AN EMPIRICAL EVALUATION OF THE MODEL CITIES PROGRAM

Jody H. Schechter

A thesis submitted in partial fulfillment of the requirements for the degree

of BACHELOR OF SCIENCE in Economics at the UNIVERSITY OF MICHIGAN

March 11, 2011

ABSTRACT

The Model Cities Program (1966-1972) was a federal initiative to improve livelihoods in American cities by channeling federal funding into their most blighted neighborhoods. Forty years later, the data is available to evaluate the program's long-term effects. Utilizing a difference-in-differences approach and decennial U.S. Census data, I find that the Model Cities Program had very little impact on many of its targeted areas. Nonetheless, it appears that the program did reduce outmigration from the most blighted areas of target cities, when compared to cities that did not receive funding.

ACKNOWLEDGEMENTS

I would especially like to thank my advisor, Martha J. Bailey, who oversaw this research and provided consultation and notes. She also provided federal funding data for 1965-1967 War on Poverty programs. I am grateful to William Collins at Vanderbilt University for providing the 1960s riots data used in this paper. Finally, I would like to thank Timothy McKay, the University of Michigan Honors Program, and sponsors of the Honors Summer Fellows for supporting this research.

Acknowledgements, extended

I would first and foremost like to thank my advisor, Professor Martha Bailey, for helping me to develop the ideas presented in this paper. Professor, I appreciate the clarity of your comments, your attention to detail, and your continuous commitment to my success. I am also impressed by the way you balance your many personal and professional obligations. You are a great teacher and a wonderful role model.

I would also like to thank Professors Tim McKay, Kathryn Dominguez, and Jeff Smith for teaching me important lessons about research and economics. They were less directly involved with this project, but their guidance was equally essential.

Also, a special thanks to the sponsors of the Honors Summer Fellows for their generous support. The program provided additional time to work on the project last summer in Ann Arbor. Perhaps more importantly, it provided the added incentive I needed to see this project to its completion; I could not quit after others had invested so much.

I am grateful to the librarians at the Government Documents Center, the Map Library, Spatial and Numeric Data Services, and the Bentley Historical Library for helping me to get the information I needed. Julia Proctor and Justin Joque deserve special mentions for their help.

The staff at Center for Statistical Consultation and Research was also very helpful during certain stages of this research. A shout-out goes to Kathy Walsh, who spent a particularly painful afternoon struggling with me to take control of Stata's reshape command.

Many thanks go out to the helpful staff at the Fishbowl, as well, for working through the tech problems that plagued this entire project. Thank you also for turning a blind eye to the many foods and drinks that I brought into the lab, even after that time that I spilled grapefruit juice on a keyboard. Sorry about that.

I would like to think some fellow economics thesis students who took time away from their own work to help me with mine: Chuck Boyer, Spencer Smith, and Michelle Wein. Chuck, in particular, always made himself available to answer the many questions that I deemed too dumb to bring up with Professor Bailey. (Yes, Professor Bailey, there actually were questions dumber than the ones I asked.)

Finally, I want to thank my family. Collectively, you will probably comprise somewhere between 50 and 75 percent of this paper's total readership, supposing that between two and six of you take the time to read it. It is nice to have an audience. Thank you.

Within that, I especially want to acknowledge my parents, Lori and David Schechter, who show unwavering support for every single thing I do. Mom, Dad, even after four years of college education, I cannot find the words to express how important you are to me. What a rip off.

I learned many lessons, large and small, working on this thesis, but perhaps the most important lesson of all is that it is great to be a Michigan Wolverine. I am so fortunate to go to this school and to live in this community. I am sad that my time here is coming to a close.

Thank you all for your help and encouragement.

1. Overview

Economists have long debated the relative merits of federal "place-based" policies, those policies that allocate funds to particular declining geographic areas, and more traditional "people-based" policies, which grant funding to citizens based entirely on personal need, for economic development. On the one hand, place-based policies can create efficiency losses by providing incentives for citizens to remain in, or move to, declining areas, rather than moving to higher-productivity areas. For this reason, some economists believe that the federal government should avoid place-based policies entirely, and instead base all federal allocations on direct citizen need. Other economists, however, argue that place-based policies fulfill societal demand, because individuals have heterogeneous preferences for places and therefore are unlikely to make location decisions based on government subsidies.

In this paper, I empirically evaluate a particular place-based policy, the Model Cities Program (1966-1974). The Model Cities Program was a federal initiative to reduce blight in urban centers across the United States. It was a two-level place-based strategy. First, the program selected 150 particular cities nation-wide to receive funding. Second, each of those cities was required to select a model neighborhood area within its borders to which to direct all of its federal aid. My paper contributes to the empirical literature on the Model Cities Program by analyzing the effect of the program at both the neighborhood level and city level along several variables related to the goals outlined in the Model Cities legislation. For the first empirical section of this paper, I use model neighborhood maps from ten Model Cities and U.S. Census data from 1970, 1980, 1990 and 2000 to make tract-level comparisons between model neighborhoods and surrounding areas along population, retention rate, and several key variables related to the founders' stated goals. Using a difference-in-differences approach, I find that the program did not positively affect model neighborhoods relative to surrounding areas in terms of most of the founders' stated goals, with the exception of education. Moreover, I find that model neighborhoods lost population at a faster rate than surrounding tracts. I also extend my analysis to model cities for which I was unable to obtain neighborhood maps, under the assumption that cities chose to establish model neighborhoods in places with high poverty and vacancy rates and low housing values and education rates. I find similar results in the larger sample to the original group of ten mapped cities.

The second empirical section in this paper draws city-level comparisons between model cities and cities that did not receive funding through the program. For that section, I use a propensity score matching strategy and data related to political representation, rioting history, demographics, and War on Poverty funding history to create a comparison group of cities that did not receive funding. Then, using data from the 1970, 1980, 1990 and 2000 Census, I make difference-in-differences comparisons between model cities and the comparison group along the same variables studied in the first empirical section. I find that model cities did not fare better by virtue of being selected into the program than other cities with similar baseline characteristics. In fact, they saw larger increases, on average, in their poverty rates than cities in the comparison group. However, when I combine my methods to make comparisons between blighted neighborhoods and surrounding tracts between model cities and the comparison group, I find that model neighborhoods were better able to retain their populations than the most blighted neighborhoods of cities that did not receive Model Cities funds. These results suggest that the program did create an incentive for residents of model neighborhoods not to move, even though that incentive was not directly uncovered in any of the variables under study.

Finally, this paper offers some possible interpretations of these results in terms of the place-based policy debate. The results from my study neither wholly support the notion that place-based policies are inherently inefficient nor the contention that they address societal demands related to heterogeneous preferences with regard to location. Rather, my study suggests that the program was mostly unable to achieve its lofty aims, and for this reason its implications for future place-based policies are nebulous.

The rest of this paper is organized as follows: Section 2 presents a historical overview of the program. In section 3, I offer a brief review of the relevant literature. Section 4 presents within-city difference-in-differences comparisons between model neighborhoods and surrounding areas. Section 5 describes the methodology and results of a second, across-city analysis resting on a matching strategy. Section 6 discusses my results. Section 7 concludes.

2. Historical Overview

The Model Cities Program originated as a solution to urban violence and blight and as a response to disillusionment with the proliferation of bureaucracy associated with Great Society programs. In October 1965, President Johnson appointed a "Task Force on Urban Problems," chaired by Robert Wood, Head of the Political Science Program at the Massachusetts Institute of Technology, to address these issues. In December of the same year, the task force came back with a report recommending that the government create a five-year experimental program that would concentrate and coordinate existing government activities on the most blighted neighborhoods of urban areas. The Demonstration Cities and Metropolitan Development Act of 1966 is largely based on recommendations made in this report. The legislation was billed as a solution to urban violence, which aided its passage through Congress.

The Demonstration Cities and Metropolitan Development Act of 1966 laid out a somewhat vague outline of goals for the program. The legislation allocated $924 million to the program's implementation, and assigned Secretary Weaver and the Department of Housing and Urban Development bureaucratic responsibility over these funds. The final law lists diverse aims, including "to expand housing, job, and income opportunities; to reduce dependence on welfare payments; to improve educational facilities and programs; to combat disease and ill health; to reduce the incidence of crime and delinquency; to enhance recreational and cultural opportunities; to establish better access between houses and jobs; and generally to improve living conditions." According to one analyst, "This diversity occurred because there was no one commanding causal theory of the urban situation, nor even agreement as to which problems were most significant" (Haar, 1975). The legislation did not prioritize any one of its goals over others, nor did it allocate specific quantities of federal funds to any one of them. Rather, Congress gave HUD the authority to select 150 cities and to advance the projects associated with each selected city's requests. Figure 1 illustrates the variety of ways that cities used Model Cities funds.

Before the Demonstration Cities and Metropolitan Development Act of 1966 even passed into law, HUD began to receive grant applications from prospective cities. The Washington Interagency Review Committee, which had representatives from the Departments of Labor and Health, Education, and Welfare and the Office of Economic Opportunity, reviewed applications in a process known as the Planning Grant Review Project (PGRP). HUD developed an intricate selection process by which to rate cities and choose those that would most likely produce positive results with their funding. On November 6, 1966, HUD announced the 63 cities selected into the program. Most U.S. cities with populations over 1,000,000 residents were included in this group. In March 1967, HUD added 12 more cities to the list. A second round of review occurred the following year (offering those cities who were not selected a chance to revise their proposals) and rewards for 72 more cities were announced in autumn 1968.

During the review process, HUD instituted a rule that cities must designate model neighborhoods that consisted of no more than 15,000 people or 10% of the population, whichever was larger. City governments tended to choose the highest-density, highest-need areas, but neighborhoods were selected for political reasons as well. In some model cities, the government designated a few areas that collectively only covered about 15,000 people or 10% of the population.

Secretary Weaver established the Model Cities Administration in early 1967 to administer the program. HUD's regional offices took responsibility over operations and technical assistance to cities. At the local level, cities in competition for funding from HUD were instructed by the department to create City Demonstration Agencies (CDA) in order to involve citizens in the planning process. As Frieden and Kaplan (1975) explain, a CDA was to be a public agency "closely related to the governmental decision-making process in a way that permits the exercise of leadership by responsible elected officials." Each city had to strike a balance between citizen participation and reliance on government officials.

In December 1967, in order to improve coordination across federal agencies, HUD, the Department of Health, Education, and Welfare, the Department of Labor, and the Office of Economic Opportunities came to an Interagency Agreement. Thereafter the Washington Interagency Committee, chaired by Assistant Secretary Taylor, made policy decisions regarding the program. The Interagency

Agreement also established Regional Interagency Coordinating Committees, which were to provide technical assistance and oversee operations at the local level.

At the start of the Nixon Administration, the president set up a Task Force on Model Cities, chaired by Edward Banfield of Harvard. His report, "Model Cities: A Step toward the New Federalism" gave a lukewarm review of the program and recommended that it be continued yet simplified. In the following years, twenty cities that had performed well were selected for "planned variations", which were opportunities to extend model neighborhood boundaries or to implement federal recommendations on local program plans. In January 1973 the White House suspended a number of HUD programs and announced the suspension of Model Cities funding as of June 30, 1973. Model Cities funding, it was announced, would be replaced with revenue-sharing funds for community development that were expected to receive approval by Congress. The Housing and Community Development Act of 1974 consolidated the Model Cities Program, urban renewal, and HUD community development programs. It replaced them with block grants for community development. Model cities were guaranteed enough from block grants to complete five years of projects, in accordance with average spending from past years.

3. Literature Review

3.1 Literature on Model Cities

Following Rubin (1994), the Model Cities Program focused on three objectives: the concentration of available resources in high-need areas, coordination of social service efforts across agencies and levels of government, and mobilization of citizens and local political leaders in the planning process. Most of the previously published studies of the Model Cities Program evaluate its success in either mobilizing citizen participation or coordinating efforts across agencies and levels of government.

The literature on citizen participation is generally commentary based on surveys and qualitative interviews of those persons involved in the planning and implementation of the program on both the federal and local level. Several papers describe the beneficial aspects of citizen participation and the failures of local governments to adequately involve citizens in the decision-making process (Strange, 1972; Hallman, 1972; Weissman, 1978; Aleshire, 1972; Kloman, 1972). Still other observers have commented that citizen participation could hinder comprehensive planning (Marshall Kaplan, Gans, and Kahn, 1970) and cost planning boards time and money (Judson, 1972). In a sample of nine model cities, Warren (1969) finds that disputes between neighborhood residents and city hall over control of Model Cities funding often overshadowed community development goals. Kloman (1972) describes the legal battle between Philadelphia's citizens' council and municipal government, offering further support for Warren's conclusions. Douglass (1973) creates an index to determine whether health programs funded through Model Cities are shaped more by the providers of healthcare or the consumers. He finds that providers' attitudes regarding citizen participation are highly associated the end provider-consumer orientation of the programs. Another line of research closely linked to the work on citizen participation assesses the effectiveness of Model Cities programming in addressing the claims of minority residents (Hetzel, 1971). Harrison (1974) finds that cities with more developed bureaucracies and stronger mayors were more likely to violate federal guidelines requiring them to hire residents of model neighborhood areas, and that overall there was racial discrimination in hiring for Model Cities projects.

The Model Cities Program has also served as a test of political theories related to the coordination of programs between local agencies and across local, state, and federal levels of government (Grumm and Murphy, 1974; Terrell, 1980; Foster, 1978). Sundquist and Davis (1969) posit that the Model Cities Program improved coordination among agencies at the federal and local level over previous urban rehabilitation efforts, and that the bureaucratic structure of the Model Cities Program should be preserved and expanded to other cities and to rural areas. In contrast, Warren (1973) argues that the coordination aspect of the Model Cities Program offered an "aura of change without affecting either the causes of poverty or the basic injustices in the social system." These findings are based on qualitative accounts of Model Cities and political theory, not on quantitative methods.

Rich (1989) and Gilbert and Specht (1974) produce quantitative studies of the dissemination of federal funds to city governments through the Model Cities Program. Rich's work uses multivariate regression analysis to determine whether politics, community needs, local demand and prior federal program grants influenced federal decisions about funding allocation. He finds that recipient jurisdictions had agency in determining how federal funding was distributed, but that political influence in Congress did not affect Model Cities funding levels. In their 1974 study, Gilbert and Specht find that the federal government was unsuccessful in "picking winners" – cities that would accomplish the program's aims - by comparing Planning Grant Review Project (PGRP) ratings assigned by federal staff to grant applicants to city-level performance indicators. These indicators include the degree of citizen participation in the planning process and the overall quality of each city's first year plan, as rated on a survey of HUD officials. Their paper does not analyze specific livelihood outcomes among the target cities' populations, but it does compare PGRP ratin*g*s to first-year program expenditures for service delivery, because more highly organized cities were able to spend more of their allocated funding.

Generally published studies do not assess the program's results against the founders' stated goals for rehabilitation of the most blighted areas of the city. Instead, scholars focus on the process of addressing these needs. For example, Gonzalez and Woodward (1974) conduct a case study of the health assistants program in Laredo-Webb County, Texas. They describe the broad, multipurpose role of health assistants in the community and then conclude that a health assistants program is an effective strategy for providing health services to the community. Their study describes a program and suggests that it can be used as a model for future healthcare initiatives, but they do not evaluate the effect of the program on overall community health. Another example of this process-focus comes from Taylor and Williams (1967), who wrote about the legal aspects of the Model Cities Program during its early years. They theorize that the new laws will address the need for low and moderate income housing, but their paper was written too soon to evaluate the impact of the law on that program area.

This paper contributes a comprehensive empirical evaluation of the impacts of Model Cities on the livelihoods of residents to the literature. I analyze the effects of the program on a wide breadth of variables, including population levels, racial composition, and retention rates; the use of public transportation and the distance between jobs and homes; high school graduation rates; poverty rates, income, and welfare rates; and house values and rents. Moreover, this paper documents how the concentration of federal resources into model neighborhoods affected both model neighborhoods specifically and model cities at large. In doing so, this paper addresses the under-studied first objective of Model Cities (Rubin, 1994).

3.2 Literature on place-based policies

The economics debate over place-based policies can be traced back to Winnick (1966), who coined the phrase "place prosperity vs. people prosperity" and offered several arguments for why place-based policies are necessarily ineffective redistribution schemes. Winnick argues that these policies always boost particular geographic places at the expense of other high-need areas, and that by targeting particular places, governments allow citizens who do not demonstrate need to reap the benefits of their programs. He cautions against over-selling place-based policies and miscalculating their benefits. In contrast, Clark (1983) purports that place-based policies can effectively redistribute resources. He opposes government's emphasis on complete efficiency, arguing instead for income support to offer citizens the choice *not* to move. Similarly, Bolton (1992) argues that "sense of place" is an intangible but valuable asset with important externalities that should be taken into account in designing federal and regional policy.

