Housing Policy Debate, 2014
Vol. 24, No. 1, 119–171, http://dx.doi.org/10.1080/10511482.2013.862560

Where Does the Bucket Leak? Sending Money to the Poor via the Community Development Block Grant Program

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(*Received May 16, 2013; accepted November 1, 2013*)

Since the inception of the Community Development Block Grant (CDBG) program in 1975, cities and large urban counties have been entitled to funding based on a formula designed to approximate community need. As with any such federally funded and locally administered program, there is a tension between federal and local control. At the federal level, one of CDBG's main goals is to benefit low- and moderate-income (LMI) people and places. While a substantial literature assesses how well CDBG funds are targeted to needy recipient jurisdictions, evidence on how funds are distributed within recipient jurisdictions is much more limited. In this article, we examine the distribution of CDBG funds relative to the share of LMI people at the council-district and neighborhood levels in Chicago, Illinois, and Los Angeles, California, for 1998 – 2004. In Los Angeles, we find that relatively poorer council districts receive more than they would were funds distributed following the share of LMI people. In contrast, Chicago's relatively poorer council districts receive lower funding than predicted by their share of the LMI population. This difference across council districts within the cities is partially explained by the greater sensitivity of allocations in Chicago to the location of high-income households. Despite these disparities, policy answers are not obvious; any policy that aims to enhance CDBG's reach to LMI people must contend with the erosion of broad-based political support that this would engender.

Keywords: CDBG; Community Development Block Grant; economic development; neighborhood

The [Nixon] Administration did not, and does not, have the horses to write and pass the kind of bill it wants. But the President can veto a bill and we [the Democratic Congress] cannot override that veto.

Therefore, pragmatism was the rule throughout the six months that the Housing Subcommittee and the full Banking and Currency Committee worked on this bill [the Housing Act of 1974].

That is not to say that H.R. 15361 is a weak bill. It is not. The community development section is innovative and challenging, but the housing provisions are at best adequate.

However, it is a vehicle of compromise, and as such, it is a bill which can become a law. (Congressman William S. Moorhead, speaking to the Tennessee Municipal League, June 17, 1974; *Cong. Rec.* June 18, 1974, pp. 19791–19793).

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Since the inception of the Community Development Block Grant (CDBG) program in 1975, cities and large urban counties have been entitled to funding based on a formula designed to approximate community need. CDBG is frequently cities' largest single source of federal funding. It redistributes income by directing progressively raised federal tax dollars toward low- and moderate-income (LMI) people and places. At the local level, cities and counties have substantial flexibility in how to use these federal funds.

A key issue in any such federally funded and locally administered program is the tension between federal and local control. This is true for CDBG and is equally applicable to its predecessor programs, such as Urban Renewal (Rich, 1993), and to current federal grant programs, such as the recent support for primary and secondary education. Federal control may equalize outcomes and provide greater accountability to funders. However, federal control may also yield programs poorly matched to local needs. Local control allows local policymakers to use their knowledge about local needs, although at the potential cost of a program that fails to follow the federal intent. This interaction between prized local-government flexibility and the federal goal of requiring spending on specific populations and places has been a long-standing tension for CDBG (Dommel, 1978; Noto, 1977; Rich, 1993).

Not surprisingly, the extent to which funds are directed to local needs has been an issue of long-standing research interest. At the national level, the Department of Housing and Urban Development (HUD) allocates funds to jurisdictions via formula. Many authors have analyzed how well the national formulae allocate funds to cities and counties in need. Researchers generally conclude that the federal formulae are somewhat related to need, but that their relation to need has declined markedly over time (Joice, 2012; Nathan, Dommel, Liebschutz, & Morris, 1977; Neary & Richardson, 1995; Richardson, 2005, 2007).

After HUD allocates funds across jurisdictions, local officials allocate funds within jurisdictions, potentially weakening the effect of any federal direction toward need. Empirical work on this important step of the process is limited; this is probably due to taxing data requirements. The limited intramunicipal work on the early years of the CDBG program looked at the relative distribution of funds to low-income areas (Dommel, Bach, & Liebschutz, & Rubinowitz, 1980) and found that cities neither neglected nor exclusively served low-income areas. Rich's (1993) work on the Chicago, Illinois, area provides, to the best of our knowledge, the most comprehensive quantitative analysis of intrajurisdictional distribution of funding. He found that local political conditions have a greater influence on the distribution of funds relative to need than federal directives.

We expand on this intrajurisdictional work by posing two research questions. First, are CDBG funds systematically directed to low-income areas? Second, can demographic and political covariates systematically explain the distribution of the funds across space? We ask each of these questions at two separate geographic levels. We first examine funding differences among council districts and then turn to differences among neighborhoods within council districts. This approach extends the work of Dommel et al. (1980) and Rich (1993) by using a smaller unit of geography, employing regression analysis, and using a wider array of covariates, including votes for council candidates, to focus more directly on cross-neighborhood allocations.

To look explicitly at the distribution of funds within cities, we assembled a novel dataset. Specifically, we use data from HUD on all individual allocation decisions made by Chicago and Los Angeles, California, from 1998 to 2004. After a fair amount of work, these data reveal the geographic location—down to the block group—of CDBG expenditures.[1] We combine these data with block-group-level data on voting for the mayor and council members and with demographic and housing data from the decennial census.

We hypothesize, following the qualitative evidence on CDBG, that funds are not directed to LMI communities in proportion to their share of the municipal population (Dommel et al., 1980; Dommel, Rich, & Rubinowitz, 1983; Orlebeke, 1983; Rubinowitz, 1982). Such behavior is consistent with the norm of universalism discussed by Brooks, Phillips, and Sinitsyn (2011) and by Weingast, Shepsle, and Johnsen (1981). The political-economy literature also hypothesizes that grant distribution should be related to voting behavior. However, the literature is divided on how expenditures should react to past voting behavior. Some argue that politicians reward supporters (Cox & McCubbins, 1986; Levitt & Snyder, 1997), while others argue that politicians target marginal voters (Dahlberg & Johansson, 2002; Dixit & Londregan, 1998; Lindbeck & Weibull, 1993). In addition, political factors may play differently at the two geographic levels. At the council-district level, votes in support of the mayor and council members may explain relative political power. At the neighborhood level, votes for council members describe geographic variation in political support.

To analyze the spatial distribution of CDBG dollars, we calculate a "funding differential" that measures the difference between the grant funds a council district receives and the funds it would have received were funds distributed across districts in proportion to the district's share of LMI people. We make the same calculation at the neighborhood level for the neighborhood analysis. If politicians allocate funds strictly following districts' LMI shares of the population, each district would have a "funding differential" equal to zero. However, a nonzero differential does not necessarily imply a failure to comply with program goals; rather, the funding differential measures the extent to which funds reach needy people and the extent to which equal-income people receive similar amounts. At the council-district and neighborhood levels, we use regression analysis to measure whether the funding differential differs from zero and is correlated with the area's share of LMI people. We then modify the regression to examine whether demographic and political covariates explain the funding differential.

At the council-district level, our results for the two study cities diverge. In Chicago, council districts with relatively more LMI people do not receive as many grant dollars as they would were funds allocated following the proportion of LMI people. In contrast, council-district-level funding in Los Angeles goes more than proportionally to LMI council districts. This divergence appears to be driven by differing responses to the presence of very-high-income people. In Chicago, the funding differential increases in the presence of very-high-income people, consistent with theories of elite capture. In Los Angeles, the funding differential is unresponsive to the presence of very-high-income people. We do not find that any of our other measurable covariates—voting shares or additional demographic or physical measures—consistently explain the funding differential.

