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The Misunderstood Consequences of *Shelley v. Kraemer*

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*Shelley v. Kraemer*² is one of the most celebrated decisions in the history of the United States Supreme Court. By holding in 1948 that neither federal nor state courts could enforce a restrictive covenant to evict a black homebuyer, the Court signaled its willingness to use the Fourteenth Amendment to strike down even indirect governmental actions that fostered racial segregation. It thus heralded a string of decisions that broadened the Equal Protection clause and culminated, six years later, in *Brown v. Board of Education*. Yet the practical, on-the-ground significance of *Shelley* has been generally pooh-poohed by fair housing scholars. Some have argued that *Shelley* was largely superfluous, because by the late 1940s restrictive covenants were often dismissed by the courts or circumvented by real estate agents. Others have suggested that *Shelley* was ineffective because blacks lacked the capacity to enforce their rights or because white neighborhoods and institutions had so many other methods available to stop black entry.

Oddly enough, despite continuing strong scholarly interest in restrictive covenants,³ there has been very little empirical analysis of how *Shelley* changed housing opportunities of African Americans.⁴ In this paper, we attempt such an evaluation for Chicago and St. Louis, and we find strong support for the proposition that *Shelley* had a rather dramatic impact upon the housing opportunities available to blacks in these cities. Just as important, we find evidence that this shift in opportunities may well have changed the dynamics of black ghettos nationally in ways that have never been understood, and which have important implications for basic debates about urban policy and the black underclass.

¹ Kucheva is a doctoral candidate at UCLA's Department of Sociology; Sander is Professor of Law at UCLA. We have received very helpful feedback on earlier drafts from Reynolds Farley and Jonathan Zasloff.

² 334 U.S. 1 (1948).

³ An array of scholars have produced valuable work on restrictive covenants in recent years. Particularly helpful to us in this draft have been Wendy Plotkin, "Deeds of Mistrust: Race, Housing, and Restrictive Covenants in Chicago, 1900-1953," (Ph.D. dissertation, University of Illinois, 1999); Carol Rose, "Shelley v. Kraemer," in *Property Stories* (2004); and Colin Gordon, *Mapping Decline: St. Louis and the Fate of the American City* (2009).

⁴ A notable exception is Richard Brooks, "Covenants and Conventions" (unpublished draft, 2005). We learned of Richard's work after completing our initial draft of this paper, and we will incorporate a discussion of his method and results in the next revision of our paper.

Of course, most racially restrictive covenants targeted other minority groups, including Jews, Asians, and Hispanics. We are not aware of studies examining the impact of *Shelley* on any of these groups, either. Our own research has included analyses of how segregation changed post-*Shelley* for these other groups, but presenting it here is beyond the scope of this paper.

I. The Function of Racially Restrictive Covenants in the Interwar Years

As many scholars have noted, housing segregation was a comparatively minor issue for American blacks before World War I (Cutler et al, 1999; Weaver, 1983). Not only was the black population overwhelmingly rural, but most urban blacks lived in the South, where whites generally relied on rigid social codes and Jim Crow laws – rather than the ghettoization of blacks -- to enforce social separation.⁵ For the 5% of blacks who lived in northern urban areas in 1910, segregation levels were moderate and not dramatically higher for blacks than for, say, Italian or Polish immigrants.⁶ (Cutler et al, 1999) In the North, blacks were not seen as a particularly urgent threat by the white community in most cities, though there were certainly important exceptions.

By 1920, however, the situation had changed decisively. The beginning of war in Europe in 1914 fueled large increases in American manufacturing, and a new awareness among southern blacks that genuine economic opportunities awaited them in the North. Some northern factory owners, enticed by the cheapness of black labor and the possibility of using black workers to break the growing power of white unions, actively recruited blacks in the South to migrate north. From one cause or another, the black urban northern population roughly doubled between 1910 and 1920 (Statistical Abstract, 1923). In a number of major cities, blacks by 1920 were the single largest ethnic minority. Since new arrivals in cities tended to cluster close to existing ethnic concentrations, many communities that had been reasonably integrated in 1910 became predominantly black by 1920. White workers often intensely resented the arriving blacks, for any number of reasons: economic competition, anger at blacks' willingness to work as "scabs," cultural differences, and general concern about black "invasion" into new neighborhoods. When racial tensions erupted into the massive Chicago race riot of 1919, it seemed clear to nearly everyone that "something" must be done. For many white elites, and certainly among residents of white ethnic neighborhoods close to black concentrations, a clear delineation of "black" and "white" areas seemed an obvious strategy.

How to accomplish housing segregation was not so obvious. A few southern and border cities had passed "racial zoning" laws in the 1910s, but the Supreme Court had held in *Buchanan v. Warley*⁷ that such laws were unconstitutional. Although a number of southern cities made further attempts to use city zoning powers to create de jure or de facto racial districts (Sterner, 1943), *Buchanan* seems to

⁵ In 1910, nearly 73% of blacks lived in rural areas, compared to 52% of whites. About five out of six blacks who lived in urban areas lived in areas where slavery had been legal on the eve of the Civil War. (Historical Statistics of the United States, Millennial edition, 1-105; Statistical Abstract of the United States, 1923.)

⁶ In New York City, for example, the white/black index of dissimilarity in 1910 was .62 in Brooklyn (Kings County), .66 in Manhattan, .55 in Queens, and .33 on Staten Island (Richmond County). The corresponding numbers for Russians and all others were .65, .60, .49, and .42; for Italians and all others, they were .57, .64, .44, and .34. The index of isolation for blacks (a measure of the proportion of same-group people in the immediate neighborhood for the typical member) was much lower in all four of these boroughs than the isolation index for either Russians or Italians. Calculations of the authors using 1910 census tract data. See also Cutler et al, 1999.

⁷ 245 U.S. 60 (1917).

have eliminated this possibility in large northern cities.⁸ Mobilizing the housing industry, including real estate agents, mortgage lenders, and major apartment owners, was an alternative strategy that could be led by white elites, often with cooperation, or at least complacency, from black elites (Spear, 1967). This became the dominant practice, and probably constituted the single greatest set of forces behind the creation of black ghettos. During the 1920s, segregation levels increased dramatically in nearly every major northern city; by 1930, all of these cities had well-defined black ghettos (Weaver, 1948).

What was the role of racially restrictive covenants in this process? As a tool for quickly initiating organized discrimination, restrictive covenants were awkward, if not completely impractical. Covenants are mutual agreements among all the property owners in a particular geographic area to abide by certain restrictions in the use of their property. To be binding, covenants require the initial consent of every property owner affected by the agreement – though once this is obtained, and provided various legal limitations are observed, the covenants become binding on future owners. But getting initial consent is expensive and time-consuming, unless the land is “bound” while it is still undeveloped, and subsequently sold in small parcels with the covenants already established. In most American metropolitan areas, covenants are created by developers of new tracts, planned communities, or condominiums. It is unusual – because of the logistical and cost challenges – to create new covenants in established communities. Racially restrictive covenants were therefore much easier to create in new suburban developments than in inner-city neighborhoods close to established black communities.

A second factor that makes it difficult to use racially restrictive covenants as a tool of ghetto formation is the fact that, by definition, a ghetto does not yet exist. Residents of neighborhoods that are racially mixed and close to major black neighborhoods would both face the difficulty of “covenanting around” existing nonwhite neighbors, but also the uncertainty of whether their neighborhood will end up within the emerging black ghetto. If a neighborhood starts to “turn” from majority white to majority black, residents locked into racially restrictive covenants may find themselves unable to sell their property to anyone, at least in theory.

Conceptually, then, racially restrictive covenants seem poorly suited to playing a major role in ghetto formation. And empirically, it appears – so far as we can tell from the limited research available – that these covenants were not common in urban, developed neighborhoods near areas of black concentration until the ghettos had well-defined borders (Weaver, 1948; Washington, 1948).⁹ Why would restrictive covenants appear after the ghetto and its borders were already established? Because these covenants were uniquely well-suited to the task of enforcing a sort of economic cartel around established ghetto borders. The logic of the restrictive covenant stemmed from a critical internal contradiction in nearly every northern ghetto.

The private-sector and community-association strategy of confining blacks to specified districts in each city through the combined action of real estate agents, banks, and community pressure worked quite well in establishing ghetto borders, in most cities, by 1930. In the South, these black districts were

⁸ Later court decisions invalidated racial zoning ordinances in New Orleans (1927), Richmond (1930), Oklahoma City (1935), and Winston-Salem (1940). Given the embryonic state of civil rights groups during the interwar years, it seems likely that other southern cities adopted similar laws that were not challenged. However, neither Sterner nor Myrdal (1944), who also examines this issue, report any instances of racial zoning laws in the north after *Buchanan*.

⁹ Washington’s detailed study of racial covenants in Chicago finds that, in establish South Side neighborhoods, the covenants began to appear in 1928, when the ghetto’s boundaries were already fairly well-established.

often near city borders, where there was room for new construction and geographic expansion as black populations continued to grow. In the North, in contrast, most black districts were surrounded by developed neighborhoods and occupied land that was already heavily developed. There was simply little room left to grow. But growth – though slowed during the Depression years – did continue, and northern ghettos faced increasingly severe housing shortages (Weaver, 1948).

Black housing shortages would necessarily lead to a price premium within black districts, and this would mean that black owners and renters would be willing to pay more for a house or apartment, *ceteris paribus*, than nearby whites. In a city where lenders, real estate brokers, and neighborhood associations have united in a strategy of black containment, the willingness of blacks to pay a premium would mean little in the general white market. A single black, or even a small group of blacks, trying to move into a typical white neighborhood would face so many practical obstacles to consummating a purchase or rental, and both mover and seller would be so concerned about the potential for violence, that such moves would rarely occur.¹⁰ However, a quite different dynamic might arise on a block or neighborhood directly adjacent to the black ghetto. Here, one successful purchase by a black buyer might produce multiple offers from other blacks for adjacent housing, thus “turning” the area quickly from white to black. This very possibility means that the institutional community is likely to view black transactions in these very vulnerable areas differently than black “invasions” in the broader white community – thus, for example, a black buyer might have an easier time getting back financing to buy a house only a block or two away from established black neighborhoods. And if the ghetto has become crowded enough to create a large price differential between the “white” and “black” markets, individual whites in these adjacent neighborhoods might be eager to sell to desperate black buyers and pocket a substantial profit.

Thus, once a ghetto exists, is surrounded by white areas, and housing shortages are severe enough to produce substantial black/white price disparities, the psychology of racial transition creates a special vulnerability for white solidarity in communities bordering the ghetto. Garden variety methods of discrimination, so useful in creating the ghetto, may be useless to protect these adjacent neighborhoods from incremental invasion.

This, then, is the special role and appeal of racially restrictive covenants: the covenant’s capacity to bind a property parcel, and its current and future owners, to a specific course of action. If all the property owners in a neighborhood adopt a common covenant, they are all bound not to sell (or, in many cases, to rent) their property to members of the designated forbidden groups. If a bound property changes hands, or the existing owner changes his mind and wants to violate the covenant, any neighbor can bring suit to enjoin the sale and punish the owner. This capacity to surrender one’s future freedom of choice solves the free-rider problem inherent in a neighborhood vulnerable to racial invasion. The racial covenant provides a credible assurance to each owner that they will not be left high and dry by neighbors “selling out” at a propitious time, and thus provides the inducement for each owner to enter the covenant themselves.

This ability of the racial covenant to bind large numbers of individual owners to a common course of action helps us see why the cartel analogy is apt. Cartels arise when one group of economic actors are able to raise prices above normal market levels through collective action and cooperation, creating a pseudo-monopoly. Monopolist producers can raise prices by restricting the supply of their product, thus creating an artificial “shortage” and higher prices. Cartels can imitate monopolies if, first,

¹⁰ See discussion *infra*, Part VI (p.15), for some documentation on patterns of violence against black movers.

the cartel members can agree on how to reduce the supply of their good and, second, if they can come up with a credible enforcement strategy to penalize cheating. If both conditions exist – and there are no legal barriers to the monopoly-like behavior – then cartels can exist and thrive.

In a normal housing market, large price differences across neighborhoods (after adjusting for differences in housing quality, schools and services) should not be sustainable for long periods. Areas with high relative prices will experience steady outmigration and declining demand until market equilibrium is restored. The premise of many scholars writing about the “dual housing market” in 20th century American cities is that discrimination alone was sufficient to pen up blacks, and black demand, and thus sustain long periods of especially high prices in the ghetto. But given the mechanism of “incremental invasion” we have described, it is easy to see how an attempted cartel bound together only by discriminatory norms might be difficult to sustain. The temptation on individual white homeowners to “sell and run”, or the temptation of blockbusters to make large profits by fostering incremental invasion, would be great and become steadily greater as black housing shortages worsened. Restrictive covenants, with their ability to impose significant penalties on individual homeowners breaking ranks, seem like a much more likely tool for effectively maintaining an anti-black “cartel”.

Of course, unlike a conventional oligopolistic cartel, the cartel facing blacks was not designed primarily as a mechanism to extract profits. For the typical white property owner, the restrictive covenant was more like a defensive shield – a way of protecting home and neighborhood from undesirable and often frightening prospective changes. Fear of invasion, along with pressure from neighbors and friends to adopt a norm of community protection, provided powerful motives for widespread participation in the adoption of the covenants. Strong motivation and high participation were both necessary ingredients for inner-city racial covenants to take root. As we have noted, it is expensive and challenging to create a covenant covering a large area that has already been developed. Instead of one developer creating a covenant by fiat, dozens, hundreds, or thousands of individual property-owners must be organized by committed neighborhood leaders or institutions. Deed language must be drafted, legal and recording costs must be paid, absentee owners tracked down; in some jurisdictions, to strengthen the legal soundness of covenant, all neighborhood properties might be conveyed to a single “straw”, then reconveyed to individual owners with the new covenant included. Undertaking these steps required a high level of commitment and mutual trust. Creating a racial covenant on one’s home was a much more significant and costly act than, say, signing a petition or contributing to a neighborhood “improvement” society. The covenants also had to address residents’ concerns that racial transition would, in fact, occur; and provide some assurance that owners would not be left with property they could not sell or rent.

Louis Washington’s detailed study of restrictive covenants in Chicago (1948) shows that many of these difficulties are reflected in actual covenants. Many of the covenants that arose close to Chicago’s black ghetto fell far short of 100% neighborhood participation; in some cases, campaigns arose in areas covered by incomplete covenants to create new covenants with more complete coverage. Often covenants were written to be binding only if a target participation percentage was achieved. Community-based as well as city-wide organizations provided funding, legal assistance, and organizing assistance for covenant drives.

