Deconcentration of Urban Gay Enclaves, Evidence from the 2000 and 2010 U.S. Censuses

Amy L. Spring

The University of Washington

Paper for Presentation at the Meetings of the Population Association of America

May 3-5, 2012

ABSTRACT

This study addresses the following questions: Are urban enclaves for same-sex partner households deconcentrating? What contextual qualities are associated with more segregated environments, and more rapid deconcentration? Data on the residential location of same-sex partner households are drawn from the 2000 and 2010 U.S. Decennial Censuses. The results show that same-sex partners were generally less segregated in 2010 than in 2000. For same-sex male partners, 2010 segregation was greater in large cities with lower levels of education, and places with greater racial/ethnic segregation experienced less integration. For same-sex female partners, 2010 segregation was greater in cities with more frequent acts of violence towards homosexuals, lower average incomes, higher levels of education, and greater racial/ethnic diversity, and these same types of places experienced less integration. The segregation of both gay and lesbian same-sex partners is positively associated with past segregation, suggesting that historical segregation is a continued barrier to integration.

Direct correspondence to Amy Spring, Department of Sociology, University of Washington, Box 353340, Seattle, WA; afuhrman@u.washington.edu

Introduction

A flurry of recent media attention has described the erosion of urban gay enclaves, including the disappearance of gay residents and gay symbols and the influx of heterosexual residents in traditionally gay neighborhoods (Ghaziani 2010). Quoting a local Chicago newspaper about the deconcentration of gay residents in the Boystown neighborhood, Ghaziani reported on how integration was met with mixed feelings – "some residents and activists welcome the gay migration, saying it's a sign of greater equality, while others say Boystown is losing its identity" (2010, pg. 64). To date, there are no empirical studies examining whether the deconcentration of gay urban enclaves is a wide-spread trend. Quantitative analyses of gay and lesbian geographic distributions have been hampered by a lack of high-quality, large-scale data. The Census 2010 data provide a new opportunity to analyze gay and lesbian concentration in urban centers, and the Census 2000 data allow the exploration of patterns over time. Currently, Census data are limited to unmarried same-sex partner households and do not represent the entire homosexual population. The purpose of this paper is to assess changes in residential segregation of same-sex partner households in large metropolitan areas between 2000 and 2010, and to explore the characteristics of places associated with more segregated or more integrated environments.

This paper's findings may have positive and negative implications for gay and lesbian populations because integration opens up residential possibilities for same-sex couples while also rendering the gay community less visible in urban space (Ghaziani 2010). In addition, deconcentration may impact social attitudes towards gays and lesbians. Residential integration may promote social contact that could change negative attitudes and prejudices about homosexual people. According to the contact hypothesis, intergroup contact can reduce

prejudice, especially when close personal relationships are formed (Allport 1954; Pettigrew 1998). The contact hypothesis is supported in research of prejudice towards blacks, the elderly, disabled persons, the mentally ill, and most pertinent for this study, towards homosexuals. Several studies have found interpersonal contact with gays and lesbians increased affective feelings and tolerance towards homosexuals as a group (Herek and Capitanio 1996; Barth, Overby et al. 2009). However, the type of contact matters. Barth, Overby, and Huffmon (2009) found that people having close personal friends who are homosexuals demonstrated more tolerance, but living in an area with a higher gay population had no effect. These results contradicted a previous study by the same authors, which found positive effects of community context on tolerance towards homosexuals (Overby and Barth 2002). Some studies of contact between racial groups have found that the prevalence of other group members in the community can even have *negative* effects on tolerance if social bonds fail to form (Blalock 1967; Dixon 2006). Close, personal relationships are most important for reducing prejudice, and simply living in close proximity does not guarantee meaningful interaction. However, even researchers that found no effect or negative effects of community context on prejudice acknowledged that community context and contact with members of another group are related phenomena. A preponderance of members of another social group in a community presents greater opportunity for interpersonal contact with those group members.

An important first step is to quantitatively investigate the extent to which gay urban enclaves are deconcentrating, and gay and lesbian households are residentially integrating with the rest of the population. The following analysis begins with a review of the history of gay and lesbian segregation and the metropolitan factors thought to be associated with integration. Next

is a discussion of the data and methods used in the analysis. I then present results and end with a discussion of the findings.

Literature Review

Historical Segregation of Gay and Lesbian Households

No Census data on gay and lesbian households existed in the post-World War II era, when visible gay neighborhoods first emerged. The first distinct gay neighborhoods arose when many homosexual men and women serving in World War II were dishonorably discharged, but rather than return home, settled in port cities such as San Francisco. According to Ghaziani (2010), it was during this time that the "closet era" (during which gay locales were discrete) gave way to the "coming-out era." The "coming-out era" was characterized by the development of formal urban gay enclaves like the Castro. Ghaziani recounts the view that we are currently in the "post-gay era", which may witness the "unraveling" of these enclaves and "rendering them passé" (2010, pg. 65). The deconcentration of same-sex neighborhoods has attracted media attention and scholarly research, but the extent and pace of deconcentration has yet to be determined. To my knowledge, no research has yet examined changes in the segregation of same-sex households using large-scale data across many cities.

Contextual Factors Associated with Gay and Lesbian Segregation

There are a number of theories for how gay and lesbian people select cities and neighborhoods to reside in, including the preference for gay and lesbian neighbors, the historical legacy of segregation, the fear of violence and social hostility, and the preference for dense, diverse, and high-amenity areas. Many tests of these theories are at the regional, metropolitan area, or city level, and assess why some regions/metropolitan areas/cities have more gay or lesbian households than others (Florida and Gates 2001; Black, Gates et al. 2002; Cooke and

Rapino 2007). Several studies have translated this type of analysis to neighborhoods, and

assessed the factors that determine the spread of gay and lesbian households across census tracts

in the same metropolitan area (Anacker and Morrow-Jones 2005; Hayslett and Kane 2011).

Many of the factors that sort homosexual households across cities and metropolitan areas also

sort homosexual households within cities. As a result, these factors may also contribute to the

integration or continued segregation of same-sex partner households within cities.