At the neighborhood level, we find that the funding differential is substantially different from zero in both cities. That is, across neighborhoods within council districts, funding is distributed less than proportionally to LMI neighborhoods. Again, no demographic, institutional, or political covariates are particularly instructive in illuminating why this differential exists.

We conclude with an example to illustrate what the combination of the council-district and neighborhood coefficients imply about the distribution of funds across the city. Chicago's coefficients imply a relatively more uniform distribution of grants across neighborhoods, with wealthier neighborhoods receiving more than their LMI-weighted share. Los Angeles's coefficients imply a relatively less uniform distribution—two equally needy neighborhoods in different council districts could receive substantially different funding—but greater direction of funds toward needy people and places.

Our work relates to two literatures. The first is the literature on CDBG and the spatial distribution of funds. Work on CDBG has examined the program's origins and a somewhat coarser geographic targeting (Rich, 1993), the extent of citizen participation (Handley & Howell-Moroney, 2010), equity in allocations (Collins & Gerber, 2008), the impact of CDBG funds on neighborhood outcomes (Galster, Walker, Hayes, Boxall, & Johnson, 2004), and the impact of federal funds on local spending (Brooks & Phillips, 2010; Brooks et al., 2011; Handley, 2008).[2]

Our work also relates to the economics literature on "tagging," or the earmarking of funds to need. The economics literature has argued that targeted transfers can theoretically be preferred to tax rebates, because targeting "eases the classic trade-off between efficiency and equality" (Weinzierl, 2012). While there are gains to targeted redistribution, many authors have pointed out that it also has costs in deadweight loss from taxation and administration. Because of this, Arthur Okun argued that money goes from the rich to the poor in a "leaky bucket" (Okun, 1975). More recently, authors have pointed out a second hole in the bucket: politics. To add political support, politicians may sacrifice the stringency of requirements directing funds to needy people or places. Therefore, structuring for majority support may entail funding groups other than the targeted one (Gelbach & Pritchett, 2001, 2002).

A number of papers in development economics have examined targeted spending and often found evidence of elite capture.[3] Papers in this literature suggest that elite capture is of particular interest for work in developing economies, because in developed economies Tiebout sorting should nullify redistribution at the local level (Tiebout, 1956). If voters are mobile, they should be unlikely, in equilibrium, to remain in jurisdictions that redistribute rather than provide local benefits. However, our results suggest that problems of elite capture have relevance in the developed-country context and that local redistribution is not neutralized by Tiebout sorting. Perhaps this is because our local results focus on two very large central cities, where sorting may be inhibited.

This article proceeds as follows. In Section 1, we review CDBG institutions and the history of the distribution of funds toward LMI people in the CDBG program, and provide background for our study cities of Los Angeles and Chicago. Section 2 discusses our measurement of the funding differential, proposes a hypothesis about the relation between the differential and the LMI share, and explores additional variables that could be systematically related to the differential. Section 3 discusses the data, and Section 4 explains our empirical strategy for measuring the differential and analyzing its correlates. Section 5 presents the results, and Section 6 explores implications of these results. Section 7 concludes with a reflection on what our results mean for current policy decisions.

1. CDBG and Analysis Cities

In this section, we provide background on the CDBG program, discuss the program's history of directing funds to LMI people, and introduce our analysis cities of Los Angeles and Chicago.

1.1. CDBG

CDBG began in 1975 as a part of Nixon's New Federalism. The program was designed to replace a variety of smaller, categorical grant programs (Model Cities, Urban Renewal, and other, smaller programs) that aided either urban areas or the urban poor. At the time, many argued that these categorical programs allocated funds to cities skilled at grant

writing rather than to cities in need. Lawmakers also argued that local control over funds would allow a better match between local needs and local spending. The Housing and Community Development Act of 1974 authorized CDBG, and the program made its first allocation in 1975 (Richardson, Meehan, & Kelly, 2003). The program was explicitly redistributive in nature, using progressively raised federal tax dollars with the goal of "increas[ing] the viability of urban communities by addressing housing needs and creating healthy living environments by expanding economic opportunity primarily for LMI persons" (Richardson et al., 2003, pp. 11–12).

CDBG currently allocates 70% of authorized funds to "entitlement" cities and counties. These entitlement communities are (generally) cities of over 50,000 people and counties of over 200,000 people (excluding from the county's population the population in any entitled cities). Grant funds are allocated as a function of poverty, population, overcrowding, and older housing units.[4] The remaining 30% of the total CDBG allocation is distributed by formula to state governments, which are required to grant those funds in turn to "nonentitlement" nonmetropolitan areas (Richardson et al., 2003).

Entitled jurisdictions have broad latitude in the use of CDBG funds.[5] The authorizing legislation directs the use of CDBG funds to further one of three national objectives: "benefitting LMI persons, addressing slums or blight, or meeting a particularly urgent community development need" (HUD, n.d., pp. 3-1–3-2). Examples of eligible activities include improving a public or nonprofit senior center; improving code enforcement or paving streets in LMI areas; providing job-training services; demolishing vacant structures; and serving meals for the homeless. Jurisdictions must spend 70% of their funds on activities that benefit LMI people. This requirement can be met through activities that provide a direct benefit to low or moderate income persons, such as a housing-rehabilitation grant to an LMI household, or activities that benefit an LMI area, such as street repaving or sidewalk improvements.[6] Grantees are limited to spending no more than 15% of their grant on public services (HUD, n.d.).

1.2. CDBG and the Direction of Funds to LMI People

The strength of the requirement to direct funds toward needy people and places has been a policy concern since the inception of CDBG. Over time, different presidential administrations and Congresses have modified the extent to which the distribution of funds matches the distribution of need across and within cities.

At CDBG's inception, the government allocated funds across cities following a formula that Congress anticipated would roughly measure need. However, the legislation included a hold-harmless provision so that, for the first three years, no city would be worse off under the new program than it had been under the previous categorical grant regime. When these hold-harmless dollars were set to begin expiring, and in response to concerns that the formula would advantage less distressed communities relative to the previous categorical-grant regime, Congress added a second formula to the CDBG computation.[7] This second formula is a function of poverty, population loss, and the share of older housing. Both formulas are calculated, and the city receives the larger of the two allocations. For the most part, the cities that saw an increase in funds with this dual-formula approach were those in the Northeast and Midwest facing grant cuts in the expiration of the hold-harmless provision (Dommel & Rich, 1987; Dommel et al., 1980; Dusenbury & Beyle, 1980).

Since the change in 1978, the cross-jurisdiction formulae have remained unchanged. However, more cities have breached the population threshold for becoming entitled

jurisdictions. Combined with declines in the total CDBG allocation, this has cut funds for the originally entitled jurisdictions (Richardson, 2007).

The distribution of funds across cities is also determined by the split between entitlement jurisdictions and smaller, nonentitlement ones. Under the Reagan Administration, HUD lowered the share of grant funds committed to entitlement communities from 80% to 70%, in effect giving a greater share of funding to smaller communities (Richardson et al., 2003, p. 91).[8]

In addition to the inter jurisdictional allocation of funds, HUD also regulates intra-jurisdictional allocations. At CDBG's inception, jurisdictions had very wide latitude in the extent to which they directed funds to LMI people and places. The Carter Administration, fearing that program dollars were not being sufficiently directed toward need, and that funds were being spent so diffusely as to preclude any positive impact, made two changes. First, they asked HUD staffers to be more proactive in monitoring the extent to which jurisdictions' grant applications focused on the program's intended beneficiaries. Second, HUD issued new regulations requiring that jurisdictions spend 75% of the funds in their "development and housing plan" over any three-year period on activities that principally benefitted LMI people. The word "principally" gave jurisdictions some key leeway (Dommel et al., 1980; Rich, 1993, p. 19).