Yet inner-city racial covenants were much more likely to arise in middle-class, single-family neighborhoods than in poorer, denser communities. There were several reasons for this. The most likely black “pioneers” – those willing to brave the perils of entering white neighborhoods – were middle-class blacks seeking single-family homes; thus, the perceived threat of invasion was higher in

these communities. The neighborhood associations that often organized covenant drives were more likely to exist in communities dominated by middle-class homeowners. And residents of poorer communities were often more willing to resort to violence to repel black pioneers. Thus, in Chicago in 1940, the tracts within a mile of the ghetto that had restrictive covenants had median incomes 50% higher, and three times the homeownership rate, compared to the tracts that lacked restrictive covenants. These more affluent communities were usually also the communities (among those close to the ghetto) furthest from the urban core. Thus, on Chicago's south side, racial covenants formed a rough semi-circle around the southwestern, southern, and southeastern borders of the ghetto, looking almost like an arrowhead pointing the direction middle-class blacks would like to move if only they could (see Figure 1). The covenants could greatly circumscribe black movement without literally encircling the ghetto.

Contemporary works support the impression that during the 1930s, drives to encircle existing black districts with racially restrictive covenants probably became the major strategy for containing established ghettos (Drake and Clayton, 1945). During the 1940s, as World War II created new waves of black migration to northern cities and the black housing shortage became even more intense, the intensity of the drive for covenants seems to have become even greater. But whatever complacency black leaders may have shown in some cities towards early efforts to foster black residential districts, it did not extend to racially restrictive covenants. These were seen as legal walls, choking off further growth of the black community, and by the 1940s substantial efforts were underway in many cities to challenge their legality. (Vose, 1959) The NAACP made systematic challenges to restrictive covenants a major priority throughout the 1940s, and it catalyzed the cases in St. Louis, Detroit and the District of Columbia that were all granted certiorari by the U.S. Supreme Court in late 1947. Advocates on both sides – but especially on side opposing covenants – organized the preparation and submission of over a score of amicus briefs. In May 1948, the Court announced its decision in *Shelley v. Kramer*.

II. Two Views of the Effects of *Shelley*

In the years leading up to 1948, there was no doubt among civil rights advocates that racially restrictive covenants were the lynchpin of urban segregation. In his 1948 study of the black ghetto, Robert Weaver called covenants “the villain”, and a lengthy series of quasi-academic works echoed this view and documented the harms of restrictive covenants. Even as sober a scholar as Gunnar Myrdal made a bold prediction: “If the [Supreme] Court should follow up its action of declaring all local laws to segregated Negroes unconstitutional [a reference to *Buchanan v. Warley*] by declaring illegal also the private restrictive covenants, segregation in the North would be nearly doomed....” (Myrdal, 1944). When it came, the Supreme Court's ruling in *Shelley* was hailed as momentous for its practical as well as its legal significance.

In the event, of course, segregation was hardly doomed. The average level of black/white segregation in large cities, whether measured by the index of dissimilarity or the isolation index, continued to rise through the 1960 census (Cutler et al, 1999; Massey & Denton, 1993).¹¹ This has led

¹¹ Cutler et al (1999) report 20th century trends, decade by decade, for dissimilarity and exposure indices in a wide range of cities and metro areas, computed in a variety of ways; their measures show generally rising segregation levels from 1950 to 1960. Massey & Denton (1993) present, in their Table 2.3, block-level data for major cities (not metro areas); their data show a slight decrease in dissimilarity for 19 major northern cities in the 1950s (from .884 in 1950 to .856 in 1960) and a slight increase in 12 major southern cities (from .901 in 1950 to .919 in 1960). Most

many fair housing scholars to ignore or dismiss *Shelley's* impact. Massey and Denton, for example, wrote that post-*Shelley*, "whites [simply] turned to other, less visible means of shoring the ghetto's walls," and that *Shelley's* principal impact was "to dispel the lingering clouds of doubt surrounding the titles [sic] of many homes already in black possession." (1993)

But this assessment is unquestionably too simplistic. In many American cities in the 1930s, one really can observe very stable borders surrounding black ghettos. But by 1950, the "walls" of ghettos became mobile and changing; blacks still lived in overwhelmingly black communities, but the border between white and black neighborhoods was in continual flux, with one neighborhood after another experiencing black entry and white flight. Thus, at the very least, around the time of *Shelley* the typical black ghetto changed from a relatively static, well-demarcated district of the city to a dynamic, rapidly-growing urban phenomenon.

But the modern scholarship, when it notes this phenomenon at all, is unanimous in downplaying the idea that *Shelley* was important in this shift. Michael Klarman, writing in 2004, provided perhaps the most nuanced of these accounts:

During the Depression and World War II, when relatively little new housing was built, restrictive covenants may have been instrumental in confining black ghettos to existing boundaries....[i]t is hard to say for sure, though, because many additional forces excluded blacks from white neighborhoods....as black neighborhoods burst at the seams during the war and blacks sought admission to white communities, litigation to enforce restrictive covenants often proved inadequate to exclude them. Many neighborhoods in which courts enforced restrictive covenants quickly turned overwhelmingly black anyway....Restrictive covenant litigation generally proved too clumsy and expensive to frustrate powerful demographic and economic trends.....The postwar housing boom rendered restrictive covenants almost completely obsolete. As millions of new homes were built in suburbs, whites had much less incentive to remain in urban neighborhoods that were in the path of expanding black ghettos or to litigate to preserve residential segregation.... (Klarman, 2004)

In other words, *Shelley* itself had little impact; restrictive covenants were always a weak force for containing black ghettos, and after World War II they broke down completely under the triple pressure of rising black demand for new housing, white exodus to the suburbs, and the increasing reluctance of local courts to enforce covenants. [Other sources....] This is a plausible explanation of the general patterns on the ground, but it is odd that no one has ever attempted any sort of empirical test of the theory. Certainly it is an important question whether a conscious change of policy at the highest levels of government had an independent impact on conditions blacks faced, or whether changes were driven simply by demographic and economic forces on the ground. Similar questions are at the heart of fundamental debates about the impact of later fair housing initiatives, or indeed debates about the significance of the civil rights movement itself. [sources]

The question in issue goes beyond whether the postwar changes were prompted at least in part by *Shelley* or instead reflected only an abandonment of inner-city areas by whites and a reliance on different strategies to contain blacks. If the former, then the black community – particularly the black

sources show slight declines in the 1960s, followed by a bifurcation of patterns after 1970, with some metro areas witnessing significant black-white integration post-1970 and others seeing only slight declines in segregation; these patterns are explored by Sander (1988, 1998).

elite -- was an agent of change in a meaningful way; that would plausibly affect both the character of migration during this period, and the way it was perceived within the black community.

III. Hypotheses

The analytic challenge posed by these questions lies in finding testable hypotheses that distinguish between the theories. In this section, we advance several “candidate” hypotheses and discuss the strengths and weaknesses of each. The relevant data available for these tests is of two kinds: decennial small-area census data -- which is available for all major U.S. cities -- and information on the location of racially restrictive covenants, which to our knowledge is available in detail for only two cities, Chicago and St. Louis.¹²

(a) To what extent does the presence or absence of a racial covenant predict a change in racial composition -- i.e., an increase in black population -- in the 1930s, 1940s, and 1950s? The view that racial covenants were ineffective would be confirmed if the presence or absence of such covenants was largely an irrelevant factor in predicting black population and migration patterns during these decades. If covenants were effective up until the time of *Shelley* -- and perhaps even for a few years beyond *Shelley*¹³ -- then the presence of covenants, other geographic and demographic conditions being equal, should be associated with an absence of black entry or population growth in the 1940s and, conversely, associated with above-average black entry and population growth in the 1950s, as blacks moved into areas where they had previously faced special barriers.

Moreover, to the extent that black migration into covenanted tracts occurred during the 1940s, it is useful to examine the degree to which such movement is concentrated into the post-*Shelley* period (that is, from May 1948 onwards). The 1950 census asked respondents where they lived in 1949; we can thus examine whether movement into covenanted areas occurred before or after 1949.

(b) When did core ghetto areas stop becoming more dense, and begin experiencing out-migration to other neighborhoods? In most northern cities, black populations doubled or nearly doubled in the 1940s, and continued to grow rapidly in the 1950s and 1960s. It is too much to expect that growth of this magnitude could be completely confined within existing black neighborhoods; some spillover was inevitable. But a key turning point would occur when existing black tracts stopped growing, and began to experience net out-migration of blacks. That can be reasonably interpreted as a signal that access to new neighborhoods is improving rather than worsening. If *Shelley* changed the level of black access in important ways, we should observe a significant increase in black out-migration after 1950. Conversely, if black access improved only in tandem with white migration from central city areas to suburbs, we should see black out-migration patterns closely mirror white out-migration

¹² Data on restrictive covenants is, of course, available for all cities for anyone with the resources to study the millions of deeds from this period, which are maintained in county recorder offices around the nation. For Chicago and St. Louis, however, there are extant studies mapping the geography of racial covenants in the 1940s.

¹³ *Shelley v. Kraemer* held that courts could not use state power against blacks who purchased or occupied housing in violation of racially restrictive covenants, but it was another five years before the Supreme Court held, in *Barrows v. Jackson*, that similar logic made unconstitutional state action against white sellers who violated racially restrictive covenants. Thus, whites continued to face at least a potential cost in defying covenants before 1953.

patterns. A third possibility is that black density and “piling up” in the core continues unabated through the 1940s, 1950s, and 1960s. This would suggest that restrictive covenants were unimportant in maintaining barriers to blacks, and that they therefore had little impact either before or after *Shelley*.

(c) Our theory of restrictive covenants and the impact of *Shelley* could also be captured empirically as a story about housing prices. We have suggested that restrictive covenants are a way of restricting black purchases in white neighborhoods even as blacks become increasingly desperate for additional housing and willing to pay whites “above-market” premiums. If this is true, we should observe higher prices in black communities than in surrounding white communities, and similarly observe this differential decline after *Shelley*. Unfortunately, we know of no good way to observe this directly; while we have some information on the price of housing in adjacent black and white neighborhoods, we have no good measures of housing quality, so direct comparisons are not very meaningful. However, trends in housing prices in the ghetto relative to areas adjacent to the ghetto are possible; we would hypothesize that black prices in ghetto areas should increase relative to prices in adjacent tracts up until *Shelley*, and then start a relative decline. The reasoning parallels the reasoning behind the out-migration hypothesis, above. The limitations of available data make this hypothesis difficult to test as well, but we attempt to implement the test in Section VIII, below.

There are other testable implications of our theory about restrictive covenants and the effect of *Shelley*: that black homeownership rates should jump after 1948; that black densities should decline, and the geographic size of predominantly black areas increase rapidly; that black housing quality should start to catch up with white housing quality. But the three hypotheses we have detailed here seem like the most direct tests, and we will focus on those here.

IV. Data and Methods

Since, as we have discussed, restrictive covenants were not as ubiquitous in the northern cities as some commentators have assumed, it is important to know how, and how much, of the black ghetto of the 1940s was circumscribed by them. So far as we have been able to discover, there are only two cities whose racial covenants have been mapped in detail: Chicago and St. Louis. It is not surprising that Chicago’s covenants were mapped: the study of urban neighborhoods in America pretty much began with Chicago, and no less than four major ethnographic studies made use of maps to show the interaction between Chicago’s ghettos and its covenants. As for St. Louis, it was the city where *Shelley* and Kraemer lived, and it, like Chicago, had a large black population in a “northern” legal regime.

In both Chicago and St. Louis, substantial black ghettos were nearly, but not entirely, surrounded in the 1940s by neighborhoods with racial covenants. (See Figures 1 and 2) If *Shelley* had an effect anywhere, it should have had an effect in these cities. Our basic methodology for testing hypotheses (a) and (b) is to examine demographic changes in small areas over time, to see whether black settlement patterns and housing costs changed over time as our hypotheses predict. Our method for testing hypotheses (c) and (d) is to examine the evolving demographic pattern of the overall black communities of Chicago and St. Louis during the pre- and post-*Shelley* periods.

The primary source for studying small-area urban change over time is the decennial census. The United States Census began experimenting with collecting data for small neighborhood areas (called “census tracts”) in 1910, and gradually expanded its coverage until by 1940, all major American cities were tracted.¹⁴ For the most part (and especially in built-up, inner-city areas), these tracts followed consistent boundaries from decade to decade, so it is possible to follow the evolution of neighborhood demography with reasonable precision. St. Louis and Chicago are both among the small number of cities for which reasonably good tract data begins in 1910.

In recent decades, the Census has facilitated longitudinal analysis by favoring highly consistent questions from census to census, making changes only when they are clearly warranted by social changes (e.g., improving racial and Hispanic counts after 1970, or tabulating domestic partnerships after 1990). This was not true in the middle of the 20th century, and both the coverage of census questions as well as their wording and definitions, varied considerably from decade to decade. Thus, the 1930 census does not include questions about home value; the 1940 census does not include questions about household income; and the 1950 census does not include questions about where the respondent lived five years ago or the year in which the respondent moved into her current home (questions included in each census from 1960 through 2000). These gaps constrain the types of analysis one can do across decades, and thus shape to some extent the tests used in this paper.

The analyses in this paper, then, use decennial census tract data for Chicago and St. Louis, combined with data on the location and timing of racial covenants in those two cities, to measure various types of change across the decades from 1930 through 1960. Our analyses are limited to the cities proper, since few blacks lived in the suburbs during this period and the suburbs were, in any case, only tracted to a limited degree before 1950.¹⁵ When tract boundaries changed during this period, we used the “lowest common denominator” boundary across the 1930-60 period, but there are very few changes of this type for these two cities. We coded each tract for whether it was covered by a racially restrictive covenant, and when the covenant first appeared. We then combined available census data for each tract on racial composition, income distribution, housing composition, rents, and home values.

V. A Descriptive Overview

Chicago and St. Louis in the middle of the 20th century were broadly representative of northern industrial cities. Chicago in 1930 was the nation’s second largest city and, with more than 3.3 million residents, had more than 90% of its peak population. St. Louis, with over eight hundred thousand residents, was the seventh largest city in the United States and at about 95% of its peak (both cities hit

¹⁴ Starting in the 1940 census, the Census Bureau also gathered and published block statistics; these include very few variables, but they do include race and thus make possible even more detailed studies of migration and settlement patterns. Our present draft analyzes changes only at the tract level.

¹⁵ Explain (only large suburbs like Evanston were tracted in 1940, and none were in 1930...)

their maximum population sizes in 1950).¹⁶ Both cities had large black populations and both were highly segregated. In both cities, black incomes were generally far below white levels, but both had significant black middle classes even in 1940. Table 1 summarizes some of these key statistics, and traces changes in the cities over the period from 1930 to 1960.