Recently, economists have taken a renewed interest in the conditions under which place-based policies can and cannot be efficient. They have improved the models for understanding how place-based policies affect migration, wages, and rents. For example, Glaesar and Redlick (2008) present a theoretical argument showing that place-based policies will only increase societal welfare if social capital already limits out-migration from areas in decline. Using data from the General Social Survey regarding group membership, which they use as a proxy for social capital, they find empirically that the prospect of outmigration does not influence investment in social capital in declining areas, and thereby conclude that place-based policies are inefficient. Kline (2010) theorizes that place-based policies can be efficient when location preferences are idiosyncratic. That is, if preferences for location (of both work and residence) are heterogeneous, then place based policies will not create a strong incentive to stay in or move to low productivity areas, the deadweight loss from place-based policies should be small. On the other hand, if individuals have identical or nearly identical preferences, then place-based policies will result in large population shifts towards low-productivity areas, and losses to inefficiency should be large.

In an empirical study, Busso, Gregory, and Kline (2010) focus on quantifying the effects of the Empowerment Zones (EZ) Program of the 1990s on job creation and wages. They use Census data and information from the Longitudinal Business Database and a difference-in-differences strategy to compare empowerment zones to areas that were nominated to the program but did not receive EZ grants. They find that the program increased employment and generated wage increases for residents of empowerment zones. Next, based on a model that shows that deadweight loss can be approximated based on a set of reduced form elasticities in the job and housing markets, they find that deadweight loss is equal to about seven percent of the flow cost of the subsidy. Because the Empowerment Zones initiative focused exclusively on job creation, the Busso, Gregory and Kline paper is limited in scope. The authors did not test the impact of place-based policies to improve education, healthcare, housing, and other amenities on migration patterns to and from target areas.

One test of a place-based policy that did address needs outside of job creation is Collins and Shester's (2010) empirical investigation of the Urban Renewal Program, an initiative that overlapped both in purpose and chronologically with Model Cities. Using the year that program-enabling legislation was passed in each state as an instrumental-variable, the authors estimate the total federal grants approved through the program. They then use Census data and their grant estimates to find that federal Urban Renewal spending improved city-level outcomes such as income, property values, employment rate and poverty rate. Further, they find that displacement (that is, pricing out low income residents) does not drive these outcomes, and that the true cause of improvement was renewal and revitalization.

Like Collins and Shester's paper, and unlike the study by Busso, Gregory, and Kline, my paper will focus on improvements in livelihoods outside of job creation. In evaluating changes in population and retention rates alongside changes in education, housing, poverty rates, rents and welfare, I will measure how changes induced by the Model Cities Program affected migration from declining areas. If preferences for location are highly heterogeneous despite changes in amenities, then changes in migration as a result of the program are likely to be small. On the other hand, if individual preferences for location are nearly identical, then we would expect to see improvements in education, housing, and other factors to cause changes in population.

4. Within-City Difference-in-Differences Analysis

My first line of empirical study compares tracts that fall within model neighborhoods to tracts that surround those neighborhoods over time.

4.1 Data and Sample

Most data used in this analysis are tract-level panel data from the Decennial Census collected between 1970 and 2000 by the U.S Census Bureau and aligned by Census 2000 tract boundaries across years by Geolytics, Inc. The data contain information for all tracts in the United States, a total of 65,442 observations for each year. The data include demographic variables, education information, rent measures, and other variables that the developers of the Model Cities Program hoped would be affected by their work.

The primary sample is limited to tracts in those cities for which model neighborhood border descriptions or maps were readily available. The complete sample consists of ten cities: San Diego, New Orleans, Boston, Minneapolis, St. Paul, Kansas City, St. Louis City, Asheville, Rock Hill, and Detroit. My strategy for procuring maps and border descriptions, which is described in more depth in the data appendix, resulted in a sample influenced by both the transparency of city governments and by my own location. Those cities with more extensive electronic archives were more likely to make it into the sample. Detroit joined the sample only because Detroit city records were in archives in nearby Ann Arbor.

The Gelolytics database also includes latitude and longitude coordinates for the central point in each census tract, which I use to extend my analysis to wider areas within each city (section 4.3.1) and to a larger sample of Model Cities (section 4.3.2).

4.2 Empirical Specification and Strategy

I use a difference-in-differences approach to estimate the effect of the Model Cities Program on model neighborhoods. This approach capitalizes on the arbitrary decision by HUD staff to force cities applying for funding to designate a model neighborhood with less than 15,000 people or ten percent of the population, whichever was larger.[1] It also accounts for baseline differences between model neighborhoods and surrounding tracts. Both the model neighborhoods and comparison groups are expected to change over time along many variables, but because only tracts in the model neighborhoods received direct treatment from programs supported by Model Cities funding, estimates of the differences in these changes will reflect the effects of the program.

To evaluate the effect of the Model Cities Program on various urban outcomes, I estimate the following linear regression model:

$$(1)\quad Y_{it} = \beta_0 + \beta_1 MN_i \cdot D80_t + \beta_2 MN_i \cdot D90_t + \beta_3 MN_i \cdot D00_t + \beta_4 D80_t + \beta_5 D90_t + \beta_6 D00_t + f_i + u_{it}$$

where *MN* is coded 1 for all census tracts in model neighborhoods and 0 for all other tracts in the sample.[2] I use two different strategies for dealing with the subset of 59 tracts that cross model neighborhood boundaries. In my main coding, I code *MN* equal to 1 for tracts with at least half of their geographic area

[1] The 15,000-person or ten-percent limit was lifted shortly after Nixon took office, and some cities did choose to extend the programs supported by Model Cities to other neighborhoods. However, by the time the restrictions were lifted, the first year action plans created my community governments and citizen organizations were already in place. To the extent that these cities did extend the program, my treatment effects will be understated.

[2] The sample includes all tracts that are in model neighborhoods, bordering model neighborhoods, or touching tracts that border model neighborhoods in the sample of ten model cities. In this coding, MN=0 if more than half of the tract's area lies outside of the model neighborhood's boundaries.

within the model neighborhood. In an alternative coding, I set *MN* equal to 1 for tracts with more than half of their geographic area, and exclude tracts whose areas are approximately half-way in the model neighborhood from the sample.[3] In a final coding, I code *MN* equal to 1 only for tracts that are entirely in the model neighborhood and touching the border, and set *MN* equal to 0 only for tracts that are entirely outside the neighborhood and touching the border. Time dummies *D*80, *D*90, and *D*00 are coded 1 if the observation is for that year and 0 otherwise, so 1970 is the excluded group. The vector f_i includes tract fixed effects. The interaction terms of *MN* and time dummies are of interest as they show how outcomes in model neighborhoods evolved over time.

Table 1 shows baseline[4] differences on some key variables between comparison group tracts and tracts in the model neighborhood (the treated group) in the sample of ten well-documented cities. The table reveals that, overall, the surrounding tracts were better off in 1970 than model neighborhood areas on a number of fronts. Population density in surrounding tracts was much lower (about 4,700 fewer people per square mile) but the average number of households was not statistically significantly different than in the model neighborhood, which suggests that generally families had fewer children. Moreover, the white proportion of the population was about 31 percentage points higher in surrounding tracts in 1970 than in the model neighborhood. Column 4 also shows that the poverty rate in surrounding tracts was about 8 percentage points lower than in the model neighborhood, and average income, which is closely related, was about $1420 higher. The table suggests that the cities in my sample successfully included their poorest areas with the largest minority populations in their designated model neighborhoods, and that the 15,000-person or ten-percent cut-off did not force cities to leave out equally distressed segments of their populace from the program.

The first variables chosen for analysis should illustrate the effect of the program on migration to and from model neighborhoods. These include total population, the number of households, retention rate,

[3] Figure 2 illustrates the original coding and first alternative coding of MN in Detroit, MI. Those tracts in dark grey are reassigned in the alternative coding.
[4] 1970 is chosen as the baseline year because, even though funding began to trickle into neighborhoods the year before, it is unlikely that any immediate effects could be seen along the outcome variables selected for analysis. Moreover, 1970 is the first year for which census data harmonized to 2000 is available.

and the proportion of the population that is white. Other outcome variables chosen for analysis directly measure the effectiveness of the program in achieving its aims. In particular, changes in the proportion of workers using public transit and the proportion of workers working in their county of residence reflect the program's effectiveness in establishing better access between homes and jobs. The proportion of persons over 25 years of age who have graduated from high school is a measurement of the program's success extending educational facilities and programs. Changes in welfare rate reflect the program's ability to reduce dependence on welfare. Changes in poverty rate, average rent, average income, and average housing values are measures of the program's success in expanding housing, job, and income opportunities and in generally improving living conditions.

4.3 Results

Results from these regressions are summarized in table 2. Columns 1 and 2 of the table show that, although differences in changes in population and total number of households between 1970 and 1980 were insignificant across groups, as time wore on, and population losses accrued across the board, model neighborhood tracts saw greater losses than surrounding areas. Between 1970 and 2000, model neighborhood tracts lost about 45 percent of their population, while surrounding tracts lost only about 28 percent. This figure seems less dramatic when one considers that model neighborhoods only lost about one half percent more of their 1970 population per year than surrounding tracts over the thirty-year period. Column 3 shows that the changes in retention rates were about the same in the two groups.

The results summarized in table 2 do suggest, however, that the white population "fled" from surrounding tracts at a faster rate than from model neighborhoods. While the white proportion of the population in surrounding tracts decreased by 26.4 percentage points between 1970 and 1990, model neighborhoods tracts saw losses about 9.5 percentage points smaller, for a total decrease in the white proportion of the population by only 16.9 percentage points. The reduction of white flight was not a stated aim of the program, but this result could imply that Model Cities improved relations between white and minority residents in model neighborhoods. It could also be that white, low-income residents benefitted more from the program than their minority counterparts. This theory aligns with findings from Hetzel (1971) that the program did not adequately address the needs of minorities. If it is the case that whites benefitted from the program more than minorities, then the reduction of white-flight suggests that the program did create small shifts in population and associated losses in efficiency.

Column 5 shows that the drop in utilization of public transit over the thirty-year period covered by the data was 7.2 percentage points greater in model neighborhoods than in surrounding tracts. One interpretation of this result is that workers ceased to use public transit because, as a consequence of outmigration from the city, they had to travel to jobs out of the range of public transit lines. When jobs for low-income individuals are located in areas of the city (or the suburbs) where these individuals cannot afford homes, the city is said to be experiencing spatial mismatch. This interpretation of the public transit result implies that spatial mismatch phenomenon plagued model cities despite attempts to bring jobs to low-income areas. One would expect spatial mismatch to be associated with an increased proportion of workers working outside their county of residence. However, Column 6 shows that the proportion of workers working in the county in which they reside decreased by about 8.4 percentage points overall between 1970 and 2000, but that residents of the model neighborhood did not account for this trend more than their counterparts in surrounding areas.

An alternative, more optimistic interpretation of the public transit result is that model neighborhood residents increased their use of cars more than residents of surrounding areas because they became able to afford them. However, column 8 shows that increases in the poverty rate during the same period were felt about equally by the two groups, with a difference across groups only seen by the year 2000, when the change in the poverty rate is about 3.7 percentage points smaller in the model neighborhood than in surrounding tracts. This cannot account for the difference in public transit rates ten and twenty years earlier.

Columns 9 and 10 show that changes in welfare rates and average household income were not significantly different in model cities and surrounding areas between 1970 and later census years.

Housing values (column 11) also did not change significantly less or more in the model neighborhood tracts than in comparison group tracts, but average rents (column 12) increased by only 170 percent in model neighborhoods between 1970 and 1980, while they increased by about 260 percent in surrounding tracts. This could be the result of losses in population, but it is also possibly a positive effect of the Model Cities Program, as one of the many aims of the program was to provide affordable housing to low-income households, which are usually renters.

Table 3 presents the results in table 1 side-by-side with results from my variations in coding of tracts that cross model neighborhood boundaries. The table only includes coefficients from the interaction terms in the model because these are the variables of interest. Columns 1, 4, and 7 have results from table 1. For columns 2, 5, and 7, I exclude tracts with 50 percent of their area in model neighborhood boundaries (my baseline coding included these tracts in the model neighborhood group). Figure 2 illustrates this recoding. Finally, in columns 3, 6, and 9, I exclude tracts that cross the model neighborhood boundaries entirely, so only tracts *completely* within the model neighborhood and touching the border are included in the treatment group and only tracts *completely* outside and touching the border are in the control group. For both versions of recoding, general trends do not differ qualitatively from those in table 1. Overall, the table shows that the results from table 2 are robust to slight changes in categorization of tracts into the "model neighborhood" and "surrounding tracts" groups.

4.3.1 Addressing Spillover

Spillover effects could cause measurement error that would dilute the effects I estimate in my initial analysis. It could be that the Model Cities Program had positive effects on the most blighted areas of the targeted cities, but that these effects were also felt in surrounding tracts. If this were the case, the results presented in table 1 would underestimate the relative changes in my twelve outcome variables. One way to account for spillovers is to compare tracts within the model neighborhood to tracts farther away. If spillover effects of the Model Cities Program were felt in tracts that immediately surround the model neighborhood but were not felt in tracts farther away, then difference-in-differences estimates across time between tracts farther away and tracts in the model neighborhood should show stronger, positive effects of the program.

Because average tract area varies across cities, adding another ring to the sample used in table 2 would not create equivalent comparison groups across cities. In some cities adding another ring to the sample would mean comparing the model neighborhood to areas miles away, while in others it would add an area of only a few more blocks in every direction to the comparison group. To account for this, I create a new sample based on calculating the distance between census tracts and a central model neighborhood point.

I select a central model neighborhood point using human approximation and a mapping program that returns the latitude and longitude coordinates of any point on the globe.[5] In cities where model neighborhoods were in patches (such as New Orleans, which had three small areas near one another, and Kansas City, which had four) I select a point in the center of each portion of the model neighborhood. I then calculate the minimum distance between the central point of every tract in the United States and the hand-selected central model neighborhood points. I exclude tracts that are more than .1 latitude and longitude degrees (about 6.5 miles) from every hand-selected model neighborhood point from the sample. I find that the maximum distance between tracts within my initial comparison group and the central model neighborhood point is about .085 degrees (or about 5.52 miles), so I include tracts between .085 and .1 degrees from the central model neighborhood point in my new comparison group. In this recoding, the model neighborhood group remains the same. It consists of all tracts whose areas are at least halfway inside the model neighborhood boundaries.

Table 4a shows the results of ordinary least squares estimates, with fixed effects for census tract, of the twelve key outcome variables on the new model neighborhood indicator variable. Estimates from the table do suggest that the Model Cities Program had a positive effect on model neighborhoods in

[5] By looking at a neighborhood map, I estimated which street intersection was at the center of the model neighborhood. Then I used itouchmap.com to find the latitude and longitude of that intersection. Error in approximating the exact center of the model neighborhoods is unlikely to put bias on my results.

certain program areas relative to areas farther away. Comparisons between 1970 and 1990 show that high school education rates in model neighborhoods increase by 3.3 percent more than in surrounding tracts and that average house value increased by 2.4 percent more in model neighborhoods than in surrounding tracts, even as population fell. Comparisons between 1970 and 2000 show that model neighborhoods saw increases in poverty rates 5.3 percentage points smaller than comparison areas, and corresponding increases in income and decreases in welfare rates. These results suggest that my initial estimates may have understated some positive effects. However, if the Model Cities Program had actually improved housing, then the effects should have been seen earlier, as the program ended in the mid-seventies. Moreover, the estimate of larger improvements in education in model neighborhoods than in comparison areas might be due to the fact that comparison areas had high rates of high school education to begin with, and therefore had little room to improve. The difference-in-differences strategy accounts for baseline differences, but it cannot compare changes in the treated group to how the untreated group would have improved had it had more uneducated people to instruct.

Also, the table also shows that model neighborhoods and nearby tracts saw larger losses in population than the comparison groups in the 30 years following the program's implementation. They also saw no significant differences in changes in retention rate, poverty rate, and welfare rate over the first 20 years. These results strongly align with the initial estimates presented in table 2. They imply that the Model Cities Program was ineffective in the twenty years following its implementation.