It is uncertain how much preference to live in distinctly same-sex neighborhoods

contributes to the spatial distribution of same-sex partners. Castell's (1997) research in San

Francisco and Hayslett and Kane's (2011) recent research in Columbus concluded that the

geographic concentration of gay males reflected a desire to live in gay-defined space. Yet in a

poll of its readers, the *Advocate* found that 69% "prefer to live in an integrated neighborhood

rather than a distinct gay ghetto" (Ghaziani 2000, pg. 65). Continued segregation may not

represent preferences so much as it represents the continued legacy of historical segregation. In

their analysis of migration of same-sex partner households, Cooke and Rabino (2007) found that

independent of the size of the same-sex population, amenities, and other factors, certain places

dominated as destinations for gay and lesbian migrants. They remarked "these places all share a

culturally accepted role as destinations for gay and lesbian migration…these patterns reflect

information, accurate or not, from the gay and lesbian community as well as popular culture

about idealized places for partnered gays or lesbians to live" (Cooke and Rapino 2007, pg. 297).

The effect of historical legacies cannot be discerned from the preference for same-sex neighbors

in this study. Both are potential explanations if segregation remains stable over time after

adjusting for alternative explanations.

Some scholars suggest that clustering of same-sex households may be a protective mechanism to shield gay and lesbian people from potential violence and social hostility (Ghaziani 2010; Hayslett and Kane 2011). It follows that cities with more acceptance and less social hostility towards same-sex couples will be more integrated. This hypothesis has not explicitly been studied. Several studies found that tolerance for homosexuality and the *size* of the homosexual population in metropolitan areas were unrelated (Black, Gates et al. 2002; Cooke and Rapino 2007). In one study, Black, Gates, Sanders, and Taylor (2002) found strong binary correlations between measures of tolerance for homosexuality and the size of the same-sex coupled population in large metropolitan areas. But when introducing control variables, only median home value was significant. They concluded that tolerance was not an important determinant of the migration of same-sex households to metropolitan areas. However, the choice of whether to live in a segregated or integrated neighborhood *within* a metropolitan area may still relate to tolerance.

Another theory is that same-sex households are especially attracted to dense, urban environments (Aldrich 2004; Cooke and Rapino 2007). In these environments "gay and lesbian lifestyles are tolerated, supported, or just viewed as part of the diversity and anonymity of urbanism" (Cooke & Rapino 2007, pg. 288). In support of this argument, Cooke and Rapino (2007) found that regional migration of partnered gay males is positively related to percent urban, even controlling for the size and percentage of the gay population, tolerance, regional amenities, and levels of education. However, gay partners tended to migrate not to the largest urban centers but to moderate-sized urban regions. The migration of lesbian partners was unrelated to urbanization and directed to less populous regions. *Within* a region or metropolitan area it is unclear how density and urbanization relates to the distribution of gay and lesbian

populations. Based on the theory that same-sex partners seek dense, urban environments, cities with a preponderance of dense neighborhoods may be more integrated than cities where the population is diffuse.

Black, Gates, Sanders, and Taylor (2002) argued that the location decisions of same-sex partner households are governed by the same general economic processes that affect all households, rather than by processes unique to same-sex couples. There is debate over whether gay and lesbian households have higher earnings than heterosexuals (Badgett 1995; Black, Makar et al. 2003), but they are assumed to have more discretionary income because they are much less likely to have children and the corresponding expenses (Black, Gates et al. 2000). Also because they are less likely than heterosexuals to have children, same-sex couples need to spend less on housing and they have more residential choices. Gay and lesbian couples may use their greater resources or devote more of their income to living in high-amenity areas, just as any household with the same resources would do. Evidence lies in the fact that same-sex partners tend to own more expensive homes than married couples (Black, Gates et al. 2000). That same-sex couples gravitate to high-amenity areas is also consistent with Black, Gates, Sanders, and Taylor's (2002) finding that median home value is the only significant predictor of the size of a metropolitan area's same-sex coupled population after controlling for potential correlates such as tolerance. In contrast, heterosexual partners avoided cities with high property values. At the neighborhood level, we could hypothesize that same-sex couples tend to concentrate in high status neighborhoods, and therefore economic segregation and the segregation of same-sex partners will be positively related.

Richard Florida and others have argued that both same-sex partners and "knowledge workers" seek out high-amenity areas that offer cultural and other "adult" amenities (Florida and

Gates 2001; Florida 2005). "Knowledge workers", also called the "creative class," are employed in high-tech or creative industries, and cities have an interest in attracting this population (and the employment opportunities they bring). Scholars use the concentration of same-sex couples as an indicator of areas that would also be attractive to knowledge workers. In support of this practice, Anacker and Morrow-Jones (2005) found a positive relationship between the location of same-sex households and the population with a graduate degree, and Florida and Gates (2001) found the location of same-sex households was positively related to the number of new jobs. From this we can hypothesize that the neighborhood concentration of same-sex partner households will positively associate with the concentration of knowledge workers.

Scholars have also argued that irrespective of individual race and ethnicity, alternative households hold stronger preferences for racially diverse neighborhoods than traditional households (Florida and Gates 2001). Empirical results have been inconsistent; Florida and Gates (2001) found a positive association between gay concentration and ethnic diversity across cities, while Hayslett and Kane (2011) found no association at the neighborhood level after introducing control variables.

Gender Differences

Studies have consistently found that residential spatial patterns differ among gay and lesbian households (Castells 1983; Bell 1991; Bell and Valentine 1995; Rothenberg 1995; Black, Gates et al. 2002; Anacker and Morrow-Jones 2005; Hayslett and Kane 2011). Gay males are more likely to inhabit segregated neighborhoods and distinct gay territories, while lesbians tend to be more integrated or establish less visible neighborhoods. Some have argued this reflects differences in men's and women's need to establish territory and control space (Escoffier 1975; Castells 1983). Others have argued this reflects the lower economic status of women (Adler and

Brenner 1992; Bouthillette 1997). In addition, while lesbian partners are less likely to have

children than heterosexual partners, they are more likely to have children than gay male partners

(Black, Gates et al. 2000), and may therefore seek out child-friendly neighborhoods. For this

reason, I analyze male same-sex partners and female same-sex partners separately.

Hypotheses

Based on previous research of factors related to the distribution of gay and lesbian

households across and within places, there are five hypotheses for how place characteristics

relate to changes in segregation:

1. Density and Urbanization: Same-sex partner households prefer dense urban

neighborhoods because there is more diversity, anonymity, and general

acceptance of alternative lifestyles. Thus, segregation will decline more in places

with large populations and a preponderance of dense neighborhoods, compared to

places where the population is small and diffuse.

