Immigrants and social distance: Examining the social consequences of immigration for Southern California neighborhoods over 50 years

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October 17, 2011

Post-print. Published in ANNALS of the American Academy of Political and Social Science (2012) 641(1): 192-219. Definitive version available here:

http://ann.sagepub.com/content/641/1/192.abstract

Word count (not including references): 8,567

Word count (including references): 9,746

Running Head: "Immigrants and social distance"

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Abstract

This project studied the effect of immigrant in-mobility on the trajectory of socio-economic change in neighborhoods. We suggest that immigrant inflows may impact neighborhoods due to the consequences of residential mobility and the extent these new residents differ from the current residents. We use southern California over a nearly 50-year period (1960 to 2007) as a case study to explore the short- and long- term impact of these changes. We find no evidence that immigrant inflow has negative consequences for home values, unemployment, or vacancies over this long period of time. Instead, we find that a novel measure that we develop—a general measure of social distance--is much better at explaining the change in the economic conditions of these neighborhoods. Tracts with higher levels of social distance experienced a larger increase in the vacancy rate over the decade. The effect of social distance on home values changed over the study period: whereas social distance decreased home values during the 1960's, this completely reversed into a positive effect by the 2000's.

Keywords: immigrants, neighborhoods, social distance, home values, disorder, residential mobility

Bio

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Immigrants and social distance: Examining the social consequences of immigration for Southern California neighborhoods over 50 years

Given the extensive influx of immigrants into the U.S. over the course of its history, it is natural to ask whether this influx of immigrants has consequences for neighborhoods? Scholars have documented a clustering pattern in which immigrants tend to settle into particular neighborhoods, as well as the actual location of these clusters (Alba, Denton, Leung, and Logan 1995; Alba, Logan, Stults, Marzan, and Zhang 1999; Logan, Alba, and Zhang 2002; South, Crowder, and Chavez 2005a). However, the more general question is whether an immigrant influx has some deleterious consequences for a neighborhood over time, or actually has positive consequences. While assessing the quality of a neighborhood is not an easy task, scholars have suggested some features that make a neighborhood more desirable than others, including the physical characteristics, a lack of physical disorder, lower crime rates, and a robust economic environment (Adams 1992; Hipp 2009; Woldoff 2002). More desirable neighborhoods as a consequence of these features will usually also have higher land values (Gibbons and Machin 2003; Troy and Grove 2008), suggesting that higher land values are one potential proxy for the desirability of a neighborhood.

In what follows, we begin by discussing how immigrant inflow might matter for a neighborhood. Using the neighborhood literature as our lens, we argue that any residential inflow to a neighborhood potentially affects two dimensions: 1) general residential instability; and 2) the demographic and cultural composition (what we will refer to as *social distance*) (Poole 1927). Immigrants, just as is the case with other migrants to a neighborhood, will affect a neighborhood through one of these two possible processes. Following that, we explore how the

influx of immigrants and social distance within the neighborhood may have both short- and long-term consequences for neighborhoods. Whereas short-term effects can be considered those that occur over a few years, long-term effects are those that capture a less ephemeral change to the neighborhood, and thus extend 10 or 20 years. We then describe our study site of neighborhoods in Southern California over the 1960 to 2007 period, and the data we use to explore these questions. After presenting the results, we close with a consideration of the implications of the findings.

The findings are over this nearly 50-year period show minimal evidence that an immigrant influx has negative consequences for a neighborhood. There is little evidence that an increase in immigrants decreases home values, and such an influx actually *decreases* unemployment rates. There is some evidence that neighborhoods with more immigrants experience more vacancies over time, which may reflect preferences in response to such inflow. Importantly, we find that a novel measure of social distance is a much stronger predictor of the economic changes in these neighborhoods. It appears that general social distance among residents on several economic and demographic characteristics is more important for explaining neighborhood change than is immigrant inflow.

Considering neighborhood change: Residential instability

The simple movement in and out of a neighborhood by households creates residential instability. This instability via residential mobility occurs regardless whether the new household's residents moved within the same metropolitan region, moved from another metropolitan area within the same country, or immigrated from another country. Neighborhood scholars routinely focus on instability because it can have implications for the social ties among residents. For example, residents who have shared a longer period of time in the neighborhood

have a greater likelihood of striking up a friendship (Caplow and Forman 1950; Festinger, Schachter, and Back 1950). In contrast, a person who has lived a long time in a neighborhood, but in which the other housing units are experiencing constant turnover, will be less likely to have established social ties with their neighbors. Thus, network scholars refer to propinquity as the physical closeness of persons, and how it increases the likelihood of interaction. And greater shared time in the neighborhood increases the chances of developing social ties (Hipp and Perrin 2009).

Social ties are important for numerous reasons. For example, such ties can increase residents' sense of attachment and satisfaction to the neighborhood (Hipp and Perrin 2006; Kasarda and Janowitz 1974; Sampson 1988; Sampson 1991). These ties can also increase willingness to engage in activities that might improve the neighborhood (Freudenburg 1986; Sampson, Raudenbush, and Earls 1997), and reduce the desire to move out of the neighborhood at the first sign of trouble (Clark and Ledwith 2006; Parkes and Kearns 2003). In the criminology literature, this sense of cohesion and attachment is posited to reduce the level of crime in the neighborhood through residents' willingness to engage in informal social control (Sampson, Raudenbush, and Earls 1997; Silver and Miller 2004; Warner 2007). As a consequence, neighborhoods in which immigrants are entering may either have higher levels of residential instability, or at least foster a perception that they have more residential instability.

On the other hand, residential mobility, at least in small doses, might also have positive implications for neighborhoods through its effect on social ties. That is, residential mobility does not necessarily extinguish the social ties that were formed through co-membership in the neighborhood: in some instances, the ties will be maintained, and the consequence will be more spatially disbursed social networks for the residents of a neighborhood. Given that more

disbursed social networks allow residents to gain resources from the larger community, what Albert Hunter (1995) termed public control, these ties may help in combating crime and disorder in the neighborhood. Thus, one mechanism through which immigration can affect neighborhoods is the extent to which it impacts the residential turnover of the neighborhood.

Who is moving in?

While residential mobility can increase the level of residential instability in a neighborhood, this mobility can also change the *composition* of the neighborhood if the new households moving in differ in some fashion from those already there. In such instances, the demographic composition of the neighborhood can change. To the extent that the new residents have *similar* demographic and compositional characteristics, mobility could potentially lead to increases in the ties among residents within the unit. On the other hand, there will be change if the new households differ from the existing ones. For example, if the new households moving in are of a different socio-economic status—either higher or lower—this will change the level of economic resources in the neighborhood. If the new households moving in are at a different stage in the life course, this will change the demographic composition of the neighborhood. Or, if the new households moving in are young couples with children, and they are replacing elderly households with no children present, the characteristics of the neighborhood will be changed. Another important dimension in a number of societies is the skin color of the new residents moving in. To the extent that this differs between the new residents and those leaving, this will change the racial/ethnic composition of the neighborhood. Similarly, if the new residents are from a notably different culture compared to the residents currently living in the neighborhood, this will also change the culture of the neighborhood.

All of these differences between residents along various social categories create *social distance,* or what is sometimes referred to as "Blau-space" (McPherson and Ranger-Moore 1991) (Mayhew, McPherson, Rotolo, and Smith-Lovin 1995). That is, the more social dimensions households within the neighborhood differ on, the more social distance between them (Hipp 2010a). One possible consequence of social distance is that it can affect the likelihood of social interaction among residents, which is important given the salience of networks to neighborhood research. Another possibility is that social distance can affect residents' *perceptions* about the neighborhood. As one example, Hipp (2010a) showed that social distance among the residents of micro-neighborhoods affected the level of perceived crime and disorder.

In instances in which the new residents differ from those leaving the neighborhood, there will be a change in the socio-demographic or cultural characteristics of the neighborhood. In the short-term, the consequence will be a neighborhood with heterogeneity on whatever dimension is changing. For example, if the new residents have a considerably different SES, the level of economic inequality will increase in the neighborhood. As a second example, if the new residents differ on race/ethnicity, the level of racial/ethnic heterogeneity in the neighborhood will increase. These are short-term effects. If this pattern continues unabated, the result will be a transition of the neighborhood from one homogeneous state to another: in the first example, it might transition from a homogeneous neighborhood of low income residents to a one of all higher income residents (as a consequence of gentrification). Or in the second example, it might transition from a homogeneous all-white neighborhood to one composed almost entirely of all racial/ethnic minorities (as a consequence of white flight). During the period of change--whether this requires a few months, or many years–there will be an increase in social distance. If this transition continues unabated, this will lead to a new equilibrium with low social distance.

The short-term state of the neighborhood of high heterogeneity is of much interest to neighborhood scholars. During this state, one might suspect that the neighborhood will become socially fractured. Social ties might be less likely to form, and thereby there will be few bridges across this social barrier. While these differences may create animosity between members of the different groups, this difference between the groups may in fact strengthen ties within the groups to further fissure the neighborhood. It is an open question whether such social distance could be bridged if the neighborhood were to remain at this level of heterogeneity rather than continuing to transition.