Next, in order to compare how coefficient estimates differ between comparison groups chosen at varying distances from the model neighborhood, I estimate the following linear regression model:

In particular, I estimate propensity scores based on the following probit model:

$$(4)\ \Pr(MC = 1|\, \boldsymbol{x}) = \Phi\ (\beta_0 + \beta_1 unemprt7_c + \beta_2 povrat7_c + \beta_3 shrblk7_c + \beta_4 popdens7_c\ + \beta_5 citypop7_c\ + \beta_6 votes_c + \beta_7 dems_c + \beta_8 federalgrants_c + \beta_9 crimerate68_c + \beta_{10} riots_c)$$

Where Pr denotes probability, Φ is the Cumulative Distribution Function of the standard normal distribution, *unemprt7* is the city's unemployment rate in 1970; *povrat7* is the proportion of the city's population below the poverty line in 1970; *shrblk7* is the proportion of the city's population that is black or African American in the same year; *popdens7* is the city-wide population density in the same year; *citypop7* is the total population of the city in the same year; *votes* is the total number of votes in support of the program by Congress members whose constituency includes city c*;*[6] [7] *dems* is the number of members of Congress in the Democratic Party in 1966 whose constituency includes city c; *federalgrants* is the dollar amount of federal funding through Great Society programs to the county in which the city is located between 1965 and 1967; *crimerate*68 is the average monthly crime rate in the city in 1968; and *riots* is an index for intensity of 1960s race riots based on number of injuries, arrests, and other relevant factors.[8]

$$(2)\quad Y_{it} = \beta_0 + \beta_1 MNa_i \cdot D80_t + \beta_2 MNb_i \cdot D80_t + \beta_3 MNc_i \cdot D80_t + \beta_4 MNa_i \cdot D90_t + \beta_5 MNb_i \cdot D90_t + \beta_6 MNc_i \cdot D90_t + \beta_7 MNa_i \cdot D00_t + \beta_8 MNb_i \cdot D00_t + \beta_9 MNc_i \cdot D0_t + \beta_{10} D80_t + \beta_{11} D90_t + \beta_{12} D00_t + f_i + u_{it}$$

In this model, *MNa* equals 0 if the tract is between .04 and .085 degrees from the center of the model neighborhood; *MNb* equals 0 if the tract is between .085 and .095 degrees from the center of the model neighborhood; and *MNc* equals 0 if the tract is between .095 and .1 degrees from the center of the model neighborhood.[9] Otherwise, these variables are set equal to 1. Hence, tracts within .04 degrees of the model neighborhood central point, are set equal to 1 in all three indicator variables, and the coefficients on the interaction terms show the relative difference between the model neighborhood area[10] and each comparison group's change between baseline and later decades. Table 4b shows the results from these

---

[6] If cities crossed congressional district boundaries but had identical political information in both districts, I included only one observation. If they crossed congressional boundaries and the outcomes would be different if they were in one or the other, I included two observations. If any of the observations matched into the data by the method described in section ten, they were included in the final sample.

[7] The map of the 89th congressional district boundaries lacked some detail. Some major metropolitan regions showed that several Congress members represented the same area, resulting in artificially high numbers of representative Democrats and votes. These cities were some of the largest in the country, though, so they were unlikely to have appropriate comparison cities.

[8] Many of these variables are for 1970, which is after cities were selected into the program. However, 1970 is the nearest census year to 1967, when HUD began reviewing applications. Much of this paper is written under the reasonable assumption that in 1970 effects of Model Cities were not yet felt.

[9] MNb and MNc essentially break down the new comparison group into two component parts, while MNa includes many of the tracts in the comparison group from the initial table.

[10] In most of the ten cities for which I had model neighborhood maps, a circle with radius .04 degrees around the central model neighborhood point also included some tracts that were not within the model neighborhood. Hence, in these cities, the new variable compares model neighborhoods and nearby tracts to the control group cities. This could put downward bias on my estimates.

regressions. In general, estimates of the effect of the program show stronger, negative differences in population and number of households when the comparison groups are farther away. They show stronger reduction in welfare rates and increases in housing values when comparisons are made with groups farther away as well.

Tables 2, 4a, and 4b tell much the same story. In all cases, model neighborhoods saw losses in population relative to outside areas, and very small differences in changes in welfare rates and poverty rates. If anything, negative differences are stronger when comparing model neighborhood areas with areas farther away.

It could be that positive externalities from the Model Cities Program were felt all over the city, in which case the strategy presented here does not adequately address spillover. It could also be that, even though tracts in the model neighborhoods fared worse in the three decades after the program began than tracts in surrounding areas, these differences are smaller than they would have been in the absence of the program. I address these possibilities in later sections. First, however, I test whether the results from my initial analysis are externally valid.

4.3.2 External Validity

The ten cities within my "well-documented" sample only account for one fifteenth of the cities granted federal funding through the Model Cities Program. It would be good to know whether the effects documented in the previous sections were also seen in the rest of the model cities, but, without maps or written accounts of where the model neighborhoods were located, documenting these effects necessitates predicting model neighborhood location. Hence, with the knowledge that cities generally chose their most blighted neighborhoods as model neighborhoods, I created the following "model neighborhood index" using baseline 1970 data:

(3) $$mnindex_i = \left(\frac{povrat_i}{povrat_{c_i}}\right) + \left(\frac{vachu_i}{vachu_{c_i}}\right) + \left(1 - \frac{avval_i}{avval_{c_i}}\right) + \left(\frac{1-peduc12_i}{1-peduc12_{c_i}}\right)$$

where *povrat* is the percentage of 1970 residents below the poverty line, *vachu* is the percentage of total housing units that are vacant, *avval* is average house value, and *peduc*12 is proportion of residents with at least a high school education. In this index, *i* denotes a tract and *c* refers to a city. So, for example, $povrat_{c_i}$ is the poverty rate for the city in which tract *i* is located.[11] The term $1 - \frac{avval_i}{avval_{c_i}}$ is included as such in the index because one would expect cities to designate areas with low housing values, relative to the rest of the city, as model neighborhoods. For similar reasons, I include $\frac{1-peduc\ 12_i}{1-peduc\ 12_{c_i}}$ in the model. It is the ratio of the proportion of the tract population over 25 years of age with less than twelve years of education and the proportion of the city population over 25 years of age with less than twelve years of education.

In each of the 145 model cities for which I had appropriate data, including the ten cities in my initial sample, I assigned the central point of the tract with the highest model neighborhood index as the predicted central model neighborhood point. I found that all of the tracts within the "well-documented" model cities were within .04 degrees of the hand-selected model neighborhood points described in the previous section, so I created a new variable, $\widehat{MN}$, set equal to one for all tracts within .04 degrees of the predicted central model neighborhood point, and set equal to zero for all tracts within .085 and .1 degrees of the predicted central model neighborhood point.

The choice for the model neighborhood index was based on a comparison of my predicted model neighborhoods ($\widehat{MN}$) with the actual model neighborhoods (*MN*) in the ten cities for which I have model neighborhood maps. It was selected from among the 63 different possible combinations of the following six variables, all of which are associated with urban blight: average household income, average house value, percentage of total housing units that are vacant, poverty rate, proportion of the population that is not white, and percent of the population without a high school education. The index used for this paper

[11] In the Neighborhood Change Database, each census tract in an urban area also falls into a place (which roughly corresponds to a city), denoted by a 1998 FIPS place code. To calculate $povrat_{c_i}$, $vachu_{c_i}$, $avval_{c_i}$, and $peduc12_{c_i}$, I aggregated the data by place code.

had the highest accuracy in assigning tracts to the same treatment and control groups to which they were assigned in the analysis described in the previous section.

Nevertheless, I cannot know with certainty that the predicted model neighborhoods designated by $\widehat{MN}$ were actually model neighborhoods selected by city governments and residents. Hence, the results presented in tables 5a and 5b might best be understood as estimates of how well the most blighted areas in model cities performed in the thirty years following the implementation of the program, relative to surrounding areas. Tables 5a and 5b show estimates for coefficients from the same regressions presented in tables 4a and 4b using the new $\widehat{MN}$ variable. If the results presented in tables 2, 3, 4a and 4b are externally valid, one would expect to see similar trends in tables 5a and 5b.

In fact, many of the effects documented in tables 2, 4a, and 4b are also seen in the larger sample of model cities. Like in the initial sample of well-documented cities, tracts in predicted model neighborhoods in the larger sample of model cities saw losses in population and number of households between 1970 and all three comparison years relative to tracts in the comparison group. In terms of population, model neighborhoods lost 21.4 percent of their 1970 population by 2000, while comparison areas increased their population by about 7.5 percent. At the same time, like in the initial sample, predicted model neighborhoods saw larger increases in their retention rates than comparison areas between 1970 and 1980 and between 1970 and 1990. Like in the initial sample, the use of public transit decreased more in model neighborhoods than in comparison areas - by about 2.4 percentage points more when comparing 1970 and 2000 - while the proportion of workers whose jobs are in their county of residence showed no difference. Finally, the high school education rate in predicted model neighborhoods improved more over time than in the comparison group. This is consistent with results presented in tables 4a and 4b.

In terms of poverty rate and welfare rate, however, predicted model neighborhoods in the larger sample of Model Cities saw significantly larger increases over the first 20 years than the comparison group. In the well-documented sample, these differences were insignificant. Moreover, the average household income in model neighborhoods and the average house values increased significantly less between 1970 and all three comparison years than in comparison tracts. In the mapped sample, these differences are also insignificant.

The results presented in table 5a suggest that many of my initial estimates were externally valid. The most blighted areas in Model Cities saw losses relative to surrounding areas along several key outcome variables. However, estimates in section 4.3.2 that show improvements in terms of poverty rates, welfare rates, and average income do not carry over to the larger sample. This could point to either sample bias in the small sample or to inaccuracy in predicting model neighborhoods in the large sample. Either way, I cannot say with certainty from my estimates that the Model Cities Program made significant improvements along these dimensions.

Finally, the results in table 5b are consistent with those presented in table 4b, in that comparisons with areas farther away from the center of the predicted model neighborhood show larger negative differences.

Overall, the difference-in-differences analysis presented hear suggests that the Model Cities Program was unsuccessful in attaining many of its stated aims. The exception appears to be education, where model neighborhoods did see significantly larger gains than surrounding areas. With the exception of the "proportion white" result in table 2, the results do not suggest that the Model Cities Program increased migration to (or reduced outmigration from) model neighborhoods. Rather, model neighborhoods lost more population relative to surrounding areas in the thirty years following the implementation of the program. The evidence presented here neither supports nor weakens the theory that place-based policies create efficiency losses. Because my results do not show large gains in model neighborhoods as a result of the program, it cannot be determined whether the program would have attracted population to declining areas if it had been more effective.

5. Across-city Analysis Utilizing Propensity Matching

I now move to a city-level analysis of the Model Cities Program. Comparisons between model cities and cities that did not receive funding can provide additional insight into the effects of the program in at least two ways. First, the founders of Model Cities theorized that their program to reduce blight in the worst urban neighborhoods would have positive externalities across target cities. Thus, as previously mentioned, within-city comparisons between model neighborhoods and surrounding tracts may be biased by spillover effects. Comparing city-wide outcomes is a second way to address spillover. Second, it could be that model neighborhoods saw smaller losses along the twelve outcome variables under study relative to surrounding tracts than the most blighted neighborhoods in cities that did not receive funding. In section 5.3.1, I estimate these differences.

5.1 Data

Once again, my primary data source is the tract-level U.S. Census data harmonized across 1970, 1980, 1990, and 2000 by Geolytics, Inc. The database includes a 1998 FIPS place code for each census tract, which designates the city, town, or village in which the tract is located. It does not include a place name, though, so I also use name data from the Social Explorer database to connect tract-level Geolytics data to city-level data from other sources. To prepare the relevant outcome variables (and those variables in the matching model, below, that come directly from the 1970 census) I aggregate tract-level data by 1998 census place code.

To supplement this analysis, this study uses grant data on HUD supplemental grant allocations for the first year of operations, as of May 31, 1971, for each of the 150 model cities. I use these values as a proxy for the value of total funds allocated to each of the cities under the Model Cities Program. I also utilize county-level federal funding data from all War on Poverty programs between 1965 and 1967.

I use political data based on the record of the United States House of Representatives and United States Senate votes on the Demonstration Cities and Metropolitan Development Act of 1966, which lists the Congress members who voted in favor and against the passage of the bill. I create variables for the number of Democrats in the 89th Congress whose jurisdiction includes each city and the number of total votes in favor of the bill from Congress members whose jurisdiction includes each city.

For their paper, "The Economic Aftermath of the 1960s Riots in American Cities: Evidence from Property Values" William Collins and Robert Margo created an index for the severity of 1960s riots in each city. The data were matched successfully to the Census data by name, with the exception of Phoenix, AZ, which was not listed under the Census places. The Collins and Margo paper was limited to major U.S. cities, so most of the places in the census data had a missing value for their riots index. I replaced those missing values with zeros, under the assumption that smaller cities did not experience riots.

Finally, I procured crime data for 1968 for places and counties from the National Archive of Criminal Justice Data. The data in the archive have been collected by the FBI every year since 1930 from local police departments in accordance with uniform crime reporting standards developed in 1929. The 1968 dataset included variables for total actual criminal offenses for each month and population of the area surveyed by the reporting police department. I used these data to create an average monthly crime rate variable.

5.2 Empirical Specification and Strategy

In order to make comparisons at the city level, I must construct a suitable comparison group of cities that did not receive Model Cities funding. Ideally, I would observe model cities as they would have been had they not received federal funding through the program, but clearly this is impossible. Also, the Model Cities Program was not administered through a case-control study, and cities were not selected into the program or into a control group at random. However, many U.S. cities did go untreated, and by assigning those cities that were the most similar to model cities at baseline to a comparison group, I can estimate the effect of the program on the treated group. I use a propensity score matching system and a probit model to construct this comparison group.

As Caliendo and Kopoening (2008) write, propensity score matching must satisfy the conditional independence assumption and the common support condition. The conditional independence assumption implies that all variables that affect both the decision to treat and the outcome of the treatment should be included in the model, and the common support assumption says that observations with the same values for all of the variables in the model have the same probability of being accepted into the program.

In order to satisfy the conditional independence assumption, I choose variables to include in my model based on historical accounts of HUD's selection process and the political atmosphere of the day. First, the motivation for including a riots index comes from David Gale's account of the political climate surrounding the Demonstration Cities and Metropolitan Development Act's passage through Congress. According to Gale, the act was billed as the solution to racial violence and urban riots. It is reasonable to assume, then, that the cities' riot histories played a role in HUD's selection process, and that a riots index should be included in the model. The proportion of residents that were black is included in the model for the same reason. Gale also writes that crime rates, the representative Congress members' voting history surrounding the bill, population density, and unemployment played a role in HUD's decisions. Hence, these variables are also included in the model.

Gilbert and Specht (1969) report that only 9 of the 63 cities chosen by HUD in the first round to receive Model Cities grants were represented in the House of Representatives by Republicans. I include the number of Democrats in Congress in the model to account for this partisan bias. Contrary to their account, though, the estimated coefficient on this variable turns out to be negative.

Finally, I include total federal funds, by county, as a proxy for city organization and achievement. Rich (1979) offers support for the inclusion of this variable in my model. He writes, "For many federal programs, state and local governments are the key decision makers in regard to the distribution of federal aid, for they are the ones who decide whether or not to apply for aid, how much to ask for, and how often they will seek assistance." County-level data were available, whereas city-level data were not, so one potential flaw is that a disorganized city that did not receive much federal aid but that is located in a county with a high-achieving city will have an artificially high propensity score.

With these facts in mind, I generate propensity scores for every U.S. city for which the data are available using the following probit model:

$$(4)\ \Pr(MC = 1|\,\boldsymbol{x}) = \Phi\,(\beta_0 + \beta_1 unemprt7_c + \beta_2 povrat7_c + \beta_3 shrblk7_c + \beta_4 popdens7_c + \beta_5 citypop7_c + \beta_6 votes_c + \beta_7 dems_c + \beta_8 federalgrants_c + \beta_9 crimerate68_c + \beta_{10} riots_c)$$

Where Pr denotes probability, Φ is the Cumulative Distribution Function of the standard normal distribution, *unemprt7* is the city's unemployment rate in 1970; *povrat7* is the proportion of the city's population below the poverty line in 1970; *shrblk7* is the proportion of the city's population that is black or African American in the same year; *popdens7* is the city-wide population density in the same year; *citypop7* is the total population of the city in the same year; *votes* is the total number of votes in support of the program by Congress members whose constituency includes city c;[12][13] *dems* is the number of members of Congress in the Democratic Party in 1966 whose constituency includes city c; *federalgrants* is the dollar amount of federal funding through Great Society programs to the county in which the city is located between 1965 and 1967; *crimerate*68 is the average monthly crime rate in the city in 1968; and *riots* is an index for intensity of 1960s race riots based on number of injuries, arrests, and other relevant factors.[14] Standard errors are generated using the observed information matrix.

Figure 3 shows the distribution of propensity scores for model cities and all possible comparison group cities. Note that this sample includes only 118 model cities and 3,727 possible comparison group cities because those are the cities for which data for all of the variables in the probit model above are

[12] If cities crossed congressional district boundaries but had identical political information in both districts, I included only one observation. If they crossed congressional boundaries and the outcomes would be different if they were in one or the other, I included two observations. If any of the observations matched into the data by the method described in section ten, they were included in the final sample.

[13] The map of the 89th congressional district boundaries lacked some detail. Some major metropolitan regions showed that several Congress members represented the same area, resulting in artificially high numbers of representative Democrats and votes. These cities were some of the largest in the country, though, so they were unlikely to have appropriate comparison cities.

[14] Many of these variables are for 1970, which is after cities were selected into the program. However, 1970 is the nearest census year to 1967, when HUD began reviewing applications. Much of this paper is written under the reasonable assumption that in 1970 effects of Model Cities were not yet felt.

available. Also, notice that the range of propensity scores that have density in both the model cities and the non-model cities is between 0 and .85.

I find the nearest neighbor among non-model cities to each of the 118 model city in the sample by calculating the absolute difference between the propensity scores of every non-model city and each model city. I exclude model cities and their nearest neighbors from the sample when the difference between their propensity scores is more than 1 percentage point because these pairings are not close enough to being equally likely to being selected into the program.

