetrated by organized or gang violence (Umemoto and Kimi, 2000).

So in summary, there are eleven features of a city that could predict the probability of hate crime victimization of sexual minorities: 1) Availability of Victims (number of LGBT in a city), 2) Perpetrator Characteristics (how many white people there are in a city, how many young people there are), 3) Geographic Characteristics (the density of the city, the city's size), and 4) Population Characteristics (gender equality, religiosity of a city, the city's level of homophobia, educational attainment, poverty rate, and the general crime in a city).

Although the literature suggests many explanations for why some cities might be at higher risk than other cities for experiencing sexual orientation based hate crimes, there has been little research that directly addresses this question. Cities are an important and salient level of analysis for hate crimes research for many reasons. Hate crimes are reported to the FBI by police stations or other designated organizations and are then tabulated and reported by city. In addition, prior research on patriot and militia movements has demonstrated that the level of analysis is

important, and that looking at too broad a geographic area can be too abstract for individuals to feel compared to the intimate knowledge of change and tension in smaller geographic areas around them (Van Dyke and Soule, 2002). Between state analyses can also be challenging because states have different laws regarding hate crimes. Although all states are strongly encouraged to report hate crimes to the FBI, there are clearly differences in reporting between states. For example, over 700 agencies in California participated in reporting to the FBI, whereas only 71 agencies in Georgia reported to the FBI. Of course there are still differences in reporting even within a single state (Boyd, Berk, and Hamner, 1996), but in limiting to a single state between-state differences can be controlled for at the very least.

Data and Methods

Data

The primary data for this project come from the U.S. Census Bureau and Uniform Crime Reports from the Federal Bureau of Investigation.. California was chosen for many reasons. First, it has one of the most comprehensive sets of legislation to protect people based on sexual orientation as well as gender identity. Second, as previously stated, it has an extremely high percentage of agencies reporting hate crimes to the FBI. Third, because the state is so geographically large, there are many cities that can be included in the analysis. Last, California has been found to have some of the most liberal AND most conservative cities in the country (Bay Area Center for Voting Research, 2005).

Whenever possible, U.S. Census data was used to have internal consistency between the variables. Census information was available for the gay/lesbian couples population, density, percent white, percent 18-24, poverty rate, educational attainment....

The FBI was the source of the reported hate crimes, as well as the general crime index. Epodunk.com was the source for finding religious institutions in each city, and the California Secretary of State's office was the source for the homophobia scores for each city. Utilizing these sources of available information, there were 448 cities in California that had complete data available.

Variables

The dependent variable for this analysis is the number of *hate crimes* reported in the city. To determine the number of hate crimes for each city in California, we utilized the FBI's annual Uniform Crime Reports for hate crimes from 2000-2005. Because frequencies of hate crimes per year can vary with sociohistorical events such as the September 11 terrorist attacks, and the totals are often quite small, totals for these six years were averaged. Averaging hate crimes across several years is becoming more common and can account for year-by-year variation (i.e. Alden and Parker, 2005). However, not all cities reported consistently in all six years. Thus, if a state reported less than six years, the denominator was the number of years reported. Prior analyses of hate crimes often have focused on cities that reported incidences of hate crimes. However, in this analysis we chose to include those cities that reported zero hate crimes to the FBI. The cities that are reported zero hate crimes are just as important to an analysis predicting where hate crimes will occur and with what frequency as are those with multiple reported hate crimes.

Availability of Victims

The primary predictor is the number of *gay and lesbian households per capita*.: Number of LGB in a city. We predict that the higher the percentage of gay and lesbian person there are in

a city, the higher their average number of sexual orientation based hate crimes. Based on previous literature about hate crimes, we include several other predictor variables.

Perpetrator Characteristics

As previously stated, two of the characteristics associated with perpetrators of hate crimes are 1) the percent of the white population in a city, and 2) the percent of young people in the city. Using U.S. Census data, we obtain the percentage of each city's population that identified as white, and also the percentage of the population between the ages of 18 and 24. Based on previous findings, we predict that the higher the city-level percent white, the higher the average number of hate crimes in that city. We also predict that the larger the number of persons 18-24 in a city, the higher the average number of hate crimes.

Geographic Characteristics

The cities all varied greatly in their make-up geographically. Some cities were small in area but dense, while others were more rural and quite large. Thus, two geographic characteristics were measured. First was the city size as measured by the population reported by the U.S. Census in 2000. This variable is used as an exposure variable to approximate a per capita risk for sexual orientation based hate crimes. Second, density as reported by the 2000 U.S. Census, people per square mile for each city was added into the analysis.