Social distance and immigration

Although immigrants moving into a neighborhood can affect the level of residential instability, arguably far more consequential is the fact that they will change the socio-demographic and cultural composition of the neighborhood. If immigrants differ on a number of dimensions from the current residents, immigrants will affect the level of social distance among residents and social interaction across groups may be less likely. In some instances the social distance can be quite notable. For example, social distance is created and maintained to the extent that immigrants come from a culture that has norms and values that differ from those of the dominant culture of the neighborhood. These cultural differences can lead to considerable social distance between the groups because it can limit social interaction and often brings about mistrust and misunderstandings. There can also be religious differences between the immigrants and the existing residents. Again, this can lead to social distance, especially to the extent that the differing religions lead to proscriptions that inhibit interaction for various reasons (Yang and Ebaugh 2001).

Language differences between immigrants and existing residents can also impact social distance. If the immigrants have limited ability to speak English (in the U.S. context), their ability to communicate with the existing population will be considerably reduced, and thus lead to social distance between the groups. To the extent that immigrants communicate with one another in their native language, the existing population can also see this as an exclusionary tactic that further creates social distance and mistrust.

Social economic differences between immigrants and the existing residents may also be important if immigrants have limited access to neighborhoods and they are forced to settle in a neighborhood whose residents have lower incomes than their own. Yet oftentimes this will not occur because households tend to move into neighborhoods that they can afford. Nonetheless, it is also possible that among the immigrants themselves there will be economic differences, which can lead to social distance (Beynon 1936). There may also be systematic differences in employment opportunities between the immigrating group and the established residents that leads to social distance (Aponte 1996; Light, Bernard, and Kim 1999).

Earlier we suggested that differences between residents might lead to social distance based on perceived differences due to skin color, and accordingly there can be differences in skin color between immigrants and the existing residents. Such racial/ethnic differences are important in many societies for restraining social interactions among residents, and thereby lead to a sense of social distance on the part of immigrants (Portes 1984). While these differences might lead to outright racism and limitations on where immigrants can reside, it can also impact residents' perceptions of these new migrants and what effect they might have on neighborhood crime and disorder (Sampson and Raudenbush 2004).

Long-term consequences

Up to this point, we have been discussing the short-term consequences for a neighborhood when immigrants move in. Although in the short-run this can lead to considerable social distance in the neighborhood, with further immigration a neighborhood will hit a point of maximum heterogeneity based on some particular dimension at which point subsequent immigration will begin increasing homogeneity. In the long term, continued immigration would result in the neighborhood transitioning to a new equilibrium in which most of the residents are immigrants and therefore have little social distance among them.

As the immigrant presence in a neighborhood increases, the institutions that serve immigrants will also begin to emerge in the neighborhood. Thus, churches, restaurants, grocery stores, and other such amenities that cater particularly to the immigrant group will emerge. As these institutions proliferate, the neighborhood will transition into one with the sort of "institutional completeness" (Breton 1964) that allows immigrants to spend all of their time within the neighborhood. This allows immigrant residents to conduct all of their activities within the enclave (Wilson and Portes 1980).

Is there any reason to think that a high immigrant concentration would have negative consequences for the neighborhood in the long-term? Although constructing such scenarios may seem somewhat farfetched, one argument is a compositional effect: immigrant residents are simply less committed to the neighborhood on average than is the native population. This effect might occur if the immigrant group is unable to succeed economically within the U.S. economy. In this case, the economic resources in the neighborhood would dwindle, and this would affect the ability of the residents to maintain their residences through routine upkeep. Or this might occur if the immigrant members for some reason had a limited attachment to their neighborhood and therefore did not feel a commitment to maintaining it. Both of these scenarios seem rather

unlikely given that there is often a strong selection effect in which those migrating have particular skills that help them economically. Furthermore, immigrants often have a strong motivation to be successful, and therefore will be just as, if not more, committed to fostering a desirable neighborhood as would the native population. In some instances, certain immigrants might be quite economically *successful*, and the neighborhood would then be improved by such an influx.

Another possible scenario that might lead to negative consequences for the neighborhood would be if, in the name of institutional completeness, the immigrant neighborhood was successful in completely isolating itself from the larger community. This implies a neighborhood with a high degree of social interaction within it, but very few social ties to the broader community. As we highlighted earlier, ties to the broader community may help to garner resources for the local area and are important for achieving what Albert Hunter (1995) referred to as public control. As such, isolation would have negative consequences for the neighborhood because its resources to address various neighborhood problems are contained only within the unit. Nonetheless, an important consequence of established immigrant communities is that such households have children, and those children grow up. These second generation (or sometimes, 1.5 generation) members may then assimilate to varying degrees with the new country (Alba, Logan, and Stults 2000; Logan, Stults, and Farley 2004; South, Crowder, and Chavez 2005b). It is rarely the case that such later generations continue to live in the same neighborhoods and maintain the same level of isolation from the broader society that the first generation maintains. As a consequence, in the long-term we typically will observe a transition of the neighborhood's degree of isolation. Accordingly, the mobility of the younger generation

out of the neighborhood may be one mechanism that brings social ties from the broader community.

In fact, it is an open question of what happens to the neighborhood as the younger generation matures: one pattern commonly observed in immigrant neighborhoods of cities in the eastern United States was the exodus of the second generation to other locations. As a consequence, the neighborhood would eventually transition as the first generation aged out. Oftentimes that transition resulted in a new immigrant group moving into the neighborhood. In such instances, we might consider the relative constancy of the neighborhood in an abstract sense—it remains an immigrant neighborhood that is isolated from the larger community (and occasionally endures these transitions in which the demographic character of the neighborhood changes from one group as predominant to another group as predominant). Thus, the particulars of the change from one immigrant group to another are subsumed by the constancy of the immigrant nature of the population: indeed, this is precisely what was observed by the early Chicago School scholars (Shaw and McKay 1942).

In what follows, we first assess the effect of immigrant inflow on general residential instability. Following that, we explore immigrant influx by examining where immigrants are moving. We then view the relationship between immigrant influx and social distance in the neighborhood—using a general social distance measure, as well as assessing social distance along several dimensions separately. Finally, we ask what effect immigrant inflow has on the change in three measures of neighborhood quality, and compare this effect with our more general measure of social distance.

Southern California as an example case

We focus on the southern California region as an interesting case study because it is a major immigrant destination (Alba, Logan, and Stults 2000; Logan, Alba, and Zhang 2002). It has experienced a large inflow of immigrants: in 1960 the average census tract in the region was 8.2% immigrants and this increased slightly to 9.2% in 1970. However, a large burst has occurred since then, nearly doubling to 17.3% in 1980, rising to 25% in 1990, and reaching about 30% currently. We use Census data for tracts over a nearly 50 year period (1960, 1970, 1980, 1990, 2000, 2007) from seven counties in Southern California (Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura).[1] We use tracts given that their boundaries can be reconciled over this period of time. We placed all tract data into 2000 tract boundaries (there were 4,006 tracts with useable data in 2000). Given that we do not have information on one of our key measures in 1980 (new immigrants that arrived during that decade), we are limited to estimating models over four decades: 1) 1960-1970; 2) 1980-1990; 3) 1990-2000; 4) 2000-2007.

Proxies for neighborhood desirability

Neighborhood quality is a difficult concept to measure, and therefore we constructed three different proxies. One measure that is sometimes used is the average home value in a neighborhood: to the extent that the desirability of neighborhoods is captured in land values, then home values will be a reasonable proxy. Of course, home values represent both the quality of the housing as well as the land value. In principle, if one could control for the quality of the housing, then what remains is a measure of the value of the land (for examples, see Gibbons 2004; Gibbons and Machin 2003; Hipp, Tita, and Greenbaum 2009). Another way to account for

[1] We refer to the last time point as 2007, as this is the midpoint of the 5-year aggregated American Community Survey data that is used (aggregated over the 2005-09 period). Also, we do not have tract data for Imperial and Ventura counties in 1960: given that these are both relatively small counties in population size in general, and were very small in 1960, this is of minimal consequence.

the different types of housing across neighborhoods is to use longitudinal data: that is, by focusing on the *change* in the home values over a decade, one is implicitly controlling for the type of housing (since housing type typically does not change considerably over a decade) and therefore the observed changes are capturing changes in land values (and hence desirability of the neighborhood).[2] We adopt this latter approach here, as we constructed measures of the *average reported home value (logged)* at each decadal point. Studies have shown that although residents tend to overvalue their homes, there is little evidence of systematic over- or under-reporting based on the characteristics of the neighborhood (Goodman and Ittner 1992; Kiel and Zabel 1999; Robins and West 1977).