Finally, to ensure common support, I trim my sample down to only those cities with propensity scores less than .85. This limits my sample to a range of propensity scores that includes both model cities and comparison group cities. Figure 4 shows the distribution of propensity scores in the trimmed sample. In all, the resultant sample has 81 model cities and 65 comparison group cities. There are fewer comparison group cities because in several cases the nearest neighbor to one model city was also the nearest neighbor to another. The mean propensity score for model cities is .15 and the mean for the comparison group is .12.

Table 6 shows baseline differences between the model cities group and the comparison group on several key variables. The comparison group cities have slightly fewer households, on average, and slightly higher average income than the model cities in the sample. These differences are not large in magnitude and are not significantly different from 0 at the 5% confidence level. Overall, the cities selected by the probit model into the comparison group are very similar to the model cities in the trimmed sample.

Finally, I use the twelve outcome variables seen throughout this paper as dependent variables in the following city-level linear regression models:

(5) $Y_{ct} = \beta_0 + \beta_1 MC_c \cdot D80_t + \beta_2 MC_c \cdot D90_t + \beta_3 MC_c \cdot D00_t + \beta_4 D80_t + \beta_5 D90_t + \beta_6 D00_t + f_c + u_{ct}$

$$(6)\ Y_{ct} = \beta_0 + \beta_1 MCF_c \cdot D80_{t_i} + \beta_2 MCF_c \cdot D90_t + \beta_3 MCF_c \cdot D00_t + \beta_4 D80_t + \beta_5 D90_t + \beta_6 D00_t + \beta_7 MCF_c + f_c + u_{ct}$$

where *MC* is coded 1 for model cities in the trimmed sample and 0 for matched controls; *MCF* is federal Model Cities funding in 1971, divided by total 1970 city population, in thousands of dollars, and coded 0 for control group cities; and the vector f_c includes city fixed effects. As in previous tables, the coefficients on the interaction terms are of interest. Estimates from the first equation illustrate the difference in changes between model cities and comparison group cities between 1970 and other census years. Estimates from the second equation show the effect of additional Model Cities funding on city-wide outcomes over the same time period. One would expect to see stronger effects in cities that received higher-intensity funding.

5.3 City-level results

Results from model 5 are summarized in table 7. Column 1 shows that model cities did not see significant differences in population change from comparison group cities, and that on average, the cities in the entire sample did not show significant population growth in the first twenty years following the program. However, column 2 shows that model cities saw an increase in the number of households 8.7 percentage points smaller between 1970 and 1980 than comparison group cities, which on average, saw a 15 percent gain over the same time period. This suggests that residents in comparison group cities reduced their number of children over time more than in model cities. Column 3 shows that the increase in the retention rate between 1970 and 1980 for model cities was 1.7 percentage points smaller than in comparison cities. This coefficient is statistically significant, but not large in magnitude. Model cities also saw larger decreases in the white share of their population than the comparison group between 1970 and 1990 (column 4) and in the proportion of workers working in their county of residency (column 6). Perhaps most tellingly, model cities saw larger increases in their poverty rates than comparison group cities over the thirty years following the implementation of the program. Taken together, the results in table 7 suggest that model cities did not see significant improvements along any of the twelve key outcome variables as a result of the program. They also suggest that program did not reduce migration away from target cities.

Table 8 presents the results of estimates from model 6. The table shows how variation in intensity of the model cities program, as measured through funds per capita, impacted the twelve key outcome variables. Column 1 shows that cities with smaller populations in 1970 generally received more funding per capita than cities with large populations. In fact, each additional thousand dollars per capita corresponds to a 15 percent smaller baseline population. On the other hand, there is no correspondence between the amount of funding devoted to a city and the change in population or number of households in the first twenty years following the program. In other words, no matter the intensity of the program, population stayed about constant over the first twenty years in all of the cities in the sample. Interestingly, though, column 3 shows that additional Model Cities funds are correlated with larger reductions in retention rate over the time period under study. The results from these three columns suggest more migration both into and out of cities that received more Model Cities funds per capita.

The rest of table 8 suggests that overall, cities that had higher intensity programs did not see significantly different changes from the rest of the cities in the sample on the other nine outcome variables in the first ten years of the program, and that, with the exception of the proportion of workers working in their county of residence, the same holds true when comparing the baseline to 1990. Whereas table 7 shows a negative relationship between selection into the Model Cities Program and most of the outcome variables under study, table 8 does not show statistically significant relationships between Model Cities funding and the outcome variables in any direction.

Neither table 7 nor table 8 suggests that the Model Cities Program had beneficial effects on city-wide outcomes. This is further support for the contention that the program did not have the desired outcomes outlined in its founding legislation.

5.3.1 Comparing within-city differences across cities

In section 4, I showed that model neighborhoods saw less improvement or greater loss along many of the key variables than comparison areas in the same cities between 1970 and 2000. It is conceivable that this was the general trend when comparing the most blighted areas of all U.S. cities to less-blighted neighborhoods over the same period, and that the Model Cities Program mitigated these differences somewhat. To test this hypothesis, I predict the most likely model neighborhood in each tract in each city in my matched dataset using the same method as described in section 4.3.2. In other words, whether or not a city was actually selected into the Model Cities Program, I predict which tract would most likely be selected by the city government as the model neighborhood if the city were to receive funding. As in section 4.3.2, I create a dummy variable, $\widehat{MN}$, equal to 1 for tracts whose central points are within .04 latitudinal and longitudinal degrees of the predicted central point of the model neighborhood, and equal to 0 for tracts whose central points are between .85 and .1 degrees from the predicted central model neighborhood point.

Next, I estimate the following linear regression model for each of my twelve chosen outcome variables:

$$(7)\ Y_{it} = \beta_0 + \beta_1 \widehat{MN}_i \cdot MC_i \cdot D80_t + \beta_2 \widehat{MN}_i \cdot MC_i \cdot D90_t + \beta_3 \widehat{MN}_i \cdot MC_i \cdot D00_t + \beta_4 \widehat{MN}_i \cdot D80_t + \beta_5 \widehat{MN}_i \cdot D90_t + \beta_6 \widehat{MN}_i \cdot D00_t + \beta_7 MC_i \cdot D80_t + \beta_8 MC_i \cdot D90_t + \beta_9 MC_i \cdot D00_t + \beta_{10} D80_i + \beta_{11} D90_i + \beta_{12} D00_i + f_i + u_{it}$$

where $\widehat{MN}$ is the model neighborhood dummy variable described above; *MC* is the indicator variable set equal to 1 for tracts in model cities in the trimmed sample and set equal to 0 for tracts in matched comparison group cites; the time indicator variables are the same as used throughout this paper; the interaction terms are created by multiplying the expected dummy variables together; and *f* contains tract fixed effects. The coefficients of interest are on the interaction terms between $\widehat{MN}$, *MC*, and the time indicator variables. These coefficients will show how selection into the Model Cities Program affected differences in changes between 1970 and 2000 between poor, blighted areas and surrounding comparison areas.

Ordinary least squares estimates for these regressions are listed in table 9. Columns 1, 2, and 3 show that predicted model neighborhoods in model cities saw smaller decreases in population, number of households, and retention rate, relative to surrounding tracts, than predicted model neighborhoods in the comparison group. The table suggests that model neighborhoods retained more of their population from outmigration than the most blighted areas in comparison cities.

However, the other nine variables listed in the table show no significant differences of this kind over the first twenty years. These results align with the idea that the program did not meet the aims of its founders.

6. Discussion

The results described in this paper indicate that the Model Cities Program did not live up to its founders' stated goals. In nearly every table presented in this paper, status as a model city or as a tract in a model neighborhood was correlated with worse outcomes along the variables intended to measure success in achieving program founders' aims. At the within-city level, model neighborhoods generally fared worse than surrounding neighborhoods when comparisons were made in changes in poverty rate, dependence on welfare average income, and other outcome variables related to the program designers' aims. Furthermore, analysis along a matched dataset confirmed at the across-city level what the initial estimates suggested on the within-city level. Between 1970 and 2000, model cities did not see greater improvement, relative to matched cities, along any of the twelve variables analyzed. In fact, when comparing changes in poverty rates, model cities fared worse.

These results suggest that Model Cities was generally ineffective in reducing urban blight in the long term. Of course, the program could have had positive effects that are not reflected in my tables, either because the variables selected for analysis did not adequately reflect areas of improvement, because effects of the program petered out by 1980, or because of confounding factors that were not taken into account in my strategies for capturing these effects.

Findings on population changes and retention rates vary. Tracts in model neighborhoods in my small sample did not see smaller losses in population or different changes in retention rates between 1970 and 1980 than tracts in bordering areas (table 2). However, when compared with tracts farther away, model neighborhoods saw both higher retention rates and larger decreases in their population (table 4a). In other words, comparison group tracts experienced a larger turnover in population, but model neighborhoods saw a greater general decline. This pattern of larger losses in population and larger increases in retention rates carries over to a larger sample of cities selected into the program (table 5a). At the city-level, model cities did not see population changes significantly different than comparison group cities, but their retention rates increased less over the same period (table 7). Finally, and perhaps most importantly, model neighborhoods retained more of their population, relative to surrounding tracts, than equally blighted areas in the group of matched comparison cities (table 9).

The decrease in outmigration from model neighborhoods could point to some positive outcomes of the program. For one thing, successes along variables that were not measured in this paper could have helped these areas to retain their population. Second, along with the relatively increase in population, one would expect larger increases in rents and housing values in model neighborhoods, relative to surrounding areas, when compared to the most blighted areas of comparison group cities. However, the evidence from table 9 did not show this effect. This could point to success in providing low and moderate income housing to the population.

My results showing overall ineffectiveness of the Model Cities Program agree with several historical accounts (Hetzel, 1993; Weissman, 1978; Judson, 1972.) Warren (1973) takes a positive view of the program, despite its ineffectiveness. He writes, “Model Cities is to be justified not for bettered slum conditions, its original purpose, but rather for strengthening the cities’ ability to comprehensive planning and coordination.” Some of the theories for why Model Cities did not produce its intended results are that federal guidelines were confusing to local agents (Marshall Kaplan, et al, 1970), that federal officers were unable to evaluate cities accurately when selecting which cities to fund (Gilbert and Speech, 1974), that federal agents underestimated the time and funding required to involve citizens in the planning process (Judson, 1972) or that the program was simply underfunded relative to its broad goals (Judson, 1972). Each of these theories warrants further investigation. My results cannot be used to distinguish between these potential causes.

In certain ways, the results from my study are consistent with the view that place-based policies introduce inefficiencies into the urban system, causing overall loss. A potential chain of causation that could explain the figures in tables 7 and 9 is that Model Cities funds created some unseen result in model neighborhoods that reduced outmigration from areas. The residents of neighborhoods chose to stay in those areas rather than work in other places where they might be more productive, and, as a result, the model cities in the sample saw smaller gains over the tested period on key outcome variables than the comparison group. It is more likely, however, that model neighborhood residents took more jobs farther out in cities, as evidence by the public transit results in section 4, and that efficiency losses of this type were small.

An alternative interpretation is that, among its many aims, the Model Cities Program was most effective in improving education in model neighborhoods. The results presented in tables 4a and 5a support this notion. As demonstrated by the model in Glaser and Redlick (2008), when human capital gains outweigh social capital accrued to people in declining areas, they emigrate. This would explain the losses in population in model neighborhoods relative to other areas. If this is the case, my results ironically imply that the Model Cities Program spurred migration out of the most blighted neighborhoods of America’s cities by investing in human capital, a mobile resource.

7. Conclusion

In this paper I present an empirical evaluation of the Model Cities Program in terms of its many stated aims by estimating differences-in-differences between a variety of comparison groups and groups treated by the Model Cities Program on several indicators of economic prosperity and urban rehabilitation. I compare tracts in model neighborhoods to those in surrounding areas in ten cities for which maps are available and find that status as a model neighborhood tract is not associated with beneficial changes between 1970 and later census years along any of the outcome variables. Comparisons between model neighborhoods and areas farther away yield similar results.

I also run a comparison between model cities and cities that were not selected into the program in order to evaluate city-wide outcomes. I find that the Model Cities Program is associated with larger increases in the poverty rate and welfare rate in model cities, and that additional funds are associated with larger decreases in retention rates.

My preliminary analysis provides no evidence for strong positive effects of the Model Cities Program on most indicators of urban development. However, I do show that tracts in model neighborhoods were better able to retain their population relative to outside areas when compared to the most blighted areas of comparison cities. The results from my study can be interpreted to support the notion that place-based policies cause efficiency losses, but this interpretation is based on the assumption that the program had some positive, unrecorded effect. In terms of the overall effectiveness of place-based policies, my study is inconclusive.

This study of the Model Cities Program shows that it is difficult to measure success against broad, lofty goals. The Model Cities Program set out very vague and obtuse aims, agreed to fund particular localities, and allowed municipal governments and citizen boards to create their own plans for the use of these funds. In reviewing the program's effectiveness in achieving its goals, I was left to study broad indicators of economic success. More precisely outlined requirements and specific aims might have helped the program achieve success in certain program areas. In order to see results, future policies for community development ought to be framed with specific and measurable aims.

8. Data Appendix

Much of the research presented in this paper focused on a sample of ten cities for which model neighborhood maps or boundary descriptions were readily available. My method for locating these maps and boundary descriptions involved the following algorithm. First, basic searches for “model cities,” “model neighborhood” and each of these search terms with “map” in the University of Michigan library catalog brought out relevant information regarding Detroit's model neighborhood. Next, the search terms “ “model cities” program map city site:.gov” “ “model neighborhood” map city site:.gov” and “ “model cities” program boundaries city site:.gov” and “ “model neighborhood” boundaries city site:.gov”, each of these search terms with the word “archives”, and each of these search terms without the site:.gov limitation were entered into the Google search engine for each of the 150 model cities. The first three pages of results were examined (if indeed there were three pages) and the first two pages of images. As soon as a suitable map or boundary for each city arose, the search terms were entered for the next city on the list.

For the city-level comparisons, to calculate city-level means from tract-level data, I multiplied the tract-level data by tract population, summed the results by place, and then divided by the total population of all the tracts in each place combined. In this way I assured that even if the 1998 place boundaries include areas that were undeveloped in 1970, the city-level variables remain true to reality. Still, there are ways that 1998 city boundaries can introduce measurement error into my estimates. First, if the city was larger in area in 1970 than in 1998, then included tracts will not capture a full picture of the city at the time. Second, estimates of population density will be low in all expanding cities; and, even worse, those estimates will be more in accurate in cities that expanded at a more rapid rate over the 1970-1998 period. Nevertheless, I believe that aggregating tract-level census data was the best way to obtain city-level data for the purpose of this project.

The 1971 Model Cities funding data are from a report issued by the U.S. General Accounting Office on January 14, 1972 entitled “Improvements Needed in Federal Agency Coordination and Participation in the Model Cities Program.” There are at least two reasons that these data do not perfectly reflect actual allocations to model cities. First, according to a footnote on the document, “These amounts are target allocations and do not, in all cases, represent the amounts of funds actually allocated.” Those cities that were not organized enough to spend all of the allocated funds did not receive their entire granted sum. Moreover, the data do not include values for the successive years of the program. Nevertheless, I argue that this document offers the best available information on grants allocated to these cities, and that these numbers serve as a valuable proxy for actual investment.

As a final note, matching crime data to the place-level census data was complicated, as the FBI has its own coding system for cities and towns. I relied on name variables to merge the datasets together, which did not produce matches for all of the places in either dataset.

References

Aiken, Michael. 1969. "Community Power and Community Mobilization." *Annals of the American Academy of Political and Social Science*, 385(, Evaluating the War on Poverty), pp. 76-88.

Albouy, D. 2009. "The Unequal Geographic Burden of Federal Taxation." *Journal of Political Economy*, 117(4), pp. 635-67.

Aleshire, Robert A. 1972. "Power to the People: An Assessment of the Community Action and Model Cities Experience." *Public Administration Review*, 32(, Special Issue: Citizens Action in Model Cities and CAP Programs: Case Studies and Evaluation), pp. 428-43.

Arnold, R. Douglas. 1979. *Congress and the Bureaucracy : A Theory of Influence*. New Haven: Yale University Press.

Benjamin, Gerald. 1973. "Review: The Process of Change in Federal - Local Relations." *Public Administration Review*, 33(2), pp. 188-93.

Bolton, R. 1992. "Place Prosperity Vs People Prosperity Revisited - an Old Issue with a New Angle." *Urban Studies*, 29(2), pp. 185-203.

Bolton, Roger. 1992. "'Place Prosperity Vs. People Prosperity' Revisited: An Old Issue with a New Angle." *Urban Studies*, 29(2), pp. 185-203.

Brown, L. D. and B. J. Frieden. 1976. "Rulemaking by Improvisation - Guidelines and Goals in Model-Cities Program." *Policy Sciences*, 7(4), pp. 455-88.

Busso, Matias; Jesse Gregory and Patrick Kline. 2010. "Assessing the Incidence and Efficiency of a Prominent Place-based Policy," In. UC Berkeley. NBER.

Caliendo, M. and S. Kopeinig. 2008. "Some Practical Guidance for the Implementation of Propensity Score Matching." *Journal of Economic Surveys*, 22(1), pp. 31-72.