In both St. Louis and Chicago, segregation increased rapidly from 1910 to 1930 and, by 1930, well-defined black ghettos had taken shape (see Figures 3 and 4). However, the patterns in the two cities diverged in significant ways. Restrictive covenants in Chicago covered larger areas and, early in the 1930s, surrounded substantial portions of the South Side ghetto. In St. Louis, covenants usually covered smaller areas and were often some distance removed from predominantly black communities. Perhaps for this reason, black segregation was more intense in Chicago than in St. Louis (the black/white dissimilarity index, measured by census tract units, was .93 in Chicago in 1930, and .82 in St. Louis).

The Great Depression lasted throughout the 1930s and slowed not only national population growth but also migration. The black populations of Chicago and St. Louis grew more slowly in the 1930s (in proportional terms) than they had in any decade since 1910, and would not grow so slowly again until the 1980s. In Chicago, black growth was almost entirely confined to existing ghettos, where the average black population increased to 96% of the tract totals and the index of dissimilarity edged up to .94. In St. Louis, the black ghetto expanded slightly but black density also increased and the index of dissimilarity rose to .85.

Sometime in the 1940s, things began to change. Large-scale migration of blacks from the South resumed during World War II, and in both cities black population increased rapidly: by 70% in Chicago from 1940 to 1950, and by – in St. Louis. [Map subtracting out 1949 movers?] By 1950, blacks had penetrated many of the borders of the old South Side Chicago ghetto at many points along its eastern and southeastern borders. Chicago's West Side ghetto, and the major St. Louis ghetto, had also noticeably expanded, generally in a direction away from the inner city.

Black population expansion continued at a high pace through the 1950s, and in both Chicago and St. Louis the physical scale of the cities' predominantly black areas was transformed. While blacks remained segregated, it was no longer meaningful to talk of a black "ghetto" as an area with fixed borders. Dozens of neighborhoods were in the midst of racial transition – always from white to black – at the moment of the 1960 census.

VI. Racial Covenants and the Path of Black Expansion

¹⁶ While the City of Chicago lost only 20% of its peak population and is still the nation's third largest city, the City of St. Louis lost 60% of its population and is now ranked 52nd among American cities.

Our first hypothesis predicts that the presence of racial covenants in a neighborhood will be negatively associated with black in-migration before *Shelley*, and positively associated with black in-migration after *Shelley*. We start our analysis with Chicago, partly because we have much better data for Chicago and partly because we think it presents a simpler case.

Creating a model that directly tests the effect of covenants on racial change poses an obvious problem – the direction of causation. As Figure 1 suggests, a relatively small proportion of the built-up areas in Chicago had racially restrictive covenants, presumably for the cost and logistical reasons discussed in Section II. Since the covenants were designed to stop black in-migration, they are, not surprisingly, clustered around black neighborhoods. If covenants were ineffective, then, the tracts covered by them would be far more likely to experience black in-migration than other tracts.

There is no way to control for the expectations that shape the location of covenants, but we can control for two other factors which are almost certain to be associated with black in-migration. First, the presence of blacks in a tract will be associated with black in-migration, both because these tracts have already been penetrated by black pioneers and thus pose fewer, if any, barriers to new black arrivals, and second because the presence of blacks suggests social networks, churches, and other institutions that will attract additional black in-migrants. Second, the proximity of a tract to an existing black concentration will be positively correlated with black in-migration, since that is predicted by our stylized model of black neighborhood migration and it is empirically observed widely in mid-century American cities.

Table 4 presents results for a series of models estimating the racial composition of Chicago census tracts in 1940, 1950, and 1960. Each model includes controls for the racial makeup of the tract at the time of the prior census, the tract's distance from the nearest tract that is more than 80% black, and whether the tract contained restrictive covenants. The two control variables behave as expected: a tract's percent black a decade earlier strongly predicts the presence of blacks, and a tract's distance from a predominantly black neighborhood is negatively associated with a growing black population. The critical variable – the presence of restrictive covenants – behaves as we hypothesize. For 1940 and 1950, the presence of racial covenants is associated with no increase in black population. But in 1960, the presence of covenants is associated with dramatic increases in black population. This suggests that in the 1930s and 1940s, racial covenants effectively “held back” black entry, but failed to do so in the 1950s.

Of course, we would like to hone in more closely on 1948, the year *Shelley* was decided. The best we can do is take advantage of a 1950 census question that asked respondents where they lived twelve months ago – that is, in April 1949. Panels C and D in Table 4 present two analyses of Chicago tracts that use the information about 1949 locations to sense whether black migration patterns changed immediately after *Shelley*. The regression in Panel C is identical to the ones in Panels A, B and E, except that the measure of black presence in 1950 excludes persons who moved to their current residence after April 1949 – that is, it attempts to estimate the black presence in a tract as of April 1949. The results are similar to those in Panel B, except that the presence of covenants is now associated with a small (non-significant) decrease in black population rather than a small (non-significant) increase. Panel

D examines just the presence of blacks who moved into their current housing after April 1949. Now the coefficient associated with racial covenanted tracts is positive, larger, and weakly significant ($p = .06$). These results also fit extremely well with our hypothesis: they suggest that blacks were able to move into tracts with racial covenants after 1948, and began to do so almost immediately.

As we have noted, St. Louis presents important differences from Chicago that make our test more challenging. In Chicago, we have data on the extent of racial covenants at multiple time points, and can thus update our models to reflect covenant conditions in each decade; in St. Louis, we only have data on one point in time (1947). Chicago has over eight hundred census tracts, providing a high-resolution picture of change; St. Louis has only 127 tracts usable in our analyses, providing little granularity. Most importantly, as we have noted, the St. Louis covenanted areas are small, irregular, and do not directly abut black neighborhoods as regularly as they do in Chicago, which makes the tests we wish to do more difficult.

To adjust for these difficulties, we distinguished between census tracts that were fully covered by racial covenants in 1947 from those that were only partially covered. We reasoned that the former tracts should show patterns similar to those we observed in Chicago, but the latter tracts would be susceptible to racial transition before *Shelley* – indeed, they would be particularly susceptible because the tracts they partially covered would presumably be in the path of black in-migration.

Table 5 presents regression results for St. Louis, using the same sort of models we presented in Table 4 for Chicago (we offer no model for 1930-40 changes, since we do not have covenant data for that period). Panel B predicts the racial makeup of tracts in 1950. Tracts that are fully covered by racial covenants experience a small (but not significant) increase in black presence, controlling for 1940 racial makeup and distance from a predominantly black tract; tracts that are partially covered by racial covenants experience a large and significant increase in black presence. Panels C and D “decompose” this period by examining, as we did in Chicago, how the tracts look when we exclude those who moved into their current residences after April 1949 (Panel C), and when we focus only on those who moved into their current residences after April 1949 (Panel D). These results are striking. The migration into fully-covenanted tracts seems to be heavily concentrated in the 1949-50 period; the coefficient of black in-migration to these tracts is negative when we exclude the 1949-50 movers (i.e., when we focus on those already in the tract in 1949), but highly positive when we focus on the 1949-50 movers. As in Chicago, this is consistent with the hypothesis that *Shelley* opened covenanted areas to a large and rapid wave of black in-migration.

Panel E predicts changes in black population from 1950 to 1960. As in Chicago, the tracts fully covered by racial covenants in St. Louis experienced very large black in-migration; those partially covered experienced smaller, but still substantial increases in black population.

Taken together, these results provide strong and consistent report for our first hypothesis: racial covenanted areas in Chicago and St. Louis had minimal black entry before 1949, and massive black entry thereafter.

VI. A Second Empirical Approach: Net Outmigration

Our last section supports the idea, developed in Section II, that restrictive covenants created mini-cartels in the covenanted areas, effectively stopping individual housing owners from breaking ranks and selling or renting to blacks. But this demonstration is limited to the two cities for which we have good data on the extent of restrictive covenants (only one of which has covenants that nicely match census tract boundaries, providing a really satisfactory test). In this section and the next, we consider other ways of testing more broadly, albeit indirectly, our hypotheses about *Shelley's* effects.

If it was the case that restrictive covenants at least partially surrounded black ghettos in most industrial cities, and made black out-migration more difficult, costly, or dangerous than it would have been without covenants, what should we observe empirically? Not a complete absence of black out-migration from the ghetto to neighboring tracts; after all, in some cities black populations more than doubled during the 1940s and the pressure to expand black settlement to nearby areas must have been overwhelming. However, we might reasonably expect that, while covenants were enforceable, densities inside the ghetto would steadily increase. Moreover, if *Shelley* greatly weakened the practical effectiveness of covenants, we should observe ghetto densities declining after 1948, and in particular, a growth in the number of inner-city tracts with declining black populations.

Of course, to properly test this hypothesis, we need to consider white migration patterns as well. The conventional wisdom is that whites faced a severely circumscribed housing market during the 1930s and 1940s. The Great Depression vitiated the housing industry during the 1930s, as prices collapsed amid widespread foreclosures, and then wartime industry restrictions permitted only limited housing construction in the 1940s. The 1950s are usually seen as the era when suburbanization took off and, with it, white out-migration from central cities. By this thinking, restrictive covenants were important to whites in the 1930s and 1940s because they needed to defend precious turf in the inner city; once suburbanization began, whites abandoned these neighborhoods on a large scale and blacks simply moved into the vacuum created by white out-migration.

In fact, however, it was the 1940s, not the 1950s, when whites began moving to suburbs and purchasing single-family homes in large numbers. Home ownership rates actually rose faster in the 1940s than in any decade of the twentieth century.¹⁷ 1940 and 1941 were two of the biggest years on record for new home construction, and the boom immediately resumed after the war.¹⁸ Most of this

¹⁷ Historical Statistics of the United States: Millennial Edition, vol. 4, Figure Dc-E (p. 4-399), and accompanying data in Table Dc697-760 (pp. 4-506-507) (Cambridge University Press, 2006).

¹⁸ Single-family home starts averaged 454,000 per year in the late 1920s, and then plunged to only 76,000 starts in 1933. Construction began to rise again in the late 1930s, and reached 447,600 new single-family unit starts in 1940, and 533,200 in 1941. After another drop during the war, single-family home starts rebounded to an average of 722,000 for the last four years of the decade. *Id.* At Table Dc510-530 (vol. 4, pp. 4-481-482).

new construction was in the suburbs. The nation's ten largest central cities had a small net drop in white population during the 1940s, while the suburbs of those cities grew by 35%.¹⁹

Table 6 provides a way of comparing black and white housing mobility during the decades before and after *Shelley*: the 1940s, the 1950s, and the 1960s. For each of eight major central cities, we looked for cases where the black population fell in mostly-black census tracts, or where the white population fell in mostly-white tracts. The patterns that emerge are strong and consistent. A large proportion of "white" tracts lost white population in the 1940s, ranging from about a third of the white tracts in Chicago and St. Louis, to two-thirds in Buffalo and Milwaukee. In subsequent decades, white migration out of white tracts steadily increased. In contrast, very few majority-black tracts experienced net-outmigration of blacks in the 1940s – only nine tracts out of the 137 majority-black tracts in the eight cities. In the 1950s, this number jumped dramatically: 158 out of the 209 majority-black tracts (76%) had a net loss of blacks in the 1950s, and 339 out of 479 majority-black tracts (71%) had a net loss of blacks in the 1960s.²⁰

Of course, all of these cities experienced some black "invasion" of white areas during the 1940s; note that the number of majority-black tracts in every city (except San Francisco) rose from 1940 to 1950). Could it be that majority-white tracts lost whites in the 1940s simply because of the "push" of black demand? We examined data for Chicago and St. Louis (the two cities where all our tract data is geocoded) to examine this question. When we exclude census tracts susceptible to black invasion (e.g., those within a mile of a predominantly black tract at the beginning of a decade), the proportions listed in the right column of Table 6 fall an average of three points in Chicago, and two points in St. Louis. White out-migration occurred independently of black migration patterns, and it started on a large scale during the 1940s.

In other words, something dramatic greatly eased the ability of blacks to move out of core ghetto areas around 1950. Whatever it was, it happened in most large industrial northern cities, and was not simply mirroring simultaneous changes in the white housing market. This is merely circumstantial evidence of *Shelley*'s role, but it seems to us very strong circumstantial evidence.

VII. Racial Covenants and Black Housing Prices

Our last section supports the idea, developed in Section II, that restrictive covenants created mini-cartels in the covenanted areas, effectively stopping individual housing owners from breaking ranks and selling or renting to blacks. In this section we consider whether racial covenants, taken as a whole

¹⁹ Statistical Abstract of the United States, Table 14 (for gross metro populations); Historical Statistics of the United States: Millennial Edition, vol. 1, Table Aa832-1033 (for population of central cities).

²⁰ San Francisco is the city that doesn't fit the pattern, but its exceptionalism makes perfect sense and even strengthens our story. California courts had often refused to enforce restrictive covenants over many decades, and San Francisco had the least segregated housing conditions (for blacks) of any major American city.

over a city's housing market, created as well a broader cartel that enveloped the entire black housing market. This might well not be true, even if racial covenants worked, because neither in Chicago nor St. Louis were black ghettos ever completely surrounded by covenanted areas. The notion is that covenants closed off enough of the relevant housing market, and were supplemented by sufficient other deterrents to black entry, that together these actions so limited black housing opportunities that expansions in black supply in the years leading up to *Shelley* fell far short of rising black demand – thus leading to rises in black housing prices relative to white prices before *Shelley*. Concomitantly, the evisceration of restrictive covenants by *Shelley*, and the significant post-*Shelley* migration of blacks to covenanted areas, could have so eased the entry of blacks into adjacent white neighborhoods, at least on a block-by-block basis, as to produce a substantial easing of black shortages in housing during the 1950s, leading to declines in relative black housing prices.

Chicago. We begin again with Chicago, since it provides the cleaner test with its larger number of tracts, higher level of measured segregation, and tighter net of racially restrictive covenants. We examined both changes in single-family home prices and rents during the 1940-50 period and the 1950-60 period. Our dependent variable was a tract's change in housing prices during the decade; our key independent variable was whether a tract was more than 50% black at the start of the period. We added controls for other factors we thought would be plausibly related to changes in housing values, such as a measure of socioeconomic status (the percentage of householders with high school diplomas), the housing makeup of the tract (the ratio of single-family homes to rental units), and whether the tract was on the South or West side of Chicago (the locations of the two major black ghettos in Chicago). We also added dummy variables to capture neighborhoods in the process of neighborhood change.