2. Violence and Social Hostility: Same-sex partner households concentrate

together when they must fear violence and social hostility. Thus, segregation will

decline more in places with fewer incidents of violence and social hostility

motivated by sexual orientation compared to places with frequent incidents of

violence and hostility.

3. Economic Status: Same-sex partner households use their greater disposable

incomes to locate in high-amenity neighborhoods, just as any household with the

same resources would do. Thus, segregation will decline more in places with less

economic segregation, compared to places where economic segregation is high.

8

4. Knowledge Workers/Cultural Amenities: Same-sex partner households and knowledge workers are attracted to similar types of neighborhoods that offer cultural and "adult" amenities. Thus, declines in segregation will be negatively associated with the concentration of knowledge workers.

5. Racial/Ethnic Diversity: Same-sex partner households have a preference to live in racially and ethnically diverse areas. Thus, segregation will be negatively related to the representation of racial and ethnic minorities.

6. Neighbor Preference/Historical Legacies: Same-sex partner households prefer to have gay and lesbian neighbors and/or they seek out neighborhoods that have historical reputations as gay enclaves. Thus, levels of segregation will remain stable over time after adjusting for alternative explanations.

Each hypothesis is tested separately for males and females, because male same-sex partners and female same-sex partners have different spatial distributions and may be differentially affected by contextual factors.

Data and Variables

The 2000 and 2010 U.S. Decennial Censuses are the main data sources for this study. In order to have consistent geography boundaries over time, I use 2010 Census Summary File 1 data in 2000 boundaries, provided by Geolytics Inc. (2010). Using consistent boundaries ensures that segregation did not change only because the boundaries of census tracts shifted over time. Both the 2000 and 2010 Census data provide counts of same-sex partner households at the census tract level. The Census does not ask sexual orientation directly. It identifies householders living with unmarried partners, and the sex of the householder and their partner.

The Census undercounts the homosexual population by not identifying gay and lesbian people without partners and those that do not reside with their partners. In addition, counts of same-sex partner households are likely underestimated because some homosexual people may be unwilling to identify themselves on the Census form. The accuracy of the 2000 and 2010 Census counts have been scrutinized, due to the complexity of counting same-sex partners who may or may not report being married. The Census Bureau recoded responses of "same-sex spouse" to "unmarried partner" (U.S. Census Bureau 2010). In addition, initial counts of same-sex partners in the 2000 and 2010 Census were higher than expected. The Census Bureau estimated as many as 28 percent of same-sex partners were likely to be opposite-sex partners who mismarked their gender or were miscoded during processing (O'Connell and Feliz 2011). The Census Bureau produced revised counts, using an index of names to re-estimate the number of same-sex couples, by using the sex commonly associated with the person's first name. The methodology behind the revised estimates was peer-reviewed by demographers and sociologists and found to be sound, and the revised counts are thought to be fairly accurate (O'Connell and Feliz, 2011). The Census Bureau provided the revised counts only at the state level. To obtain revised census tracts estimates, I follow a procedure outlined by Gates and Cooke (2012), which applies the state error rate to each census tract in both 2000 and 2010.

Unit of Analysis

Census-designated places are the units of analysis. Using census tract data, a segregation score is calculated for each place. Contextual characteristics, such as population density and housing values, are also assembled from census tract data and then summarize at the place level. Only places with a population larger than 100,000 and with a male (or female) same-sex household population larger than 100 (depending on which gender is being analyzed) are used in

order to ensure the area has a large enough homosexual population to conduct a reliable analysis. The resulting number of places analyzed is 103 for male same-sex partner households and 144 for female same-sex partner households.

It is important to remember throughout the study that places are the units of analysis. The questions at hand are at the place level, and ask what characteristics of a place are associated with the residential integration of same-sex partners. The analysis is motivated by the possibility that the place-wide culture and structure of opportunities creates an environment that promotes (or does not promote) integration. Inferences cannot be made at the neighborhood or individual level. Furthermore, this research cannot speak to the specific motivations of an individual household to live in a more or less integrated neighborhood.

Dependent Variable

The dependent variable is the 2010 segregation score of same-sex partner households from all other households. Segregation is measured with the index of dissimilarity. The index compares two groups, and the value represents the proportion needing to change residences (in this case, move into a census tract where they are underrepresented) in order to achieve an even distribution. The index ranges between zero and one hundred; values close to one hundred represent conditions of extreme segregation and values close to zero represent low segregation. The index is independent of the relative size of the two groups used in its computation, which is important in this study considering the smaller population of same-sex partner households compared to other households.

Independent Variables

Violence/social hostility is measured as the number of hate crimes motivated by sexual orientation in a year. Data on hate crimes is drawn from the FBI's Uniform Crime Reports for

the year 2000. The Uniform Crime Reports warn that some jurisdictions failed to report on hate crimes for all four quarters of the year. For this reason, the number of quarters the jurisdiction submitted a report (including a report of zero crimes) is included as a control variable. Places that did not submit any reports are dropped from the analysis entirely. The Uniform Crime Report data are at the city level and do not report on neighborhoods. Thus, the question that can be answered is whether cities with a high frequency of hate crimes (no matter which specific neighborhoods the crimes were located in) also have high segregation of same-sex partners. The Uniform Crime Reports and other researchers (Green, Strolovitch et al. 2001) have noted several weaknesses of hate crime data, including differences in enforcement and reporting practices across jurisdictions. Thus, results for hate crimes should be interpreted with caution.

Population size and density are drawn from the 2010 U.S. Decennial Census. Population size of the place is logged to adjust for the skew introduced by a few places with very large populations. Density of the place is measured as thousands of population per square mile. Economic status is measured with three variables drawn from the 2005-2009 American Community Survey 5-Year Estimates. The first variable is the median value of owner-occupied homes, in thousands of dollars. The second variable is median household income in the previous year for the population aged 16 years and older, in thousands of dollars. The third variable is the index of dissimilarity of the population in poverty from those who are above the poverty line. Knowledge workers are represented by college-degree holders. The percent of the population that holds a college degree (B.A., M.A., or Ph.D.) is calculated from the 2005-2009 American Community Survey 5-Year Estimates. Racial and ethnic diversity is measured with two variables drawn from the 2005-2009 American Community Survey 5-Year Estimates. The first is the percent of the population in the white, non-Hispanic racial/ethnic category. The second is

the index of dissimilarity of the white, non-Hispanic population from the racial/ethnic minority

population. In order to assess change in segregation and test the hypothesis of neighbor

preference/historical legacies, the 2000 segregation score of same-sex partner households from

all other households is included as an independent variable. The 2000 segregation score is also

measured with the index of dissimilarity. I also include region of the country (Northeast,

Midwest, South, and West) as a control variable, in order to account for the possibility that

segregation differs across regions.