Clark, Gordon L. 1983. *Interregional Migration, National Policy, and Social Justice*. Totowa, N.J.: Rowman and Allanheld.

Collins, W. J. and K. L. Shester. 2010. "Slum Clearance and Urban Renewal in the United States, 1949-1974." *Journal of Economic History*, 70(2), pp. 485-85.

Collins, William J. and Fred H. Smith. 2005. "A Neighborhood-Level View of Riots, Property Values, and Population Loss: Cleveland 1950-1980," In *Social Science History Association Meetings*. Portland, OR.

Collins, William J. and Robert A. Margo. 2007. "The Economic Aftermath of the 1960s Riots in American Cities: Evidence from Property Values." *The Journal of Economic History*, 67(4), pp. 849-83.

Collins, William J. and A. Margo Robert. 2007. "The Economic Aftermath of the 1960s Riots in American Cities: Evidence from Property Values." *The Journal of Economic History*, 67(4).

Dehejia, R. H. and S. Wahba. 1999. "Causal Effects in, Nonexperimental Studies: Reevaluating the Evaluation of Training Programs." *Journal of the American Statistical Association*, 94(448), pp. 1053-62.

____. 2002. "Propensity Score-Matching Methods for Nonexperimental Causal Studies." *Review of Economics and Statistics*, 84(1), pp. 151-61.

Douglass, Chester W. 1973a. "Effect of Provider Attitudes in Community Health Decision-Making." *Medical care*, 11(2), pp. 135-44.

____. 1973b. "Representation Patterns in Community Health Decision Making." *Journal of health and social behavior*, 14(1), pp. 80-86.

Field, Erica and Michael Kremer. 2006. "Impact Evaluation for Slum Upgrading Interventions," In *Thematic Group on Poverty Analysis*. Washington, D.C.: The World Bank.

Foster, John L. and H. Jones Judson. 1978. "Rule Orientation and Bureaucratic Reform." *American Journal of Political Science*, 22(2), pp. 348-63.

Frieden, Bernard J. and Marshall Kaplan. 1975. *The Politics of Neglect : Urban Aid from Model Cities to Revenue Sharing*. Cambridge, Mass.: MIT Press.

Gale, Dennis E. 1996. *Understanding Urban Unrest : From Reverend King to Rodney King*. Thousand Oaks, Calif.: Sage Publications.

Gilbert, N. and H. Specht. 1974. "Picking Winners - Federal Discretion and Local Experience as Bases for Planning Grant Allocation." *Public Administration Review*, 34(6), pp. 565-74.
Gilbert, Neil and Harry Specht. 1974. ""Picking Winners": Federal Discretion and Local Experience as Bases for Planning Grant Allocation." *Public Administration Review*, 34(6), pp. 565-74.
Glaeser, Edward L. 2007. "Can Buffalo Ever Come Back?" *City Journal*, 17(4), pp. 94-99.
Glaeser, Edward L. and Charles Redlick. 2008. "Social Capital and Urban Growth," In *NBER Working Paper Series*. National Bureau of Economic Research.
Gonzalez, José L. and Lowell H. Woodward. 1974. "Expanding Roles for Health Assistants in a Model Cities Health Program." *Health services reports*, 89(2), pp. pp. 145-51.
Grumm, John G. and Russell D. Murphy. 1974. "Dillon's Rule Reconsidered." *Annals of the American Academy of Political and Social Science*, 416(, Intergovernmental Relations in America Today), pp. 120-32.
Haar, Charles Monroe. 1975. *Between the Idea and the Reality : A Study in the Origin, Fate, and Legacy of the Model Cities Program*. Boston: Little, Brown.
Hallman, Howard W. 1972. "Federally Financed Citizen Participation." *Public Administration Review*, 32(, Special Issue: Citizens Action in Model Cities and CAP Programs: Case Studies and Evaluation), pp. 421-27.
Harrison, B. 1974. "Ghetto Employment and Model Cities Program." *Journal of Political Economy*, 82(2), pp. 353-71.
Harrison, Bennett. 1974. "Ghetto Employment and the Model Cities Program." *The Journal of Political Economy*, 82(2, Part 1), pp. 353-71.
Hartman, C. 1964. "The Housing of Relocated Families." *Journal of the American Institute of Planners*, 30(4), pp. 266-86.
Heckman, J. J.; H. Ichimura and P. E. Todd. 1997. "Matching as an Econometric Evaluation Estimator: Evidence from Evaluating a Job Training Programme." *Review of Economic Studies*, 64(4), pp. 605-54.
Hetzel, O. J. 1994. "Some Historical Lessons for Implementing the Clinton Administrations Empowerment Zones and Enterprise Communities Program - Experiences from the Model-Cities Program." *Urban Lawyer*, 26(1), pp. 63-81.
Hetzel, Otto J. 1971. "Games the Government Plays: Federal Funding of Minority Economic Development." *Law and contemporary problems*, 36(1, Community Economic Development: Part 1), pp. 68-98.
Judson, L. James. 1972. "Federalism and the Model Cities Experiment." *Publius*, 2(1), pp. 69-94.
Kain, John. 1992. "A Spatial Mismatch Hypothesis: Three Decades Later" *Housing Policy Debate*, 3(2), pp. 371-460.
Kline, Patrick 2010. "Place-based Policies, Heterogeneity, and Agglomeration." *American Economic Review*, 100(2), pp. 383-87.
Kloman, Erasmus. 1972. "Citizen Participation in the Philadelphia Model Cities Program: Retrospect and Prospect." *Public Administration Review*, 32(, Special Issue: Citizens Action in Model Cities and CAP Programs: Case Studies and Evaluation), pp. 402-08.
Marshall Kaplan Gans and Kahn. and United States. Dept. of Housing and Urban Development. 1970. *The Model Cities Program; a Comparative Analysis of the Planning Process in Eleven Cities*. Washington,: Dept. of Housing and Urban Development; for sale by the Supt. of Docs.
Marshall Kaplan Gans and Kahn. and United States. Office of Community Development. Evaluation Division. 1973. *The Model Cities Program; a Series of Analyses]*. Washington,: Dept. of Housing and Urban Development; for sale by the Supt. of Docs., U.S. Govt. Print. Off.
Massey, D. S. 1990. "American Apartheid - Segregation and the Making of the Underclass." *American Journal of Sociology*, 96(2), pp. 329-57.
Olken, Charles E. 1971. "Economic Development in the Model Cities Program." *Law and contemporary problems*, 36(2, Community Economic Development: Part 2), pp. 205-26.

Plott, C. R. 1968. "Some Organizational Influences on Urban Renewal Decisions." *American Economic Review*, 58(2), pp. 306-21.
Rich, Michael J. 1989. "Distributive Politics and the Allocation of Federal Grants." *The American Political Science Review*, 83(1), pp. 193-213.
Roback, J. 1982. "Wages, Rents, and the Quality of Life." *Journal of Political Economy*, 90(6), pp. 1257-78.
Roland, L. Warren. 1973. "Comprehensive Planning and Coordination: Some Functional Aspects." *Social problems*, 20(3), pp. 355-64.
Rosenfeld, Raymond A. 1979. "Local Implementation Decisions for Community Development Block Grants." *Public Administration Review*, 39(5), pp. 448-57.
Rubin, Marilyn Marks. 1994. "Can Reorchestration of Historical Themes Reinvent Government? A Case Study of the Empowerment Zones and Enterprise Communities Act of 1993." *Public Administration Review*, 54(2), pp. 161-69.
Shindell, Sidney and Raymond W. James. 1973. "Milwaukee Model Cities Survey of Outpatient Utilization." *Medical care*, 11(2, Supplement: Ambulatory Medical Care Data: Report of the Conference on Ambulatory Medical Care Records), pp. 178-84.
Silverman, Robert Mark. 2004. *Community-Based Organizations : The Intersection of Social Capital and Local Context in Comtemparary Urban Society*. Detroit, Mich.: Wayne State University Press.
Smith, J. A. and P. E. Todd. 2005. "Does Matching Overcome Lalonde's Critique of Nonexperimental Estimators?" *Journal of Econometrics*, 125(1-2), pp. 305-53.
Strange, John H. 1972a. "Citizen Participation in Community Action and Model Cities Programs." *Public Administration Review*, 32(, Special Issue: Curriculum Essays on Citizens, Politics, and Administration in Urban Neighborhoods), pp. 655-69.
____. 1972b. "The Impact of Citizen Participation on Public Administration." *Public Administration Review*, 32(, Special Issue: Citizens Action in Model Cities and CAP Programs: Case Studies and Evaluation), pp. 457-70.
Sundquist, James L. 1969. "Co-Ordinating the War on Poverty." *Annals of the American Academy of Political and Social Science*, 385(, Evaluating the War on Poverty), pp. 41-49.
Taylor, H. R.; G. A. Williams; W. L. C. Wheaton; M. Kaplan; J. Q. Wilson and B. J. Frieden. 1966. "Demonstration Cities Program - Comments." *Journal of the American Institute of Planners*, 32(6), pp. 366-76.
Taylor, H. Ralph and George A. Williams, Jr. 1967. "Housing in Model Cities." *Law and contemporary problems*, 32(3, Housing. Part 2: The Federal Role), pp. 397-408.
Terrell, Paul. 1980. "Beyond the Categories: Human Service Managers View the New Federal Aid." *Public Administration Review*, 40(1), pp. pp. 47-54.
Warren, R. L. 1969. "Model Cities 1st Round - Politics, Planning, and Participation." *Journal of the American Institute of Planners*, 35(4), pp. 245-52.
Weissman, Stephen R. 1978. "The Limits of Citizen Participation: Lessons from San Francisco's Model Cities Program." *The Western Political Quarterly*, 31(1), pp. 32-47.
Westlund, H. and R. Bolton. 2003. "Local Social Capital and Entrepreneurship." *Small Business Economics*, 21(2), pp. 77-113.
Winnick, L. 1966. "Place Prosperity Vs People Prosperity: Welfare Consideratios in the Geographic Redistribution of Economic Activity," In *Essays in Urban Land Economics in Honor of the SIxty-fifth Birthday of Leo Grebler*, 273-83. Los Angeles, CA: Real Estate Research Program, University of California at Los Angeles.

Data

2003. *CensusCD neighborhood change database (NCDB): 1970-2000 tract data: selected variables for US Census tracts for 1970, 1980, 1990, 2000 and mapping too!* Long form release 1.0. E. Brunswick, NJ: GeoLytics.

2005. *Uniform Crime Reporting Program Data [United States]: Offenses Known and Clearances by Arrest, 1968.* 2005. Ann Arbor, Mich.: Inter-university Consortium for Political and Social Research [distributor].

United States General Accounting Office. 2004. *Improvements Needed in Federal Agency Coordination and Participation in the Model Cities Program.* (B-171500). Washington, DC.

Table 1: Baseline Summary Statistics

Variable	(1) All	(2) Treatment Group (MN=1)	(3) Comparison Group (MN=0)	(4) Difference (3) - (2)
Population density (/10,000)	0.140	0.163	0.116	-0.047***
	(0.007)	(0.011)	(0.008)	(0.014)
Number of households (/10,000)	0.124	0.121	0.127	0.006
	(0.004)	(0.006)	(0.006)	(0.008)
Proportion white	0.550	0.395	0.704	0.309***
	(0.027)	(0.036)	(0.034)	(0.050)
High school educated	0.387	0.353	0.421	0.068***
	(0.009)	(0.012)	(0.014)	(0.019)
Poverty rate	0.249	0.289	0.209	-0.080***
	(0.008)	(0.012)	(0.009)	(0.015)
Average income (/10,000)	0.706	0.635	0.777	0.142***
	(0.013)	(0.014)	(0.019)	(0.024)
Average house value (/100,000)	0.144	0.130	0.159	0.284**
	(0.004)	(0.004)	(0.007)	(0.008)
Average rent (/100)	0.276	0.378	0.174	-0.203***
	(0.019)	(0.027)	(0.023)	(0.036)
Observations	192	96	96	

Standard errors reported in parentheses.
* significant at 10%; ** significant at 5%; *** significant at 1%
"Population density" is total population divided by land area, in square miles. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Average income" is average total household income in the year prior to the census. "Average house value" is the average value of a random sample of owner-occupied non-condo
Source: 1970 U.S. Census
Sample: Census tracts that are either in model neighborhoods, bordering those neighborhoods, or

Table 2: Effect of Model Cities Program on Selected Model Neighborhoods, as Compared to Surrounding Areas

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Ln population	Ln number of households	Retention rate	Proportion white	Public transit rate	Proportion working in county	High school educated	Poverty rate	Welfare rate	Ln average income	Ln average house value	Ln average rent
D80 x MN	-0.083	-0.068	0.012	0.041	-0.028	0.002	-0.016	-0.005	0.010	-0.021	-0.018	-0.938
	(1.27)	(1.00)	(0.69)	(1.72)	(2.13)*	(0.10)	(1.08)	(0.27)	(0.67)	(0.48)	(0.23)	(8.63)**
D90 x MN	-0.138	-0.130	0.031	0.095	-0.055	0.017	-0.001	0.015	0.015	-0.048	0.116	-0.890
	(2.10)*	(1.90)	(1.81)	(3.99)**	(4.20)**	(0.93)	(0.10)	(0.90)	(1.00)	(1.10)	(1.50)	(8.17)**
D00 x MN	-0.170	-0.168	0.033	0.123	-0.072	0.005	0.006	-0.038	-0.016	0.013	0.139	-0.912
	(2.59)**	(2.47)*	(1.93)	(5.18)**	(5.47)**	(0.27)	(0.38)	(2.26)*	(1.13)	(0.30)	(1.79)	(8.39)**
D80	-0.177	-0.090	0.079	-0.154	-0.024	-0.008	0.149	0.037	0.051	0.620	0.816	2.595
	(3.74)**	(1.82)	(6.47)**	(8.99)**	(2.52)*	(0.61)	(13.63)**	(3.11)**	(4.84)**	(19.60)**	(14.89)**	(31.13)**
D90	-0.227	-0.147	0.063	-0.264	-0.039	-0.059	0.183	0.084	0.066	1.143	1.409	3.235
	(4.79)**	(2.98)**	(5.11)**	(15.45)**	(4.13)**	(4.43)**	(16.77)**	(7.01)**	(6.27)**	(35.87)**	(25.78)**	(38.69)**
D00	-0.279	-0.173	0.031	-0.300	-0.058	-0.084	0.244	0.061	0.053	1.571	1.828	3.535
	(5.90)**	(3.50)**	(2.56)*	(17.55)**	(6.13)**	(6.26)**	(22.39)**	(5.05)**	(5.06)**	(49.48)**	(33.42)**	(42.41)**
Constant	8.003	6.968	0.746	0.542	0.291	0.863	0.388	0.263	0.152	8.813	9.530	3.163
	(345.92)**	(290.17)**	(124.44)**	(64.79)**	(62.43)**	(131.86)**	(72.93)**	(44.61)**	(29.50)**	(570.11)**	(344.86)**	(77.85)**
Observations	879	876	884	884	884	884	879	884	884	876	793	826
Tracts	221	221	221	221	221	221	221	221	221	221	212	220
R-squared	0.19	0.10	0.17	0.44	0.29	0.14	0.64	0.17	0.15	0.90	0.83	0.86

Absolute value of t statistics in parentheses. Tract fixed effects included in regressions.

* significant at 5%; ** significant at 1%

"Retention rate" is the proportion of residents five years and older who have lived in the same county for at least five years. "Public transit rate" is the proportion of working persons to travel to work on public transportation. "Proportion working in county" is the proportion of workers who work within their county of residence. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Average income" is average total household income in the year prior to the census. "Average house value" is the average value of a random sample of owner-occupied non-condo housing units. "Average rent" is the average rent for a random sample of housing units where the occupant is paying cash rent.