The Reagan Administration significantly lightened the requirements on recipient jurisdictions, limiting the share of funds spent on public services to 10% but otherwise liberalizing the application procedure and the extent of HUD's ex post monitoring (Dommel et al., 1983, p. 10). In response, the Democratic Congress added a requirement to the CDBG legislation that 51% of funds must be spent to benefit LMI people. A 1987 reauthorization increased this share to 60%, and it was raised further to 70% during the first Bush Administration (Rich, 1993, pp. 48–49).[9] HUD delayed the issuance of regulations to implement these new requirements.[10] Nonetheless, a mid-1990s report by the Urban Institute (1995) found that cities did spend substantial amounts in LMI areas, often above the required amount.

Given these legislative requirements, can the intra municipal allocation of CDBG funds alone tell us anything meaningful about local politics? Or should the distribution be considered only one part of a broader city decision-making process? We argue that local CDBG allocations do have informational content about municipal behavior for three key reasons. First, in prior work, we showed that municipal total spending increases roughly dollar-for-dollar with CDBG funds (Brooks & Phillips, 2010; Brooks et al., 2011). Therefore, funds should be viewed as an addition to municipal spending, not a substitute for other spending. Second, in practice and by regulation, CDBG funds are reallocated each year. Specifically, each city goes through a reauthorization process every year, with public hearings and an application to HUD. Third, interviewees told us that CDBG is the single most flexible source of funding that cities have, so if any funds are likely to be shifted in the political decision-making process it should be CDBG (see interview citations in the Appendix).

1.3. Analysis Cities

Because the data demands for intra municipal analysis are substantial, we limit ourselves to two analysis cities: Los Angeles and Chicago. By virtue of their size as the second and third largest cities in the country, Los Angeles and Chicago have large numbers of block groups, providing the best possibilities for finding statistically significant results. (We were warned off New York City in view of low CDBG data quality.)

The two study cities are reasonably similarly situated. Los Angeles is somewhat larger and poorer than Chicago (3.7 million vs. 2.9 million residents; $40,000 vs. $43,000 median family income; 21.7% vs. 19.2% poor).[11] However, Los Angeles has much higher property values—the median value of an owner-occupied home, at $221,600, is roughly $90,000 higher than in Chicago—and the foreign-born have a much larger share of Los Angeles's population (40%) than of Chicago's (22%). Chicago receives somewhat higher per capita CDBG funding: $37 per capita compared to Los Angeles's $24.

Despite their demographic similarities, the cities present an interesting contrast in their very different political institutions. Chicago has a strong mayor and 50 city council members. Los Angeles has a much weaker mayor and 15 city council members. This balance of power suggests that council-member attributes should be more predictive of funding in Los Angeles than in Chicago. Relatedly, we expect mayoral attributes to be more predictive of funding in Chicago relative to Los Angeles. Orlebeke (1983) suggested that funding decisions in Chicago—at least in the early years of the program—were very responsive to mayoral tastes, and were little altered by federal policies that attempted to create more local control.

Over our period of study, Chicago had one mayor, Richard M. Daley. Chicago has council district elections every four years, in the years preceding presidential elections. Los Angeles changed mayors during our sample period, from Richard Riordan (1993–2001) to James Hahn (2001–2005). Los Angeles has council-district elections every two years, with half of the council up for reelection each time.

A variety of political and institutional factors are common across both cities. Votes for the municipal ordinance establishing the CDBG allocation are (except for one lone case) universally in favor. All council members represent geographic districts; neither city has any at-large council members.

In addition, interviewees suggested that council members have at least some, and sometimes quite a bit of, discretion over both the quantity of funds that come to their district, and the location of the funds within the district. When city staff draw the location of grant-funded projects, they are always drawn on city maps with city council district borders. More generally, the social-science literature suggests that council members have quite a bit of influence over activities in and funds for their districts (Clingermayer & Feiock, 1993; Krebs, 2005; Sass & Mehay, 2003).

Los Angeles and Chicago also share a similar institutional process for allocating CDBG funds. The city receives a total allocation from HUD and must respond with a consolidated plan (a formal document) that describes to HUD how it will use these funds. Both the mayor's office and the city council are involved in the decision-making. In Los Angeles, the city council proposes uses for CDBG funds and sends this proposal to the mayor's office. The mayor negotiates with the committee with jurisdiction over CDBG (for our cities this is sometimes two committees) and then the budget is voted on by the full city council. In Chicago, the mayor's office has a substantially larger agenda-setting role. Both cities have formal citizen-participation committees. Our impression from interviews was that these committees were not particularly influential in either Los Angeles or Chicago.

Chicago has been the focus of at least three previous CDBG studies. Orlebeke (1983) and Rubinowitz (1982) focused on the early years of the program. They found that the mayor and his appointed representatives had substantial influence in determining what was funded. In addition, allocation decisions were strongly influenced, particularly in the first years of the program, by decisions already made for the now-defunct Model Cities program. Rich (1993) undertook the most thorough and long-term analysis of the CDBG in Chicago, examining the program from 1975 to 1990. He also found that most program

decisions were substantially determined by the mayor or his appointed representatives. Miranda and Tunyavong (1994) analyzed the same period and found that both the council and the mayor determined CDBG location. In sum, work on Chicago suggests that the mayor plays a crucial role in CDBG decision-making and that funds may be distributed disproportionately to his supporters.

In addition, both Chicago and Los Angeles were the focus of case studies in the Brookings Institution's work on early CDBG. In Chicago, Dommel et al. (1980) found that neighborhood community development groups challenged the city's funding choices and motivated HUD to review the city's allocation decisions. In Los Angeles, community groups also began to play a prominent role but did not motivate HUD action (Dommel et al., 1980).

2. Analytical Framework

In this section, we first propose a method for evaluating how closely the distribution of CDBG funds matches the distribution of LMI people across neighborhoods. We call this measure of evenness the "funding differential," and discuss caveats to its interpretation. Further, we generate a hypothesis about the relation between this "funding differential" and the LMI share, given an assumption about politicians' behavior. We then discuss additional potential explanations for variation in the funding differential.

2.1. Motivating and Measuring the Funding Differential

One of the stated goals of CDBG is to help LMI people and places; beyond this specific goal, the program was broadly conceived as a mechanism to support ailing urban areas. In practice, the federal government gives cities substantial leeway in where to spend, subject to the requirement that 70% of funds are directed to LMI people or places. In this section, we propose a measure that illuminates the extent to which CDBG funds reach needy neighborhoods and the equity of funding across neighborhoods of similar income. This measure is designed to help us analyze the neighborhood-level determinants of block-grant receipt. It is not—and is not intended to be—a measure of compliance with the federal mandate or any particular national objective. In this section, we use the term "neighborhood" for simplicity, though the framework applies equally to both the council-district and block-group levels of analysis.

Consider a city composed of two equally sized neighborhoods, 1 and 2, with shares of the LMI population denoted p_1 and p_2, where $p_1 + p_2 = 1$. Without loss of generality, we assume $p_1 > p_2$ and call Neighborhood 1 the poor neighborhood. The city receives a grant G with a stipulation that portion r of this grant must benefit LMI people. For the CDBG program, $r = 0.7$.

One simple way for the city to divide the grant, consistent with the national objective of "benefitting LMI people," would be to divide the grant among neighborhoods in proportion to LMI share. In this case, Neighborhood 1 would receive $G\left(\frac{p_1}{p_1+p_2}\right)$, and Neighborhood 2 would receive $G\left(\frac{p_2}{p_1+p_2}\right)$. This is the case of "perfectly income-equalized funding."