Methods

First I calculate the index of dissimilarity of male same-sex partner households from all

other households, husband-wife unions, and heterosexual unmarried partner households in 2000

and 2010. The same is done for female same-sex partner households.

Second I perform a regression analysis predicting 2010 segregation scores with

contextual qualities of the place. A potentially endogenous relationship between the dependent

and independent variable is a concern for social hostility. One could argue that lower social

hostility towards homosexuals promotes residential integration, and at the same time, residential

integration promotes greater social acceptance of homosexual people. The second part of this

argument was already discussed with respect to the Contact Hypothesis. Endogeneity is not a

concern for other variables in the model. In all likelihood, levels of integration of same-sex

partners do not change the density of neighborhoods, the property values or average incomes in

neighborhoods, or the availability of cultural amenities (and thus the presence of knowledge

workers). Same-sex partners are not likely to move to a neighborhood and then build expensive

homes or cultural attractions; they move to neighborhoods because expensive homes and cultural

attractions are already available. To address endogeneity, I also estimated regression models

using the number of violent crimes as an instrumental variable for the number of hate crimes. However, results of the instrumental variables regression were very similar to the standard OLS model for same-sex male partners. The instrumental variables regression was also very similar to the standard OLS model for same-sex female partners, except that hate crimes (which is statistically significant in the OLS model) is not significant in the instrumental model. However, the Durbin-Wu-Hausman test of endogeneity indicates that hate crimes can be treated as an exogenous variable, rendering the instrumental variable analysis unnecessary. Thus, only the results of the standard OLS model are reported.

Results

Segregation of Same-Sex Partner Households, 2000-2010

Same-sex partners were generally less segregated in 2010 than in 2000, supporting the argument that urban gay enclaves are deconcentrating. Table 1 reports the mean of segregation scores in places in 2000 and 2010. The index of dissimilarity of male-male partner households from all other households averaged 37.9 in 2000 and 34.5 in 2010, a decline of 3.4 points. Seventy-five percent of the cities in the study experienced declining segregation of male partners from all other households. The segregation of male-male partner households from married couples also declined on average, from 43.8 to 42.3. From heterosexual unmarried partner households, segregation declined on average by 4.9 points, from 40.0 to 35.1. Female-female partner households are less segregated on average than male-male partner households, but the patterns of change are similar. The index of dissimilarity of female-female partner households from all other households declined on average by 3.4 points, from 25.4 to 22.0. Eighty-one percent of study cities experienced declining segregation of female partners from all other households. The segregation of female-female partner households from married couples

declined on average by 2.6 points. From heterosexual unmarried partner households, segregation declined on average by 2.3 points.

(Table 1 about here)

Table 2 reports the ten cities with the highest segregation of male-male partner households from all other households in 2000 and 2010. The most segregated cities changed somewhat over the decade, although several cities make the top ten list in both years. In 2000, Louisville, Kentucky; El Paso, Texas; and San Diego, California had the highest segregation. These remained the top three segregated cities in 2010 as well. Nevertheless, all experienced declines in segregation.

(Table 2 about here)

Table 3 lists the ten most rapidly deconcentrating cities for male same-sex households from all other households. The most rapidly deconcentrating cities are not necessarily those that started out with the highest segregation. The most rapid declines occurred in medium-sized cities such as Tacoma, Washington; where segregation declined by 40.7%; and Spring Valley, Nevada, where segregation declined by 35.1%.

(Table 3 about here)

The ten most segregated cities for female same-sex partners from all other households (Table 4) are led by Atlanta and San Francisco in 2000; and Boston and San Francisco in 2010. The list also includes some cities that also had high levels of segregation for male same-sex partners (refer back to Table 2), including San Diego, Oklahoma City, and Mobile. However, the level of segregation in these cities was less for female same-sex partners than for males. Boston stands out as the one city in the top ten lists where segregation increased between 2000 and 2010. In 2000, Boston was the fourth-most segregated city for female same-sex partners,

15

with an index of dissimilarity of 36.2. In 2010, Boston was the most segregated city for female same-sex partners, with an index of 39.7.

(Table 4 about here)

The most rapidly deconcentrating cities for female same-sex households (Table 5) are not cities that started out with the highest segregation. They are mostly medium-sized cities that started with average levels of segregation, including Irving, Texas (-49.2%), Little Rock, Arkansas (-47.2%), and Lakewood, Colorado (-43.65%).

(Table 5 about here)

Figure 1 depicts the distribution of the tract concentration index for same-sex male couples across all the places included in the study. The tract concentration index is calculated separately for males and females, and is the percent of households in the tract that are same-sex partners divided by the percent of households in the place as a whole that are same-sex partners. Thus, values of the concentration index that are over- (under-) one represent tracts where same-sex partners are over- (under-) represented compared to their representation in the place as a whole. The distribution of the tract concentration index contracted between 2000 and 2010, as indicated by the smaller standard deviation (1.18 in 2010 compared to 1.37 in 2000), and fewer data points at very low concentrations and very high concentrations. The same is true for same-sex female partners (Figure 2). The standard deviation of the concentration index across census tracts declined from 1.07 in 2000 to 0.72 in 2010, and there are fewer tracts at very high and very low concentrations. Comparing the distribution of the concentration index in 2000 and 2010 suggests that over time, there have been fewer neighborhoods at the extremes, and more neighborhoods have "average" concentrations of same-sex partner households.

16

Predicting Levels of Segregation with Contextual Qualities of the City

Table 6 reports the results of the OLS regression predicting the 2010 index of dissimilarity of male same-sex partner households from all other households. Model 1 estimates the qualities associated with higher levels of segregation in 2010. Model 2 estimates the qualities associated with changes in segregation, by controlling for levels of segregation in 2000.