Another characteristic of a desirable neighborhood is the ready presence of employment. Unemployment can cause economic hardship for residents, and can increase the degree of loitering that occurs within a neighborhood (Gould, Weinberg, and Mustard 2002; Wang and Minor 2002). Unemployment can also foster an environment in which the adolescents in the neighborhood lack the role models that could inspire them to more vigorously pursue their own educational goals (Sampson and Wilson 1995). We therefore created a measure of the *unemployment rate* in the tract at each decade.

A measure that is sometimes used to capture the physical disorder of a neighborhood is the vacancy rate (Hipp 2010b; Taylor 1995). The presence of more vacant units itself can be a sign that the neighborhood is undesirable (given that in a desirable neighborhood the unit would be quickly filled). Neighborhoods with more vacant units also can be undesirable if these vacant units become blighted or are considered an eyesore. Such vacant units can also serve as breeding

[2] Of course, this will not be the case in a neighborhood undergoing gentrification, as a characteristic of such neighborhoods is that the residents who purchase such homes are typically improving them considerably. Nonetheless, such neighborhoods are the exception to the general pattern, and were not very common during the period our study covers.

grounds for various criminal activities (Krivo and Peterson 1996; Stucky and Ottensmann 2009). We created a measure of the *percentage of vacant units* in the tract at each decadal point.

Other neighborhood measures

To capture short-term instability in the neighborhood, we created a measure of the *proportion of new households* during the decade. This is computed by using information on length of residence at the end of the decade: we sum the number of households that have lived in their unit ten or fewer years, and divide this by the total number of households. We capture longer-term stability in the neighborhood with a measure of *residential stability* (the average length of residence of households in the tract).

To capture short-term change in the composition of the neighborhood, we created three measures. These measures focus on changes occurring for a neighborhood between two decades. The first measure captures *recent immigrant mobility* as the proportion of residents who are immigrants and moved in during the last ten years. The second measure computes the degree of *racial/ethnic churning* over the decade (Pastor, Sadd, and Hipp 2001). We measured ethnic churning (EC) as:

(1) $$EC_k = \sqrt{\sum_{1}^{J} (G_{jt} - G_{jt-1})^2}$$

where G represents the proportion of the population of ethnic group *j* out of *J* ethnic groups at time *t* (1990) and time *t-1* (1980) in tract *k*. This gives a measure of the degree of racial/ethnic transformation that occurred in the tract during the decade: this is a sum of squares of differences, and we take the square root to return it approximately to the original metric (Hipp and Lakon 2010). If there is no change in the racial/ethnic composition, it will have a value of zero.

The third measure of change captures *general social distance* in the neighborhood. This novel measure builds on earlier work of Hipp (2010a), and takes into account social distance along seven dimensions: 1) elderly residents (aged 65 and above); 2) households with children; 3) young adults (aged 16 to 29); 4) education level (with at least a bachelor's degree); 5) owner/renter status; 6) language differences (those who speak English poorly); and 7) income inequality (Gini coefficient of household income). Although we would ideally account for the extent of social distance between all households in the tract, this would require household-level information on these characteristics (or at a minimum, cross-tabulations of all of these measures). We only have the marginal distributions for these seven measures. Therefore, we computed a Herfindahl index for each of the first six measures at a decadal point:

$$H_k = 1 - \sum_{j=1}^{J} G_j^2 \quad (2)$$

where G_j is the proportion within dimension j and the proportion *not* within a dimension. This value is computed separately for each of the six dimensions (k) listed above. The exception is the Gini index, which already captures the degree of distance within a neighborhood (we divide this by 100 to place it in a similar metric). We then combine these K measures into a single measure of social distance:

$$SD = \frac{\sum_{k=1}^{K} H_k}{K} \quad (3)$$

where K is the number of dimensions for the social distance measure (7 in this instance), H_k is the Herfindahl value for the k-th dimension of the K dimensions. Thus, this is computing the average Herfindahl value for each of the dimensions. We created this measure of social distance at each decadal point. To compute the degree of change in social distance during the decade, we

simply subtracted the value at the beginning of the decade from the value at the end of the decade.[3]

To capture the demographic and racial/ethnic composition of the neighborhood, we created measures of the percent *Asian*, percent *Latino*, and percent *African American* (with white and other races as the reference category). We measured *racial/ethnic heterogeneity* with a Herfindahl index (Gibbs and Martin 1962: 670) based on five racial/ethnic groupings (white, African-American, Latino, Asian, and other races). To capture general social distance, we used our measures of *social distance* just described. We computed the *percent immigrants* in the tract at each decadal point.

Spatial effects

Given that we are focusing on neighborhoods that are located in physical space, we accounted for this by creating spatially lagged variables of the outcome measures. That is, for each outcome variable we also created a measure of the level of the variable in nearby tracts. We created this spatial lag measure by first creating a spatial weights matrix (W) based on a distance decay function capped at two miles. Thus, we assume that nearer tracts affect the focal tract more strongly, but tracts more than 2 miles away have no effect. We row standardized this matrix. Therefore we are capturing, for example, the average vacancy rate in tracts within two miles of the focal tract when accounting for the distance decay.

[3] For example, if a tract had 25% elderly residents (they would, by definition, have 75% non-elderly) H_1 would therefore have a value of .375 ($1-(.25^2+.75^2)$); if 50% of households had children then H_2 would have a value of .5 ($1-(.5^2+ .5^2)$); if 0% of residents were young adults (aged 16 to 29) then H_3 would have a value of 0 ($1-(.0^2+1^2)$), etc. The Gini is computed on the binned income data using a software program developed by Francois Nielsen (http://www.unc.edu/~nielsen/data/data.htm), and is divided by 100 to place in the same metric. The mean of these seven individual H values provides the value of *SD* (total social distance). As an example for how social distance changes, this hypothetical tract might go from 25% elderly residents to 50% at the next time point while the other six H values remained constant: given that H_1 increases from .375 to .5, the value of SD would increase .0179 (since this .125 increase would be divided by 7 to give the average increase across these seven dimensions). Note that, however, if the tract went from 25% elderly to 75% elderly, the level of social distance on this dimension would remain constant (since the percent non-elderly has gone from 75% to 25%). Thus, a neighborhood with a high score on social distance will have residents who are more different based on our set of dimensions.

Analytic Methods

We estimated a series of cross-lagged models. The general form of these models is:

$$y_{t+1} = \beta_1 y_t + \beta_2 W y_t + \Gamma_2 \Delta X_2 + \Gamma_3 X_3 + \mu \quad (4)$$

where y is the outcome of interest (for example, logged home values) measured at the next time point ($t+1$), y_t is logged home values at the current time point, ΔX_{2t} is a matrix of the measures that change over the decade of interest and their effects on the outcome are captured by the coefficients in the Γ_2 matrix, X_{3t} is a matrix of the remainder of the variables in the model measured at the current time point and their effects on the outcome are captured by the coefficients in the Γ_3 matrix, and μ_t is a normally distributed error term. We estimated a separate equation for each decade to assess which model specification is robust over this period. Thus, we estimated models for: 1) 1960-1970; 2) 1980-1990; 3) 1990-2000; 4) 2000-2007.

Whereas we effectively measure our outcome variables as the change over the decade, several of our measures—percent new residents, racial/ethnic churning, percent new immigrants, and change in social distance--are also measured as change during the *same* decade. Thus, these measures capture relatively short-term change because the outcome and the predictors are within the same decade. On the other hand, average home values, percent immigrants, racial composition, residential stability, vacant units, and the unemployment rate are measured at the *beginning* of the decade, and therefore are capturing mid-term change, as they measure whether the level of a construct at the beginning of the decade is associated with the degree of change in the outcome during the following ten years. Finally, the variables of percent immigrants and social distance measured at the beginning of the *previous* decade capture even longer-term change. Thus, these measures capture the effect at the beginning of a previous decade on the

change in the outcome in the current decade, while also controlling for the short-term and mid-term effects. The summary statistics for the variables are presented in Table 1.

<<<Table 1 about here>>>

Results

Neighborhood turnover

Our first question is whether an influx of immigrants directly increases the level of residential instability in a neighborhood. Thus, the outcome is the percent of new residents in the tract during the current decade, and the results are presented in Table 2.[4] Our measure capturing the proportion of immigrants among the new residents is implicitly comparing the effect of new immigrants moving into the neighborhood to those moving from within the same country. We see weak, mixed evidence regarding the effect of an influx of immigrants on residential turnover. Whereas tracts experiencing an influx of immigrants during the 1980's experience less residential turnover, this effect is not significant in any of the other decades. We also assessed whether there is a bivariate relationship between an influx of immigrants and the general level of residential turnover in a tract; even here, the correlation of these measures is quite low and always negative with the values ranging from -.07 to just about 0. There is simply little evidence that an influx of immigrants increases the general level of instability in a neighborhood in Southern California over this 50-year period.