We use this "perfectly equalized" amount as a benchmark against which to compare other cross-neighborhood distributions. In this section, we assume a distribution of spending across neighborhoods and then subtract the perfectly equalized amount from each neighborhood's assumed grant and call this difference the funding differential.

(In the empirical work, we subtract the perfectly equalized amount from the true grant to generate the funding differential.)

Our conceptual framework allows us to make predictions about the funding differential's relations with other variables. Specifically, our goal is twofold: first, to understand the correlation between the funding differential and the share of LMI people; and second, to explore whether there are other variables that correlate with the differential. If funds are allocated according to the "perfectly equalized" benchmark, each neighborhood has a funding differential of zero, and there is no correlation between the funding differential and the neighborhood's share of LMI people. If the distribution of funds is such that high-income neighborhoods are favored (giving those neighborhoods a positive funding differential and the remaining ones negative differentials), the correlation between a neighborhood's share of LMI people and the funding differential is negative.

These correlations are related to, but distinct from, whether a city satisfies the CDBG goal of benefitting LMI people and places. The funding differential measure combines both distribution—the match between the neighborhood's share of LMI people and the share of the grant—and equity, since our baseline of "perfectly equalized" funding gives neighborhoods with equal shares of LMI people the same amount of funds.

There are many ways that cities could allocate funds that are consistent with the goal of benefitting LMI people and inconsistent with a funding differential of zero. For example, if a city concentrated funds in a few needy neighborhoods, this would yield a few poor neighborhoods with large positive funding differentials and many neighborhoods with small negative funding differentials. There are many reasons that a well-functioning city government could make such nonequal investments across equally needy neighborhoods: lower costs of provision in some neighborhoods; a greater ability of residents in certain neighborhoods to participate; the lumpiness of larger physical investments across time and space; and the availability of service providers. Any method of allocation that favors funding a subset of LMI neighborhoods could generate a positive or negative relation between the neighborhood's share of LMI people and the funding differential, depending on the particulars of the distribution of funds.

In addition, previous research suggests that a perfectly income-equalized distribution is unlikely. It is costly to identify eligible claimants (Besley, 1990), and it may be impossible to find a political compromise that strongly favors low-income populations (De Donder & Hindricks, 1998; Gelbach & Pritchett, 2002; Roemer, 1998). Politicians may also prefer to focus on some low-income areas over others, either for political expediency or in hope of better outcomes (Accordino & Fasulo, 2013; Thomson, 2011).

Qualitative analysis of CDBG suggests that politicians may prefer to spread money more equally than would be suggested by income, or like "peanut butter on bread" (Joice, 2011, p. 139). This spreading of funds could be motivated by a desire to please as many voters as possible (we discuss the evidence for this behavior in greater detail in the following subsection).

Suppose politicians "spread" as equally as they can, subject to the mandate of spending 70% of CDBG funds in LMI areas (or on LMI people, which is equivalent in this framework). To model this possibility, we assume that the city allocates the grant in two stages. In the first stage, the city divides the portion of the grant mandated for LMI people, rG, between neighborhoods in proportion to the share of LMI people in each neighborhood. Therefore, Neighborhood 1 receives $rG\frac{p_1}{p_1+p_2}$, and Neighborhood 2 receives $rG\frac{p_2}{p_1+p_2}$. In the second stage, the city splits the remainder of the grant, $(1-r)G$, equally between the two neighborhoods, so that each receives $(1-r)G/2$. Using these rules,

Neighborhood 1 receives a total of $rG\frac{p_1}{p_1+p_2}+(1-r)G/2$, while Neighborhood 2 receives $rG\frac{p_1}{p_1+p_2}+(1-r)G/2$. The proportion of the grant the first neighborhood receives is

$$\begin{aligned} g_1 &= \frac{rG\frac{p_1}{p_1+p_2}+\frac{(1-r)G}{2}}{G} \\ &= \frac{rp_1}{p_1+p_2}+\frac{1-r}{2} = \frac{2rp_1+p_1+p_2-rp_1-rp_2}{2(p_1+p_2)} \\ &= \frac{p_1(1+r)+p_2(1-r)}{2(p_1+p_2)}. \end{aligned} \tag{1}$$

From this "spreading" share, we subtract the amount the first neighborhood would have received if funds were distributed in proportion to the neighborhood's LMI share (the "perfectly equalized" amount $G\left(\frac{p_1(1+r)+p_2(1-r)}{2(p_1+p_2)}\right)$) to calculate a hypothesized "funding differential."

For Neighborhood 1, the funding differential is

$$\begin{aligned} f_1 &= G\left(\frac{p_1(1+r)+p_2(1-r)}{2(p_1+p_2)}\right)-G\left(\frac{p_1}{p_1+p_2}\right) \\ &= G\left(\frac{p_1(r-1)+p_2(1-r)}{2(p_1+p_2)}\right) \\ &= G\left(\frac{(1-r)(p_2-p_1)}{p_1+p_2}\right). \end{aligned} \tag{2}$$

Since we assume that neighborhood 1 is poorer ($p_1 > p_2$), this funding differential is negative. The poorer neighborhood receives less money than it would have were funds perfectly income-equalized. On the other hand, Neighborhood 2's funding differential is positive, meaning that it receives more money than if funds were perfectly income-equalized. Such behavior yields the following proposition:

Proposition 1. The poorer the neighborhood, the less money it gets relative to how much it would have received were funds allocated strictly by LMI status and spread evenly across neighborhoods. Specifically, the funding differential is negatively related to a neighborhood's share of the LMI population.

Therefore, if we observe that the funding differential is negatively correlated with the neighborhood's share of LMI people, this is evidence consistent with the hypothesis that politicians "spread" funds. If we do not find such a correlation, politicians use some other method of allocation.

It is straightforward to extend our model to n neighborhoods. In this case, Neighborhood i, with poverty rate p_i, receives a portion $r\frac{p_i}{\sum_{j=1}^{n}p_j}+\frac{1-r}{n}$ of the grant G. If funds were allocated following the neighborhood's share of LMI people it would have received $\frac{p_i}{\sum_{j=1}^{n}p_j}$. The difference—the funding differential—is then $G(1-r)\frac{\left(\left(\sum_{j=1}^{n}p_j\right)-np_i\right)}{\sum_{j=1}^{n}p_j}$. This ratio is negative when $\left(\sum_{j=1}^{n}p_j\right)-np_i<0$ or $p_i > \frac{\sum_{j=1}^{n}p_j}{n}$. This means that the funding differential is negative for neighborhoods with

more LMI people than the average neighborhood and positive for neighborhoods richer than the average neighborhood. Moreover, the funding differential decreases continuously with an increase in the share of LMI people. By construction, the average funding differential across neighborhoods is zero.

We stress that the funding differential is designed to describe the distribution of funds relative to income and thereby help us examine the determinants of funding across neighborhoods. By construction, it does not account for the cost of providing services or for need in a neighborhood above and beyond the measure of income. In the empirical work, we examine whether neighborhood measures of politics, need, or cost systematically correlate with the funding a neighborhood receives, net of its income-based need.

2.2. *Additional Determinants of the Funding Differential*

The previous section's Proposition 1 suggests one possible correlate with the funding differential. This section expands on the motivation for "spreading" funds, and explores potential directions of correlation between the funding differential and covariates at the two geographic levels.