(Table 6 about here)

According to the results for Model 1, segregation of same-sex male households from all other households in 2010 was greater in places that had large populations, and lower in places with a greater representation of people with a college degree. The coefficient for total population (logged) is 5.663 and is statistically significant ($p<0.001$), indicating that the index of dissimilarity increases as population increases. The coefficient for percent with a college degree is negative (-0.34) and statistically significant ($p<0.05$), indicating that the index of dissimilarity declines as the percent of the population with a college degree increases. These findings are consistent with the hypotheses that gay male partners are less segregated in more urban places and in places with more knowledge workers. The variables for social hostility, economic status, racial/ethnic diversity, and region of the country are not significant ($p>0.05$); indicating that these city qualities are not important determinants of the segregation of same-sex male partners from all other households.

Model 2 investigates qualities associated with changes in segregation of same-sex male partners from all other households between 2000 and 2010. Few variables are significant in this model, with the exception of racial/ethnic segregation. The coefficient for the index of dissimilarity for the non-Hispanic white population from all racial/ethnic minorities is positive (0.112) and statistically significant ($p<0.05$), indicating that segregation of same-sex male

17

partners increased in places with higher levels racial/ethnic segregation. The coefficient for the index of dissimilarity for same-sex male partners is also positive (0.702) and highly significant ($p<0.001$), indicating that historical segregation and/or the stability of preferences to live in gay enclaves affect current segregation.

Summarizing the results of the male regression, segregation of male same-sex partners in 2010 was higher in places with large populations, and lower in places where a larger percent of the population has college degrees. Segregation increased in places that have high levels of racial/ethnic segregation. Violence and social hostility, population density, and economic status, and knowledge workers have no effect on changes in levels of segregation over time. Previous level of segregation is a strong, positive predictor of current segregation.

Table 7 reports the results of the OLS regression predicting the segregation of female-female partner households from all other households in 2010. Model 1 indicates that segregation in 2010 was higher in places with more hate crimes motivated by sexual orientation. The coefficient for hate crimes indicates that each additional hate crime motivated by sexual orientation in 2010 was associated with a 0.108 increase in the index of dissimilarity (significant at $p<0.05$). Segregation was lower in places that had higher median incomes (the coefficient is -0.183, $p<0.01$), and less economic segregation, as indicated by the significant, negative coefficient for the index of dissimilarity of the poor from the non-poor. Contrary to the hypothesis for knowledge workers, the segregation of same-sex female households is actually greater in places with a larger share of knowledge workers (the coefficient is 0.259, $p<0.001$). In addition, segregation is greater in places with a smaller share of residents that are non-Hispanic white, indicating that segregation is not lower in places with greater racial/ethnic diversity as

18

hypothesized. Finally, segregation is lower for same-sex female partners in the South compared to places in the Northeast.

Model 2 predicts the change in segregation from 2000 to 2010 by controlling for levels of segregation in 2000. Segregation declined in places that had higher median incomes, indicated by the negative coefficient (-0.141, p<0.01), and in places with a high percentage of residents that are white, non-Hispanic (-0.074, p<0.028). Segregation increased in places with a greater representation of people with a college degree (the coefficient is 0.175, p<0.01). In addition, segregation declined more in the South, compared to in the Northeast. Segregation of same-sex female partners in the past is highly predictive of segregation in 2010, as the coefficient for the 2000 index of dissimilarity is positive (0.4) and highly significant (p<0.001).

(Table 7 about here)

To summarize the results for female same-sex partners, high levels of segregation in 2010 are associated with places that had more hate crimes motivated by sexual orientation, lower median incomes, greater segregation of the poor from the non-poor, a greater share of the population with college degrees, and a smaller share of the population that is white, non-Hispanic. Segregation in 2010 was also lower in places in the South compared to places in the Northeast. Declines in segregation between 2000 and 2010 were associated with higher median incomes, fewer shares of people with a college degree, and larger shares of the population that are white, non-Hispanic. Segregation of same-sex female partners declined more in the South compared to the Northeast. Consistent with the results for same-sex male partners, previous level of segregation is a strong, positive predictor of current segregation for same-sex female partners.

19

Findings and Implications

There is evidence that the deconcentration of urban gay enclaves is a wide-spread trend. On average, same-sex partners were less segregated in 2010 than in 2000. In addition, the share of neighborhoods that have very high or very low concentrations of same-sex partners declined from 2000 to 2010, and more neighborhoods had average concentrations. The overall deconcentration of urban gay enclaves has both positive and negative implications for the gay community. Deconcentration can be interpreted as a sign of greater equality and increased residential choices for same-sex partners. At the same time, urban gay enclaves may lose their identity and character, and the gay community may be rendered less visible. The integration of same-sex partners into more varied neighborhoods also has broad implications for society. Residential integration may increase social contact between homosexual and heterosexual households, which may promote social tolerance and reduce prejudice towards the other group.

The gender differences in this study support previous findings that male same-sex partners and female same-sex partners exhibit different geographical patterns and are affected by different contextual factors. Large cities, and cities with lower levels of education, are likely to have higher segregation of male same-sex partners, but not female same-sex partners. On the other hand, female same-sex partners are more affected by violence and social hostility, economic status, and racial/ethnic diversity.

This study also points to the continuing influence of historical segregation. The segregation of both male-male and female-female partners is positively influenced by past levels of segregation. This implies that cities with a history of segregation of same-sex couples will have more to overcome if they seek to create more integrated environments.

References

Adler, S. and J. Brenner (1992). "Gender and Space: Lesbians and Gay Men in the City."
International Journal of Urban and Regional Research 16: 24-34.

Aldrich, R. (2004). "Homosexuality and the City: An Historical Overview." Urban Studies 41(9):
1719-1737.

Allport, G. (1954). The Nature of Prejudice. New York, Addison Wesley.

Anacker, K. B. and H. A. Morrow-Jones (2005). "Neighborhood Factors Associated with Same-
Sex Households in U.S. Cities." Urban Geography 26(5): 385-409.

Badgett, M. V. L. (1995). "The Wage Effects of Sexual Orientation Discrimination." Industrial
and Labor Relations Review 48(4): 726-739.

Barth, J., L. M. Overby, et al. (2009). "Community Context, Personal Contact, and Support for
an Anti-Gay Rights Referendum." Political Research Quarterly 62(2): 355-365.

Bell, D. and G. Valentine (1995). Introduction: Orientations. Mapping Desire: Geographies of
Sexualities. D. Bell and G. Valentine. New York, NY, Routledge.

Bell, D. J. (1991). "Insignificant Others: Lesbian and Gay Geographies." Area 23(4): 323-329.