Population Relevant Characteristics

As previously stated, there are many population relevant characteristics of a city that might predict the number of sexual orientation based hate crimes within the city. First, is **gender equality**. (DO WE NEED TO MENTION THAT THIS HAS BEEN DONE BEFORE? BUT WE CHANGED IT?) Women's wage divided by men's wage to get a ratio. So as the ratio gets closer to 1, the more gender equality there is. There are nine cities that had women's median salary

higher than men's, in which case their score actually exceeds 1. (wage gap between men and women,

Second, the overall religiosity of a city has the potential to predict hate crimes based on sexual orientation. Religiosity is typically measured through surveys, but most sources for such information (such as the General Social Survey) are not available for cities smaller than 100,000 people. However, another option when survey data is not available is a count of the number of churches per capita in any one town or city. This does not speak to peoples' commitment to their religious institution, or the level of their religious devotion, or even how many people attend each church. However, religious institutions need to maintain a critical mass of people in order to stay financially viable, so the presence of institutions in a city can implicate how religious the people of the city are when considering the size of the city. Finding the number of religious institutions in a city is also not an easy feat when considering the inclusion of small cities, but one online site (epodunk.com) specifically addresses this need by offering a variety of statistics on a range of cities sized from small rural communities to large metropolises in the United States. Thus, to form an overall religiosity variable, we took the number of religious institutions from epodunk.com, then divided this number by the population of the city in order to standardize for city size. We hypothesized that the higher the overall religiosity of a city, the higher the probability of hate crimes based on sexual orientation. It is also important to keep in mind that this does not differentiate between the types of religiosity. There are some organized religions that are very aggressive against the LGB population, where others are very welcoming and accepting. This type of measure, by necessity rather than preference, does not differentiate between accepting and rejecting religious institutions, just the presence of religion in a city.

Like religiosity, the degree of a city's overall homophobia amongst its population has been attained through surveys such as the GSS. However, just like religiosity, there is no attitudinal data like this available for small cities. However, in the 2000 elections in California, citizens voted on Proposition 22, which defined marriage as specifically between a man and a woman. City-level voting patterns are available from the California Secretary of State's office, and thus we used each city's percent of 'yes' votes to determine attitudes toward restricting gay and lesbian marriages. Prior research demonstrates a difference in people's attitudes toward the civil rights issues surrounding gay and lesbian law and policy, and the attitudes that people hold concerning the morality of homosexual relations. This measure clearly only taps into the civil rights portion of attitudes about gays and lesbians. We expect that, like prior research would suggest, the higher the percentage of people who voted 'yes' to restrict marriage to a man and a woman, the higher the level of hate crimes.

Because prior research has demonstrated a positive correlation between education and homophobia, we predict that the higher the educational attainment of a city, the lower the overall number of sexual orientation based hate crimes. The U.S. Census in 2003 reported that 87% of the adult population had received high school diplomas or the equivalent, where only 27% had degrees beyond high school. Thus, from the U.S. Census 2000 data we used percent of people who had not completed high school (or received an equivalent degree) as a measure of people with lower than average educational attainment, and percent of people who had attained degrees beyond high school as a measure of people in a city with higher than average educational attainment.

Again, the 2000 U.S. Census provides a poverty rate for each of the 448 cities of interest in California. Although the Census then subdivides poverty into poverty of children, and of the

elderly, we utilized the overall poverty rate in order to get an image of a city's experiences of poverty, not a particular subset of that city. This number is reported as a percent of the population within each city that is under the poverty line. We hypothesize that increased levels of poverty will lead to increased levels of hate crimes based on victims' perceived sexual orientation.

Along with hate crimes, the FBI tracks the crime rates of each of the cities included in the analysis. For consistency's sake, we used this General Crime Index from the FBI rather than any other source available from RAND or other sources. This is reported by the FBI as a raw number of crimes, but a rate was computed by dividing this total by the population to account for differently sized cities.

Models

Ordinary regression equations are inappropriate when the outcome variable is measured in counts, especially crime counts (cite). The distribution of crime counts is not normal. Crime counts load heavily on zero. Therefore, an analytical model must take this type of distribution into account. Studying hate crimes, Alden and Parker (cite) used poisson regression, which incorporates observed heterogeneity into the equation. However, poisson regression may be inadequate to properly model count outcomes, largely because count data is often overdispersed. When the data are overdispersed, poisson regression models produce spuriously small p-values as a result of biasing standard errors downward. We determined that, like most data dealing with counts, our data were overdispersed. Therefore, we use a negative binomial regression model, which is designed to account for both the observed heterogeneity and the unobserved heterogeneity among the observations. The equation can be expressed thus:

$$\mu = \exp(\beta_0 + \beta_1 x_{i1} + \dots + \beta_m x_{im}) \delta_i$$

Where β_0 is the intercept, $\beta_1x_{i1} + \dots + \beta_mx_{im}$ are the effect of various predictors, and δ_i is an error term.