Proposition 1 is based on the assumption that politicians prefer to "spread" funds. Researchers have noted such behavior since CDBG's beginnings. An early evaluation of CDBG reported: "By late 1976, several monitoring and evaluation reports had noted a tendency by jurisdictions to scatter or spread program benefits geographically, resulting in little long-term impact in any particular area" (Dommel et al., 1980, p. 24). Regarding CDBG in Chicago a few years later, Orlebeke (1983) wrote, "Because CDBG provided new and flexible resources to the city political leadership, the [CDBG] agenda included an effort to scatter a portion of CDBG benefits widely to all parts of the city" (p. 60). While noting that there were limits to politicians' ability to spread, Rubinowitz (1982), also writing on early CDBG expenditures in Chicago, said that "in Chicago the 'politics of redistribution' were at work, resulting in some spreading of the intended benefits" (1982). Eight years into the CDBG experience, the fifth Brookings Institution analysis concluded that "The evidence, though mostly qualitative, suggests that the block grant program was somewhat less targeted geographically in year 8 than in the previous year, and associates note that program funds are likely to become even more spread in the future as a result of the new policy flexibility, particularly on geographic targeting" (Dommel et al., 1983, p. 122). This tendency toward "spreading" remains a concern today. In proposing a new neighborhood grant program, the Obama Administration wrote that the "NRI [Neighborhood Revitalization Initiative] increased the incentives for city leaders to make strategic investment choices instead of just spreading federal funds around equally to all areas irrespective of need" (White House, 2012, slide 5).

In contrast with this political preference for spreading, many researchers argue that the best way to achieve success with grant funds is to spend them in a concentrated fashion in a limited number of LMI neighborhoods. Thomson (2008, 2011, 2012) has argued in favor of such "efficiency-based strategic geographic targeting" in a number of articles. Accordino and Fasulo (2013) expanded on this theme. The idea is seconded by the findings of Galster et al. (2004), who showed that CDBG improves neighborhoods only when expenditures are concentrated, and Galster, Tatian, and Accordino (2006), who found positive outcomes from Richmond, Virginia's Neighborhoods in Bloom program, which directed CDBG and other grant funds toward a limited set of needy neighborhoods.

Depending on a city's income distribution and the location of the grant expenditures, geographically targeted expenditure could yield patterns both consistent and inconsistent

with Proposition 1. For example, if spending is concentrated in a few poor neighborhoods, this could yield an outcome inconsistent with Proposition 1. However, if spending is concentrated in a few middle-income neighborhoods, this could yield an outcome consistent with Proposition 1.

The political-economy literature suggests further observable council-district and neighborhood features that can explain the funding differential. At both geographic levels, we expect that politicians would respond to electoral incentives—either by directing funds toward supporters, as models by Cox and McCubbins (1986) and Levitt and Snyder (1997) argue, or by directing funds to voters that could be swayed, as suggested by Dahlberg and Johansson (2002), Dixit and Londregan (1998), and Lindbeck and Weibull (1993). We measure this support by vote shares. From political-science regime theory, if the poor are an important part of an elected official's base, they could therefore receive relatively more grant funds. However, regime theory could also predict elite capture of the levers of government and the disbursement of grant funds to relatively wealthier neighborhoods (Sanders & Stone, 1987; Stone, 1989).

Other political constraints at the two different levels may play out differently. When council members and the mayor distribute funds across council districts, they negotiate with one another for the placement of funds. While most qualitative studies have suggested that the mayor has substantial clout in determining CDBG funds (Dommel, 1978; Orlebeke, 1983; Rich, 1993; Wong & Peterson, 1996), Thomson (2011) found that the city council has an important role in determining allocations in Detroit. We can distinguish between these two sources of power by evaluating whether voting for the mayor or council members is more correlated with the distribution of funds at the council-district level. In addition, we can assess whether measures of council-member power, such as being the chair of the committee that oversees CDBG, are associated with larger funding differentials.

When a council member lobbies for the placement of funds within his or her own district, taking the total allocation to the district as given, he or she may negotiate only with the mayor, who has a political interest across the entire city. Therefore, choices about where funds go within the council district may be responsive to an individual council member's tastes and beliefs and not subject to the same bargaining pressures as at the council level. If tastes and beliefs can be proxied for with demographic characteristics, within-council district funding patterns may be more responsive to these measures than cross-council district patterns are. For example, if council members are dependent on campaign contributions from wealthy donors, or if wealthy individuals can lobby more easily, the share of high-income households in a given block group may be positively correlated with the funding differential.

3. Data

Because the neighborhood data we use are relatively complicated, we summarize the data-gathering process here; the Appendix provides full details. In short, we have block-group-level data for Chicago and Los Angeles that include four key features: the grant amount received by the block group; block-group housing and demographics; block-group voting behavior in local elections; and council-member characteristics.

To assemble block-group-level grant allocations, we used data received from HUD via a Freedom of Information Act request. Grantees are required to submit each individual expenditure they make with CDBG funds to HUD, and we assembled and classified these data for 1998–2004.

HUD calls each individual municipal expenditure decision an "activity." We coded the location of each activity into one of four geographic categories: in one or a discrete number of block groups; a slightly wider neighborhood; a council district; or citywide. We then used this coding to attribute all spending across block groups. For the noncitywide categories, we spread funds equally across affected block groups. For citywide expenditures, we spread funds equally across the city as a whole, equally weighting each block group.[12] We were able to code the vast majority of CDBG activities to a geographic level; overall, we accounted for over 99% of grant dollars.

Whether or not to spread citywide funds equally across neighborhoods is an empirically significant decision. The majority of activities are geographically specific, meaning that when we count by individual grant (activity), we can attribute most activities to a specific area. However, the majority of CDBG dollars are allocated for citywide expenditure.[13] In other words, both cities have a small number of large-dollar activities that are citywide. Our method of spreading citywide expenditure equally across neighborhoods automatically generates a nonzero funding differential, potentially assuming the hypothesis we wish to test. We therefore used two measures of spending: with and without citywide expenditures. We note differences in outcomes in the following section.

In addition, it is important to note that our method of allocating funds to specific geographic areas does not distinguish between social targeting (directing CDBG resources to LMI persons) from geographic targeting (directing CDBG resources to LMI geographic areas). For example, if CDBG funds were used to create jobs, we coded the block group in which those jobs are created. These funds are totaled with other funds spent in that block group. As we discuss above, this could be reasonable from a political perspective: politicians care about benefits in their geographic area, regardless of whether those funds are directed to places or people.

We merged block-group-level CDBG allocations with demographic data from the 1990 and 2000 decennial censuses. Apart from measuring the demographic composition of neighborhoods, many census variables, including those that describe the housing stock, may proxy for the cost of CDBG provision. Data from 2000 are better matched with our years of CDBG data (1998–2004). However, for most of the period we study, local officials did not have access to the 2000 data; neighborhood data become available only three to four years after the year of the census. Thus, anyone interested in measuring need would have relied upon the 1990 data from most of our period. As an empirical matter, we used covariates from both censuses in order to let the data tell us which (or both) were more relevant.

Unfortunately, the number of LMI people is not included in the public decennial files. We were able to obtain these figures for the 2000 census; we have been unable to find the LMI figures by neighborhood for the 1990 census (see the Appendix for complete details). Therefore, in this article, we rely on the 2000 figures. LMI people are those with income less than 80% of area (usually metropolitan statistical area) median. Very-low-income people are those with income less than 50% of area median.[14]

We also merged in voting data by block group, matched from precinct-level data, which include the turnout and vote for each mayoral and council candidate. Finally, we merged in council-member characteristics, including race, terms in office, membership on the council committee in charge of CDBG, whether the member is the chair of that committee, and whether the member is the council president (the last for Los Angeles only). These pieces together yielded a data-set of 2,471 block groups for Los Angeles and 2,478 block groups for Chicago, for the seven years from 1998 to 2004.