Table 6 shows results for the 1940s, with Panel A predicting changes in tract median single-family housing values from 1940 to 1950, and Panel B predicting changes in tract median rents. Both models show very large (52% and 39%, respectively) increases in the relative housing prices prevailing in mostly black tracts. These are stunning values, suggesting the operation of a very powerful cartel indeed. Other variables in the model are significant as well, though the relatively modest R² suggests that there is either a good deal of noise in the model, or that important explanatory variables are not identified. Over a wide range of specifications, however, the relative increase in black prices is robust.

The dummy variables for racial change in Panels A and B produce interesting results as well. In the rental model, modest increases in black numbers in a neighborhood (in 1950, probably associated with initial black entry) are associated with large increases in rents – another sign that black demand was intense and that when landlords could open up a new neighborhood to black entry, rents rose quickly. The patterns in owner-occupied housing are less consistent, but that may reflect how unstable single-family home prices could be as racial transition begins; blockbusters would on the one hand be trying to induce panic and flight among whites, even as they charged significant markups to blacks.

Panels C and D in Table 7 show results for Chicago in the 1950s, with the models designed the same way as their counterparts for the 1940s. Panel C suggests that black single-family home prices declined substantially during the 1950s, though the coefficient is not quite statistically significant. Panel D shows a similar – and more statistically significant – decline in median rents for black neighborhoods.

While this central effect (the change in black prices relative to white prices) has flipped from the 1940s to the 1950s, the control variables generally behave similarly across the models. The racial change variables have generally small coefficients that are not statistically significant, except for the significant drop in rents associated with small increases in black population.

These regressions provide very strong support for our second hypothesis – that restrictive covenants could bottle up black housing demand in an increasingly constrained ghetto space, and that *Shelley*, in greatly reducing the effectiveness of these covenants, released pent-up black demand and facilitated black migration to new neighborhoods. Although we cannot use 1948 as our swing year, it is telling that the data show strong increases in relative black housing prices during the 1940s (mostly years before *Shelley*), and decreases in relative black housing prices during the 1950s in the wake of *Shelley*. The large increase in black relative prices during the 1940s is particularly striking, since it runs against several tides: the disinvestment in black areas, which generally hurt housing quality and caused housing deterioration; the intense overcrowding in the ghetto, which also no doubt hurt the physical quality of the housing; and the housing shortages that affected white communities during World War II, which caused white prices to rise as well. It is hard to imagine any explanation, other than the general cartel effect of restrictive covenants, which could account for both the relative black housing inflation of the 1940s, and the deflation of the 1950s.

It is worth pausing at this point to consider two possible weaknesses in the story we have advanced about Chicago. First, racial covenants did not completely encircle the black ghettos. If the covenants were an especially effective barrier to black migration, why didn't the migration press outwards into the neighborhoods where covenants were absent? One partial answer is that this did happen; as Panel C in Tables 4 and 5 shows, areas without covenants had more black in-migration during the 1940-49 period than areas with covenants. A more complete answer lies in the ethnography of the different neighborhoods. On Chicago's South Side, the neighborhoods near the ghetto that had racial covenants tended to be more affluent, have better housing, and have more owner-occupied housing. Neighborhoods that lacked racial covenants, particularly those along the western border of the South Side ghetto, were poorer and more ethnically homogenous. The covenant neighborhoods were far more attractive prospects for the middle-class blacks who were most likely to pioneer in white neighborhoods. And the non-covenant neighborhoods were much more likely to resort to informal methods – such as violence and vandalism – to keep blacks out. Figure 5 shows the results of a study conducted in the 1940s which mapped the location of violent attacks on black pioneers in the South Side. The attacks are substantially clustered in the non-covenant white communities on the ghetto's western frontier. Thus, covenants could create a cartel if they were complemented by other forces that created specific, powerful deterrents to black entry. By this thinking, *Shelley* put a very large hole in the ghetto wall that the covenant communities were unable or unwilling to replace with something else.

A second issue that has lingered behind much of our discussion is the evolution of the broader, white housing market. The conventional wisdom is that whites, too, faced extreme housing shortages through the 1940s, and that their housing opportunities shifted decisively with the rise of the suburbs in the 1950s. By this thinking, the shift in black housing opportunities was merely an echo of what was happening in the white community. We have already seen some difficulties with that story, such as the

shift in black migration patterns into covenanted areas that seems to have occurred immediately after *Shelley*, and the flip in black housing appreciation patterns, relative to white patterns, that also occurred around the time of *Shelley*. But it is useful to point out a more fundamental problem with the conventional wisdom: it is a misleading depiction of the mainstream housing market. Housing construction was undoubtedly constrained during World War II, but housing supply expanded rapidly after 1945. During the 1940s, the number of housing units in Cook County increased by more than a third, and the number of single-family homes more than doubled (see Table 8). If we assume that most of this expansion occurred between 1945 and 1950, the rate of housing expansion in Cook County was actually *far* greater in the late 1940s than during the 1950s.²¹ Similarly, rates of housing inflation in the general market were somewhat lower (relative to the general trend in prices) in the 1940s than in the 1950s – directly opposite to the pattern implicit in the conventional wisdom. If developments in the black market were merely an echo of broader market developments, then 1945, not 1948, should have been the decisive year. The patterns we observe do not fit with the “echo” story.

St. Louis presents an interesting comparison with Chicago because of the differences we have noted in covenants and the barriers facing blacks. Segregation was high in St. Louis, but significantly lower than in Chicago, and covenants formed a much less cohesive barrier. Only 65% of blacks in St. Louis in 1940 lived in tracts that were more than 80% black, compared with 82% of Chicago blacks. All of these factors make it plausible that the conditions for a general cartelization of the housing market were much weaker in St. Louis.

Table 7 shows that there is some evidence for rising relative black prices in 1940s St. Louis; the coefficients for prices in mostly-black neighborhoods are positive for both rents and home values, but the size of the coefficients is smaller than in Chicago and they are not statistically significant. The models for the 1950s give weak and conflicting evidence of a distinctly “black” pattern; relative black rents rose substantially and significantly, while relative black home prices may have fallen, though not significantly. The 1940s patterns are consistent with the finding that St. Louis blacks successfully moved into neighborhoods that were only partly covered by restrictive covenants; this would have eased the pressure of black population growth in St. Louis more than happened in Chicago, where it appears blacks were tightly confined by covenants (and violence) until the very end of the decade.

We do not, however, have a ready explanation for why black rents would have continued to rise, relative to white rents, during the 1950s. It is possibly an aberration due to the small sample size of heavily black tracts in St. Louis,²² but the patterns warrant closer investigation.

²¹ Although the “collar counties” around Cook were growing rapidly during this time, their inclusion would not significantly change the story: Cook accounted for 91% of the metro area’s housing units in 1950, and 81% in 1960.

²² In St. Louis in 1950, only eight tracts were more than 80% black and only fifteen were more than 50% black.

VIII. Larger consequences: Shelley and the Wilson-Massey debate

In both Chicago and St. Louis, black migration to areas covered by restrictive covenants increased sharply after *Shelley*. What aggregate impact did that have on the black community?

As Table 9 suggests, homeownership rates among blacks rose sharply during the 1950s, rising faster – in proportionate terms, at least – than did homeownership among whites. The areas covered by racial covenants tended to have larger proportions of homeowners among all households, certainly compared to the old black ghetto and even compared with similar areas that did not have racial covenants. Facilitating black entry into these areas made it possible for many middle-class blacks to own a home for the first time.

The dark side of this trend may have been a substantial increase in economic segregation within the black community. As many readers will know, one of the most significant debates of recent decades in the field of urban sociology has centered on the question of whether the civil rights revolution disproportionately benefited middle-class blacks and left behind a black underclass that was more disadvantaged than ever. William Julius Wilson articulated this view in several works, especially *The Truly Disadvantaged*, and gave it a spatial dimension, arguing in 1987 that

[T]he growing problem of joblessness in the inner city ... [is] partly created by the changing social composition of inner-city neighborhoods...In the 1940s, 1950s, and even the 1960s, lower-class, working-class, and middle-class black urban families all resided more or less in the same ghetto areas, albeit on different streets. ..The exodus of black middle-class professionals from the inner city has been increasingly accompanied by a movement of stable working-class blacks to higher-income neighborhoods in other parts of the city and to the suburbs. Confined by restrictive covenants to communities also inhabited by the urban black lower classes, the black working and middle classes in earlier years provided stability to inner-city neighborhoods and perpetuated and reinforced society norms and values. In short, their very presence enhanced the social organization of ghetto communities.²³

Wilson offered little data to document this trend, and Douglas Massey, Mitch Eggers and Nancy Denton – who had collectively just created a comprehensive database matching 1970 and 1980 census tracts for sixty large metropolitan areas – quickly responded that Wilson was wrong; there had been no decisive increase in economic segregation within the black community during the 1970s.²⁴ Beneath this dispute on the technical question of whether black economic segregation had increased was, of course, the larger issue of whether the black “underclass” and its problems were primarily attributable to continuing, intense racial segregation, or whether they were at least partly linked to the departure of a more mobile black middle-class. Massey and his coauthors discounted the second factor partly because middle-class blacks continued in the 1970s (and continue today) to be relatively segregated from whites.

The debate was thus joined, and several other social scientists contributed analyses on the question of black economic segregation and middle-class mobility in the years after the Fair Housing Act

²³ Wilson, *The Truly Disadvantaged* (Chicago, 1987) at 143.

²⁴ Massey and Eggers, “The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970-1980,” 95 *American Journal of Sociology* 1153 (1990); Massey and Denton, *American Apartheid* (1993).

of 1968. Perhaps the best of these was a paper by Lincoln Quillian, who published in 1999 an analysis of microdata from the 1970s and 1980s that, in effect, found support for both the Wilson and Massey theses.²⁵ Quillian found that middle- and working-class blacks moved into white neighborhoods at a high rate during those decades, but that white flight led to resegregation and thus, no marked decrease in racial segregation for even middle-class blacks.

What much of this debate missed, however, was Wilson's original suggestion that the early, high level of economic integration among blacks in northern cities was due to restrictive covenants, and the intense densities that created in black communities. If this is true, and if *Shelley* really did undermine the effectiveness of restrictive covenants and catalyzed higher levels of black migration, then the key period to examine the Wilson hypothesis is not the 1970s, but the 1950s and (perhaps) the 1960s.

As Table 11 indicates, the index of dissimilarity between poor and non-poor blacks nearly doubled during the 1950s in both Chicago and St. Louis. Each measure of economic segregation we have examined shows increases during the 1950s – often large increases. Moreover, our preliminary analysis of census data for other cities strongly suggests that much the same patterns held throughout the North and West. What we see in our analysis, thus far, is all of a piece: restrictive covenants near ghettos were particularly prevalent (and, until *Shelley*, particularly effective) in middle-class communities of single-family homes. Middle-class blacks were the most eager challengers of these covenants, and the ones with both the greatest means and strongest desire to move out of existing ghettos. After *Shelley*, middle-class blacks migrated to previously covenanted communities in large numbers, increasing substantially both the black homeownership rate and the level of intra-black economic segregation. The newly-entered communities consistently resegregated, so the aggregate level of black/white segregation did not change much, but the post-*Shelley* world had a much more geographically dispersed black population.

This illustrates the fundamental message of this paper: *Shelley* mattered on the ground. The civil rights revolution began to affect the housing choices and opportunities of northern, inner-city blacks long before the passage of the federal Fair Housing Act in 1968. Rapid change came to at least some northern ghettos in the immediate wake of *Shelley*, and we should look to the 1950s as much as to the 1970s for evidence of the effects of that change.

IX. Conclusion

This paper is exploratory in many ways. We examine only two cities, and we are happy with the quality of data on restrictive covenants in only one city – Chicago. We are interested in a number of different effects and patterns of change, but many of our tests are merely first attempts to build reasonable models or measures of change. We intend to look at these cities more closely, and to extend the analysis to other cities.

²⁵ Quillian, "Migration Patterns and the Growth of High-Poverty Neighborhoods, 1970-1990," 105 *American Journal of Sociology* 1 (1999).

Still, these findings are richly suggestive. First, we believe we have shown that it is possible to test for the effect of racially restrictive covenants on patterns of urban black residence, and to similarly test for the effect of *Shelley v. Kraemer*, which suddenly altered the legal enforceability of these covenants. Second, we have found two very large swings in Chicago's black housing market that happened contemporaneously with *Shelley*: areas covered by racial covenants changed from racial stasis to sites of rapid black in-migration; and black prices shifted from rising rapidly relative to white prices in the 1940s (suggesting increasing constraints on black supply relative to white supply) to dropping sharply in the 1950s (suggesting falling constraints). Third, our comparison of Chicago with St. Louis suggests a plausible link between differences in the evolution of black housing markets in the two cities and differences in the scope and location of restrictive covenants. This, however, is a particularly tentative finding, since the small number of relevant "observations" (i.e., black or potentially black census tracts) is very small. Fourth, the data on black out-migration is highly consonant with our broader theory, and suggests that the patterns in Chicago and St. Louis may well have been duplicated across most urban, northern cities. Fifth, the rapid increase in black out-migration that occurred during the years after *Shelley* is plausibly linked to interesting and possibly very important changes in black residential patterns, such as an increase in black homeownership, a rise in economic segregation within the black community, and an increase in the isolation of the lowest-income blacks. *Shelley v. Kraemer*, we conclude, was not merely a landmark civil rights case; it was probably also, in at least some cities, a major turning point in the evolution of black segregation and the myriad effects of that segregation on American society.

References

Chicago Commission on Race Relations, 1922. *The Negro in Chicago: A Study of Race Relations and a Race Riot* (University of Chicago Press).

Clark, Tom C., and Philip B. Perlman, 1948. *Prejudice and Property: An Historic Brief Against Restrictive Covenants* (Public Affair Press).

Drake, St. Clair, and Horace Clayton, 1945. *Black Metropolis: A Study of Negro Life in a Northern City* (University of Chicago Press, 1993 edition).

Duncan, Otis Dudley, and Beverly Duncan, 1958. *The Negro Population of Chicago* (University of Chicago Press).

Farley, Reynolds, and Walter Allen, 1989. *The Color Line and the Quality of Life in America* (Oxford University Press).

Hirsch, Arnold R., 1983. *Making the second ghetto: Race and Housing in Chicago, 1940-1960* (Cambridge University Press).

Klarman, Michael J., 2004. *From Jim Crow to Civil Rights: The Supreme Court and the Struggle for Racial Equality* (Oxford University Press).

Long, Herman H., and Charles S. Johnson, 1947. *People vs. Property: Race Restrictive Covenants in Housing* (Fisk University Press).

Massey, Douglas, and Nancy Denton, 1993. *American Apartheid* (Harvard University Press).