<<<Table 2 about here>>>

It is interesting to note that tracts undergoing a socio-economic or racial/ethnic transformation actually experience *less* residential mobility than other tracts. Thus, a greater

[4] These equations include a measure of the average percent new residents in the tract over the four decades. By doing so, we are capturing the amount of residential turnover in a decade relative to the *normal* amount of residential turnover in a tract. This averaged variable captures unobserved characteristics of the tract that are not in our model.

absolute value change in the average family income in the tract during the decade is actually associated with fewer new residents during that decade. This result is significant for three of the four decades. Likewise, a greater level of racial/ethnic churning is actually associated with fewer new residents in the tract during that decade (in the 1960's, this relationship was flat for low levels of ethnic churning, but negative at higher levels). Thus, racial/ethnic change in the composition of the neighborhood does not lead to higher levels of residential turnover. On the other hand, we do see that increases in our measure of overall social distance leads to increasing numbers of new residents: whereas it is a slowing positive effect in the two earlier decades, it is a linear positive effect in the two more recent decades.

Inflow of immigrants

We next ask where immigrants are *moving*. In these models, we predict which neighborhoods will experience an increase in immigrants. For these models, the outcome is the logit of the proportion of immigrants in the tract.[5] Unsurprisingly, immigrants are more likely to enter tracts that already had immigrants at the beginning of the decade, and those surrounded by tracts with more immigrants, as seen in Table 3. This spatial clustering conforms to prior research. There is a decelerating positive effect of the percent immigrants at the beginning of the decade. The longer-term effect of the percent immigrants in the tract at the beginning of the previous decade is quite mixed, suggesting that most of the effect is captured by the proportion of immigrants at the beginning of the decade. It is interesting to note that the spatial lagged effect of nearby tracts systematically weakens over the time period of the study, as the coefficients shrink from .0302 to .0107 to .0057 to .0026.

<<<Table 3 about here>>>

[5] The logit is calculated as ln(P/(1+P)), where P is the proportion of immigrants in the tract. This approach accounts for the ceiling effect as the proportion in the tract heads toward 1.

It is also the case that higher levels of general social distance and racial/ethnic distance increase immigrant inflow. Higher levels of racial/ethnic heterogeneity at the beginning of the decade increase the inflow of immigrants during the decade. Likewise, tracts with higher levels of general social distance at the beginning of the decade, and those experiencing an increase in general social distance during the decade, experience a larger inflow of immigrants. However, there is no long-term effect of social distance, as the effect of social distance at the beginning of the *previous* decade is actually negative.

Change in the components of neighborhood social distance

How is the influx of immigrants associated with the overall level of social distance in a neighborhood, and social distance broken out by various dimensions? We assessed this by viewing the correlation between the measures of immigrant concentration and the various dimensions of social distance. In the top panel of Table 4, the first row shows that neighborhoods experiencing an increase in immigrants also experience a modest increase in general social distance in the neighborhood in four of the five decades (based on our unique measure). This correlation is about .13 during the 1960's and 2000's, about .07 in the 1970's and 1990's, but slightly negative during the 1980's. Viewing the separate dimensions, tracts that are experiencing an increase in immigrants also increase in social distance based on young adults (row 3), language (row 7), and modestly so for income inequality (row 8). However, such tracts simultaneously experience a decrease in social distance based on education (row 5) and elderly persons (row 2). Most notably, these tracts simultaneously experience more racial/ethnic change: although this correlation was just .07 during the 1960's, it was between .62 and .74 during the 1970's, 1980's, and 1990's.

<<<Table 4 about here>>>

Turning to a "snapshot" view, we see in the bottom panel of Table 4 that although neighborhoods with more immigrants had greater general social distance in the earlier years (row 10), this has reversed to a negative relationship in more recent years. In breaking apart our social distance measure into various dimensions, we see that high immigrant neighborhoods have higher levels of social distance for the presence of young adults, especially in more recent years (row 11), language (row 16), and income inequality (row 17). Interestingly, the association between immigrant neighborhoods and racial/ethnic heterogeneity (row 18) follows an expected pattern given the transition to ethnic enclaves as the strong positive relationship in earlier years vanished and became negative by the most recent time point. Given the large increase in the percent immigrants in Southern California overall, this pattern is unsurprising, as immigrant neighborhoods in recent years have become more homogeneous given the high proportion of immigrants. The explanation for the essentially zero correlation between language difference and percent immigrants in the most recent year (row 16) is the same: this language distance effect is nonlinearly related to percent immigrants. The pattern for social distance based on elderly persons has also changed over time (row 11): whereas high immigrant neighborhoods had higher social distance based on elderly persons in 1960 and 1970, they had lower social distance for elderly persons since 1990. On the other hand, immigrant neighborhoods tend to have less social distance based on education, especially in more recent years (row 14). Thus, although immigrant enclaves tend to become racially homogeneous, we see here that such neighborhoods in Southern California nonetheless retain a high level of social distance when measured along certain other demographic dimensions.

Change in neighborhood home values

Immigrants and social distance

We next ask about the consequences of immigrants for the home values in the neighborhood—both in the short- and long-term. We see in Table 5 that a large influx of immigrants has quite weak effects on the simultaneous change in home values during the decade, as it reduced home values during the 1980's but was not significant in the other three decades. Likewise, the presence of more immigrants in the tract at the beginning of the decade showed mixed results, leading to lower home values during the 1960's, modestly higher home values during the 1980's and 1990's, and null effects during the 2000's. The long-term effects of immigrants is also mixed, as higher levels of immigrants at the beginning of the previous decade reduces home values during the 1980's, but increases them in the two more recent decades. Thus there is little evidence that immigrants somehow reduce the desirability of the neighborhood, at least as measured by home values.

<<<Table 5 about here>>>

Turning to the other measures in these models predicting the change in home values, we see that social distance has important effects. We include measures of social distance at the beginning of the decade, the change during the decade, and their interaction. We also include measures of social distance at the beginning of the previous decade to capture more long-term effects. The findings for these social distance measures across these decades are quite strong, but they are also quite inconsistent. For example, the effects of concurrent change in social distance during the decade, as well as the effects of social distance at the beginning of the decade, flip signs over the four decades. Furthermore, the long-term effect of social distance is mixed over all waves.

Given the inconsistent findings for social distance over these decades, this may represent a structural change in this effect over our study period that is masked by our complicated model

specification. Although we expect most of these processes we are testing here to have consistent effects, this need not necessarily always be the case. By estimating our equations separately over these four decades we can assess the stability of the estimates over time. We assessed possible structural change for the social distance measure by simplifying the model in ancillary analyses: we excluded the simultaneous change in social distance measure and the measure from the prior decade. Indeed, these models tell a more consistent story, albeit one that illustrates a structural change over this period. We plot these results in Figures 1a through 1d for these four waves. For the 1960's, Figure 1a shows that a higher level of social distance at the beginning of the decade generally results in lower home values at the end of the decade. This is a nonlinear effect that becomes particularly pronounced at the highest levels of social distance. However, this effect has flattened considerably by the 1980's (Figure 1b), and now is clearly an inverted-u shape. By the 1990's, the negative effect of social distance is gone, and now social distance shows a modest, though not significant, positive effect on home values at the end of the decade (Figure 1c). And in the most recent decade, the relationship has completely changed and we now observe that higher levels of social distance at the beginning of the decade lead to *higher* home values at the end of the decade (Figure 1d). This effect is particularly pronounced at the highest levels of social distance. Thus, a structural change has occurred over this period in which social distance actually appears more desirable.

<<<Figures 1a to 1d about here>>>

The effect of racial change is more consistent than is the effect of the more general measure of social distance. Higher levels of racial/ethnic churning are associated with home value decreases in all four decades. However, the effects of the racial/ethnic composition and racial/ethnic heterogeneity are mixed over the four decades.

Turning to the effect of residential stability, we see a longer-term effect. Neighborhoods with higher levels of residential stability at the beginning of the decade (average length of residence) experienced an increase in home values over the subsequent decade. It is interesting to note that this effect weakens over the study period, and becomes nonsignificant by the most recent decade. On the other hand, short-term residential instability (percent new residents in the past 10 years) shows mixed effects on the change in home values—with a slowing positive effect in two decades, a slowing negative effect in another, and a u-shaped relationship in the other decade.

Change in neighborhood unemployment rates

We next view the effect of immigration on the unemployment rates of neighborhoods over time. In these models displayed in Table 6, the short-term change in immigrants actually has a consistent *negative* effect on unemployment rates. A larger increase in immigrant inflow results in *lower* unemployment rates at the end of the decade. The longer-term effects of immigrants is generally *positive*: in the two earlier decades, a higher percentage of immigrants at the beginning of the decade resulted in a higher unemployment rate by the end of the decade, and in the 1990's this became an inverted-u shape in which at higher levels of immigrants the unemployment rate starts falling by the end of the decade. In the most recent decade, although there is virtually no effect of the percent immigrants at the beginning of the decade on the unemployment rate, there is a longer-term effect in which more immigrants in the prior decade reduce the unemployment rate at the most recent time point. To assess whether this lagged measure is capturing the effect of immigrants at the beginning of the decade, we estimated an ancillary model in which we excluded the previous decade measure, and we found that a higher

percentage of immigrants at the beginning of the decade indeed reduces the unemployment rate by the end of the decade.