Finally, we summarized the block-group data by year to the council-district level for council-district-level analysis. For Chicago, this was relatively straightforward because

council-district borders change infrequently and all city councilors are up for election in the same year. Los Angeles, where council borders change and half of the council is up for election every two years, presented substantially more challenges; we describe these in greater detail in the Appendix.

Table 1 presents summary statistics for our block-group-level data. On average, block groups in Chicago and Los Angeles receive about $50,000, or $75 per capita in Los Angeles and $273 per capita in Chicago (Chicago has much higher variance in neighborhood allocation). The two cities have roughly the same overall level of need: the average block group in both cities has LMI people (people with income less than 80% of area median) constituting 58% of the population. The average block group also has roughly the same share of very-low-income people (people with income less than 50% of the area median), 21% in both cities. Both at the city council district level and at the neighborhood level, the very wealthy constitute a smaller share of the average Chicago neighborhood.

Table 2 presents more detailed information on the distribution of block-grant funds. The first row of the table reports the share of CDBG going to the poorest decile of neighborhoods, as measured by the LMI share of the population. If we include citywide spending, as we do in the left panel, this share is 40% in Los Angeles and 70% in Chicago. Excluding citywide expenditures, as we do in the right panel, these shares are 54% and 87%, respectively. The figures for Chicago are larger than those for Los Angeles mostly because of the concentration of funding in Chicago. The four most-funded block groups in Chicago account for almost 40% of expenditure (in per capita terms, and when citywide dollars are included). The four most-funded neighborhoods in Los Angeles account for less than 10% of funding. The second and third rows of the table report the same statistic for the lowest 20% (2nd decile and below) and lowest 50% (5th decile and below) of neighborhoods. Including or excluding citywide expenditure, funds do go to neighborhoods with large LMI populations.

The bottom panel of the table repeats this exercise, using neighborhoods ranked by the share of very-low-income people. Comparing this panel with the one above, the numbers are smaller, indicating that while funds are directed to low-income places, they are less concentrated in very-low-income areas.

4. Empirical Methods

Our empirical work has two components. First, we test whether the funding differential is different from zero across space and whether the funding differential is negatively related to the share of the LMI population in Chicago and Los Angeles, as hypothesized in Proposition 1. Second, we use regression analysis to test whether the funding differential can be explained by observable political or demographic features. At each stage, we consider allocations across city council districts and across neighborhoods within council districts.

We begin by exploring whether the funding differential is significantly different from zero on average, and whether the direction of the differential is negatively correlated with the district's share of LMI people in the city. We observe each city council district's allocation, $g_{c,t}$, $c \in \{1, C\}$, in year t, where C is the total number of council districts (15 for Los Angeles, 50 for Chicago). For each council district, we calculate the council district's allocation as if it received funds in proportion to its share of the citywide LMI population. This is the "perfectly income-equalized" amount, which we denote $l_{c,t}$. We now have the two components of the funding differential, and we test whether they are

Table 1. Summary statistics for council districts and block groups.

	Council district				Block group			
	Los Angeles		Chicago		Los Angeles		Chicago	
	Mean (1)	SD (2)	Mean (3)	SD (4)	Mean (5)	SD (6)	Mean (7)	SD (8)
With citywide expenditure								
CDBG amount ($ in thousands)	54.4	66.7	60.5	49.9	50.4	65.5	56.3	60.8
CDBG amount per capita ($)	75.9	204.3	1287.2	21971	76	645.7	272.9	7847.7
Funding differential	2.5	61.4	2.8	59.6	0	70.8	0	72
Without citywide expenditure								
CDBG amount ($ in thousands)	30.8	65.8	19.4	49.3	26.8	64.9	15.2	60.3
Funding differential	2.7	54.6	1.7	48.2	0	63.4	0	59.3
Income measures								
2000 share low- and moderate-income people	0.48	0.234	0.578	0.2	0.485	0.244	0.583	0.214
2000 share very-low-income people	0.177	0.13	0.214	0.148	0.179	0.136	0.23	0.175
% income from households with income > $200,000	0.115	0.196	0.049	0.104	0.118	0.186	0.052	0.12
Herfindahl index	0.902	0.042	0.885	0.106	0.897	0.073	0.876	0.115
Voting behavior								
Winner's margin, council	0.333	0.391	0.439	0.385	0.335	0.376	0.454	0.377
Winner's margin, mayor	0.048	0.397	0.403	0.521	0.059	0.4	0.367	0.536
Mayoral turnout	0.277	0.058	0.408	0.127	0.272	0.072	0.414	0.128
Unique geographic units	15		50		2,471		2,478	
Total observations	105		350		17,346		17,297	

Note. We describe our calculation of the funding differential in Sections 2 and 4. Both the LMI shares and the voting statistics are calculated from somewhat fewer observations; the minimum number of observations for any variable in the table is 16,954 for Los Angeles (income measures) and 15,913 for Chicago (mayoral turnout). Chicago's much larger values for mean CDBG per capita (while having total amounts similar to Los Angeles) are a function of Chicago's large variance in this variable. For sources, see the text and the Appendix.

Table 2. Share of CDBG expenditures by neighborhood income.

	With citywide expenditures		Without citywide expenditures	
	Los Angeles (1)	Chicago (2)	Los Angeles (3)	Chicago (4)
Neighborhoods in the *X*th decile and below, ranked by low- and moderate-income share				
1st	0.40	0.71	0.54	0.87
2nd	0.48	0.74	0.63	0.89
5th	0.67	0.81	0.83	0.92
Neighborhoods in the *X*th decile and below, ranked by very-low-income share				
1st	0.27	0.67	0.38	0.85
2nd	0.37	0.70	0.52	0.86
5th	0.56	0.77	0.72	0.89

Note. *Neighborhood* here means block group. Chicago's figures are larger than Los Angeles mostly because of the concentration of funding in Chicago. The four most-funded block groups in Chicago account for almost 40% of expenditure (in per capita terms, and when citywide dollars are included). The four most-funded neighborhoods in Los Angeles account for less than 10% of funding.

significantly different from one another by estimating

$$g_{c,t} = \beta_0 + \beta_1 l_{c,t} + \beta_2 \text{year}_{c,t} + \varepsilon_{c,t}. \quad (3)$$

If $\beta_1 = 1$, council districts receive funds exactly in proportion to their share of the LMI population, and the average funding differential is zero. If $\beta_1 > 1$, needier districts receive more than they would have under perfectly income-equalized funding, and the funding differential is positively correlated with the LMI share. The coefficient $\beta_1 < 1$ implies that needier districts receive less than they would have under perfectly income-equalized funding, consistent with the prediction in Proposition 1.

We observe actual grant funds, $g_{c,t}$, in our data. However, our method of distributing citywide expenditures equally across all neighborhoods will, in the limit, mechanically generate a funding differential favoring higher-income neighborhoods. We therefore present results where $g_{c,t}$ either includes or excludes citywide expenditure. If citywide funds are distributed more evenly than geographically observable funds, then our method bounds the likely distributions: the geographically observable–only funds understate the funding differential, and inclusion of the citywide funds, spread equally across neighborhoods, overstates the funding differential. However, it is also possible that citywide funds are directed to LMI people more than geographically observable funds are. This would be the case if, for example, the city spends its funds on programs, such as job training or seniors' home repair, that exclusively benefit low-income people.[15] In this instance, both our methods would overstate the funding differential in wealthier areas.