Massey, Douglas, and Mitch Eggers, 1990. "The Ecology of Inequality: Minorities and the Concentration of Poverty, 1970-1980," 95 *American Journal of Sociology* 1153.

Philipot, Thomas Lee, 1978. *The Slum and the Ghetto: Immigrants, Blacks, and Reformers in Chicago, 1880-1930* (Oxford University Press).

Spear, Allan H., 1967. *Black Chicago: The Making of a Negro Ghetto, 1890-1920* (University of Chicago Press).

Vose, Clement, 1959. *Caucasians Only: The Supreme Court, the NAACP, and the Restrictive Covenant Cases* (University of California Press).

Weaver, Robert, 1948. *The Negro Ghetto* (Harcourt, Brace and Company).

Wilson, William Julius, 1980. *The Declining Significance of Race* (University of Chicago).

TABLES

Table 1. Descriptive Statistics: Blacks in Chicago and St. Louis, 1930-1960

Characteristic	Chicago	St. Louis
Black population, 1930	233,903	95,081
Black population, 1940 (and % increase over 1930)	277,731 (19%)	108,765 (14%)
Black population, 1950 (and % increase over 1940)	492,265 (77%)	153,766 (41%)
Black population (and % increase over 1950)	812,637 (65%)	214,377 (39%)
B/W Dissimilarity index, 1930	.93	.82
B/W Dissimilarity index, 1940	.94	.85
B/W Dissimilarity index, 1950	.91	.85
B/W Dissimilarity index, 1960	.92	.85

Table 2: Descriptive Statistics, Chicago

	Mean	St. Dev.	Min	Max	N
Percent black, 1940	7.99	24.66	0	99.83	829
Percent black, 1930	7.40	23.39	0	99.58	829
Presence of covenants, 1933	0.15	0.36	0	1	829
Log Distance to nearest tract with >80% black, 1930	7.69	2.14	0	9.78	829
Percent black, 1950	12.20	28.94	0	99.88	829
Non-movers, 1949	11.60	29.03	0	100.00	829
Movers (<1 year), 1950	4.03	10.45	0	70.85	829
Percent black, 1940	7.99	24.66	0	99.83	829
Presence of covenants, 1947	0.17	0.37	0	1	829
Percent black, 1960	21.65	37.31	0	100	824
Percent black, 1950	12.02	28.71	0	99.88	824
Presence of covenants, 1947	0.17	0.38	0	1	824
Violence, 1944-1946	0.06	0.34	0	3	824
Log Distance to nearest tract with >80% black, 1950	7.32	2.45	0	9.77	824
Percent change in median housing price, between 1940 and 1950	211.98	82.72	0.00	614.29	524
Percent change in median rent price, between 1940 and 1950	36.36	27.97	-17.91	223.53	524
Percent change in median housing price, between 1950 and 1960	53.34	50.80	-45	650	524
Percent change in median rent price, between 1950 and 1960	95.52	33.56	-10	240	524
Percent black>50%, in 1940	0.03	0.16	0	1	524
Percent HS and more, in 1940	20.79	13.77	3.44	70.16	524
Logged Ratio of house to rent, in 1940	0.89	0.90	-3.48	2.30	524
South	0.17	0.37	0.00	1	524
West	0.11	0.32	0.00	1	524
Change in % black between 1940 and 1950					524
<2% (reference)	0.91	0.29	0.00	1	524
2 - 10%	0.04	0.20	0.00	1	524
11 - 25%	0.01	0.11	0.00	1	524
26-40%	0.01	0.11	0.00	1	524
40>%	0.03	0.16	0.00	1	524
Change in % black between 1950 and 1960					524
<2% (reference)	0.82	0.38	0.00	1	524
2 - 10%	0.04	0.19	0.00	1	524
11 - 25%	0.02	0.14	0.00	1	524
26-40%	0.03	0.16	0.00	1	524
40>%	0.10	0.30	0.00	1	524

Table 3. Descriptive Statistics, St. Louis

	Mean	St. Dev.	Min	Max	N
Percent black, 1960	21.82	34.56	0	99.61	127
Percent black, 1950	12.62	26.97	0	98.63	127
Percent black, 1940	9.81	23.77	0	96.73	127
Non-movers, 1949	12.20	27.35	0	98.54	127
Movers (<1 year), 1950	3.89	8.58	0	54.69	127
Presence of covenants (full tract coverage)	0.04	0.20	0	1	127
Presence of covenants (partial tract coverage)	0.10	0.30	0	1	127
Log Distance to nearest tract with >80% black, 1940	7.60	2.09	0	9.25	127
Median housing value, 1940 (in '000s)	3.22	1.95	0	12.28	127
Log Distance to nearest tract with >80% black, 1950	7.53	2.19	0	9.25	127
Median income, 1950 (in '000s)	2.70	1.14	0	4.53	127
Median housing value, 1950 (in '000s)	7.51	4.66	0	20	127
Percent change in median housing price, between 1940 and 1950	166.20	68.32	20	400	113
Percent change in median rent price, between 1940 and 1950	37.52	46.19	-11.76	455.56	113
Percent change in median housing price, between 1950 and 1960	29.39	38.23	-35.00	316.67	113
Percent change in median rent price, between 1950 and 1960	92.65	43.85	-36.67	280.00	113
Percent black>50%, in 1940	0.05	0.23	0	1	113
Percent HS and more, in 1940	17.47	12.40	2.31	60.45	113
Logged Ratio of house to rent, in 1940	-0.85	1.02	-3.39	1.00	113
Change in % black					113
<2% (reference)	0.81	0.39	0	1	113
2 - 10%	0.09	0.29	0	1	113
11 - 25%	0.04	0.19	0	1	113
26-40%	0.05	0.23	0	1	113
40>%	0.01	0.09	0	1	113
Change in % black between 1950 and 1960					113
<2% (reference)	0.72	0.45	0	1	113
2 - 10%	0.04	0.21	0	1	113
11 - 25%	0.09	0.29	0	1	113
26-40%	0.02	0.13	0	1	113
40>%	0.13	0.34	0	1	113

Table 4: OLS Regression Predicting Percent Black within Census Tract, Chicago

	1940	1950	Non-movers, 1949	Movers (<1 Year), 1950	1960
	a.	b.	c.	d.	e.
Presence of covenants (1933 for 1940 model, 1947 for the rest)	0.17 (0.36)	0.32 (1.26)	-0.57 (2.06)	1.71 (0.92)	16.59 (2.25)
Percent black (t-10)	1.05 (.01)	0.86 (0.05)	0.93 (.07)	-.10 (0.03)	0.81 (0.08)
Log Distance to nearest tract with % black >80 (t-10)	.06 (0.14)	-2.28 (.53)	-2.58 (0.87)	-2.85 (0.39)	-1.96 (0.89)
Intercept	-0.26 (1.23)	22.79 (4.51)	24.70 (7.33)	26.40 (3.27)	23.41 (7.45)
R-Squared	0.9787	0.7909	0.6303	0.1591	0.5889
N	829	829	829	829	824

Note: Standard Errors are in parentheses.

Table 5: OLS Regression Predicting Percent Black within Census Tract, St. Louis

	1940	1950	Non-movers, 1949	Movers (<1 Year), 1950	1960
	a.	b.	c.	d.	e.
Covenant, full tract coverage, 1947		2.30 (4.07)	-0.64 (4.12)	17.06 (3.42)	39.87 (9.41)
Covenant, partial tract coverage, 1947		11.51 (2.54)	11.47 (2.57)	4.14 (2.14)	8.66 (6.23)
Percent black (t-10)		1.11 (0.08)	1.12 (0.08)	0.09 (0.07)	0.98 (0.15)
Log Distance to nearest tract with % black >80 (t-10)		0.45 (0.95)	0.40 (0.96)	-0.60 (0.80)	-0.43 (1.85)
Intercept		-3.01 (8.08)	-2.98 (8.17)	6.42 (6.80)	10.31 (15.64)
R-Squared		0.9040	0.9045	0.3280	0.6788
N		127	127	127	127

Table 6
Proportion of Majority-Black and Majority-White Census Tracts With Net-Outmigration of
Dominant Group per Decade, for Eight Major Cities, 1940-1970

City	Decade	Proportion of Tracts with a Racial Majority that experienced a net loss of members of the group during the specified decade (n at the beginning of the decade)	
		Majority Black Tracts	Majority White Tracts
Chicago	1940-1950	5% (62)	32% (753)
	1950-1960	71% (93)	35% (723)
	1960-1970	79% (180)	77% (632)
St. Louis	1940-1950	0% (10)	34% (95)
	1950-1960	67% (15)	70% (91)
	1960-1970	67% (20)	91% (76)
Detroit	1940-1950	9% (22)	57% (369)
	1950-1960	67% (38)	49% (355)
	1960-1970	51% (115)	90% (278)
Baltimore	1940-1950	11% (9)	61% (97)
	1950-1960	71% (14)	74% (92)
	1960-1970	83% (30)	91% (76)
Boston	1940-1950	0% (2)	58% (132)
	1950-1960	100% (4)	85% (130)
	1960-1970	91% (11)	79% (121)
Cleveland	1940-1950	0% (14)	51% (282)
	1950-1960	77% (22)	62% (274)
	1960-1970	79% (48)	72% (249)
Milwaukee	1940-1950	0% (3)	69% (125)
	1950-1960	100% (4)	89% (124)
	1960-1970	70% (20)	93% (108)
Philadelphia	1940-1950	0% (12)	52% (132)
	1950-1960	69% (16)	71% (128)
	1960-1970	61% (33)	75% (112)
San Francisco	1940-1950	100% (3)	51% (95)
	1950-1960	100% (2)	87% (91)
	1960-1970	83% (6)	93% (84)

Table 7: OLS Regression Predicting Changes in Median Housing and Rent Values, Chicago

	Median Housing Value (1940-50)	Median Rent (1940-50)	Median Housing Value (1950-60)	Median Rent (1950-60)
	a.	b.	c.	d.
Percent Black				
<10% (reference)				
10-50%	4.08 (10.96)	-5.54 (3.81)	1.02 (5.63)	-1.71 (3.81)
51-80%	7.53 (28.83)	11.87 (7.92)	10.70 (13.09)	-4.42 (8.61)
>81%	26.84 (13.27)	11.71 (4.09)	-13.26 (9.96)	13.35 (5.78)
Percent HS and more	-0.60 (0.17)	0.01 (0.07)	-1.28 (0.13)	-0.83 (0.09)
Logged ratio of owner to renter occupied	-10.32 (2.44)	-1.00 (0.98)	-7.78 (2.11)	3.57 (1.37)
Percent units requiring major repairs	-0.12 (.25)	0.23 (0.08)	0.14 (0.08)	0.26 (0.05)
Percent units with adequate plumbing	-0.52 (.14)	0.53 (0.05)	-0.38 (0.11)	-0.18 (0.08)
Percent overcrowded units	-0.22 (.42)	0.71 (0.14)	-0.36 (0.38)	-1.45 (0.23)
Change in % black				
<2% (reference)				
2 - 10%	-18.62 (9.72)	-1.95 (3.41)	0.35 (6.97)	5.91 (4.50)
11 - 25%	-6.56 (14.53)	10.98 (4.17)	-12.35 (8.43)	2.10 (5.48)
26-40%	-1.33 (14.41)	9.83 (5.12)	-12.14 (8.76)	-2.95 (6.98)
40>%	14.80 (13.13)	33.61 (4.71)	10.31 (5.03)	8.48 (3.47)
Intercept	133.57 (16.36)	-86.64 (5.62)	97.28 (14.08)	113.39 (9.89)
R-Squared	0.16	0.11	0.26	0.26
N	598	750	598	752

Table 8: OLS Regression Predicting Changes in Median Housing and Rent Values, St. Louis

	Median Housing Value (1940-50)	Median Rent (1940-50)	Median Housing Value (1950-60)	Median Rent (1950-60)
	a.	b.	c.	d.
Percent Black				
<10% (reference)				
10-50%	-29.53 (11.66)	-2.80 (6.86)	7.81 (5.99)	12.25 (8.66)
51-80%	20.92 (33.89)	-7.70 (19.74)	4.29 (10.16)	23.49 (16.27)
>81%	-10.79 (27.59)	5.75 (11.59)	7.00 (10.17)	-5.63 (13.47)
Percent HS and more	0.10 (.45)	0.98 (.27)	-0.39 (.33)	-2.17 (.53)
Logged ratio of owner to renter occupied	-4.19 (6.11)	4.95 (3.54)	12.54 (3.93)	-1.31 (6.41)
Percent units requiring major repairs	-1.89 (1.04)	-1.20 (.40)	0.02 (.14)	-0.01 (.18)
Percent units with adequate plumbing	-0.96 (.35)	0.70 (.20)	0.33 (.14)	-0.20 (.23)
Percent overcrowded units	-0.41 (.80)	1.69 (.44)	0.43 (.57)	-0.78 (.85)
Change in % black				
<2% (reference)				
2 - 10%	-10.88 (16.67)	-2.87 (7.80)	-14.02 (9.51)	-4.31 (15.29)
11 - 25%	12.94 (20.61)	22.54 (13.06)	-9.04 (8.09)	2.43 (12.15)
26-40%	27.55 (17.54)	5.94 (11.04)	-7.54 (14.46)	5.22 (23.78)
40>%	52.58 (35.72)	23.63 (23.00)	-7.50 (6.19)	-14.51 (9.95)
Intercept	145.00 (43.79)	-129.33 (24.68)	-17.43 (21.17)	137.33 (34.34)
R-Squared	0.29	0.52	0.32	0.35
N	111	120	111	120

Table 9. Number of Housing Units, 1940-1960

	Chicago		St. Louis	
	Total Units	Single-Family Units	Total Units	Single-Family Units
1940	989,503	164,909	402,137	169,639
1950	1,355,606	356,247	463,465	221,500
1960	1,675,979	650,979	677,975	451,391

Note: All Chicago numbers are based on Cook County.

All St. Louis numbers are based on St. Louis City, St. Louis, Madison and St. Clair Counties.