<<<Table 6 about here>>>

There was some evidence in these models that the level of social distance, and how it is changing, affects unemployment rates. However, in the 1980's and 1990's it was tracts experiencing an *increase* in social distance that experienced falling unemployment rates. In addition, in those same two decades, tracts with higher levels of social distance at the beginning of the decade had lower unemployment rates by the end of the decade. Likewise, in the most recent decade, tracts with the highest levels of social distance at the beginning of the decade had the lowest levels of unemployment by the end of the decade. The long-term effect of social distance on the change in the unemployment rate in the subsequent decade is mixed: whereas this is a u-shaped relationship in the 1980's and a positive relationship in the 1990's, this appears to be a slowing negative relationship in the 2000's.

There is also evidence that racial/ethnic difference is positively related to the unemployment rate. Neighborhoods that experience more racial/ethnic churning during the decade generally experience increasing unemployment rates during the same decade. This effect was strongest in the 1980's, but has weakened in the two more recent decades. Whereas this concurrent racial/ethnic churning affects the change in unemployment during the decade, the evidence for the effect of racial/ethnic heterogeneity at the beginning of the decade is mixed. Thus, it is this racial/ethnic change, and not the level of heterogeneity, that appears important for the change in unemployment rates. There are racial composition effects, as neighborhoods with larger percentages of African Americans and Latinos have larger increases in unemployment rates, and neighborhoods with more Asians experience decreasing unemployment.

It appears that a turnover of residents in a neighborhood is associated with contemporaneous falling unemployment rates. Neighborhoods experiencing greater population turnover experienced a decrease in the unemployment rate in the three most recent decades (in the 1960's, this decrease was only enjoyed by neighborhoods with higher levels of population turnover given that this relationship had an inverted-u shape). However, the level of residential stability at the beginning of the decade generally showed mixed effects on subsequent unemployment.

Change in neighborhood vacancy rates

Finally, for the models with vacancy rates as an outcome, we see in Table 7 a short-term effect in which neighborhoods with influxes of immigrants experienced an increase in vacancy rates in three of the four decades. This is only a short-term effect, as the percentage of immigrants in a neighborhood at the beginning of a decade showed mixed effects (a positive effect on vacancies in the 1980's, but negative effects in the 1960's and 1990's). Likewise, there is no consistent long-term effect of immigrants at the beginning of one decade on the change in vacancy rates in the subsequent decade.

<<<Table 7 about here>>>

And whereas there is little evidence that racial/ethnic churning during the decade or heterogeneity at the beginning of the decade increase neighborhood vacancy rates (in fact, higher levels of racial/ethnic heterogeneity at the beginning of the decade actually appear to lead to decreases in the vacancy rate in the 1980's and 1990's), there are stronger effects for our general social distance measure. Neighborhoods with higher levels of general social distance at the beginning of the decade experience larger increases in vacancy rates over the subsequent decade during three of the decades (the exception is during the 1990's). At the same time, an increase in

social distance led to the largest spike in vacancy rates for neighborhoods that began the decade with the *lowest* levels of social distance in these same three decades. Thus, increasing social distance seems to be particularly problematic for neighborhoods that previously were very homogeneous based on this general social distance measure. There is also evidence of a long-term effect, as neighborhoods with more social distance at the beginning of the *previous* decade experienced a larger increase in vacancy rates in the current decade.

General residential instability has only modest effects on the vacancy rate. During the two earlier decades, an increase in the general inflow of residents was accompanied by a decrease in the vacancy rate (though this effect weakened in the two most recent decades). However, there was no consistent effect of residential stability at the beginning of the decade on subsequent changes in vacancy rates.

Conclusion

This project has explored the consequences of immigrant influx into neighborhoods in the Southern California area over a 50-year period (1960-2007). Our findings indicate that there are few direct negative consequences of immigrant inflow on neighborhoods over time. There is no evidence that immigrant inflows reduce home values, or increase unemployment rates, over the long haul. We also found no evidence that the presence of more immigrants at the beginning of the decade leads to more vacancies by the end of the decade. The short-term influx of immigrants during the decade was actually associated with *lower* unemployment rates. We therefore have little evidence that immigrants somehow reduce the desirability of the neighborhood, at least as measured by home values or unemployment rates.

One important consequence of immigration for communities that we have suggested is the effect it has on social distance among residents. Taking into account the difference between

residents based on such characteristics as age, the presence of children, educational attainment, ownership status, income, and language barriers proved to be an important measure of the differences that immigrant inflows bring to neighborhoods. General social distance appears to have consequences for neighborhoods. Higher levels of social distance appear to lead to more vacancies in neighborhoods over time. This was the case whether measuring simultaneous change in social distance during the decade, or the level of social distance at the beginning of the decade, or even when measuring it at the beginning of the previous decade. Our general measure of social distance, and not racial/ethnic difference, mattered for increasing vacancy levels, which may represent short-term desirability of such neighborhoods. On the other hand, increasing levels of social distance actually led to lower unemployment rates. The effect of social distance on changes in home values was particularly striking, as it changed over the study period: whereas social distance decreased home values during the 1960's, this completely reversed into a positive effect by the 2000's. This suggests a structural change in the desirability of homes based on the presence of general social distance. This is an interesting finding, and may reflect changes in housing preferences over recent decades that may accompany the move towards more New Urbanism ideals. Although we cannot be certain of this, this finding is certainly suggestive of such a possibility. It was notable that no such change over time was observed for the effect of social distance on unemployment or vacancy rates, consistent with a possible structural change in preferences.

Although immigrant inflow can create differences between residents based on race/ethnicity, we demonstrated that immigrant inflow created greater levels of social distance in neighborhoods based on other demographic dimensions. The effects of racial/ethnic difference in our models were generally weaker than the effects of the general measure of social distance.

Racial/ethnic heterogeneity did not appear to have negative consequences in these models that controlled for the general level of social distance. Only short-term racial/ethnic churning had occasional consequences for neighborhoods: neighborhoods with more racial/ethnic churning during the decade simultaneously experienced increasing unemployment rates and falling home values. When we explored what aspects of social distance had the most salience for immigrant neighborhoods, language diversity, educational levels, and the proportion of young adults appeared to be the strongest drivers of social distance. And whereas inequality and race/ethnicity were also important for social distance, we did not see demographic shifts in regards to the presence of children. Taken as a whole, our results from a policy perspective might suggest policies targeted at improving access to education may be particularly crucial for immigrants as one of the best ways to impact the consequences of social distance.

The importance of social distance highlights that it is not appropriate to treat "immigrants" as a unitary concept. The motivations for migration have consequences for the characteristics of immigrants, which can then lead to more or less social distance between them and those currently residing in the neighborhood of entry. For example, immigrants of high SES in the origination country who migrated in response to political upheaval (examples include Cubans and Iranians leaving those countries after political change) likely have a much different economic background than migrant farm workers who have immigrated from Central Mexico for economic reasons. Furthermore, there can be racial/ethnic differences between various immigrant groups, language differences in ability to speak English, gender differences of who is coming in, and even age and family structure. For all of these reasons, there is little reason to expect a unitary effect of "immigrants" on neighborhoods. Due to space constraints, we did not

split immigrants into separate groups based on country of origin, but it may be important to take into account these characteristics in future research.

Although arguably an entirely separate project, another potential limitation to our study is that our models do not account for residents leaving the neighborhood. One important avenue for future research is to simultaneously examine how residents and immigrants leaving the neighborhood impact its social distance. For example, residential out-mobility may create less social distance between residents. Alternatively, neighborhood social distance can change simply as residents age in place (e.g., the aging of children of the area). Nonetheless, the reasons why new residents are moving into an area do not necessarily reflect the same reasons why residents might leave an area. Accordingly, the only potentially negative consequence of immigrants on neighborhoods was an increase in the vacancy rate. It seems likely that this reflects an exodus effect in response to immigrant influx, as in other models we found that a higher vacancy rate at the beginning of the decade actually reduced the likelihood of immigrant inflow. These results suggest that immigrants are moving into neighborhoods with few vacancies, and therefore to areas that likely have higher population density.

Perhaps the most important conclusion for this study is that we found little evidence for immigration having deleterious consequences for neighborhoods in the Southern California region over a nearly 50-year period. Yet, this seems reasonable given that immigration oftentimes represents a selection effect in which those who have more skills and more economic resources are more likely to immigrate. Nonetheless, it is worth emphasizing this finding given that it was robust over such a long period of time. We also found that an important determinant of change in neighborhood desirability is the level of *social distance*. Furthermore, we have emphasized that it is not enough to simply measure social distance based on race/ethnicity, or

even income inequality. Our more general measure of social distance along a number of dimensions showed much stronger effects.