To limit comparisons to within-year variation, we include year fixed effects ($\text{year}_{c,t}$). We do not include council-district fixed effects, since that would restrict the estimates to comparisons within council districts, and we believe that the key source of variation in the funding differential is across council districts.

To test for the presence of a funding differential at the neighborhood level, we reestimate Equation (3) using neighborhood-level data and include council-district fixed effects ($+\beta_3 \text{council district}_c$). Including council-district fixed effects means that we ask, within a council district and year, whether LMI neighborhoods receive less than they would under perfectly income-equalized funding. We interpret β_1 similarly to in the council-district estimation.

After establishing the existence of a funding differential and its correlation with the share of LMI people, we then turn to understanding what drives a match between a district's grant funds and its share of the LMI population. We calculate the funding differential at the council-district level as the actual grant minus the share of the city-year's total allocation multiplied by the council district's share of the LMI population (where $m_{c,t}$ is the number of LMI people in a council district):

$$f_{c,t} = g_{c,t} - \left(\left(\sum_{c=1}^{C} g_{c,t} \right) \frac{m_{c,t}}{\sum_{c=1}^{C} m_{c,t}} \right). \quad (4)$$

Using this differential, we estimate

$$f_{c,t} = \gamma_0 + \gamma_1 (m_{c,t}/\text{population}_{c,t}) + \gamma_2 X_{c,t} + \gamma_3 \text{census year}_t + \varepsilon_{c,t}. \quad (5)$$

Here we are interested in whether covariates of the council district, $X_{c,t}$, are significantly associated with the magnitude of the funding differential, controlling for the district's LMI population share ($m_{c,t}$ / $\text{population}_{c,t}$). We employ a wide array of demographic, political, and institutional variables (listed individually in Section 5.1.2). We are unable to draw conclusions about variables we do not observe, such as the strength and competence of the community organizations that frequently provide CDBG-funded services and might lobby for funding. We also do not observe idiosyncratic factors, such as individual council members' tastes for particular types of CDBG provision, that could contribute to variation in the funding differential.

Ideally, we would include time fixed effects for each of the seven years of our panel. Unfortunately, we observe demographic characteristics only twice—in each decennial census—so year fixed effects are collinear with census data. To control for some of the time-varying effects on the funding differential, we include a year dummy that discriminates between data from the 1990 and 2000 census. We cluster standard errors at the council-district level to account for any potential lack of independence of observations within council districts.

We repeat this analysis at the neighborhood level, where the unit of observation is the census block group. We include council-district fixed effects ($+ \gamma_4 \text{council district}_c$) so that our estimates describe how funds are allocated within council districts. If funds are responsive to demographics or political behavior, we expect $\gamma_2 \neq 0$. Because some variation in the funding differential is driven by calculations at the council-district level, we cluster standard errors at the council-district level. Also, because of the increased sample size, we replace the census year indicator with a full set of year-indicator variables. Intuitively, γ_2 measures how a neighborhood's funding differential in any given year, relative to the council-district mean, correlates with the covariates.

5. Results

We begin by presenting graphical results on the distribution of CDBG funding at the council-district level. We then examine regression evidence, and repeat the same pattern at the block-group level. In Chicago, we find that funds at the council-district and neighborhood levels, on average, go less than proportionately to LMI areas. In Los Angeles, funds go more than proportionately to council districts with more LMI people, but less than proportionately within council districts. We find no evidence that voting

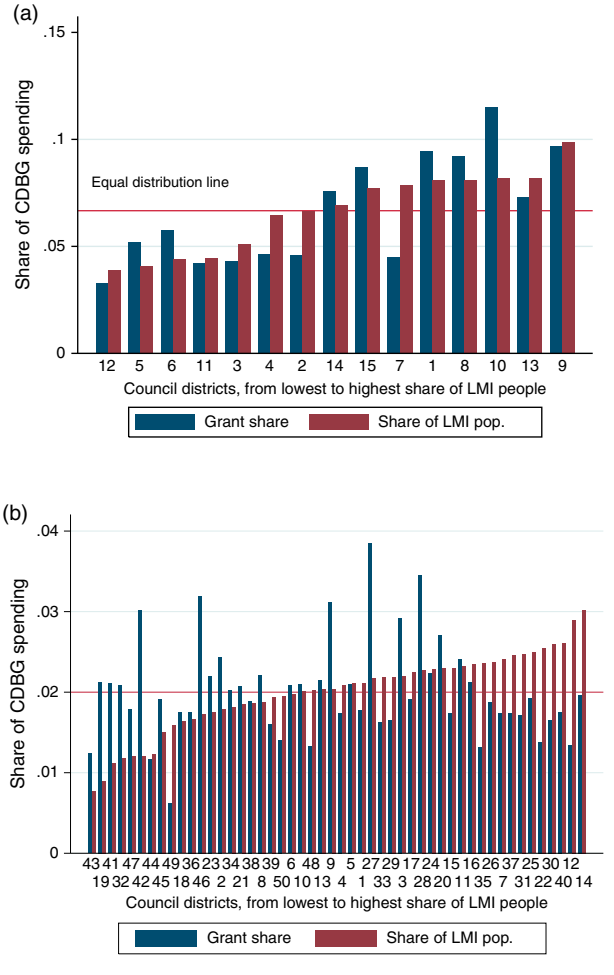
behavior drives the receipt of grant funds, and some limited evidence that the funding differential is driven by the distribution of income.

5.1. *Council-District-Level Results*

5.1.1. *Graphical Analysis*

Figure 1 reports the two components (in shares, rather than levels of funds) of the funding differential at the council-district level for Los Angeles and Chicago in 1998.[16] The blue bar shows the district's share of the total grant ($g_{c,t}/\sum_{c=1}^{C} g_{c,t}$), and the red bar shows the district's share of the LMI population ($m_{c,t}/\sum_{c=1}^{C} m_{c,t}$). Were funding perfectly income-equalized, the blue and red bars would be the same height. Were grants given equally across council districts, the blue bars would all be at the height of the red line, which shows the level of equal distribution across council districts. In each picture, council districts are ordered by their share of the city's LMI population, from most to least wealthy. (Because council districts have roughly equal populations, this is roughly equivalent to ordering by each district's share of the LMI population.) This figure reports grant shares using citywide expenditure; the following figure uses only geographically observable expenditures.

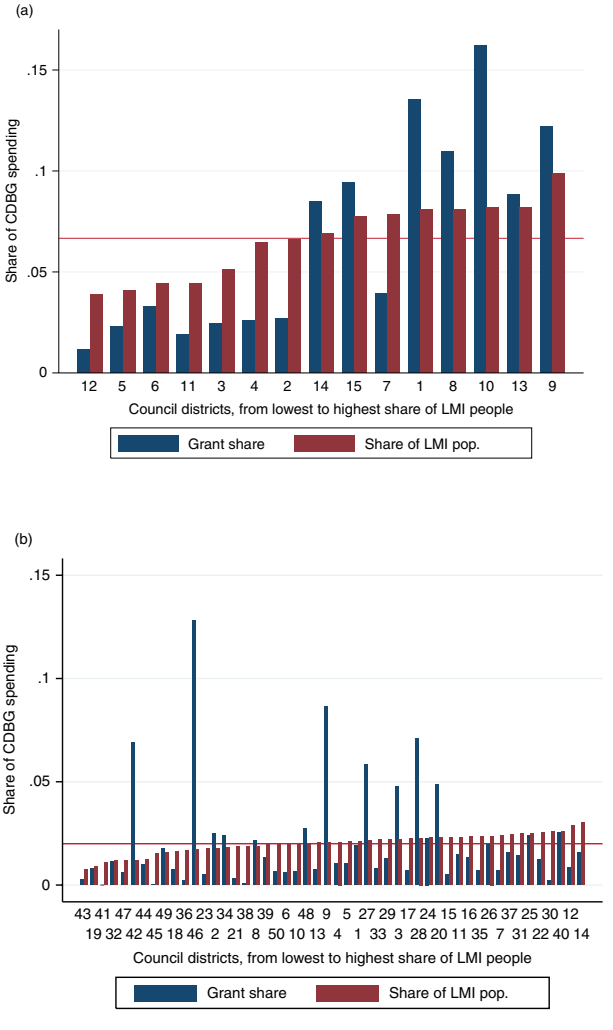
Figure 1. Distribution of total CDBG by council district: (a) Los Angeles, (b) Chicago.