Results

Descriptive Results

Table 1 reports the descriptive statistics for all cities in our sample. It shows that Californian cities had an average of fewer than one hate crime per year (0.73). [density]. Cities are, on average, 54% white. The wage gap averages 0.75, indicating a relatively low level of gender wage inequality, on average. An average of 13% of the population lives below the poverty line. 9% of the population is high school dropouts, 9% of the population is between 18 and 24 years old, and 26% of the population has a bachelor's degree. 64% voted yes on Proposition 22.

Regression Results

Discussion

“If we can identify the variables that give rise to relatively high frequencies of [hate crime] incidents in a particular geographic area, we should be able to identify those areas that are vulnerable to the development of such incidents in the future.” (Umemoto and Kimi, 2000)

Police can request assistance and hate crime training from the Department of Justice. However, being able to identify at-risk cities would give the DOJ a better chance of prioritizing the departments that most need their intervention and training.

We only did Cali – other states might have other predictors.

As with all analysis of crime data, there is a confound between reporting and incidences.

Of course there are lots of other things that could be included later, like police presence, whether or not police have already received training, city level statutes and rules, etc.

Having available victims is way important

First and foremost, having available victims makes a city at-risk for experiencing sexual orientation based hate crimes. Even after controlling for other characteristics of the city this holds true. Although there are some population characteristics that moderate this effect, these other variables do not make the effect disappear. These population characteristics are wage gap, number of religious institutions, and poverty. Wage gap and poverty were significant in the predicted direction, namely that as the wage gap decreased, and the level of poverty increases, then sexual orientation based hate crimes increase. However, the finding for religious institutions is not consistent with predictions. Namely, the larger the per capita number of religious institutions, the less hate crimes evidenced in the city. This could be for a variety of reasons. First, as explained earlier, this is a proxy of religiosity that is usually measured as an attitudinal variable, and may not be a good approximation of this variable at the city level. Second, this variable included all religious institutions, and some religions are more or less tolerant or accepting of sexual minorities. Thus, it is unclear the role of religious institutions based on this data.

In conclusion, a city that is most at risk for experiencing sexual orientation based hate crimes are cities with a large gay population, with increased evidence of gender equality and higher levels of poverty, and possibly with fewer religious institutions. Thus, preventive efforts and training efforts by organizations such as the Department of Justice and the F.B.I. should focus on those cities with the most at-risk characteristics.

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Table 1. Descriptive statistics

	Mean	(sd)
<i>Availability of Victims</i>		
Population of gay men and lesbians	172.21	(769.04)
<i>Perpetrator Characteristics</i>		
City percent white	54	(26)
Percent of the population 18-24 years old	9.31	5.00
<i>Geographic Characteristics</i>		
City size	63291	(204371)
Density per square mile	4599	(3481)
<i>Population Characteristics</i>		
Ratio of women's to men's median wage	0.75	0.11
Percent of the population below the poverty line	12.99	7.99
Percent high school dropouts	8.92	7.00
Percent of the population with a bachelor's degree	26.04	18.40
Number of crimes	2395.34	(9577.64)
Voted yes to limit marriage to one man and one woman	64.05	13.18
Religious institutions	80.85	(148.13)
<i>Dependent Variable</i>		
Total sexual orientation hate crimes average per year	3.62	(24.11)
N	448	

Table 2. Negative binomial regression results

	Model 1	Model 2
Intercept	-12.28 ***	-5.98 **
<i>Availability of Victims</i>		
Gay and lesbian per capita	86.72 ***	92.68 **
<i>Perpetrator Characteristics</i>		
Percent age 18 to 24		0.004
Percent white		0.01
<i>Geographic Characteristics</i>		
Population density		-0.00001
<i>Population Characteristics</i>		
Gender wage gap		5.85 ***
Percent in poverty		0.07 **
Percent dropouts		0.02
Percent college graduates		0.03 +
City crime rate		0.97
Percent saying yes to Proposition 22		-0.02
Religious institutions per capita		-551.97 ***

Note: Exposure variable is city size.

+p<0.1, *p<0.05, **p<0.01, ***p<0.001 (two-tailed tests)