Black, D., G. Gates, et al. (2000). "Demographics of the Gay and Lesbian Population in the
United States: Evidence from Available Systematic Data Sources." Demography 37(2):
139-154.

Black, D., G. Gates, et al. (2002). "Why do gay men live in San Francisco?" Journal of Urban
Economics 51(1): 54-76.

Black, D. A., H. R. Makar, et al. (2003). "The Earning Effects of Sexual Orientation." Industrial
and Labor Relations Review 56(3): 449-469.

Blalock, H. M. (1967). Toward a Theory of Minority-Group Relations. New York, Wiley.

Bouthillette, A.-M. (1997). Queer and Gendered Housing: A Tale of Two Neighborhoods in

      Vancouver. <u>Queers in Space: Communities, Public Places, and Sites of Resistance</u>. G. B.

      Ingram, A.-M. Bouthillette and Y. Retter. Seattle, WA, Bay Press: 213-232.

Castells, M. (1983). <u>The City and the Grassroots: A Cross-Cultural Theory of Urban Social</u>

      <u>Movement</u>. Berkeley, CA, University of California Press.

Castells, M. (1997). <u>The Power of Identity</u>. Malden, MA, Blackwell.

Cooke, T. J. and M. Rapino (2007). "The Migration of Partnered Gays and Lesbians between

      1995 and 2000." <u>The Professional Geographer</u> 59(3): 285-297.

Dixon, J. C. (2006). "The Ties That Bind and Those That Don't: Toward Reconciling Group

      Threat and Contact Theories of Prejudice." <u>Social Forces</u> 84(4): 2179-2204.

Escoffier, J. (1975). "Stigmas, Work Environment, and Economic Discrimination Against

      Homosexuals." <u>Homosexual Counseling Journal</u> 2: 8-17.

Florida, R. and G. Gates (2001). Technology and Tolerance: The Importance of Diversity to

      High-Technology Growth. Washington, DC, The Brookings Institution, Center on Urban

      and Metropolitan Policy.

Florida, R. L. (2005). <u>Cities and the Creative Class</u>. New York, NY, Routledge.

Gates, G. J. and A. M. Cooke. (2012). "Census 2010 Snapshots." Retrieved May 30, 2012, from

      http://williamsinstitute.law.ucla.edu/.

GeoLytics Inc. (2010). Census of Population and Housing 2010, Summary File 1 in 2000

      Boundaries.

Ghaziani, A. (2010). "There Goes the Gayborhood?" <u>Contexts</u> 9(4): 64-66.

Green, D. P., D. Z. Strolovitch, et al. (2001). "Measuring Gay Populations and Antigay Hate

      Crime." <u>Social Science Quarterly</u> 82(2): 281-296.

Hayslett, K. L. and M. D. Kane (2011). ""Out" in Columbus: A Geospatial Analysis of the Neighborhood-Level Distribution of Gay and Lesbian Households." City & Community 10(2): 131-156.

Herek, G. M. and J. P. Capitanio (1996). ""Some of My Best Friends": Intergroup Contact, Concealable Stigma, and Heterosexuals' Attitudes Toward Gay Men and Lesbians." Personality and Social Psychology Bulletin 22(4): 412-424.

O'Connell, M. and S. Feliz (2011). Same-Sex Couple Household Statistics from the 2010 Census. Social, Economic and Housing Statistics Division Working Paper Number 2011-26. Washington, DC, U.S. Bureau of the Census.

Overby, L. M. and J. Barth (2002). "Contact, Community Context, and Public Attitudes Toward Gay Men and Lesbians." Polity 34: 433-456.

Pettigrew, T. F. (1998). "Intergroup Contact Theory." Annual Review of Psychology 49: 65-85.

Rothenberg, T. (1995). 'And She Told Two Friends': Lesbians Creating Urban Social Space. Mapping Desire: Geographies of Sexualities. D. Bell and G. Valentine. New York, NY, Routledge: 165-181.

U.S. Census Bureau (2000). Census of Population and Housing, 2000: Summary Tape File 3. Washington, DC, United States Department of Commerce.

U.S. Census Bureau (2009). American Community Survey: 5 Year Estimates, 2005-2009. Washington, DC, United States Department of Commerce.

Tables

Table 1: Segregation in 2000 and 2010 and Change in Segregation

| | Mean Index of Dissimilarity across Places | | Mean Change |
	2000	2010	2000-2010
Male-Male Partner Households			
From All Other Households	37.9	34.5	- 3.4
From Husband-Wife Households	43.8	42.3	- 1.5
From Male-Female Unmarried Partners	40.0	35.1	- 4.9
Female-Female Partner Households			
From All Other Households	25.4	22.0	- 3.4
From Husband-Wife Households	29.0	26.4	- 2.6
From Male-Female Unmarried Partners	26.1	23.8	- 2.3

Table 2: Top Ten Most Segregated Cities for Male-Male Partner Households from All Other Households

	2000			2010	
	City	Index of Dissimilarity		City	Index of Dissimilarity
1.	Louisville, KY	61.4	1.	San Diego, CA	52.2
2.	El Paso, TX	58.3	2.	Louisville, KY	52.2
3.	San Diego, CA	55.8	3.	El Paso, TX	52.0
4.	Oklahoma City, OK	55.4	4.	Birmingham, AL	51.4
5.	San Antonio, TX	52.0	5.	Mesa, AZ	49.2
6.	New Orleans, LA	51.1	6.	Philadelphia, PA	48.6
7.	Jacksonville, FL	49.6	7.	New York, NY	48.6
8.	Greensboro, NC	49.2	8.	San Jose, CA	47.9
9.	Mobile, AL	49.2	9.	Mobile, AL	47.4
10.	Fort Wayne, IN	49.0	10.	Winston-Salem, NC	46.9

Table 3: Top Ten Most Rapidly Deconcentrating Cities for Male-Male Partner Households

	City	% Change in Index of Dissimilarity from 2000 to 2010*
1.	Tacoma, WA	-40.74%
2.	Spring Valley, NV	-35.14%
3.	Greensboro, NC	-30.94%
4.	Grand Rapids, MI	-30.35%
5.	Lansing, MI	-30.15%
6.	Aurora, CO	-28.29%
7.	Lexington, KY	-27.92%
8.	Tulsa, OK	-27.80%
9.	Atlanta, GA	-27.26%
10.	Las Vegas, NV	-26.36%

*The index of dissimilarity is comparing male-male partner households to all other households