MN=1 if at least half of the census tract area is located within the model neighborhood. MN=0 if less than half of the census tract is within the model neighborhood and the census tract either touches neighborhood boundaries or borders a tract that touches neighborhood boundaries. The time indicator variables, D80, D90, and D00, equal 1 if the data is for the year 1980, 1990, and 2000, respectively, and 0 otherwise. The interaction terms "D80 x MN", "D90 x MN" and "D00 x MN" were calculated by multiplying

Source: U.S. Census, 1970, 1980, 1990, and 2000

Sample: Census tracts that are either in model neighborhoods, bordering those neighborhoods, or bordering tracts that border model neighborhoods for ten cities for which

Table 3: Effect of Model Cities Program on Selected Model Neighborhoods, as Compared to Surrounding Areas
Comparison of three codings of model neighborhood indicator variable

	D80 x MN			D90 x MN			D00 x MN		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ln population	-0.083	-0.069	0.091	-0.138	-0.126	0.080	-0.170	-0.164	0.041
	(1.27)	(1.02)	(0.86)	(2.10)*	(1.85)	(0.76)	(2.59)**	(2.41)*	(0.39)
Ln number of households	-0.068	-0.049	0.107	-0.130	-0.118	0.087	-0.168	-0.161	0.040
	(1.00)	(0.69)	(0.95)	(1.90)	(1.64)	(0.77)	(2.47)*	(2.26)*	(0.36)
Retention rate	0.012	0.026	0.023	0.031	0.041	0.026	0.033	0.042	0.064
	(0.69)	(1.50)	(0.93)	(1.81)	(2.39)*	(1.02)	(1.93)	(2.45)*	(2.53)*
Proportion white	0.041	0.049	0.022	0.095	0.101	0.061	0.123	0.124	0.103
	(1.72)	(2.05)*	(0.64)	(3.99)**	(4.29)**	(1.78)	(5.18)**	(5.24)**	(3.00)**
Public transit rate	-0.028	-0.027	-0.009	-0.055	-0.060	-0.045	-0.072	-0.073	-0.041
	(2.13)*	(1.93)	(0.45)	(4.20)**	(4.29)**	(2.23)*	(5.47)**	(5.25)**	(2.02)*
Proportion working in county	0.002	0.011	-0.006	0.017	0.028	0.006	0.005	0.007	0.010
	(0.10)	(0.60)	(0.24)	(0.93)	(1.55)	(0.25)	(0.27)	(0.38)	(0.44)
High school educated	-0.016	-0.024	-0.033	-0.001	-0.011	-0.029	0.006	-0.002	-0.015
	(1.08)	(1.53)	(1.42)	(0.10)	(0.72)	(1.26)	(0.38)	(0.10)	(0.65)
Poverty rate	-0.005	0.003	-0.000	0.015	0.014	0.011	-0.038	-0.041	-0.023
	(0.27)	(0.19)	(0.00)	(0.90)	(0.86)	(0.48)	(2.26)*	(2.42)*	(0.97)
Welfare rate	0.010	0.022	0.007	0.015	0.009	-0.002	-0.016	-0.006	-0.031
	(0.67)	(1.64)	(0.38)	(1.00)	(0.65)	(0.12)	(1.13)	(0.43)	(1.66)
Ln average income	-0.021	-0.027	-0.047	-0.048	-0.018	-0.080	0.013	0.015	-0.047
	(0.48)	(0.68)	(0.87)	(1.10)	(0.45)	(1.49)	(0.30)	(0.38)	(0.89)
Ln average house value	-0.018	-0.032	0.019	0.116	0.071	-0.026	0.139	0.082	-0.054
	(0.23)	(0.41)	(0.17)	(1.50)	(0.90)	(0.23)	(1.79)	(1.05)	(0.48)
Ln average rent	-0.938	-0.985	-0.801	-0.890	-0.954	-0.797	-0.912	-0.979	-0.787
	(8.63)**	(8.89)**	(4.71)**	(8.17)**	(8.60)**	(4.67)**	(8.39)**	(8.84)**	(4.63)**
Observations	888	808	384	888	808	384	888	808	384
Tracts	222	202	96	222	202	96	222	202	96

* significant at 5%; ** significant at 1%. Absolute value of t statistics in parentheses.
Reported here are estimated coefficients for interaction terms between the MN treatment variable and time indicators (D70, D80, and D90.) Time indicator variables and tract fixed effects were also included in these regressions.
Sample, source, and dependent variables are the same as those reported in Table 2.
Columns 1, 4, 7: MN=1 if at least half of the census tract area is located within the model neighborhood. MN=0 if less than half of the census tract is within the model neighborhood and the census tract either touches neighborhood boundaries or borders a tract that touches neighborhood boundaries.
Columns 2, 5, and 8: MN=1 if at least half the tract is within the model neighborhood. MN=0 if at least half of the census tract is located outside the model neighborhood and either touches the boundaries or borders a tract that touches the boundaries.
Columns 3, 6, and 9: MN=1 if the tract lies entirely within the model neighborhood and touches the border. MN=0 if the tract lies entirely outside the model neighborhood and touches the border.

Table 4a: Comparing Model Neighborhood to Untreated Areas .85-.1 Degrees Away

	(1) Ln population	(2) Ln number of households	(3) Retention rate	(4) Proportion white	(5) Public transit rate	(6) Proportion working in county	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x MN	-0.281	-0.335	0.033	-0.008	-0.034	-0.017	0.009	-0.004	0.000	0.005	0.045	-0.647
	(5.03)**	(5.84)**	(2.65)**	(0.37)	(3.79)**	(1.13)	(0.77)	(0.36)	(0.01)	(0.16)	(0.73)	(7.08)**
D90 x MN	-0.371	-0.463	0.047	0.027	-0.063	-0.012	0.033	0.015	0.004	-0.018	0.241	-0.558
	(6.65)**	(8.06)**	(3.83)**	(1.23)	(7.00)**	(0.83)	(2.90)**	(1.32)	(0.37)	(0.54)	(3.92)**	(6.11)**
D00 x MN	-0.449	-0.534	0.025	0.105	-0.096	-0.023	0.057	-0.053	-0.040	0.094	0.228	-0.542
	(8.05)**	(9.28)**	(1.99)*	(4.71)**	(10.62)**	(1.53)	(5.08)**	(4.51)**	(3.49)**	(2.83)**	(3.72)**	(5.92)**
D80	0.021	0.178	0.058	-0.105	-0.018	0.010	0.124	0.037	0.061	0.593	0.753	2.304
	(0.62)	(5.20)**	(7.92)**	(7.91)**	(3.32)**	(1.19)	(18.48)**	(5.35)**	(9.02)**	(29.94)**	(21.61)**	(31.33)**
D90	0.006	0.186	0.046	-0.197	-0.031	-0.030	0.149	0.084	0.077	1.112	1.284	2.904
	(0.17)	(5.44)**	(6.27)**	(14.88)**	(5.87)**	(3.41)**	(22.33)**	(12.08)**	(11.37)**	(56.50)**	(37.24)**	(39.48)**
D00	0.000	0.193	0.040	-0.282	-0.035	-0.056	0.193	0.076	0.077	1.491	1.739	3.165
	(0.01)	(5.66)**	(5.39)**	(21.33)**	(6.47)**	(6.41)**	(28.81)**	(10.92)**	(11.37)**	(75.75)**	(50.42)**	(43.03)**
Constant	8.077	6.979	0.770	0.703	0.209	0.755	0.471	0.162	0.096	9.069	9.696	3.362
	(428.13)**	(358.84)**	(184.50)**	(93.40)**	(68.67)**	(151.62)**	(124.04)**	(40.90)**	(24.95)**	(810.48)**	(475.47)**	(77.57)**
Observations	1300	1300	1308	1308	1308	1308	1300	1308	1308	1295	1232	1119
Tracts	326	327	327	327	327	327	326	327	327	327	321	325
R-squared	0.11	0.10	0.16	0.39	0.30	0.12	0.64	0.24	0.21	0.92	0.83	0.86

Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%

"Retention rate" is the proportion of residents five years and older who have lived in the same county for at least five years. "Public transit rate" is the proportion of working persons to travel to work on public transportation. "Proportion working in county" is the proportion of workers who work within their county of residence. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Average income" is average total household income in the year prior to the census. "Average house value" is the average value of a random sample of owner-occupied non-condo housing units. "Average rent" is the average rent for a random sample of housing units where the occupant is paying cash rent.

MN=1 if at least half the area of the census tract is included in the model neighborhood. MN=0 if the central point of the tract is between .085 and .1 degrees from the estimated central point of the model neighborhood. The time indicator variables, D80, D90, and D00, equal 1 if the data is for the year 1980, 1990, and 2000, respectively, and 0 otherwise. The interaction terms "D80 x MN", "D90 x MN" and "D00 x MN" were calculated by multiplying MN by the time indicator variables.

Source: U.S. Census, 1970, 1980, 1990, and 2000

Sample: Census tracts within .1 degrees of central model neighborhood points in ten model cities for which model neighborhood maps were available. They are Asheville, NC;

Table 4b: Comparing Model Neighborhood Area to Untreated Areas .4-.1 Degrees Away, In Groups

	(1) Ln population	(2) Ln number of households	(3) Retention rate	(4) Proportion white	(5) Public transit rate	(6) Prop. working in county	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x MNa	-0.091	-0.137	0.013	-0.044	-0.009	-0.013	0.020	-0.002	-0.005	0.022	-0.004	-0.210
	(3.45)**	(4.94)**	(1.73)	(4.07)**	(1.77)	(1.69)	(3.42)**	(0.36)	(0.94)	(1.27)	(0.13)	(3.82)**
D80 x MNb	-0.185	-0.237	0.006	-0.014	-0.014	-0.023	0.022	-0.007	-0.022	0.025	0.103	-0.187
	(4.34)**	(5.28)**	(0.48)	(0.77)	(1.66)	(1.93)	(2.30)*	(0.74)	(2.67)**	(0.90)	(2.13)*	(1.62)
D80 x MNc	-0.272	-0.326	0.007	-0.034	-0.014	-0.057	0.026	0.001	-0.010	-0.009	0.033	-0.026
	(5.03)**	(5.74)**	(0.43)	(1.50)	(1.29)	(3.69)**	(2.18)*	(0.12)	(0.97)	(0.24)	(0.53)	(0.17)
D90 x MNa	-0.114	-0.191	0.009	-0.047	-0.027	-0.007	0.036	0.002	-0.006	0.015	0.077	-0.159
	(4.33)**	(6.90)**	(1.23)	(4.28)**	(5.20)**	(0.93)	(6.14)**	(0.29)	(1.23)	(0.88)	(2.51)*	(2.89)**
D90 x MNb	-0.242	-0.296	0.015	0.010	-0.039	-0.018	0.045	-0.009	-0.028	0.050	0.183	-0.119
	(5.67)**	(6.58)**	(1.28)	(0.60)	(4.68)**	(1.52)	(4.80)**	(0.88)	(3.36)**	(1.78)	(3.82)**	(1.03)
D90 x MNc	-0.348	-0.442	-0.005	-0.030	-0.038	-0.049	0.046	0.004	-0.014	0.020	0.215	0.053
	(6.44)**	(7.79)**	(0.33)	(1.33)	(3.51)**	(3.18)**	(3.88)**	(0.34)	(1.33)	(0.55)	(3.53)**	(0.34)
D00 x MNa	-0.153	-0.198	0.005	-0.004	-0.037	-0.010	0.046	-0.019	-0.020	0.041	0.056	-0.159
	(5.81)**	(7.13)**	(0.72)	(0.34)	(7.14)**	(1.40)	(7.90)**	(3.00)**	(3.96)**	(2.37)*	(1.84)	(2.89)**
D00 x MNb	-0.275	-0.322	-0.010	0.052	-0.053	-0.016	0.061	-0.038	-0.044	0.116	0.152	-0.106
	(6.44)**	(7.16)**	(0.86)	(2.97)**	(6.28)**	(1.33)	(6.42)**	(3.75)**	(5.23)**	(4.15)**	(3.19)**	(0.92)
D00 x MNc	-0.426	-0.507	-0.018	0.020	-0.050	-0.068	0.067	-0.023	-0.033	0.088	0.177	0.084
	(7.88)**	(8.94)**	(1.16)	(0.90)	(4.69)**	(4.40)**	(5.59)**	(1.80)	(3.08)**	(2.50)*	(2.92)**	(0.54)
D80	0.352	0.608	0.039	-0.034	0.005	0.068	0.079	0.041	0.080	0.568	0.699	2.596
	(4.61)**	(7.58)**	(1.83)	(1.07)	(0.35)	(3.13)**	(4.69)**	(2.27)*	(5.35)**	(11.30)**	(8.03)**	(12.73)**
D90	0.430	0.766	0.035	-0.135	0.034	0.015	0.068	0.083	0.102	1.066	1.004	3.070
	(5.63)**	(9.55)**	(1.62)	(4.27)**	(2.24)*	(0.70)	(4.00)**	(4.56)**	(6.81)**	(21.32)**	(11.63)**	(15.05)**
D00	0.525	0.831	0.049	-0.310	0.054	0.004	0.082	0.123	0.134	1.351	1.515	3.306
	(6.88)**	(10.36)**	(2.30)*	(9.81)**	(3.56)**	(0.17)	(4.85)**	(6.80)**	(8.92)**	(27.02)**	(17.55)**	(16.21)**
Constant	8.119	7.025	0.756	0.747	0.207	0.772	0.479	0.158	0.089	9.085	9.730	3.141
	(954.78)**	(786.13)**	(317.97)**	(212.65)**	(123.33)**	(319.29)**	(254.56)**	(78.26)**	(53.51)**	(1630.53)**	(987.03)**	(134.95)**
Observations	5340	5334	5400	5400	5400	5400	5340	5400	5400	5315	5040	4557
Tracts	1345	1346	1350	1350	1350	1350	1345	1350	1350	1345	1317	1338
R-squared	0.10	0.04	0.08	0.41	0.18	0.15	0.66	0.18	0.17	0.92	0.84	0.84

* significant at 5%; ** significant at 1%. Absolute value of t statistics in parentheses.

Sample, source, and dependent variables are the same as those reported in Table 4a.

MNa=0 if the central point of the tract is between .04 and .085 degrees and 1 otherwise. MNb=0 if the tract's central point is between .085 and .095 degrees from the central model neighborhood point and 1 otherwise. MNc=0 if the tract's central point is between .095 and .1 degrees from the central model neighborhood point and 1 otherwise. Hence, tracts within .04 degrees of the model neighborhood central point are coded 1 in all three treatment variables. The time indicator variables, D80, D90, and D00, are coded 1 if the data is for the year 1980, 1990, and 2000, respectively, and 0 otherwise. The interaction terms "D80 x MNa", "D90 x MNa" etc., were calculated by multiplying the location indicator variables by the time indicator variables.

Table 5a: Comparing Predicted Model Neighborhood Area to Untreated Areas .085-.1 Degrees Away in Nearly All Model Cities

	(1) Ln population	(2) Ln number of households	(3) Retention rate	(4) Proportion white	(5) Public transit rate	(6) Proportion working in county	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x **MN**	-0.176	-0.227	0.014	-0.000	-0.017	0.000	0.012	0.025	0.025	-0.035	-0.070	-0.379
	(15.32)**	(19.41)**	(3.67)**	(0.01)	(6.45)**	(0.05)	(3.98)**	(8.07)**	(9.92)**	(4.11)**	(4.86)**	(10.31)**
D90 x **MN**	-0.237	-0.335	0.004	0.006	-0.021	0.002	0.042	0.041	0.027	-0.029	0.031	-0.354
	(20.65)**	(28.61)**	(1.15)	(0.99)	(7.99)**	(0.44)	(13.82)**	(13.16)**	(10.83)**	(3.44)**	(2.15)*	(9.61)**
D00 x **MN**	-0.289	-0.377	-0.014	0.022	-0.024	-0.007	0.058	0.023	0.013	0.013	0.037	-0.345
	(25.15)**	(32.20)**	(3.50)**	(3.80)**	(9.11)**	(1.78)	(19.10)**	(7.59)**	(5.31)**	(1.55)	(2.60)**	(9.39)**
D80	0.019	0.164	0.050	-0.101	-0.008	0.003	0.112	0.023	0.036	0.608	0.921	2.615
	(2.03)*	(16.97)**	(15.63)**	(21.37)**	(3.68)**	(0.74)	(44.72)**	(8.90)**	(17.08)**	(86.06)**	(77.93)**	(77.10)**
D90	0.039	0.227	0.054	-0.153	-0.024	-0.012	0.126	0.038	0.038	1.206	1.576	3.257
	(4.07)**	(23.51)**	(16.99)**	(32.33)**	(11.30)**	(3.54)**	(50.26)**	(14.99)**	(18.23)**	(172.15)**	(134.44)**	(96.06)**
D00	0.075	0.270	0.056	-0.209	-0.026	-0.033	0.167	0.042	0.047	1.568	1.922	3.537
	(7.92)**	(27.96)**	(17.60)**	(44.19)**	(11.98)**	(9.64)**	(66.89)**	(16.32)**	(22.38)**	(223.57)**	(163.92)**	(104.29)**
Constant	8.097	7.002	0.753	0.723	0.209	0.805	0.463	0.160	0.094	9.072	9.733	3.079
	(2134.35)**	(1809.64)**	(593.29)**	(385.49)**	(246.47)**	(587.06)**	(463.74)**	(158.30)**	(112.41)**	(3234.74)**	(1959.29)**	(251.74)**
Observations	22519	22505	22876	22876	22876	22876	22513	22876	22876	22432	20231	19319
Tracts	5701	5692	5719	5719	5719	5719	5701	5719	5719	5690	5511	5681
R-squared	0.08	0.07	0.08	0.26	0.09	0.03	0.59	0.14	0.17	0.92	0.87	0.83

Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%
"Retention rate" is the proportion of residents five years and older who have lived in the same county for at least five years. "Work in county" is the proportion of workers who work within their county of residence. "Public transit rate" is the proportion of working persons to travel to work on public transportation. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Avg income" is average total household income in the year prior to the census. "Ln average house value" is the log of the average value of a random sample of owner-occupied non-condo housing units. "Ln average rent"
The variable **MN** is coded 1 if the census tract is within .04 degrees of the predicted central model neighborhood point. It is coded 0 if the central point of the tract is between .085 and .1 degrees from the predicted central model neighborhood point. The time indicator variables, "D80," "D90," and "D00," are coded 1 if the data is for the year 1980, 1990, and 2000, respectively, and 0 otherwise. The interaction terms "D80 x **MN**", "D90 x **MN**" and "D00 x **MN**" were calculated by multiplying **MN** by the
Source: U.S. Census, 1970, 1980, 1990, and 2000
Sample: Tracts within .1 degrees of the expected central model neighborhood point in 145 of the 150 selected model cities. Model cities not included in the sample are San Juan, Puerto Rico; Alma, Georgia; Prince Georges County, MD; the Gila River Indian Community, AZ; and Los Angeles County, CA. Los Angeles city is included. The county seats of other counties that received funding were included in the sample.