Table 10. Percent Owner-Occupied Housing by Race

		Chicago	St. Louis
1940	White	26	30
	Non-White	7	7
	Total	24	27
1950	White	33	38
	Non-White	11	18
	Total	30	35
1960	White	39	42
	Non-White	16	27
	Total	34	38

Table 11. Percent Owner Occupied Units

	Non-Covenanted Tracts	Covenanted Tracts
1940	24%	27%
1950	30%	34%
1960	34%	39%

Table 12. Index of Dissimilarity: Non-White Families by Poverty Status

		Chicago	St. Louis
1950	Poor & Non-poor	0.14	0.16
1960	Poor & Non-poor	0.25	0.29
1970	Poor & Non-poor	0.34	0.26

Note: Poor families for 1950 are those below \$2000; for 1960 - below \$3000

Table 13. Index of Dissimilarity: Non-White Families by Income, Chicago

1950	0-2000	2000-3500	3500-5000	5000-7000	7000+
	0-2000	0.13	0.22	0.29	0.32
	2000-3500	0.13	0.15	0.23	0.27
	3500-5000	0.22	0.15	0.17	0.22
	5000-7000	0.29	0.23	0.17	0.18
	7000+	0.32	0.27	0.22	0.22
1960	0-3000	3000-5000	5000-7000	7000-10000	10000+
	0-3000	0.16	0.27	0.35	0.44
	3000-5000	0.16	0.18	0.24	0.35
	5000-7000	0.27	0.18	0.15	0.24
	7000-10000	0.35	0.24	0.15	0.19
	10000+	0.44	0.35	0.24	0.19
1970	0-5000	5000-7000	7000-10000	10000-15000	15000+
	0-5000	0.18	0.27	0.38	0.49
	5000-7000	0.18	0.18	0.29	0.4
	7000-10000	0.27	0.18	0.17	0.29
	1000-1500	0.38	0.29	0.17	0.18
	15000+	0.49	0.4	0.29	0.18

Table 14. Index of Dissimilarity: Non-White Families by Income, St. Louis

1950	0-2000	2000-3500	3500-5000	5000-7000	7000+
0-2000		0.13	0.23	0.41	0.43
2000-3500	0.13		0.13	0.31	0.37
3500-5000	0.23	0.13		0.22	0.32
5000-7000	0.41	0.31	0.22		0.3
7000+	0.43	0.37	0.32	0.3	
1960	0-3000	3000-5000	5000-7000	7000-10000	10000+
0-3000		0.21	0.33	0.41	0.46
3000-5000	0.21		0.16	0.23	0.31
5000-7000	0.33	0.16		0.12	0.24
7000-10000	0.41	0.23	0.12		0.2
10000+	0.46	0.31	0.24	0.2	
1970	0-5000	5000-7000	7000-10000	10000-15000	15000+
0-5000		0.15	0.24	0.3	0.36
5000-7000	0.15		0.14	0.21	0.28
7000-10000	0.24	0.14		0.1	0.18
10000-15000	0.3	0.21	0.1		0.15
15000+	0.36	0.28	0.18	0.15	

FIGURES

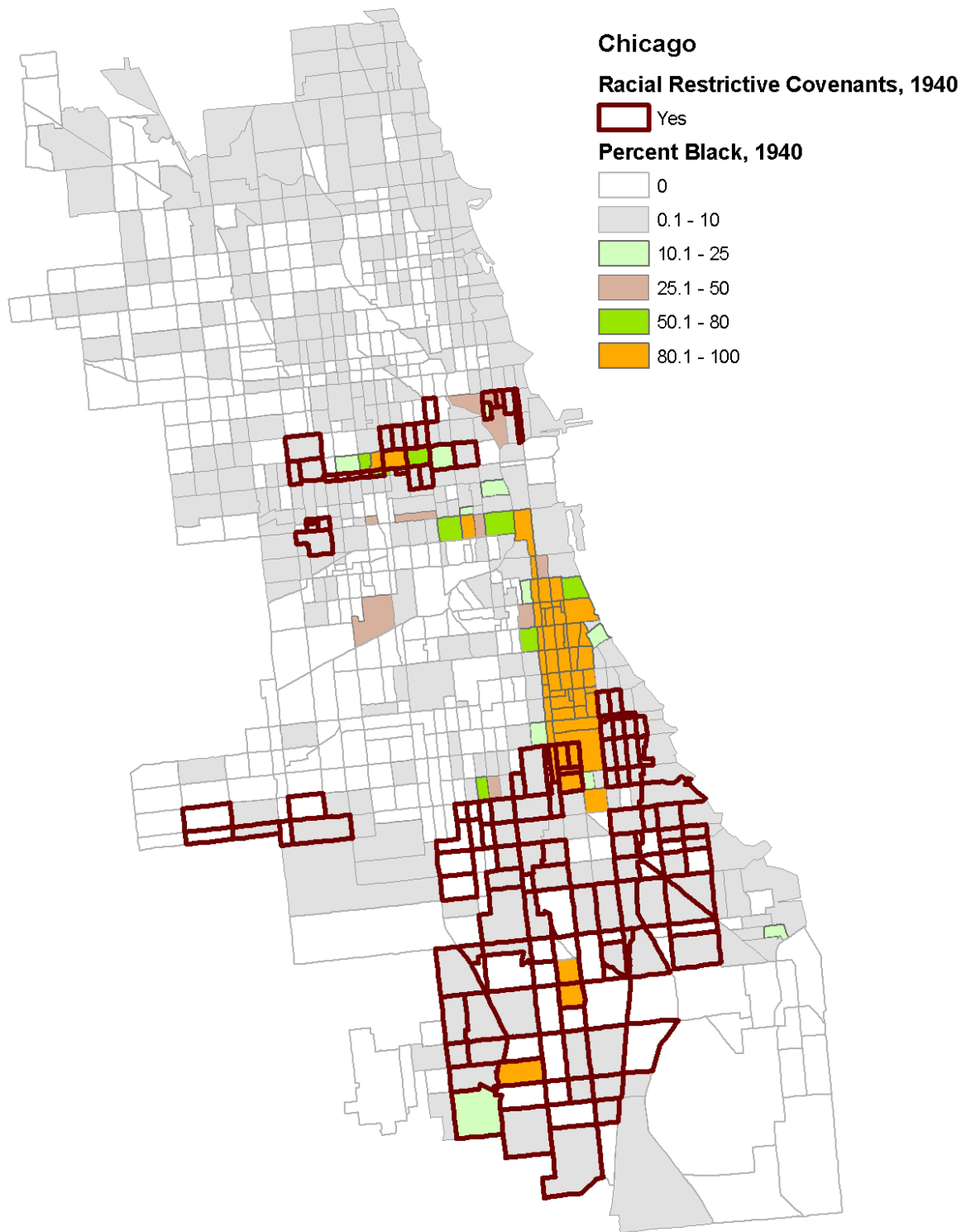


Figure 1. Racial Restrictive Covenants and Percent Black, Chicago (1940)

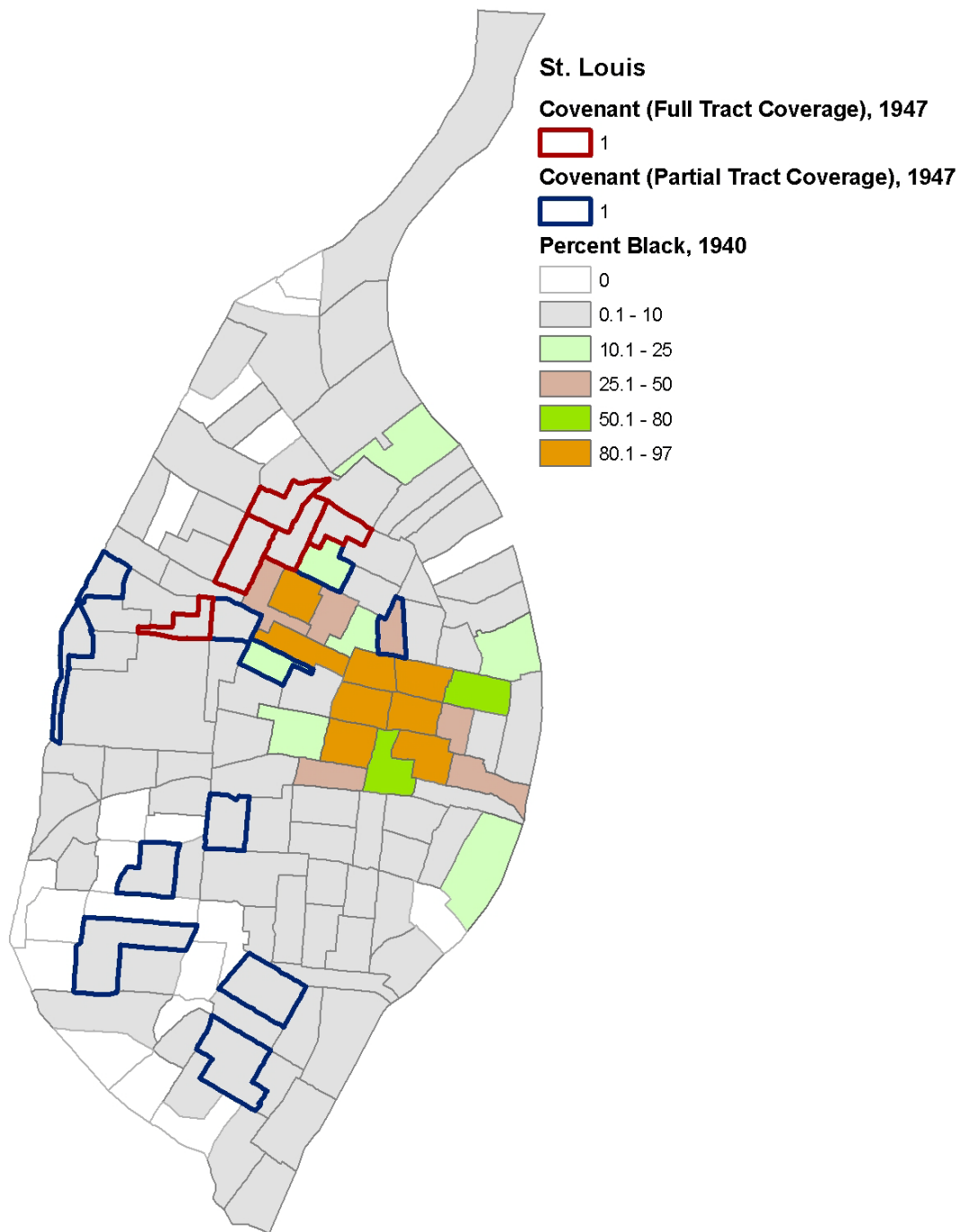


Figure 2. Racial Restrictive Covenants (1947) and Percent Black (1940), St. Louis

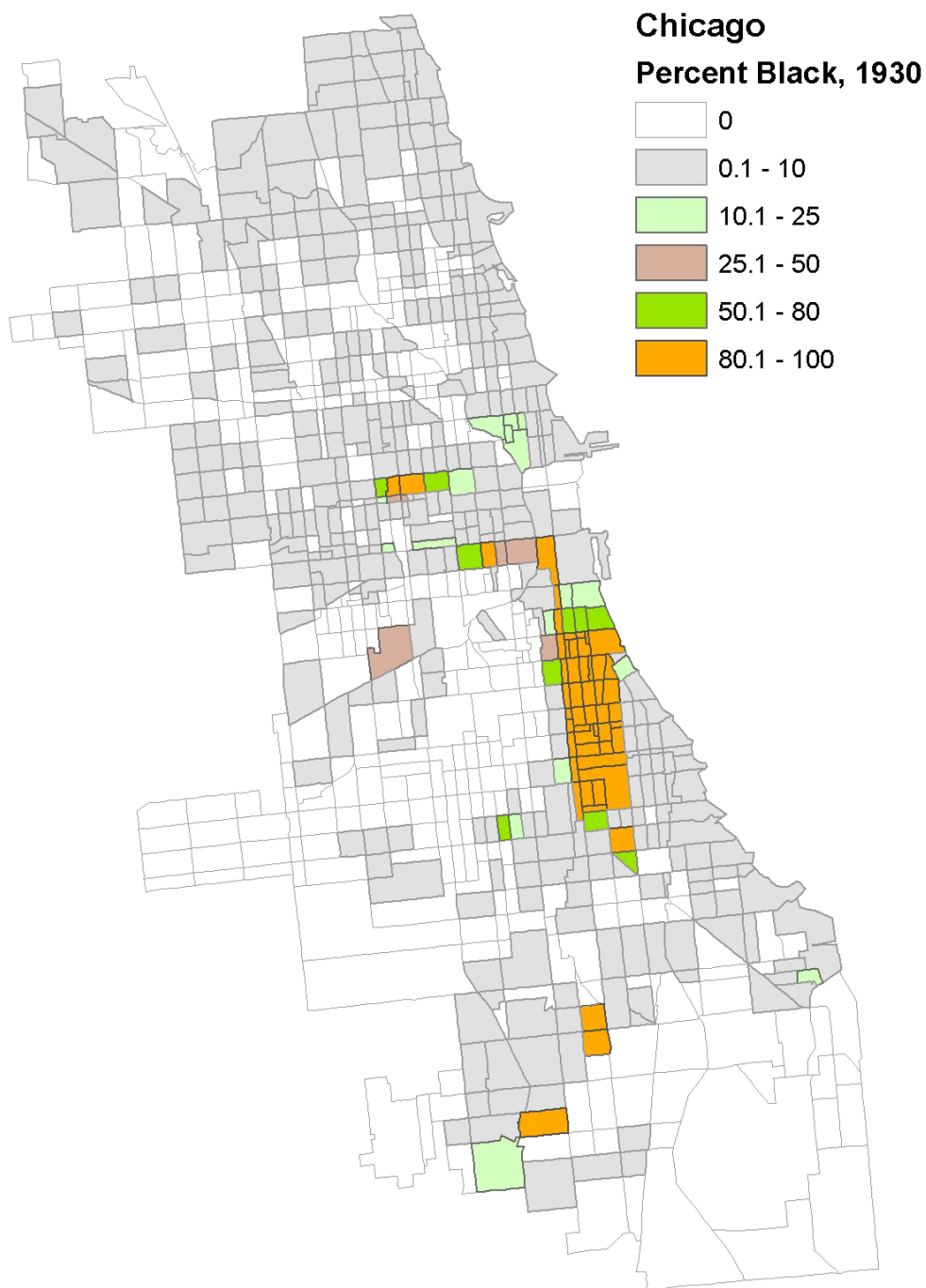


Figure 3. Percent Black, Chicago (1930)