Table 4: Top Ten Most Segregated Cities for Female-Female Partner Households from All Other Households

	2000			2010	
	City	Index of Dissimilarity		City	Index of Dissimilarity
1.	Atlanta, GA	38.2	1.	Boston, MA	39.7
2.	San Francisco, CA	36.9	2.	San Francisco, CA	33.9
3.	San Diego, CA	36.4	3.	Cincinnati, OH	33.8
4.	Boston, MA	36.2	4.	San Diego, CA	33.8
5.	Oklahoma City, OK	35.3	5.	Atlanta, GA	31.8
6.	Orlando, FL	34.4	6.	Madison, WI	31.2
7.	Mobile, AL	33.6	7.	New Orleans, LA	31.2
8.	Cincinnati, OH	32.7	8.	Kansas City, MO	30.2
9.	Columbus, GA	32.6	9.	Inglewood, CA	30.2
10.	Kansas City, MO	32.4	10.	Columbus, OH	30.0

Table 5: Top Ten Most Rapidly Deconcentrating Cities for Female-Female Partner Households

	City	% Change in Index of Dissimilarity from 2000 to 2010*
1.	Irving, TX	-49.2%
2.	Little Rock, AR	-47.2%
3.	Lakewood, CO	-43.65%
4.	Orland, FL	-42.40%
5.	Sunrise Manor, NV	-41.99%
6.	Greensboro, NC	-41.45%
7.	Raleigh, NC	-39.36%
8.	Newport News, VA	-39.36%
9.	Columbus, GA	-37.91%
10.	Louisville, KY	-37.7%

*The index of dissimilarity is comparing female-female partner households to all other households

Table 6: OLS Regression Predicting 2010 Index of Dissimilarity for Male-Male Partner Households from All Other Households

|	Model 1: Segregation in 2010		Model 2: Change in Segregation, 2000-2010	
	Coef.	Std. Err.	Coef.	Std.Err.
Independent Variables				
Urbanization and Density				
Total population (logged), 2010	5.663***	(1.283)	1.601	(0.910)
Population density (in 1,000s per square mile), 2005-2009	-0.219	(0.320)	0.074	(0.208)
Social Hostility				
Hate Crimes Motivated by Sexual Orientation, 2010[a]	-0.039	(0.092)	-0.056	(0.059)
Number of Quarters Hate Crimes Reported, 2010	-0.456	(0.532)	-0.282	(0.344)
Economic Status				
Median home value (in 1,000s of dollars), 2005-2009	0.005	(0.011)	0.001	(0.007)
Median income (in 1,000s of dollars), 2005-2009	0.064	(0.133)	0.107	(0.086)
Index of Dissimilarity of the poor from non-poor,2005-2009				
Knowledge Workers				
Percent of population with college degrees, 2005-2009	-0.340*	(0.138)	-0.174	(0.090)
Racial/Ethnic Diversity				
Percent of population that is white, non-Hispanic, 2005-2009	-0.042	(0.067)	-0.062	(0.043)
Index of dissimilarity of white, non-Hispanic population from minority population, 2005-2009	0.114	(0.075)	0.112*	(0.049)
Region (referent=Northeast)				
Midwest	-0.820	(2.576)	-1.369	(1.663)
South	-1.844	(2.766)	-2.950	(1.787)
West	-3.878	(3.419)	-1.664	(2.215)
Historical Segregation				
Index of Dissimilarity, 2000			0.702***	(0.066)
Constant	-35.194*	(15.535)	-14.238	(10.211)
Adjusted R^2	0.4566		0.774	

*p < 0.05; **p< 0.01; ***p < 0.001

Table 7: OLS Regression Predicting 2010 Index of Dissimilarity for Female-Female Partner Households from All Other Households

	Model 1: Segregation in 2010		Model 2: Change in Segregation, 2000-2010	
	Coef.	Std. Err.	Coef.	Std.Err.
Independent Variables				
Urbanization and Density				
Total population (logged), 2010	0.342	(0.662)	0.113	(0.600)
Population density (in 1,000s per square mile), 2005-2009	-0.255	(0.167)	-0.134	(0.153)
Social Hostility				
Hate Crimes Motivated by Sexual Orientation, 2010	0.108*	(0.053)	0.080	(0.048)
Number of Quarters Hate Crimes Reported, 2010	-0.314	(0.317)	-0.217	(0.287)
Economic Status				
Median home value (in 1,000s of dollars), 2005-2009	0.010	(0.005)	0.008	(0.005)
Median income (in 1,000s of dollars), 2005-2009	-0.183**	(0.053)	-0.141**	(0.048)
Index of Dissimilarity of the poor from non-poor,2005-2009	0.154*	(0.074)	0.110	(0.068)
Knowledge Workers				
Percent of population with college degrees, 2005-2009	0.259***	(0.068)	0.175**	(0.064)
Racial/Ethnic Diversity				
Percent of population that is white, non-Hispanic, 2005-2009	-0.076*	(0.030)	-0.074**	(0.028)
Index of dissimilarity of white, non-Hispanic population from minority population, 2005-2009	0.007	(0.039)	-0.013	(0.035)
Region (referent=Northeast)				
Midwest	1.450	(1.420)	1.053	(1.286)
South	-3.333*	(1.470)	-3.461*	(1.328)
West	-2.742	(1.604)	-2.147	(1.455)
Historical Segregation				
Index of Dissimilarity, 2000			0.400***	(0.077)
Constant	21.556*	(8.175)	15.478*	(7.481)
Adjusted R^2				