Table 5b: Comparing Predicted Model Neighborhood Area to Untreated Areas .05-.08 Degrees Away in Nearly All Model Cities, in Groups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Ln population	Ln number of households	Retention rate	Proportion white	Public transit rate	Prop. working in county	High school educated	Poverty rate	Welfare rate	Ln average income	Ln average house value	Ln average rent
D80 x **MN**a	-0.124	-0.153	0.010	-0.002	-0.009	0.002	0.008	0.017	0.015	-0.018	-0.033	-0.368
	(14.95)**	(17.79)**	(3.74)**	(0.51)	(5.13)**	(0.59)	(3.65)**	(7.99)**	(9.10)**	(3.09)**	(3.29)**	(18.22)**
D80 x **MN**b	-0.160	-0.210	0.009	-0.003	-0.018	0.001	0.011	0.026	0.024	-0.040	-0.071	-0.428
	(12.16)**	(15.35)**	(2.21)*	(0.41)	(6.35)**	(0.22)	(3.31)**	(7.91)**	(9.02)**	(4.30)**	(4.55)**	(10.32)**
D80 x **MN**c	-0.208	-0.263	0.024	0.005	-0.014	-0.001	0.014	0.022	0.027	-0.025	-0.069	-0.269
	(11.81)**	(14.38)**	(4.20)**	(0.61)	(3.77)**	(0.23)	(3.01)**	(5.08)**	(7.46)**	(2.03)*	(3.33)**	(4.47)**
D90 x **MN**a	-0.171	-0.223	0.005	0.008	-0.014	0.006	0.029	0.024	0.018	-0.018	0.062	-0.349
	(20.64)**	(25.91)**	(1.81)	(2.06)*	(7.84)**	(2.24)*	(13.52)**	(11.74)**	(10.68)**	(3.16)**	(6.28)**	(17.28)**
D90 x **MN**b	-0.213	-0.314	-0.000	0.000	-0.020	0.002	0.039	0.042	0.028	-0.033	0.034	-0.403
	(16.19)**	(23.02)**	(0.12)	(0.05)	(7.04)**	(0.53)	(11.45)**	(12.62)**	(10.34)**	(3.63)**	(2.22)*	(9.73)**
D90 x **MN**c	-0.286	-0.376	0.014	0.017	-0.022	0.001	0.048	0.039	0.027	-0.020	0.024	-0.241
	(16.21)**	(20.60)**	(2.54)*	(1.90)	(5.93)**	(0.11)	(10.51)**	(8.74)**	(7.39)**	(1.66)	(1.15)	(4.00)**
D00 x **MN**a	-0.211	-0.256	-0.005	0.029	-0.018	-0.000	0.042	0.007	0.006	0.021	0.078	-0.344
	(25.38)**	(29.69)**	(1.80)	(7.12)**	(10.43)**	(0.07)	(19.60)**	(3.33)**	(3.55)**	(3.67)**	(7.91)**	(17.02)**
D00 x **MN**b	-0.263	-0.354	-0.015	0.019	-0.023	-0.006	0.053	0.026	0.014	0.006	0.038	-0.392
	(19.97)**	(25.90)**	(3.60)**	(2.91)**	(8.03)**	(1.31)	(15.69)**	(7.81)**	(5.21)**	(0.61)	(2.47)*	(9.47)**
D00 x **MN**c	-0.341	-0.424	-0.010	0.027	-0.025	-0.011	0.067	0.019	0.012	0.028	0.035	-0.238
	(19.36)**	(23.20)**	(1.73)	(3.13)**	(6.74)**	(1.73)	(14.72)**	(4.22)**	(3.41)**	(2.29)*	(1.72)	(3.95)**
D80	0.336	0.563	0.021	-0.102	0.017	0.002	0.091	-0.017	-0.006	0.656	1.023	3.301
	(13.78)**	(22.26)**	(2.65)**	(8.42)**	(3.19)**	(0.18)	(14.50)**	(2.86)**	(1.12)	(38.18)**	(35.53)**	(42.80)**
D90	0.472	0.806	0.040	-0.173	0.011	-0.020	0.052	-0.026	-0.007	1.249	1.487	3.897
	(19.35)**	(31.91)**	(5.08)**	(14.29)**	(2.16)*	(2.37)*	(8.27)**	(4.20)**	(1.38)	(73.26)**	(52.10)**	(50.55)**
D00	0.602	0.927	0.073	-0.263	0.017	-0.024	0.063	0.014	0.028	1.525	1.808	4.166
	(24.67)**	(36.68)**	(9.25)**	(21.76)**	(3.33)**	(2.87)**	(10.02)**	(2.27)*	(5.64)**	(89.41)**	(63.35)**	(54.03)**
Constant	8.109	7.004	0.757	0.767	0.198	0.801	0.494	0.136	0.077	9.144	9.792	3.002
	(3052.91)**	(2541.53)**	(886.90)**	(585.60)**	(349.75)**	(879.29)**	(720.81)**	(206.17)**	(142.35)**	(4915.20)**	(3016.43)**	(340.58)**
Observations	45147	45105	45792	45792	45792	45792	45140	45792	45792	44963	40905	37851
Tracts	11408	11393	11448	11448	11448	11448	11408	11448	11448	11388	11055	11369
R-squared	0.04	0.06	0.08	0.28	0.08	0.04	0.57	0.14	0.18	0.93	0.88	0.84

* significant at 5%; ** significant at 1%. Absolute value of t statistics in parentheses.

Sample, source, and dependent variables are the same as those reported in Table 5a.

The variable **MN**a is coded 0 if the central point of the tract is between .04 and .085 degrees and 1 otherwise. **MN**b is coded 0 if the tract's central point is between .085 and .095 degrees from the central model neighborhood point and 1 otherwise. **MN**c is coded 0 if the tract's central point is between .095 and .1 degrees from the central model neighborhood point and 0 otherwise. Hence, tracts within .04 degrees of the model neighborhood central point are coded 1 in all three treatment variables. The time indicator variables, D80, D90, and D00, are coded 1 if the data is for the year 1980, 1990, and 2000, respectively, and 0 otherwise. The interaction terms "D80 x **MN**a", "D90 x **MN**a" etc., were calculated by multiplying the location indicator variables by the time indicator variables.

Table 6: City-level Baseline Summary Statistics

Variable	(1) All	(2) Treatment Group (MC=1)	(3) Comparison Group (MC=0)	(4) Difference (3) - (2)
Population density (/10,000)	0.484	0.479	0.491	0.011
	(0.051)	(0.054)	(0.097)	(0.104)
Number of households (/10,000)	0.318	0.360	0.260	-0.099
	(0.027)	(0.030)	(0.049)	(0.055)*
Proportion white	0.815	0.827	0.798	-0.029
	(0.017)	(0.020)	(0.031)	(0.036)
High school educated	0.495	0.486	0.506	0.019
	(0.011)	(0.014)	(0.018)	(0.023)
Poverty rate	0.143	0.145	0.141	-0.004
	(0.006)	(0.007)	(0.011)	(0.013)
Average income (/10,000)	0.945	0.919	0.980	0.060
	(0.015)	(0.015)	(0.030)	(0.031)*
Average house value (/100,000)	0.186	0.186	0.187	0.001
	(0.005)	(0.006)	(0.008)	(0.010)
Average rent (/100)	0.130	0.127	0.134	0.006
	(0.013)	(0.017)	(0.022)	(0.027)
Observations	102	55	47	

Standard errors reported in parentheses.

* significant at 10%; ** significant at 5%; *** significant at 1%

All variables are aggregated tract-level census data, summed by 1998 place code. "Population density" is total population divided by land area, in square miles. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Average income" is average total household income in the year prior to the census. "Average house value" is the average value of a random sample of owner-occupied non-condo housing units. "Average rent" is the average rent for a random sample of housing units where the occupant is paying cash rent.

Sources: 1970 U.S. Census; 1968 Uniform Crime Reporting Data; Collins and Margo (2007)

Table 7: Effect of Model Cities Program on City-wide Factors, as Compared to Matched Data

	(1) Ln population	(2) Ln number of households	(3) Retention rate	(4) Proportion white	(5) Public transit rate	(6) Proportion working in county	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x MC	-0.050	-0.087	-0.017	-0.018	-0.000	-0.006	0.003	0.016	-0.000	-0.011	-0.089	0.437
	(1.31)	(2.10)*	(1.99)*	(1.38)	(0.02)	(0.66)	(0.33)	(2.07)*	(0.08)	(0.48)	(1.61)	(2.77)**
D90 x MC	-0.052	-0.068	-0.024	-0.036	-0.003	-0.020	0.001	0.023	0.004	-0.012	0.014	0.463
	(1.36)	(1.65)	(2.83)**	(2.71)**	(0.62)	(2.25)*	(0.06)	(3.02)**	(0.71)	(0.52)	(0.26)	(2.96)**
D00 x MC	-0.069	-0.091	-0.028	-0.036	-0.004	-0.017	-0.009	0.019	0.011	-0.013	-0.030	0.437
	(1.81)	(2.21)*	(3.38)**	(2.78)**	(0.82)	(1.92)	(1.01)	(2.52)*	(2.11)*	(0.55)	(0.56)	(2.79)**
D80	0.025	0.155	0.053	-0.067	-0.019	-0.004	0.122	0.004	0.046	0.633	0.986	2.952
	(0.87)	(5.04)**	(8.56)**	(6.91)**	(5.05)**	(0.58)	(18.46)**	(0.71)	(11.29)**	(36.58)**	(23.66)**	(24.35)**
D90	0.037	0.217	0.045	-0.109	-0.027	-0.024	0.156	0.019	0.041	1.251	1.537	3.571
	(1.30)	(7.07)**	(7.36)**	(11.26)**	(7.39)**	(3.67)**	(23.75)**	(3.48)**	(10.23)**	(72.92)**	(37.40)**	(29.61)**
D00	0.079	0.278	0.040	-0.162	-0.023	-0.053	0.214	0.023	0.044	1.608	1.876	3.872
	(2.81)**	(9.06)**	(6.48)**	(16.71)**	(6.30)**	(8.26)**	(32.48)**	(4.03)**	(10.93)**	(93.73)**	(45.65)**	(32.11)**
Constant	10.870	9.712	0.776	0.818	0.083	0.860	0.491	0.150	0.068	9.111	9.751	2.200
	(786.15)**	(643.70)**	(257.76)**	(172.04)**	(46.51)**	(272.24)**	(151.84)**	(54.84)**	(34.54)**	(1078.30)**	(480.31)**	(36.57)**
Cities	146	146	146	146	146	146	146	146	146	146	146	146
R-squared	0.03	0.26	0.25	0.68	0.28	0.40	0.85	0.22	0.52	0.98	0.93	0.90

Absolute value of t statistics in parentheses

* significant at 5%; ** significant at 1%

All variables are aggregated tract-level census data, summed by 1998 place code. "Population density" is total population divided by land area, in square miles. "High

The time indicator variables D80, D90, and D00 equal 1 for data points from that census year and 0 if the data is from either of the other years or 1970. The interaction terms "D80 x MC" "D90 x MC" and "D00 x MC" are created by multiplying the time indicator variables by an indicator variable for whether or not the city was selected for the Model Cities Program.

Sources: U.S. Census, 1970, 1980, 1990, and 2000; 1968 Uniform Crime Reporting Data; Collins and Margo (2007)

Sample: 81 model cities and 65 control group cities. Cities were selected into the sample based on a propensity score matching system.

Table 8: Effect of Model Cities Program Funds per Capita on City-wide Factors, as Compared to Matched Data

	(1) Ln population	(2) Ln number of households	(3) Retention rate	(4) Proportion white	(5) Public transit rate	(6) Proportion working in county	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x MCF	0.647	0.068	-0.825	-0.301	0.037	-0.336	0.362	-0.135	0.050	0.816	0.272	2.985
	(0.86)	(0.09)	(4.48)**	(1.01)	(0.34)	(1.74)	(1.82)	(0.83)	(0.42)	(1.63)	(0.23)	(0.71)
D90 x MCF	-0.464	-1.007	-0.755	-0.305	0.009	-0.383	0.350	0.052	0.144	0.401	-0.327	2.302
	(0.62)	(1.26)	(4.09)**	(1.02)	(0.08)	(1.97)*	(1.75)	(0.32)	(1.22)	(0.80)	(0.27)	(0.55)
D00 x MCF	-2.029	-2.521	-0.684	-0.304	-0.031	-0.423	0.414	0.177	0.284	0.011	-1.036	1.553
	(2.61)**	(3.06)**	(3.59)**	(0.99)	(0.27)	(2.11)*	(2.01)*	(1.05)	(2.32)*	(0.02)	(0.84)	(0.37)
D80	-0.011	0.124	0.056	-0.073	-0.019	-0.003	0.119	0.014	0.045	0.613	0.931	3.181
	(0.57)	(5.89)**	(11.44)**	(9.32)**	(6.56)**	(0.59)	(22.64)**	(3.38)**	(14.40)**	(46.24)**	(28.62)**	(32.42)**
D90	0.017	0.187	0.043	-0.124	-0.029	-0.029	0.152	0.030	0.041	1.242	1.550	3.825
	(0.87)	(8.97)**	(8.82)**	(15.91)**	(9.90)**	(5.73)**	(29.12)**	(7.13)**	(13.21)**	(94.39)**	(48.02)**	(39.16)**
D00	0.076	0.261	0.033	-0.178	-0.025	-0.056	0.203	0.030	0.045	1.604	1.876	4.122
	(3.81)**	(12.32)**	(6.82)**	(22.46)**	(8.37)**	(10.86)**	(38.32)**	(6.97)**	(14.42)**	(120.33)**	(57.41)**	(41.78)**
MCF	-15.715	-14.510	1.288	0.169	-0.394	0.541	-0.029	2.019	0.952	-5.165	-6.728	-12.380
	(9.98)**	(8.69)**	(3.33)**	(0.27)	(1.70)	(1.33)	(0.07)	(5.93)**	(3.83)**	(4.91)**	(2.76)**	(1.57)
Constant	11.258	10.103	0.753	0.817	0.093	0.851	0.487	0.101	0.043	9.234	9.924	2.462
	(296.21)**	(250.76)**	(80.74)**	(54.20)**	(16.58)**	(86.88)**	(48.29)**	(12.29)**	(7.19)**	(362.98)**	(163.41)**	(13.27)**
Cities	146	146	146	146	146	146	146	146	146	146	146	146
R-squared	0.25	0.40	0.27	0.67	0.29	0.41	0.86	0.29	0.55	0.98	0.93	0.90

Absolute value of t statistics in parentheses

* significant at 5%; ** significant at 1%

All variables are aggregated tract-level census data, summed by 1998 place code. "Population density" is total population divided by land area, in square miles. "High school educated" is the proportion of residents twenty-five years and older who have obtained at least a high school education. "Poverty rate" is the proportion of residents below the poverty line. "Welfare rate" is the proportion of households that received public assistance income in the year prior to the census. "Average income" is average total household income in the year prior to the census. "Average house value" is the average value of a random sample of owner-occupied non-condo housing units. "Average rent" is the average rent for a random sample of housing units where the occupant is paying cash rent.

The time indicator variables D80 D90 and D00 equal 1 for data points from that census year and 0 if the data point is from either of the other years or 1970. MCF is total funding, in thousands of dollars, approved for the city's Model Cities program in 1971 divided by the total city population, where the total city population is aggregated tract-level population data. The interaction terms "D80 x MCF" "D90 x MCF" and "D00 x MCF" are created by multiplying the time indicator variables by "MCF."

Sources: U.S. Census, 1970, 1980, 1990, and 2000; 1968 Uniform Crime Reporting Data; Collins and Margo (2007)

Sample: 81 model cities and 65 control group cities. Cities were selected into the sample based on a propensity score matching system.

