Literature Survey – Do Gays Influence Property Values?

Introduction

This literature survey begins with an exploration of Richard Florida and Gary Gates’ (2001) work in creating what they call the “Gay Index”, an index that shows the relationship between high-tech cities and their concentrations of gay inhabitants. It then discusses the findings of a study carried out by Florida and Charlotta Mellander (2009) that details the relationship between their “Bohemian-Gay Index” and regional property values. Finally, this survey summarizes the work of David Christafore and Susane Leguizamon (2011) in their study of the influence of gay and lesbian couples on house prices in liberal and conservative neighborhoods of Columbus, OH. Through these three studies this survey establishes that gay populations do affect property prices and through a variety of methods (Florida and Gates 2001, Florida and Mellander 2009, Christafore and Leguizamon 2011) thus setting the grounds for further research on this topic.

The “Gay Index”

Florida and Gates’ (2001) “Gay Index” presents a method for measuring populations of gay male couples in metropolitan areas. In creating this index, Florida and Gates (2001) collected data of males who identified themselves as “same sex unmarried partners” on the 1990 U.S. Census. They then ranked each city according to this count to create the Gay Index. They examined the Gay Index’s relationship with high-tech cities finding it to be positive and significant. That is to say, cities ranked highly on the Milken Institute’s “Tech-Pole Index” also ranked rather highly on the Gay Index. They define the Tech-Pole Index as a measure of the concentration and growth of high-technology industries. Conversely, cities that ranked at the bottom of the Tech-Pole Index also ranked quite poorly on the Gay Index (Florida and Gates 2001). They claim that these highly ranked regions were also shown to have low barriers to entry for human capital due to their open and accepting nature, a trait that is crucial for “technology-based” growth. Furthermore, where there is growth there is almost certainly increases in cost of living. In fact, these gay “urban pioneers” have been found to have “substantial positive effects” on property values (Florida and Mellander 2009), thus putting forward the theory that gays are “harbingers of redevelopment and gentrification” (Florida and Gates 2001).

Gay Gentrification
Florida furthers his claims of gay gentrification and increasing property values in his empirical study with Mellander (2009). They suggest that gays increase property values in two methods. First, they claim that gays and bohemians produce amenities by trade, attract talent, and appreciate authenticity and aesthetics, thus the neighborhoods in which they live demand a premium (Florida and Mellander 2009, Christafore and Leguizamon 2011, Florida and Gates 2001). The second argument they make is that bohemians and gays “reflect a tolerance or open culture premium” (Florida and Mellander 2009, Florida and Gates 2001). This promotes the generation of ideas and entrepreneurship, which in turn influence incomes and thus home values. Florida and Mellander (2009) relate regional income, regional amenities, and regional openness to regional housing values. Therefore if there is an increase in any of these variables housing values increase.

**Is there empirical evidence of gay influences on property values?**

Florida and Mellander (2009) began their empirical test by creating a model that examined the direct and indirect relationships between certain variables and housing value. The variables they used included median housing value, income, wages, technology, human capital, creative class (creative occupational groups), the Bohemian-Gay Index (similar to the Gay Index but includes “bohemian” artists, such as Durham’s “foodies”), population, changes in income per capita 1990-2000, change in employed civilian population 1990-2000, annual patent growth 1975-2000, and other control variables (to control regional size and development level). Using structural equation models (SEM) and ordinary least squares regression, Florida and Mellander (2009) were first able to create a correlation matrix for all of the variables they tested. Structural equation models are essentially “an extension of regression analysis and factor analysis” based on variances and co-variances that show the interrelationship between variables (Florida and Mellander, 2009). According to them, this method eliminates multicollinearity. Ordinary least squares regression is a linear model that shows the response of a variable based on one or multiple explanatory variables (Hutcheson, 2011). Florida and Mellander (2009) then produced scatter plots of housing versus certain variables and proceeded to present path models detailing their findings. They reported that the highest correlation coefficient that they had calculated was between income and housing at 0.747. Not far behind, they note, was the Bohemian-Gay Index with a correlation coefficient of 0.731. They also found that the scatter plots for the income vs. housing value and Bohemian-Gay Index vs. housing value behaved similarly. Based on calculated variance inflation values they concluded that the Bohemian-Gay Index was independent of income. Florida and Mellander (2009) provided other permutations of their path
analyses using the SEM method and the Bohemian-Gay Index performed strongly in all of them. They also ran the SEM dividing it into four region sizes based on population, finding the index to be positive and significant for all sizes but one. Overall, they concluded that a relationship exists between gays and bohemians and housing values (also confirmed by Christafore and Leguizamon in 2011). But is this relationship always positive?

Do gays always have a positive influence on property values?