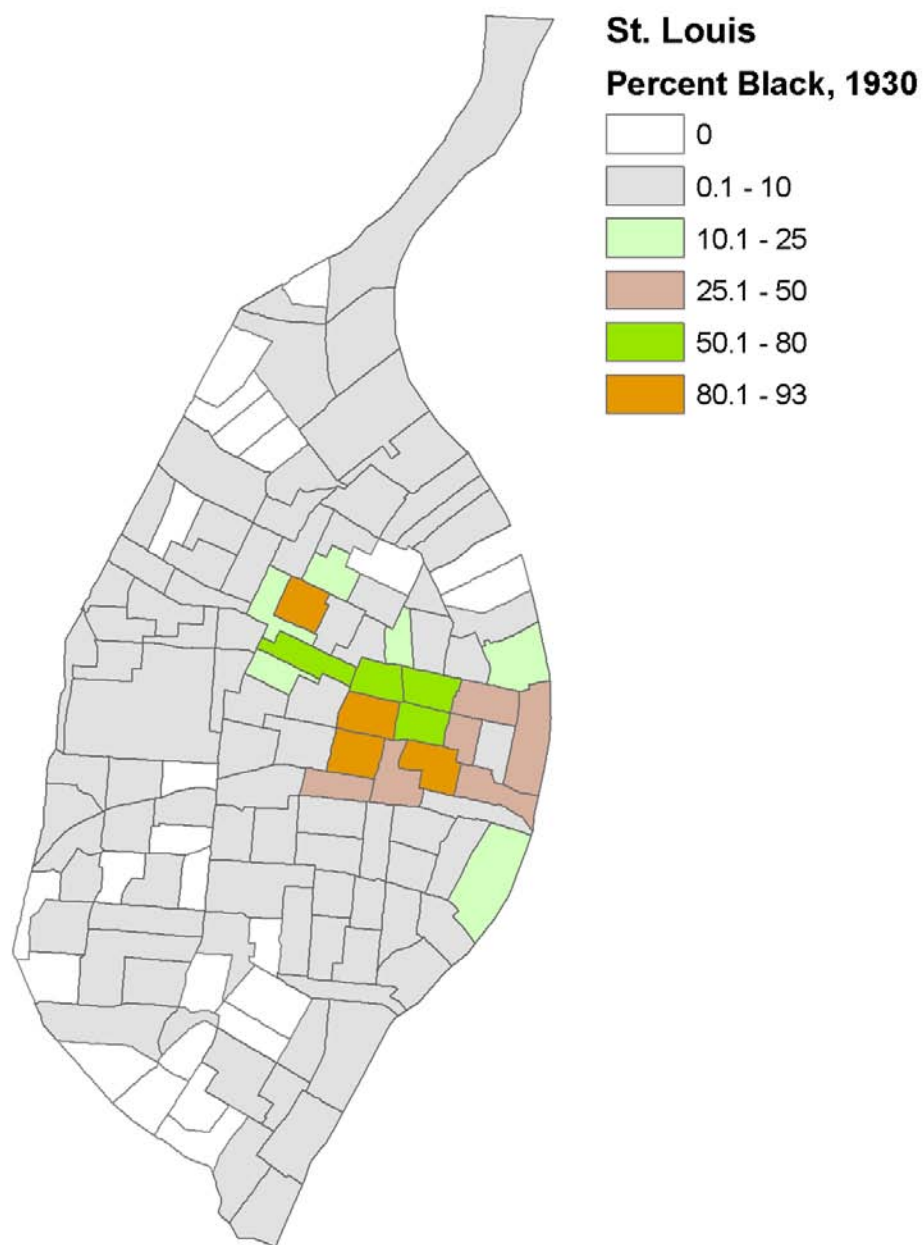


Figure 4. Percent black, St. Louis (1930)

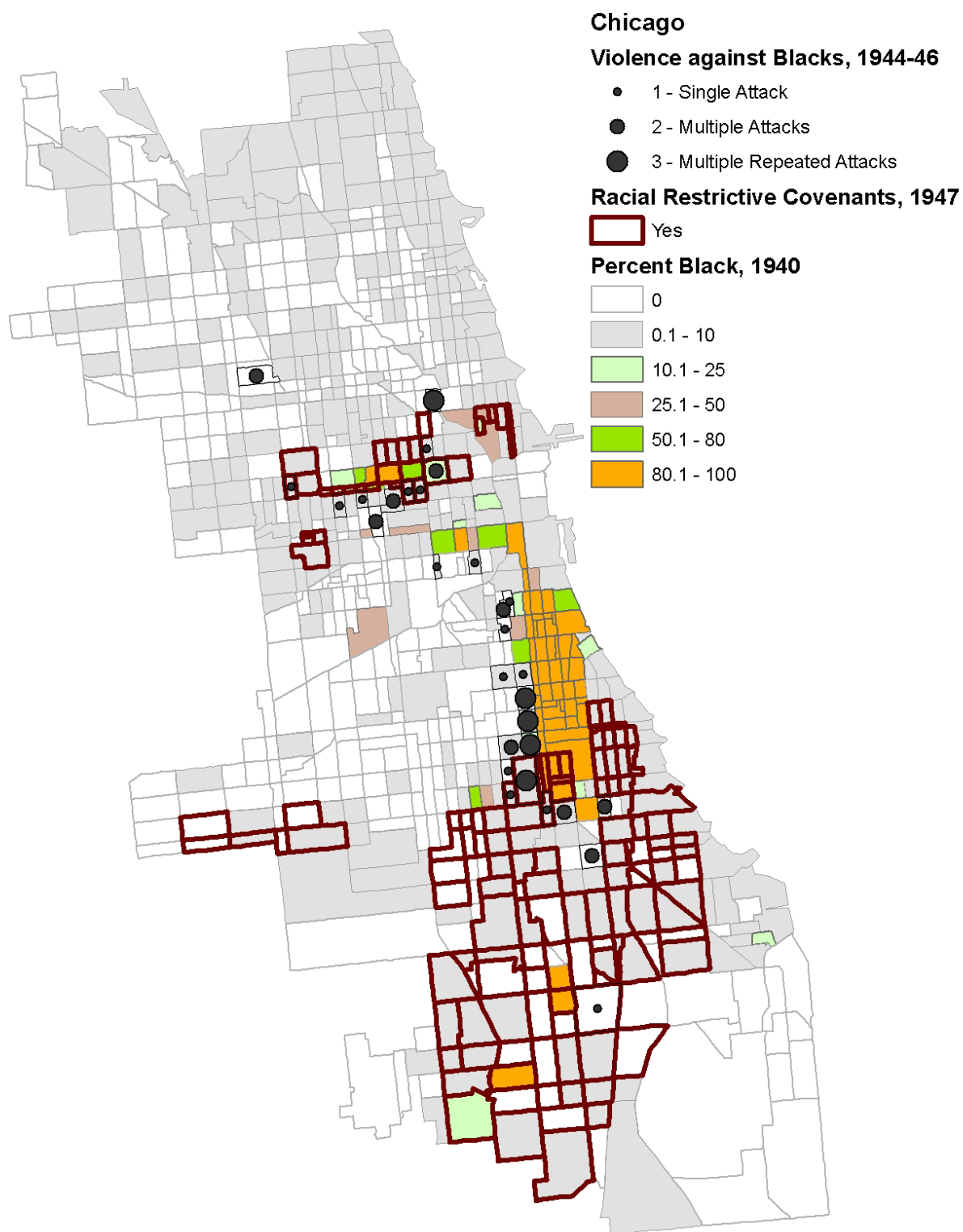


Figure 5. Racial Restrictive Covenants and Violence, Chicago

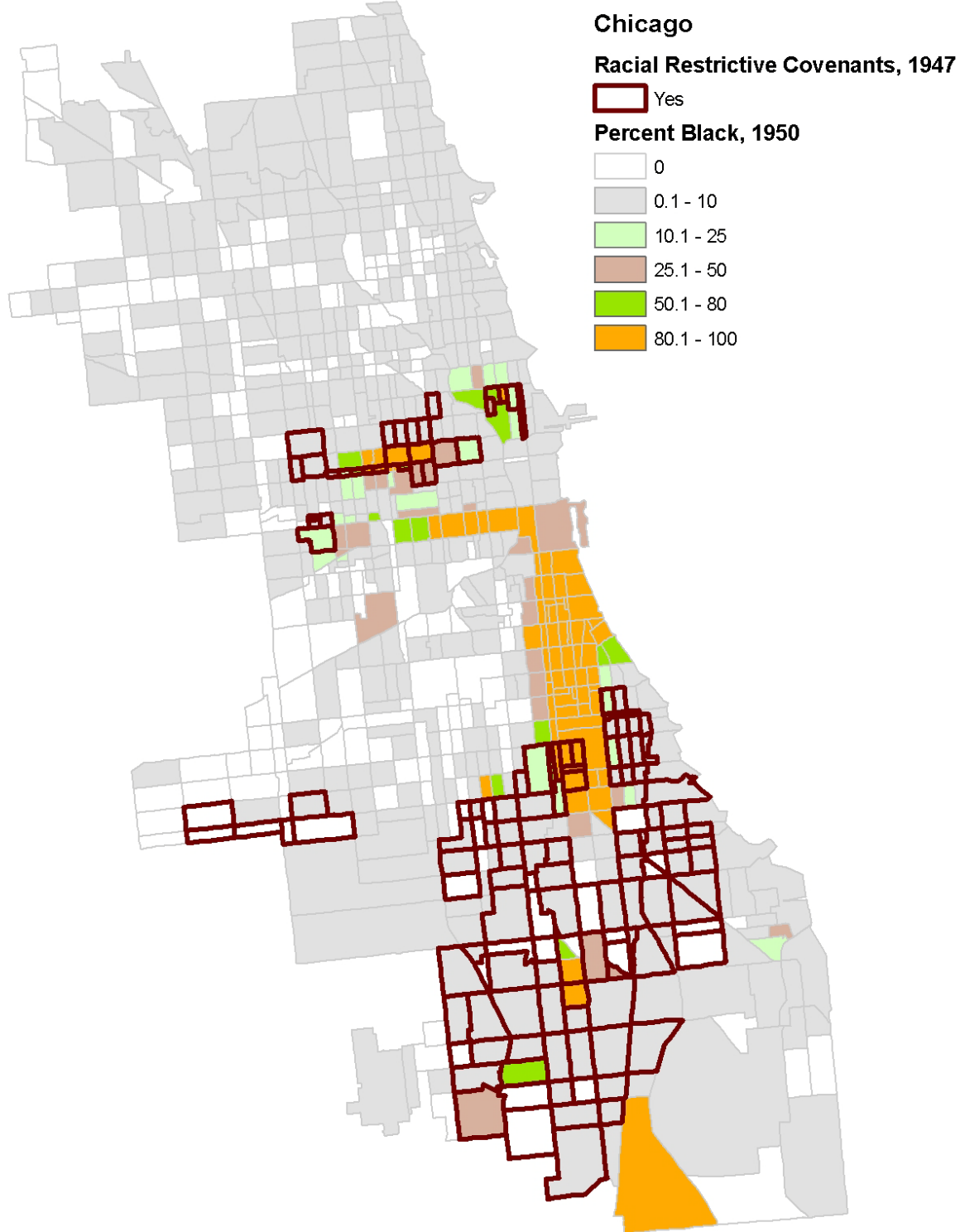


Figure 6. Racial Restrictive Covenants and Percent Black, Chicago (1950)

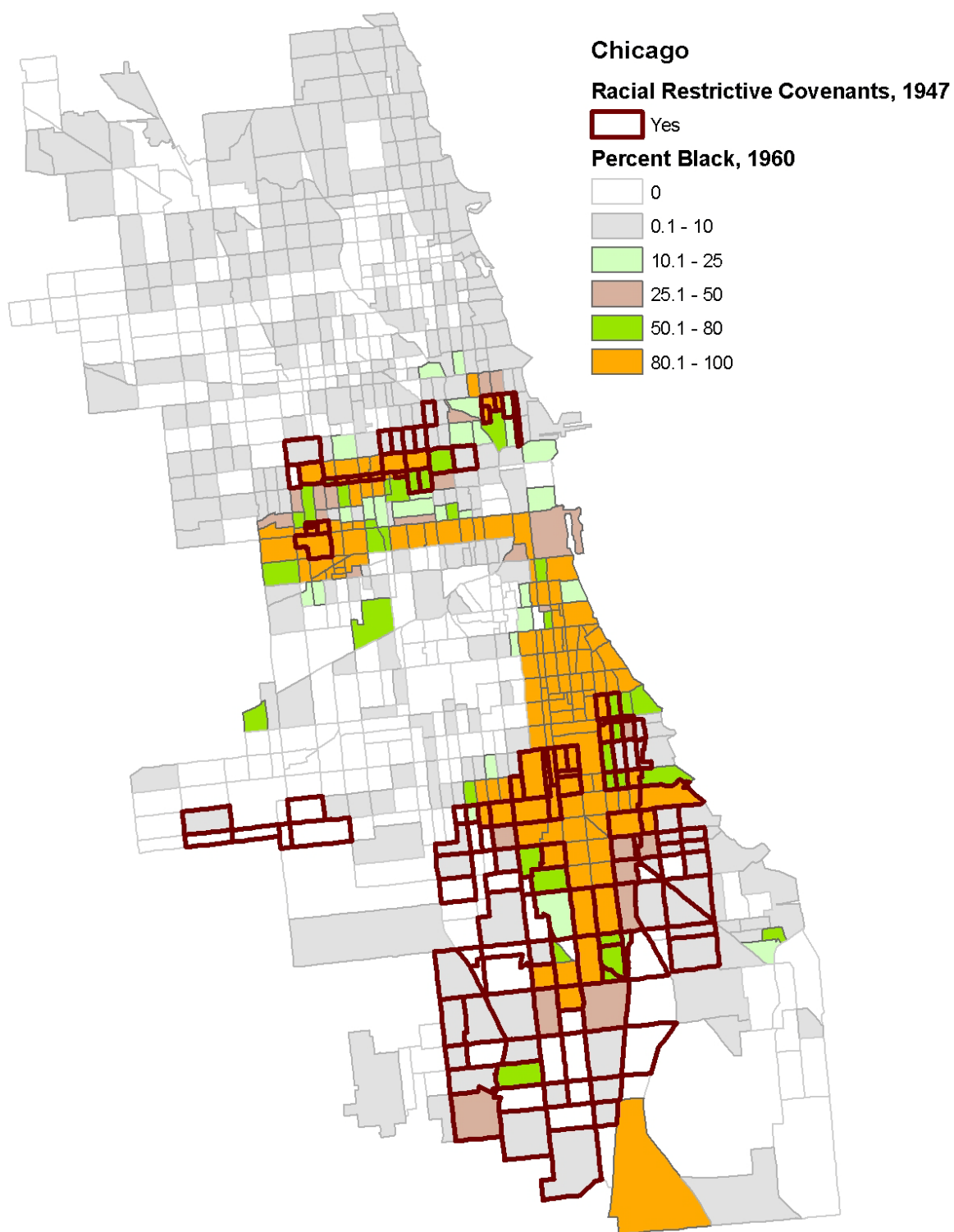


Figure 7. Racial Restrictive Covenants and Percent Black, Chicago (1960)