Table 9: Difference in Changes between Model Cities and Matched Controls between likely Model Neighborhoods and Areas .085-.1 Degrees Away

	(1) Ln population	(2) Ln number of households	(3) Proportion white	(4) Retention rate	(5) Prop. working in county	(6) Public transit rate	(7) High school educated	(8) Poverty rate	(9) Welfare rate	(10) Ln average income	(11) Ln average house value	(12) Ln average rent
D80 x **MN** x MC	0.231	0.228	0.017	0.028	-0.022	-0.009	-0.005	0.005	0.008	-0.061	-0.112	-0.374
	(3.46)**	(3.25)**	(0.65)	(1.69)	(1.58)	(0.87)	(0.28)	(0.32)	(0.68)	(1.32)	(1.52)	(1.51)
D90 x **MN** x MC	0.249	0.245	0.007	0.044	-0.004	-0.007	-0.011	0.008	0.013	-0.051	-0.076	-0.404
	(3.73)**	(3.50)**	(0.28)	(2.68)**	(0.28)	(0.69)	(0.69)	(0.47)	(1.11)	(1.12)	(1.03)	(1.63)
D00 x **MN** x MC	0.207	0.249	-0.001	0.024	-0.022	-0.007	0.005	0.016	0.006	-0.096	-0.210	-0.459
	(3.11)**	(3.53)**	(0.04)	(1.43)	(1.56)	(0.73)	(0.32)	(0.98)	(0.53)	(2.12)*	(2.87)**	(1.85)
D80 x **MN**	-0.591	-0.700	-0.035	-0.036	0.012	-0.023	0.040	0.021	0.032	0.016	-0.072	-0.134
	(11.95)**	(13.46)**	(1.85)	(2.92)**	(1.14)	(3.06)**	(3.24)**	(1.71)	(3.57)**	(0.48)	(1.34)	(0.79)
D90 x **MN**	-0.775	-0.973	-0.045	-0.084	-0.017	-0.027	0.092	0.023	0.031	0.081	0.243	0.014
	(15.66)**	(18.70)**	(2.36)*	(6.85)**	(1.62)	(3.56)**	(7.54)**	(1.96)	(3.48)**	(2.41)*	(4.55)**	(0.09)
D00 x **MN**	-0.855	-1.113	-0.025	-0.098	-0.013	-0.022	0.103	0.014	0.028	0.152	0.252	0.013
	(17.30)**	(21.31)**	(1.31)	(7.95)**	(1.21)	(2.87)**	(8.44)**	(1.20)	(3.15)**	(4.48)**	(4.71)**	(0.08)
D80 x MC	-0.229	-0.212	-0.024	-0.032	0.024	0.008	0.014	0.017	0.003	0.012	0.005	0.252
	(3.62)**	(3.19)**	(0.99)	(2.06)*	(1.83)	(0.86)	(0.89)	(1.12)	(0.28)	(0.27)	(0.07)	(1.03)
D90 x MC	-0.237	-0.192	-0.016	-0.068	-0.007	0.005	0.031	0.009	-0.004	0.038	0.147	0.329
	(3.75)**	(2.88)**	(0.65)	(4.34)**	(0.54)	(0.56)	(1.98)*	(0.56)	(0.33)	(0.88)	(2.11)*	(1.36)
D00 x MC	-0.213	-0.215	-0.020	-0.060	0.008	0.004	0.016	-0.001	0.001	0.081	0.211	0.348
	(3.37)**	(3.22)**	(0.82)	(3.78)**	(0.57)	(0.42)	(1.01)	(0.08)	(0.05)	(1.88)	(3.04)**	(1.43)
D80	0.492	0.690	-0.060	0.085	-0.023	0.002	0.069	-0.005	0.014	0.607	0.989	2.797
	(10.64)**	(14.20)**	(3.34)**	(7.40)**	(2.34)*	(0.27)	(6.05)**	(0.41)	(1.63)	(18.98)**	(19.67)**	(17.07)**
D90	0.648	0.913	-0.119	0.134	-0.015	-0.005	0.048	0.025	0.020	1.107	1.272	3.268
	(14.02)**	(18.77)**	(6.63)**	(11.63)**	(1.56)	(0.68)	(4.23)**	(2.26)*	(2.36)*	(35.13)**	(25.44)**	(20.08)**
D00	0.735	1.064	-0.189	0.141	-0.045	-0.004	0.082	0.037	0.035	1.400	1.566	3.557
	(15.90)**	(21.77)**	(10.56)**	(12.24)**	(4.66)**	(0.59)	(7.22)**	(3.26)**	(4.23)**	(44.18)**	(31.31)**	(21.69)**
Constant	8.083	6.986	0.794	0.767	0.886	0.100	0.466	0.173	0.084	9.026	9.648	2.774
	(1223.71)**	(1004.32)**	(310.59)**	(466.67)**	(640.10)**	(100.39)**	(286.16)**	(108.21)**	(70.23)**	(2002.48)**	(1323.06)**	(141.31)**
Observations	6759	6753	6776	6776	6776	6776	6759	6776	6776	6720	6540	5855
Tracts	1691	1692	1694	1694	1694	1694	1691	1694	1694	1691	1678	1690
R-squared	0.12	0.16	0.46	0.12	0.22	0.10	0.60	0.16	0.27	0.93	0.89	0.86

* significant at 5%; ** significant at 1%. Absolute value of t statistics in parentheses.

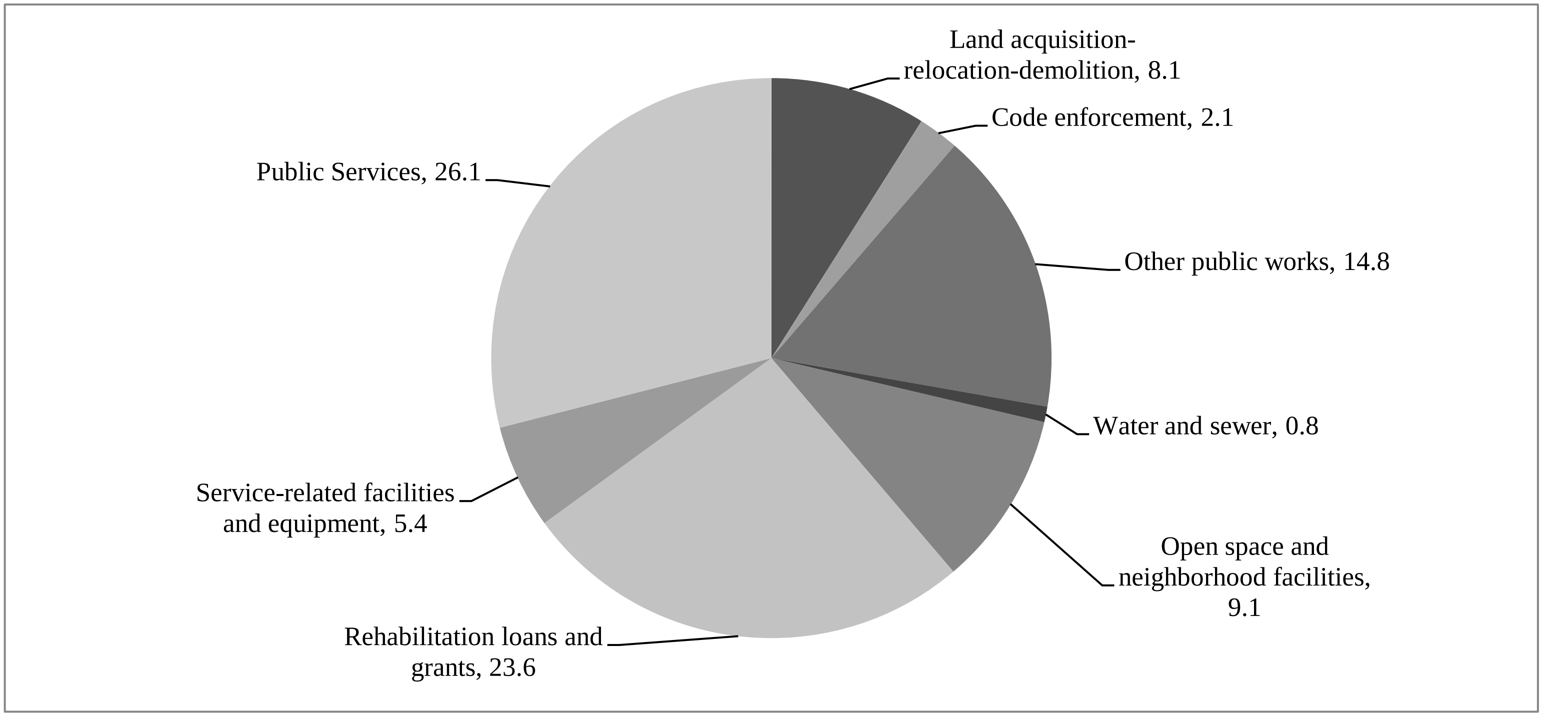
Sources and dependent variables are the same as those described in Table 8. MC is the same as described in Table 7.

MN=1 if the tract's central point is within .04 degrees of the estimated central point of the predicted model neighborhood, whether or not the city was granted Model Cities funding.

MN=0 if the central point of the tract is between .085 and .1 degrees from the estimated central point of the predicted model neighborhood.

Sample: 2331 tracts from 65 model cities and 1362 tracts from 48 comparison group cities. Cities were selected into the sample based on the propensity score matching system described in section 10.

Figure 1: Activities Funded by Model Cities



Source: Rosenfeld, Raymond A. 1979. "Local Implementation Decisions for Community Development Block Grants." *Public Administration Review* , 39(5).

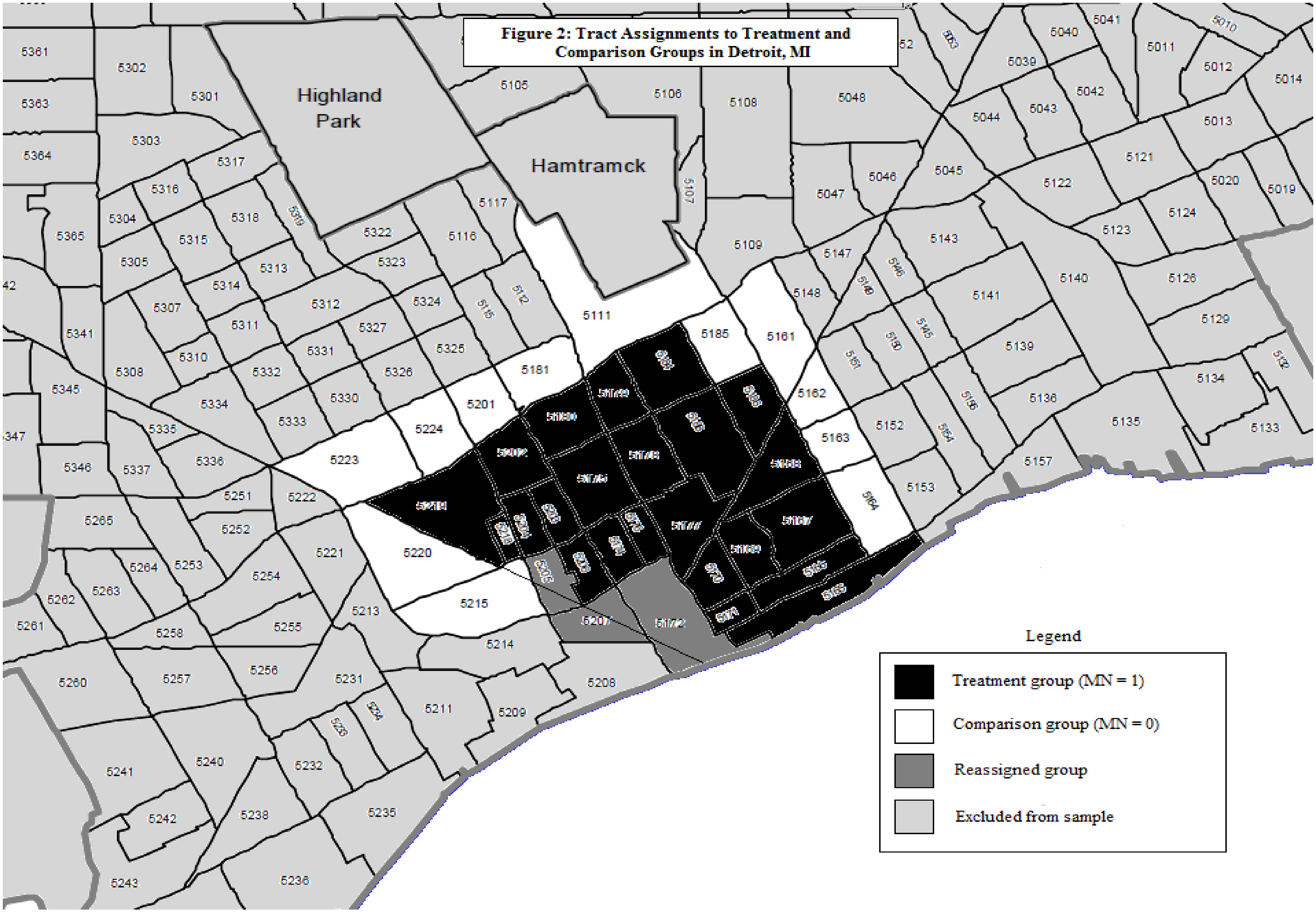
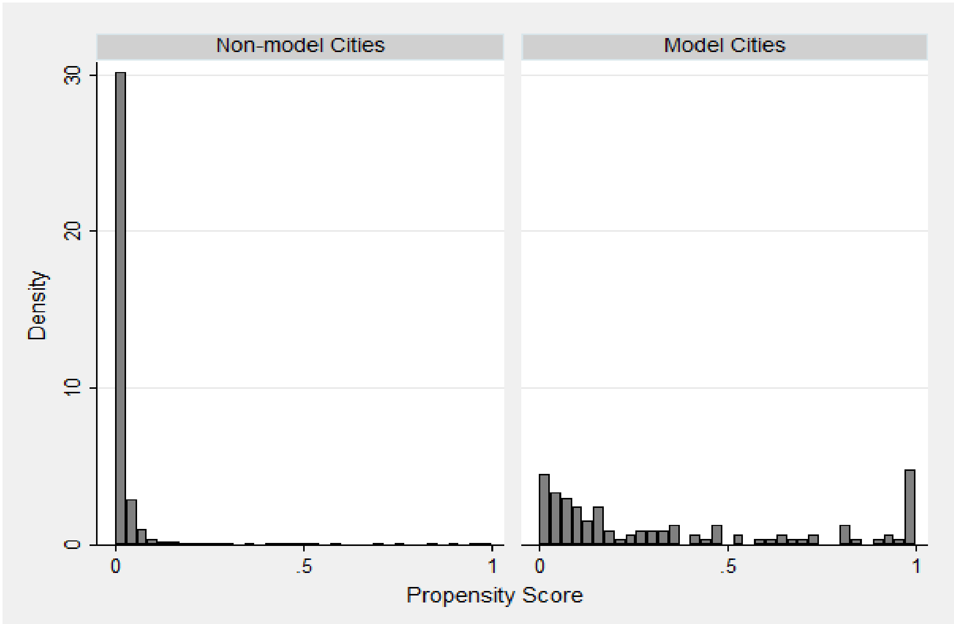


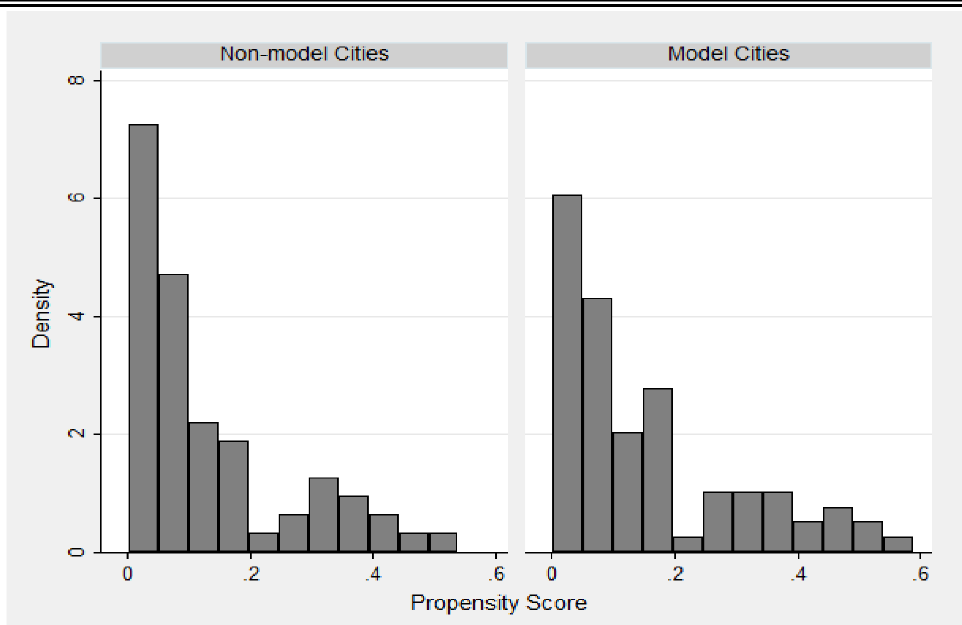
Figure 2: Tract Assignments to Treatment and Comparison Groups in Detroit, MI

Figure 3: Propensity Score Distribution of Untrimmed Sample



Sample: 145 model cities and 3,727 potential comparison group cities.
Propensity scores are calculated by the model described in Section 10.
Sources: U.S. Census, 1970, 1980, 1990, and 2000; 1968 Uniform Crime Reporting Data; Collins and Margo (2007)

Figure 4: Propensity Score Distribution of Trimmed Sample



Sample: 81 model cities and 65 comparison group cities.
Propensity scores are calculated by the model described in Section 10.
Sources: U.S. Census, 1970, 1980, 1990, and 2000; 1968 Uniform Crime Reporting Data; Collins and Margo (2007)