Christafore and Leguizamon (2011) took Florida and Mellander's (2009) findings to the next level by exploring how gay and lesbian couples affected house prices in liberal and conservative areas of Columbus, Ohio. They had hypothesized that liberal areas would not discriminate against gay couples while conservative areas would discriminate in terms of house values. Adopting the practices of studies that have used the hedonic pricing model to explore racial discrimination in the housing market, Christafore and Leguizamon (2011) used a similar method to calculate the influence of LGBT discrimination on home prices. However, instead of a variable that denoted race, they introduced a sexual orientation variable into a spatial autoregressive hedonic price model to measure its relationship with home prices. They note that they used this model to take into account that house prices are related due to their spatial proximity. This dependent variable vector of home prices was multiplied by an $n \times n$ weight matrix to represent the special relationship in prices. A one was placed in the matrix if two houses were neighbors. They then divided all non-zero numbers across each row to create the matrix. Christafore and Leguizamon (2011) also introduced an independent variable of the average house prices of neighboring houses to control for this interrelationship.

Data were still needed to measure the liberalness and conservativeness of an area even after obtaining sexual orientation and property transaction data. This was found by using voting results for the Defense of Marriage Act divided into county subdivisions (Christafore and Leguizamon 2011). They assumed those subdivisions that had a majority vote in favor of DOMA were socially conservative, and those that did not were socially liberal. Because the act concerned LGBT couples, Christafore and Leguizamon (2011) felt that it would a safe measure of who would discriminate against gay couples and who would not. They note that the other variables included in the model concerned housing characteristics (i.e. home size, number of bedrooms, number of bathrooms, lot size etc) and they were placed into a matrix, $X$. 
Christafore and Leguizamon (2011) first ran an OLS regression and obtained results that they had expected: the coefficient for the same sex couple variable and house value was positive and significant, as Florida and Mellander (2009) had suggested. However, they found the coefficient on the “interaction term” of conservative subdivisions and number of gay couples versus housing values to be negative and significant. This provided “evidence of prejudice in socially conservative neighborhoods” (Christafore and Leguizamon 2011). To calculate the “marginal associated effect” of adding one more gay couple to a neighborhood they added the coefficient of the gay couples variable and the coefficient of the interaction term (gay couples and conservative area) and multiplied this value by the percent DOMA vote. They found that in the addition of 1 gay couple to every 1000 households there would be a positive increase of 1.1% in housing values in extremely liberal areas (areas with a percent DOMA vote of around 31%). For an extremely conservative area they reported the opposite: an area with a DOMA vote of 84% would experience a *drop* of 1% in home values if 1 gay couple were to be added for every 1000 households. It must be considered, however, that gay populations bring with them amenities that positively affect home values (Christafore and Leguizamon 2011, Florida and Mellander 2009, Florida and Gates 2001). Christafore and Leguizamon (2011) suggest that the prejudice might be *greater* than perceived in this research due to this positive amenity affect. In other words, the depression of house prices in conservative areas might be slightly relieved by the premium of extra amenities brought into the neighborhood by gay couples. The same could be said for ultra liberal areas; that some of the increase in value might be due to the positive amenities a gay household brings into the neighborhood. The numbers were also run representing only gay male households and another time representing only lesbian households (Christafore and Leguizamon 2011). They discovered only gay male households to produce “significant coefficients” representing impact on house prices; lesbian households did not. Overall, they found that homosexual couples did impact neighborhoods’ house values both positively and negatively.

**Conclusion**

This literature survey explores influence of gay populations on property values. Using research by Gates and Florida (2002) it was established that gays attract high-tech industries and talent and also gentrify areas. This, in theory, would be a phenomenon that would cause property values to rise. This claim was then empirically tested by Florida and Mellander (2009), who found there to be a strong positive correlation between a “Bohemian-Gay Index” and housing values, suggesting that
gay populations do affect these values (Christafore and Leguizamon (2011) confirmed this). The Christafore and Leguizamon (2011) study delved a bit deeper and explored gay couple's influences on property values in both conservative and liberal neighborhoods. They found that gay couples cause property values to increase in liberal neighborhoods and decrease in conservative neighborhoods. They also found gay male couples to be the driving force behind this phenomenon.

There is evidence to show that gay populations bring to their neighborhoods amenities and also demand them (Florida and Gates 2001, Florida and Mellander 2009, Christafore and Leguizamon 2011). It would be interesting to explore what these amenities are and how they are valued. Perhaps it would then be possible to determine values for these premiums. It might also be worthwhile to parallel some of the articles on the reading list about racial discrimination in urban economics and LGBT discrimination. Perhaps there is a model used to evaluate racial discrimination that could be applied in the LGBT context as done in the Christafore and Leguizamon (2011) study. It may be a challenge, however, to collect data on LGBT populations. I would also like to find out if a gay population has ever priced itself out of a neighborhood; that is to say has a gay population gentrified a neighborhood so much to the point that it becomes unaffordable for the original gay population to live in? This phenomenon may by occurring in the Cedar Springs Road area of Dallas. Some gay residents are beginning to move to more affordable yet still artsy Oak Cliff, an area just south of downtown Dallas, due to the gentrification near Cedar Springs Road (Dallas’ gay “strip”). I was just in Dallas recently and noticed a lot of multistory apartment complexes being built in this area. I imagine that rents will be rising if they have not already. I will have to do further research to see if these sorts of papers are feasible. It would be hard to do any research without a reliable data set.
References