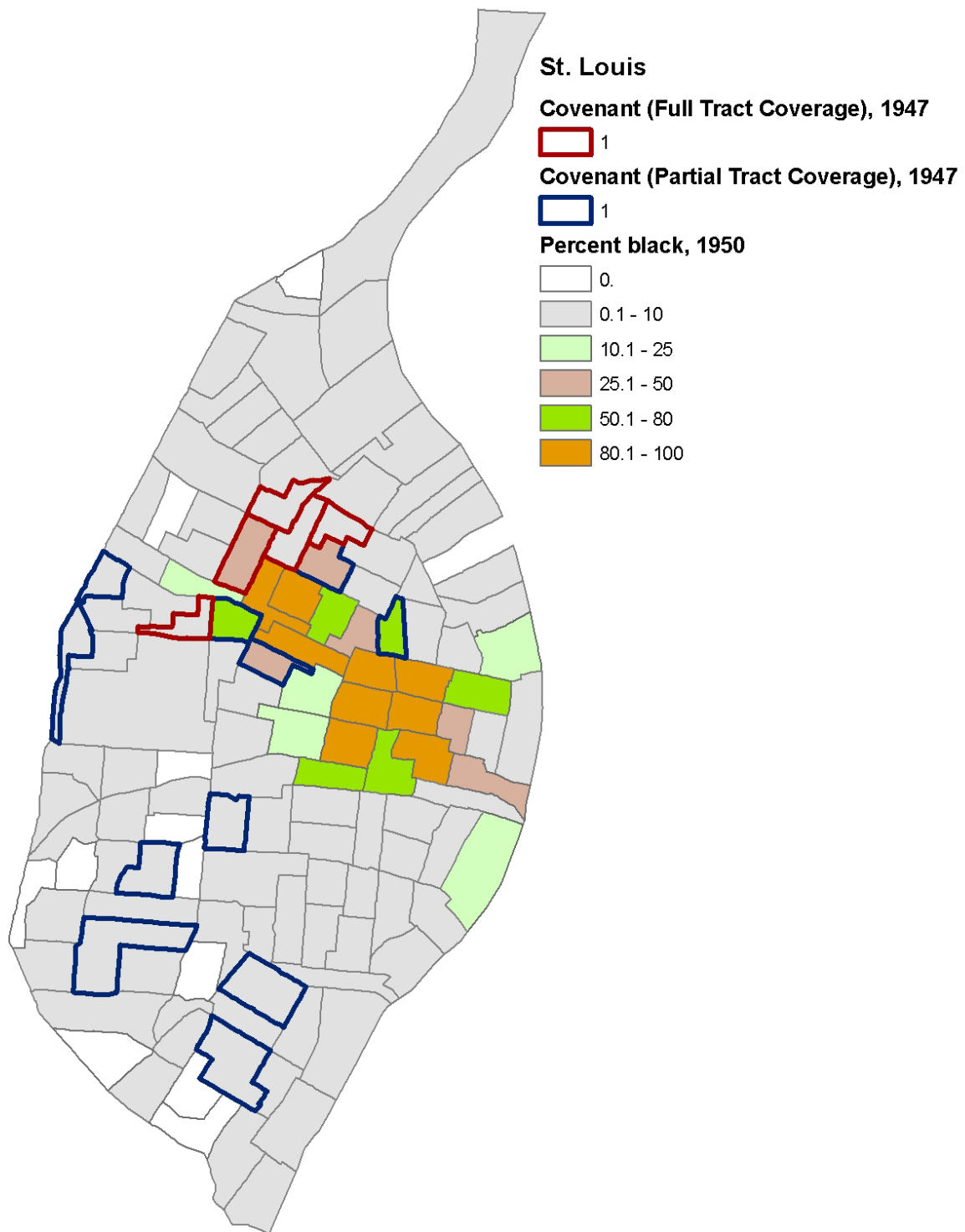


Figure 8. Racial Restrictive Covenants and Percent Black, Chicago (1950)

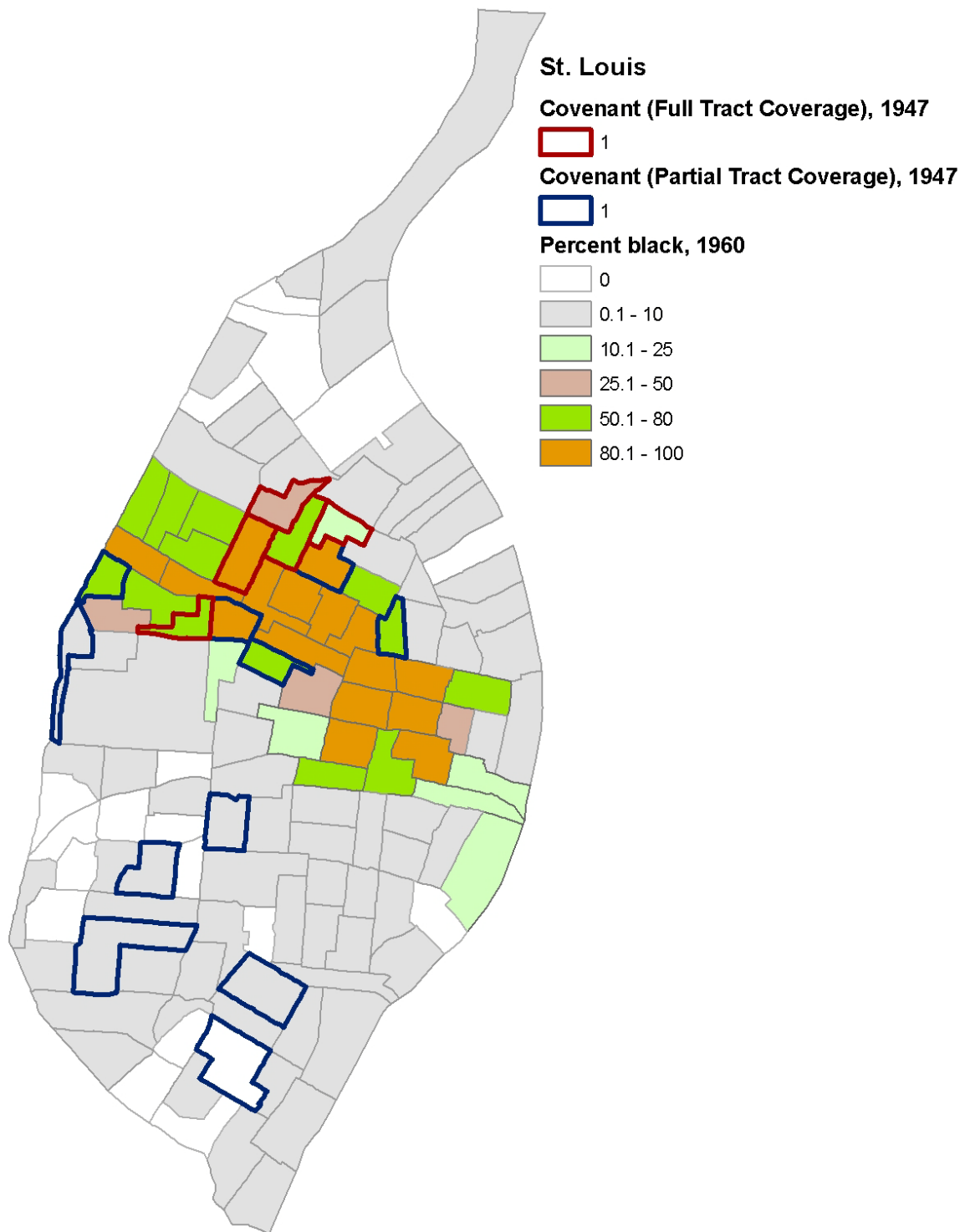


Figure 9. Racial Restrictive Covenants and Percent Black, Chicago (1960)

APPENDIX

OLS Regression Predicting Percent Black within Census Tract, Chicago 1940 (N=829)

	Model 1	Model 2
Presence of covenants, 1933	-3.56 (2.39)	0.17 (0.36)
Percent black, 1930		1.05 (.01)
Log Distance to nearest tract with % black >80, 1930		.06 (0.14)
Intercept	8.53 (0.93)	-0.26 (1.23)
R-Squared	0.0027	0.9787

OLS Regression Predicting Percent Black within Census Tract, Chicago 1950 (N=829)

	Model 1	Model 2	Model 3	Model 4
Presence of covenants, 1947	1.58 (2.68)	0.32 (1.26)	0.50 (1.24)	1.47 (1.25)
Percent black, 1940		0.86 (0.05)	0.91 (.05)	0.92 (0.05)
Log Distance to nearest tract with % black >80, 1940		-2.28 (.53)	-1.64 (0.54)	-1.25 (0.54)
Violence, 1944-46			7.36 (1.38)	7.02 (1.37)
Median Housing Value, 1940 (in '000s)				-0.78 (0.19)
Intercept	11.93 (1.10)	22.79 (4.51)	16.96 (4.57)	15.75 (4.54)
R-Squared	0.0004	0.7909	0.7979	0.8021

OLS Regression Predicting Percent Black within Census Tract who Have Not Moved in after 1949, Chicago (N=829)

	Model 1	Model 2	Model 3	Model 4
Presence of covenants, 1947	0.86 (3.28)	-0.57 (2.06)	-0.43 (2.05)	0.43 (2.08)
Percent black, 1940		0.93 (.07)	0.97 (0.08)	0.98 (0.08)
Log Distance to nearest tract with % black >80, 1940		-2.58 (0.87)	-2.09 (0.87)	-1.74 (0.90)
Violence, 1944-46			5.66 (2.27)	5.35 (2.27)
Median Housing Value, 1940 (in '000s)				-0.69 (0.31)
Intercept	12.08 (1.35)	24.70 (7.33)	20.22 (7.53)	19.14 (7.53)
R-Squared	0.0001	0.6303	0.6331	0.6353

OLS Regression Predicting Percent Black within Census Tract Who Have Lived There <1year in 1950, Chicago (N=829)

	Model 1	Model 2	Model 3	Model 4
Presence of covenants, 1947	3.30 (0.96)	1.71 (0.92)	1.83 (0.90)	2.4 (0.91)
Percent black, 1940		-.10 (0.03)	-.07 (0.03)	-.06 (0.03)
Log Distance to nearest tract with % black >80, 1940		-2.85 (0.39)	-2.42 (.39)	-2.19 (0.39)
Violence, 1944-46			4.89 (1.00)	4.71 (1.00)
Median Housing Value, 1940 (in '000s)				-.43 (.14)
Intercept	3.47 (0.40)	26.40 (3.27)	22.52 (3.32)	21.69 (3.30)
R-Squared	0.0140	0.1591	0.1827	0.1927

OLS Regression Predicting Percent Black within Census Tract, 1960 (N=824)

	Model 1	Model 2	Model 3	Model 4
Presence of covenants, 1947	19.06 (3.40)	16.59 (2.25)	16.33 (2.22)	18.01 (2.24)
Percent black, 1950		0.81 (0.08)	0.80 (.07)	0.84 (0.08)
Log Distance to nearest tract with % black >80, 1950		-1.96 (0.89)	-2.00 (0.88)	-0.94 (0.91)
Violence, 1944-46			11.23 (2.45)	10.58 (2.43)
Median Income, 1950 (in '000s)				-0.19 (0.53)
Median Housing Halue, 1950 (in '000s)				-0.57 (0.16)
Intercept	18.41 (1.40)	23.41 (7.45)	23.26 (7.36)	17.92 (7.57)
R-Squared	0.0369	0.5889	0.5992	0.6069

**OLS Regression Predicting Percent Black within Census Tract, St. Louis 1950
(N=127)**

	Model 1	Model 2	Model 4
Covenant, full tract coverage, 1947	-7.79 (12.60)	2.30 (4.07)	2.34 (4.06)
Covenant, partial tract coverage, 1947	8.15 (8.08)	11.51 (2.54)	12.35 (2.60)
Percent black, 1940		1.11 (0.08)	1.10 (0.08)
Log Distance to nearest tract with % black >80, 1940		0.45 (0.95)	0.53 (0.95)
Median Housing Value, 1940 (in '000s)			-0.59 (0.42)
Intercept	12.09 (2.56)	-3.01 (8.08)	-1.72 (8.10)
R-Squared	0.0096	0.9040	0.9055

**OLS Regression Predicting Percent Black within Census Tract who Have Not Moved
in after 1949, St. Louis (N=127)**

	Model 1	Model 2	Model 4
Covenant, full tract coverage, 1947	-10.80 (12.77)	-0.64 (4.12)	-0.61 (4.12)
Covenant, partial tract coverage, 1947	8.07 (8.19)	11.47 (2.57)	12.14 (2.64)
Percent black, 1940		1.12 (0.08)	1.12 (0.09)
Log Distance to nearest tract with % black >80, 1940		0.40 (0.96)	0.46 (0.97)
Median Housing Value, 1940 (in '000s)			-0.47 (0.43)
Intercept	11.80 (2.59)	-2.98 (8.17)	-1.95 (8.22)
R-Squared	0.0113	0.9045	0.9054

OLS Regression Predicting Percent Black within Census Tract Who Have Lived There <1year in 1950, St. Louis (N=127)

	Model 1	Model 2	Model 4
Covenant, full tract coverage, 1947	16.36 (3.66)	17.03 (4.14)	17.06 (3.42)
Covenant, partial tract coverage, 1947	3.63 (2.35)	0.09 (0.07)	4.72 (2.20)
Percent black, 1940		-0.60 (0.80)	0.09 (0.07)
Log Distance to nearest tract with % black >80, 1940			-0.54 (0.80)
Median Housing Value, 1940 (in '000s)			-0.40 (0.36)
Intercept	2.88 (0.74)	6.42 (6.80)	7.30 (6.83)
R-Squared	0.1744	0.2467	0.3350

OLS Regression Predicting Percent Black within Census Tract, St. Louis 1960 (n=127)

	Model 1	Model 2	Model 4
Covenant, full tract coverage, 1947	32.39 (15.68)	39.87 (9.41)	39.78 (9.46)
Covenant, partial tract coverage, 1947	16.46 (10.06)	8.66 (6.23)	6.78 (6.58)
Percent black, 1950		0.98 (0.15)	1.01 (0.16)
Log Distance to nearest tract with % black >80, 1950		-0.43 (1.85)	-0.39 (1.87)
Median Income, 1950 (in '000s)			0.36 (1.95)
Median Housing Value, 1950 (in '000s)			0.36 (0.50)
Intercept	18.86 (3.18)	10.31 (15.64)	5.97 (16.82)
R-Squared	0.0650	0.6788	0.6811