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Tables and Figures

Table 1. Summary statistics for variables in models. Data for census tracts in seven counties in Southern California

	1960		1970		1980		1990		2000		2007	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Logged average home values	9.72	0.36	9.30	0.85	10.49	0.97	11.25	1.03	12.05	0.63	11.97	0.53
Spatial lag of logged average home values	9.75	0.29	9.35	0.72	10.59	0.70	11.35	0.82	12.10	0.46	11.38	0.62
Percent immigrants	8.16	5.64	9.16	7.76	17.33	13.51	25.07	16.68	29.03	16.47	30.60	15.11
Social distance	0.34	0.03	0.37	0.03	0.37	0.03	0.38	0.03	0.37	0.04	0.33	0.04
Percent African American	3.91	13.49	5.71	17.10	7.83	18.10	7.32	14.19	6.77	12.16	6.31	11.12
Percent Latino	9.15	12.13	12.59	15.57	22.59	22.03	29.80	25.14	37.27	27.71	41.22	28.13
Percent Asian					4.47	5.95	8.53	9.53	10.17	12.31	11.32	13.61
Racial/ethnic heterogeneity	19.01	16.03	23.69	16.28	35.12	16.17	42.98	16.34	47.22	16.87	47.24	16.98
Residential stability (average length of residence)	6.18	1.95	6.08	1.83	7.29	2.43	8.49	3.06	9.60	3.21	10.70	3.56
Percent vacant units	6.29	4.55	7.76	11.37	6.53	7.53	6.56	7.21	5.17	7.03	6.74	7.68
Unemployment rate	5.83	3.02	6.11	2.64	6.30	3.31	6.96	4.30	7.65	5.24	7.71	4.13
Change measures												
Percent new residents during decade			18.52	10.42	22.89	12.16	28.97	13.99	31.39	13.48	43.92	14.01
Racial/ethnic churning during decade			13.71	15.57	20.12	17.63	17.52	12.10	17.48	11.58	11.19	7.53
Percent residents who immigrated in last ten years			0.08	1.96			0.02	0.25	0.09	0.64	0.02	0.13
Change in social distance during decade			0.02	0.03	0.00	0.03	0.01	0.03	-0.01	0.02	-0.04	0.02

Table 2. Models predicting the percentage of new residents in the following decade

	1960's		1980's		1990's		2000's	
Average percent new residents in last ten years over study period	0.7403	**	1.2642	**	1.1320	**	1.1055	**
	(0.0122)		(0.0120)		(0.0135)		(0.0160)	
Percent residents who immigrated in last ten years	0.0219		-3.1090	**	0.1341		-5.5965	
	(0.0600)		(0.5852)		(0.2967)		(3.8156)	
Change in average family income (absolute value change)	-14.9227	**	-4.6045	**	-1.2395		-5.6177	**
	(0.6421)		(0.6851)		(0.7541)		(1.0552)	
Racial/ethnic churning in last ten years	-0.0092		-0.1008	**	-0.1182	**	-0.0824	**
	(0.0115)		(0.0098)		(0.0132)		(0.0212)	
Racial/ethnic churning squared in last ten years	-0.0012	**			0.0019	**		
	(0.0002)				(0.0005)			
Change in social distance	68.03	**	37.38	**	60.02	**	15.74	*
	(4.55)		(4.37)		(5.79)		(7.33)	
Change in social distance squared	-556.05	**	-175.81	*				
	(58.16)		(81.57)					
Intercept	-15.11	**	-33.34	**	-32.09	**	-29.98	**
	(0.47)		(0.58)		(0.47)		(0.59)	
R-square	0.58		0.77		0.66		0.57	

*Note: ** $p < .01$; * $p < .05$; † $p < .10$. Standard errors in parentheses. N=3,975 tracts. Units of analysis are census tracts in Southern California from 1960 to 2007.*

Table 3. Models predicting logit of percent immigrants in the following decade

	1960's	1980's	1990's	2000's
Percent immigrants at beginning of decade	0.0435 **	0.0339 **	0.0275 **	0.0216 **
	(0.0036)	(0.0011)	(0.0008)	(0.0006)
Percent immigrants at beginning of decade squared	-0.0007 **	-0.0005 **	-0.0004 **	-0.0004 **
	(0.0001)	(0.0000)	(0.0000)	(0.0000)
Spatial lag of percent immigrants at beginning of decade	0.0302 **	0.0107 **	0.0057 **	0.0026 **
	(0.0030)	(0.0009)	(0.0006)	(0.0005)
Percent immigrants at beginning of previous decade		-0.0108 **	-0.0045 **	0.0017 **
		(0.0012)	(0.0009)	(0.0006)
Percent immigrants at beginning of previous decade squared		0.0002 **	0.0001 **	-0.0001 **
		(0.0000)	(0.0000)	(0.0000)
Change in social distance during decade	8.4 **	-2.0	-4.2 *	-6.1 **
	(2.3)	(1.8)	(1.7)	(1.2)
Social distance at beginning of decade	3.4 **	1.5 **	1.8 **	1.3 **
	(0.4)	(0.2)	(0.2)	(0.2)
Social distance at beginning of previous decade		-0.5 **	-1.2 **	-1.0 **
		(0.2)	(0.2)	(0.2)
Interaction: social distance at beginning of decade and change	-13.7 *	17.3 **	19.2 **	21.1 **
	(6.8)	(4.9)	(4.6)	(3.4)
Racial/ethnic heterogeneity	0.0019 *	0.0048 **	0.0040 **	0.0021 **
	(0.0008)	(0.0004)	(0.0003)	(0.0003)
R-square	0.49	0.78	0.83	0.83

*Note: ** p < .01; * p < .05; † p < .10. Standard errors in parentheses. N=3,434 tracts. Units of analysis are census tracts in Southern California from 1960 to 2007. All models control for the following variables at the beginning of the decade: percent African American, percent Latino, percent Asian, Racial/ethnic heterogeneity, Residential stability (average length of residence), average home values, spatial lag of average home values. They also include a measure of percent residents who are new in the last ten years, and an intercept.*

Table 4. Bivariate correlations of change in immigrants with various measures of social distance for various years

Bivariate correlation of change in percent immigrants during decade with:

	1960's	1970's	1980's	1990's	2000's
1 Change in Social distance (overall)	0.13	0.07	-0.04	0.06	0.13
2 Change in Distance on aged 65 and up	0.17	-0.23	-0.20	-0.09	-0.11
3 Change in Distance on aged 16 to 29	0.05	0.13	0.18	0.11	0.18
4 Change in Distance on presence of children	0.17	-0.06	-0.02	-0.02	0.00
5 Change in Distance on education	-0.18	-0.18	-0.18	-0.14	-0.07
6 Change in Distance on owner/renter	0.11	0.03	-0.02	0.05	0.03
7 Change in Distance on language		0.34	0.09	0.22	0.27
8 Change in Distance on income (inequality)	0.27	0.11	0.01	0.03	0.08
9 Ethnic churning	0.07	0.69	0.74	0.62	0.30

Correlation of percent immigrants with:

	1960	1970	1980	1990	2000	2007
10 Social distance (overall)	0.18	0.14	0.07	-0.16	-0.16	-0.23
11 Distance on aged 65 and up	0.29	0.30	-0.02	-0.28	-0.34	-0.28
12 Distance on aged 16 to 29	0.03	0.07	0.24	0.52	0.53	0.27
13 Distance on presence of children	0.11	0.07	-0.03	0.00	-0.09	0.07
14 Distance on education	-0.05	-0.13	-0.32	-0.46	-0.45	-0.41
15 Distance on owner/renter	0.14	-0.05	-0.06	-0.04	0.06	0.06
16 Distance on language		0.33	0.52	0.31	0.28	0.00
17 Distance on income (inequality)	0.36	0.24	0.29	0.22	0.26	0.13
18 Distance on race/ethnicity (heterogeneity)	0.33	0.40	0.40	0.21	-0.01	-0.12

Table 5. Models predicting home values in the following decade

	1960's	1980's	1990's	2000's
Percent residents who immigrated in last ten years	0.0030	-1.1966 **	0.0769	-0.6622
	(0.0058)	(0.4162)	(0.1072)	(0.4522)
Percent immigrants at beginning of decade	-0.0971 **	0.0034 *	0.0120 **	-0.0012
	(0.0042)	(0.0015)	(0.0013)	(0.0009)
Percent immigrants at beginning of decade squared	0.0013 **		-0.0002 **	
	(0.0002)		(0.0000)	
Percent immigrants at beginning of previous decade		-0.0103 **	0.0040 *	0.0111 **
		(0.0017)	(0.0017)	(0.0008)
Percent immigrants at beginning of previous decade squared			0.0002 **	
			(0.0000)	
Change in social distance during decade	-29.54 **	9.03 *	-11.44 **	14.91 **
	(3.90)	(3.69)	(3.49)	(1.87)
Social distance at beginning of decade	-5.96 **	20.87 **	-19.11 **	0.70 *
	(0.63)	(3.83)	(3.88)	(0.33)
Social distance at beginning of decade squared		-28.07 **	23.77 **	
		(5.20)	(5.18)	
Social distance at beginning of previous decade		0.74 *	21.52 **	0.23
		(0.32)	(3.53)	(0.25)
Social distance at beginning of previous decade squared			-26.57 **	
			(4.86)	
Interaction: social distance at beginning of decade and change	77.31 **	-21.77 *	28.06 **	-40.15 **
	(11.56)	(10.06)	(9.30)	(5.08)
Racial/ethnic churning in last ten years	-0.0112 **	-0.0026 **	-0.0101 **	-0.0077 **
	(0.0014)	(0.0008)	(0.0008)	(0.0007)
Racial/ethnic churning in last ten years squared	0.0002 **			
	(0.0000)			
R-square	0.75	0.84	0.67	0.82