*p < 0.05; **p< 0.01; ***p < 0.001

Figure 1: Distribution of Tract Concentration Index for Male-Male Partners, 2000-2010
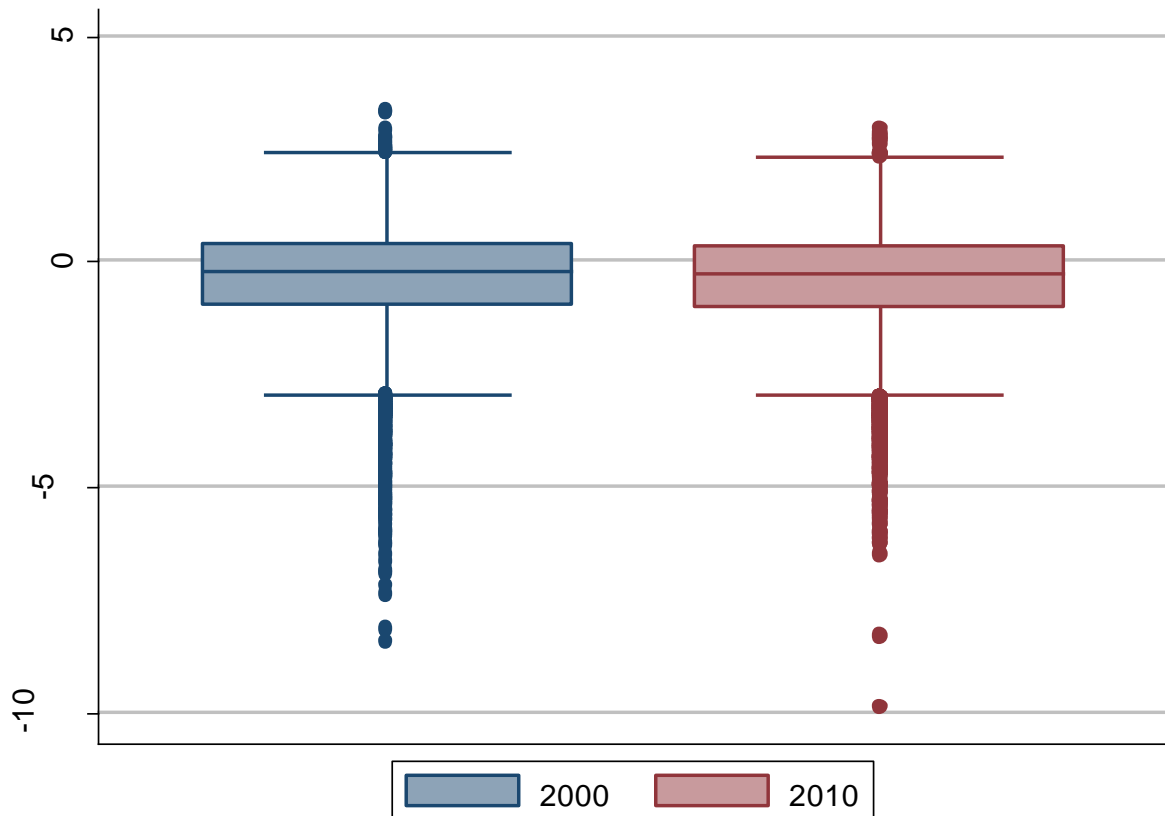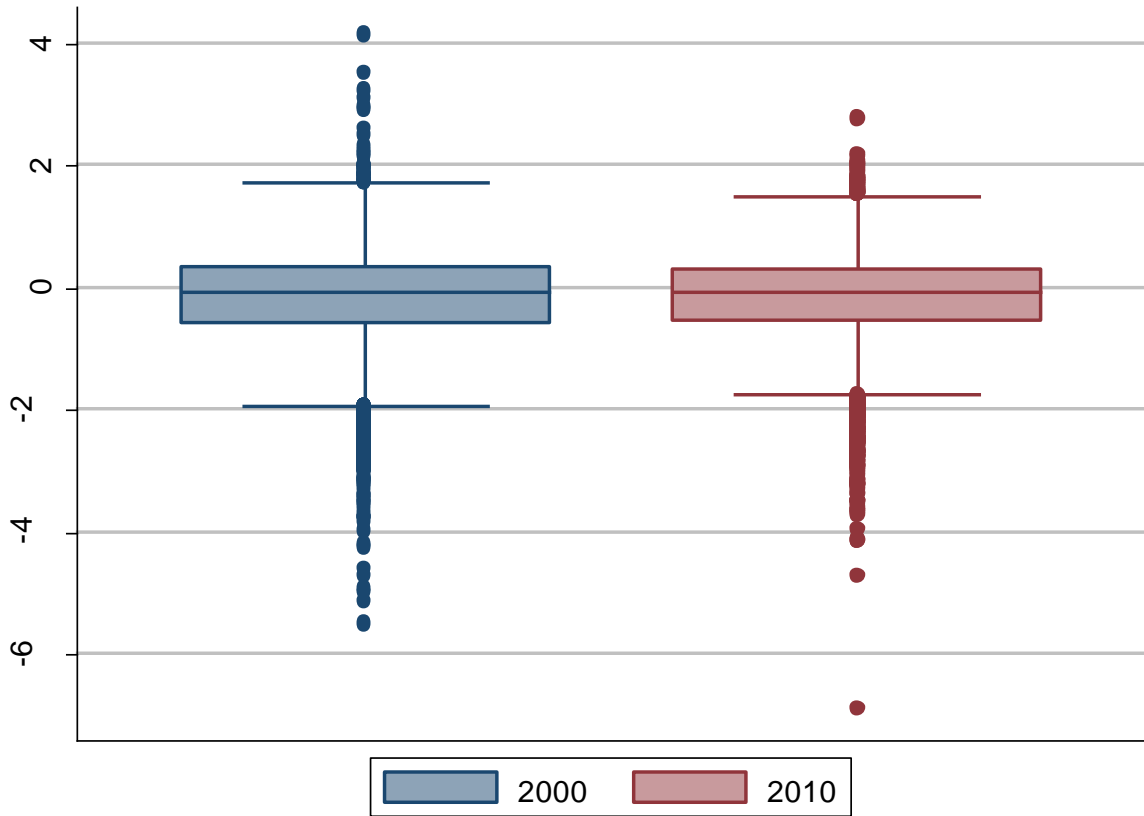

2000 Mean concentration: 0.97, Standard Deviation: 1.37, Minimum: 0, Maximum: 28.51
2010 Mean concentration: 0.94, Standard Deviation: 1.18, Minimum: 0, Maximum: 18.98

Note: The Concentration Index equals the percent of households in the tract that are same-sex male partners divided by the percent of households in the place as a whole that are same-sex male partners. The Concentration Index is logged for graphical representation.

Figure 2: Distribution of Tract Concentration Index for Female-Female Partners, 2000-2010

2000 Mean Concentration: 1.02, Standard Deviation: 1.07, Minimum: 0, Maximum: 64.5
2010 Mean Concentration: 0.98, Standard Deviation: 0.72, Minimum: 0, Maximum: 16.35

Note: The Concentration Index equals the percent of households in the tract that are same-sex female partners divided by the percent of households in the place as a whole that are same-sex female partners. The Concentration Index is logged for graphical representation.