*Note: ** p < .01; * p < .05; † p < .10. Standard errors in parentheses. N=3,371 tracts. Units of analysis are census tracts in Southern California from 1960 to 2007. All models control for the following variables at the beginning of the decade: percent African American, percent Latino, percent Asian, Racial/ethnic heterogeneity, Residential stability (average length of residence), average home values (logged), spatial lag of average home values (logged), and percent vacant units. They also include measures of percent residents who are new in the last ten years and its quadratic, and an intercept.*

Table 6. Models predicting the unemployment rate in the following decade

	1960's		1980's		1990's		2000's	
Percent residents who immigrated in last ten years	-0.1	**	-0.6	*	-0.5	**	-2.3	**
	(0.0)		(0.2)		(0.1)		(0.5)	
Percent immigrants at beginning of decade	0.0267	**	0.0297	**	0.0125		-0.0009	
	(0.0072)		(0.0080)		(0.0107)		(0.0114)	
Percent immigrants at beginning of decade squared					-0.0010	**		
					(0.0003)			
Percent immigrants at beginning of previous decade			-0.0005		0.0188	†	-0.0302	**
			(0.0094)		(0.0103)		(0.0098)	
Change in social distance during decade	8.6		-35.1	*	-61.8	*	25.6	
	(10.0)		(17.6)		(24.6)		(25.4)	
Social distance at beginning of decade	-2.0		-13.8	**	-26.1	**	85.1	**
	(1.8)		(2.2)		(3.5)		(31.4)	
Social distance at beginning of decade squared							-132.3	**
							(44.3)	
Social distance at beginning of previous decade			-96.6	**	1.1		-73.8	*
			(19.2)		(2.7)		(33.0)	
Social distance at beginning of previous decade squared			135.7	**			91.3	*
			(26.8)				(45.2)	
Interaction: social distance at beginning of decade and change	-24.2		47.2		130.4	*	-88.6	
	(29.4)		(48.4)		(66.2)		(70.5)	
Racial/ethnic churning in last ten years	0.0089	*	0.0718	**	0.0245	**	0.0402	**
	(0.0041)		(0.0057)		(0.0068)		(0.0115)	
Racial/ethnic churning squared in last ten years	0.0002	*	-0.0010	**			-0.0018	**
	(0.0001)		(0.0002)				(0.0007)	
R-square	0.44		0.68		0.54		0.31	

*Note: ** $p < .01$; * $p < .05$; † $p < .10$. Standard errors in parentheses. N=3,425 tracts. Units of analysis are census tracts in Southern California from 1960 to 2007. All models control for the following variables at the beginning of the decade: percent African American, percent Latino, percent Asian, Racial/ethnic heterogeneity, Residential stability (average length of residence), percent vacant units, unemployment rate, and the spatial lag of the unemployment rate. They also include measures of percent residents who are new in the last ten years and its quadratic, and an intercept.*

Table 7. Models predicting the percentage of vacancies in the following decade

	1960's	1980's	1990's	2000's
Percent residents who immigrated in last ten years	1.1348 **	-0.0709	4.4345 **	13.0863 **
	(0.0591)	(0.3038)	(0.1749)	(2.7734)
Percent immigrants at beginning of decade	-0.0888 **	0.0282 *	-0.0364 **	0.0060
	(0.0259)	(0.0111)	(0.0123)	(0.0133)
Percent immigrants at beginning of decade squared			-0.0008 **	
			(0.0003)	
Percent immigrants at beginning of previous decade		0.0656 **	-0.0109	-0.0064
		(0.0171)	(0.0122)	(0.0113)
Percent immigrants at beginning of previous decade squared		-0.0018 **		
		(0.0006)		
Change in social distance during decade	150.6 **	36.1	-21.5	126.8 **
	(37.3)	(25.0)	(31.8)	(27.2)
Social distance at beginning of decade	35.6 **	2.8	-15.0 **	-9.9 *
	(6.0)	(3.1)	(3.9)	(4.8)
Social distance at beginning of previous decade		10.0 **	7.5 *	7.6 *
		(2.5)	(3.1)	(3.7)
Interaction: social distance at beginning of decade and change	-369.3 **	-74.9	36.6	-341.8 **
	(109.0)	(68.2)	(84.9)	(75.1)
Racial/ethnic churning in last ten years	-0.0066	0.0035	-0.0125	-0.0152
	(0.0084)	(0.0061)	(0.0078)	(0.0112)
R-square	0.22	0.64	0.58	0.52

*Note: ** p < .01; * p < .05; † p < .10. Standard errors in parentheses. N=3,417 tracts. Units of analysis are census tracts in Southern California from 1960 to 2007. All models control for the following variables at the beginning of the decade: percent African American, percent Latino, percent Asian, Racial/ethnic heterogeneity, Residential stability (average length of residence), percent vacant units, spatial lag of percent vacanct units, average home values (logged), and the spatial lag of average home values (logged). They also include a measure of percent residents who are new in the last ten years, and an intercept.*

Figure 1a. Marginal effect of social distance at beginning of decade on change in home values, 1960-1970

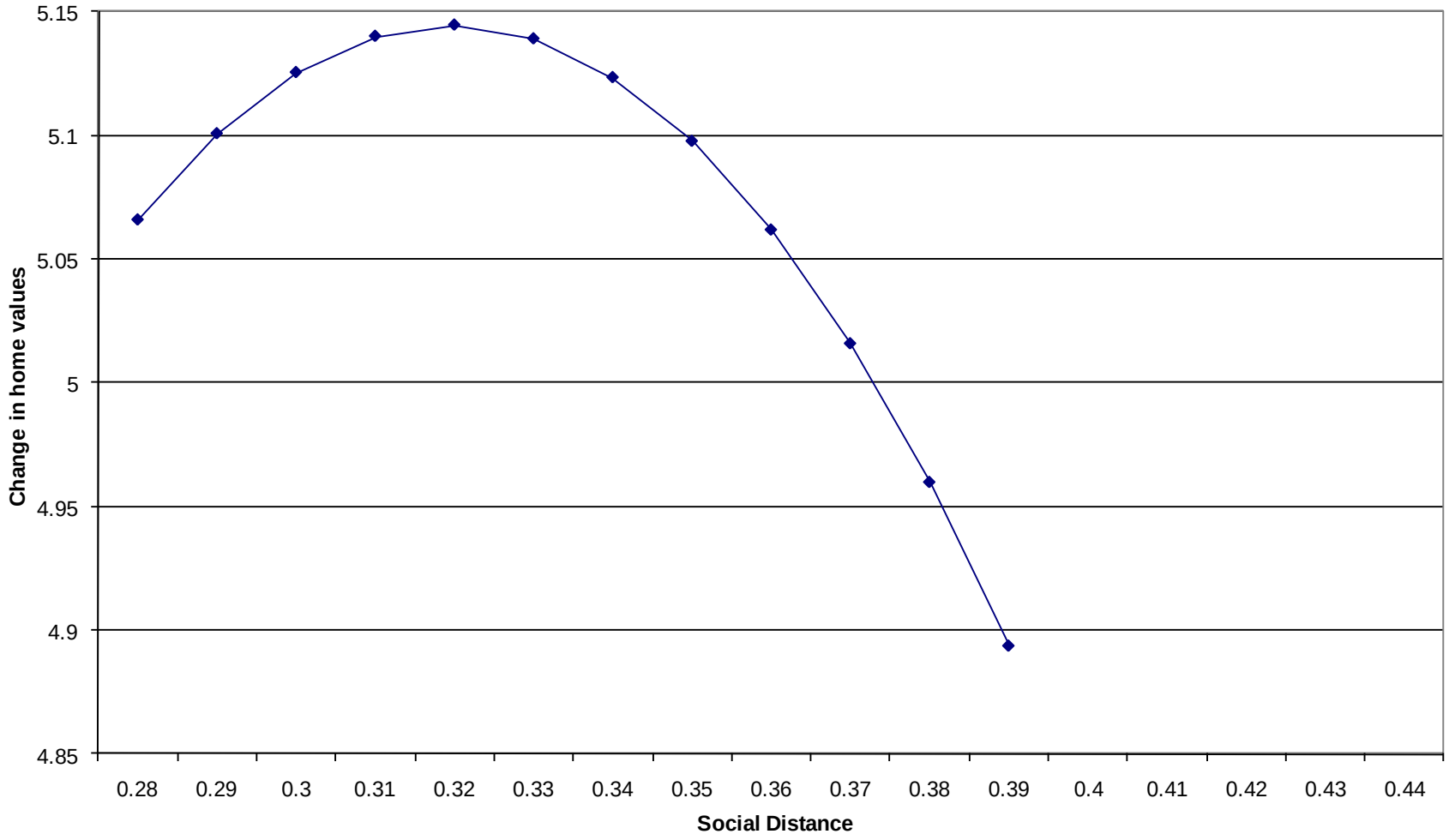

Figure 1b. Marginal effect of social distance at beginning of decade on change in home values, 1980-1990

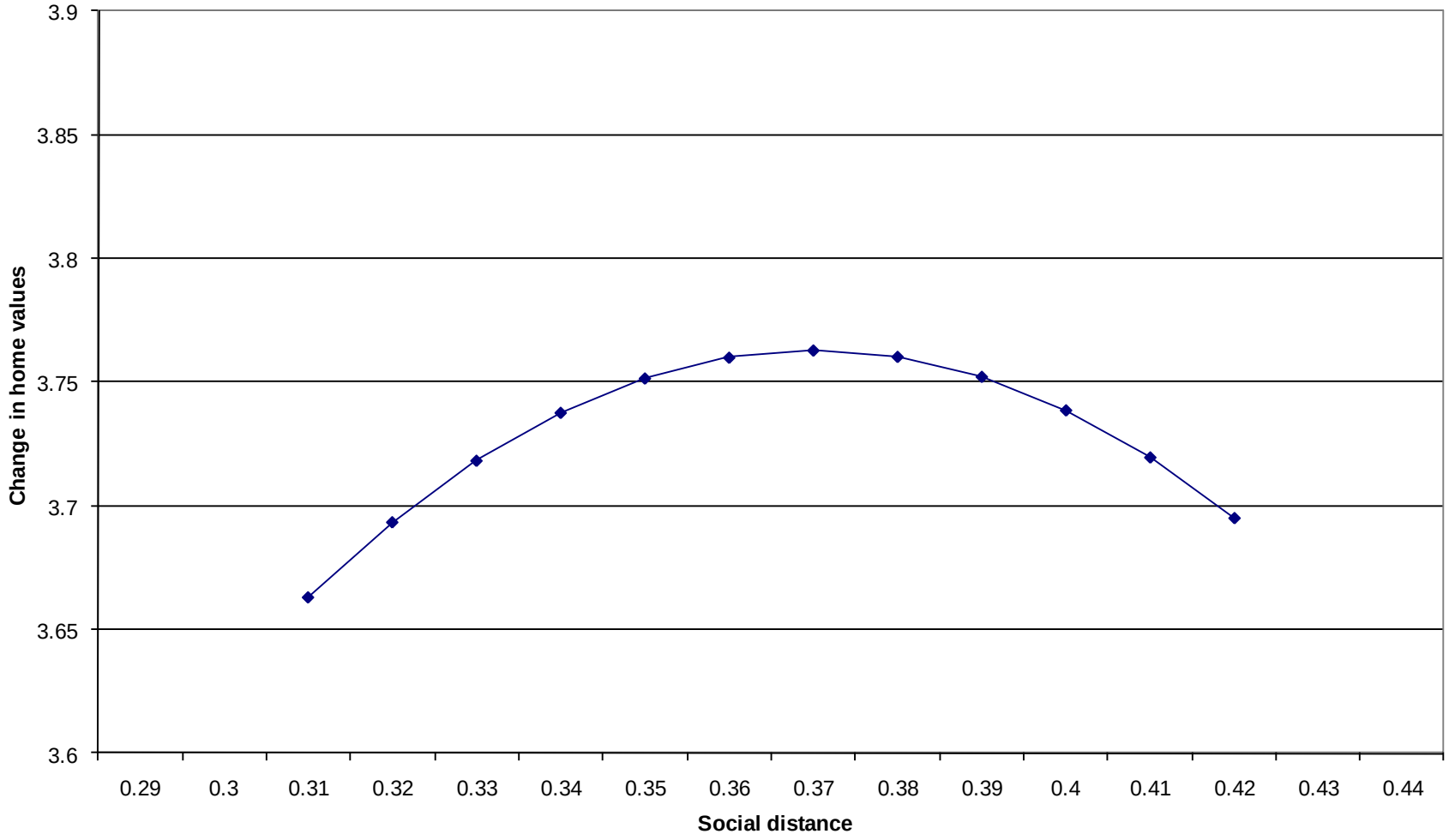

Figure 1c. Marginal effect of social distance at beginning of decade on change in home values, 1989-2000

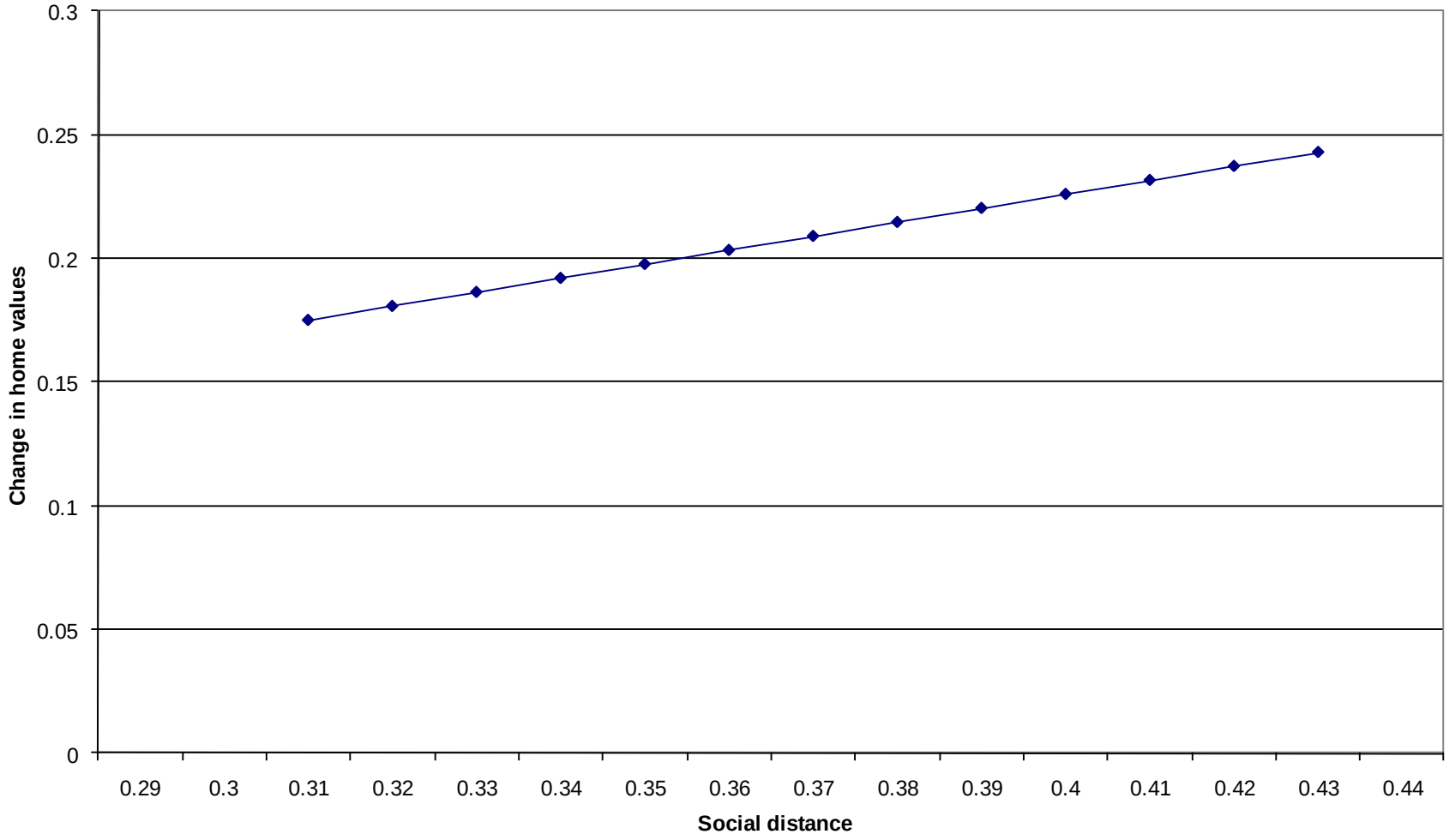

Figure 1d. Marginal effect of social distance at beginning of decade on change in home values, 2000-07