In Los Angeles, shown in Figure 1a, the correlation between the actual grant share and the share of LMI appears to be generally positive: grants are at least somewhat directed to more needy council districts. Figure 1b shows a very different pattern for Chicago. More needy council districts—those on the far right of the chart—do not appear to receive appreciably more grant funds than less needy council districts.

Of course, it is possible that these results—at least those for Chicago—could be mechanically generated by our method of allocating citywide expenditures. Figure 2 repeats the same analysis, replacing the share of the total grant with the share of the geographically observable expenditures. With these data, there is substantially more variance in geographically observable expenditures relative to the expenditures including citywide spending, both in Los Angeles and Chicago. Los Angeles still appears to distribute funds in a fashion positively correlated with the share of LMI people. While the results for Chicago are no longer quite as striking, it still seems to be the case that the

Figure 2. Distribution of CDBG without citywide expenditure by council district: (a) Los Angeles, (b) Chicago.



distribution of funds in Chicago across council districts does not have a close relation with the share of LMI people.

5.1.2 Regression Analysis

We test these relations more formally by estimating Equation (3) at the council-district level, and present results in columns 1 and 2 of Table 3. The top panel of the table presents results when both cities are pooled; the second and third panels separate out the two cities. A coefficient of one indicates perfectly income-equalized funding. This is consistent with the goals of the program, but is more redistributive than the program officially mandates. Because the results for the two cities are quite different at the council-district level, we focus here on each city individually.

For the city of Chicago, whether we include (column 1) or exclude (column 2) citywide funds, β_1 is positive and insignificantly different from zero, and we can reject the hypothesis that the coefficient is equal to one. In other words, funds in Chicago are not directed to LMI areas in proportion to their share of the municipal population. Since the coefficient is less than one, we know that the average LMI area receives less than perfectly income-equalized funding.

In contrast, the Los Angeles coefficient is almost exactly one—certainly insignificantly different from one—when using total expenditure, and even larger than one (more than perfectly income-equalized funding) when using only geographically observable expenditures. Therefore, only the results for Chicago are consistent with our theoretical proposition.

Why do we observe such divergent results for the two cities? Tables 4 (Chicago) and Table 5 (Los Angeles) attempt to explain the funding differential in dollar terms at the council-district level as a function of covariates by estimating Equation (5). Specifically, we include covariates for the council member's winning margin at the most recent election, the mayor's winning margin at the most recent election, the share of income in the council district coming from those earning more than $200,000, and the Herfindahl index for income inequality. The final columns of the table (6 and 12) include a full set of controls with council-member characteristics, racial shares, share of households that are female-headed with children, share of people older than 25 with less than a high school education, vacancy rate, share of housing units with more than 1.01 persons per room, population density, and voter turnout for the most recent mayoral election.[17] Many of these controls may proxy for the costs of providing services. For example, code enforcement may be more costly in neighborhoods with high vacancy rates.

In general, very little persistently explains the funding differential across council districts. In Chicago, column 1 reiterates that the funding differential increases with the share of LMI people in a council district. However, when we replace the share of LMI people with the share of very-low-income people, this relation becomes insignificant and of very small magnitude (column 2). Using only geographically observable expenditure (columns 7–12), the share of LMI people is insignificantly related to the funding differential (column 7), while the share of very-low-income people is positively correlated with the funding differential (column 9). These mixed findings make it hard to draw a firm conclusion.

Regardless of the type of expenditure, there is little evidence that prior voting behavior for either the council member or the mayor motivates the distribution of grants across council districts (columns 3 and 9). We do observe somewhat stronger evidence that council districts with greater shares of high-income people receive more

Table 3. Distribution of funds relative to low- and moderate-income status at the council-district and block-group levels.

	Council-district level		Neighborhood level	
	With citywide expenditures (1)	Without (2)	With citywide expenditures (3)	Without (4)
Both cities together				
β_1	0.836***	1.696***	0.079**	0.252**
SE(β_1)	(0.135)	(0.189)	(0.025)	(0.078)
p-value, test $\beta_1 = 1$	0.23	0	0	0
Observations	455	455	34,643	34,643
Chicago				
β_1	0.114	0.429	0.071*	0.241**
SE(β_1)	(0.15)	(0.397)	(0.027)	(0.088)
p-value, test $\beta_1 = 1$	0	0.157	0	0
Observations	350	350	17,346	17,346
Los Angeles				
β_1	1.013***	2.007***	0.141**	0.336**
SE(β_1)	(0.146)	(0.171)	(0.036)	(0.082)
p-value, test $\beta_1 = 1$	0.93	0	0	0
Observations	105	105	17,297	17,297

Note. If CDBG allocations were made exactly following the share of low- and moderate-income people, the coefficient β_1 should be equal to 1. The third row in each panel tests whether β_1 is significantly different from one.
*$p < .05$. **$p < .01$. ***$p < .001$.

Table 4. Explaining the council-district funding differential: Chicago.

	With citywide expenditures ($ in thousands)						Without citywide expenditures ($ in thousands)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Income measures												
% low/moderate income	−2.6**					−7.4***	235.4					
	(0.8)					(1.6)	(498)					
% very low income		−0.4						1738.8**				
		(1.3)						(640.7)				
Voting behavior												
Winner's margin, council			−0.5			−0.3			−628.5^{+}			
			(0.4)			(0.4)			(372)			
Winner's margin, mayor			−1.1***			0			−391.1^{+}			
			(0.3)			(0.2)			(214.8)			
Income distribution measures												
% earnings ($200,000)				3.1^{+}						3383.5**		
				(1.7)						(1088.4)		
Herfindahl index					−26.8***	−7.2					−11432.6**	−3003.9
					(5.3)	(8.4)					(3592.9)	(6923.9)
Observations	350	350	350	350	350	350	350	350	350	350	350	350
Covariates												
Census year dummy	x	x	x	x	x	x	x	x	x	x	x	x
All additional												x

*$p < .05$. **$p < .01$. ***$p < .001$. $^{+}p < .1$.

Table 5. Explaining the council-district funding differential: Los Angeles.

	With citywide expenditures ($ in thousands)						Without citywide expenditures ($ in thousands)					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Income measures												
% low/moderate income	1.4					− 19.2*	8440.9***					− 11892.1
	(1.9)					(8.3)	(1211.5)					(6787.7)
% very low income		5.5						17605.7***				
		(3..3)						(1950.6)				
Voting behavior												
Winner's margin, council			− 1.3			0.4			− 1048.9			367.3
			(0.9)			(0.5)			(598.9)			(444.6)
			− 1.2			− 1.4			− 861.2			− 1086.7
Winner's margin, mayor			(1)			(1.1)			(1047.9)			(1045.8)
Income distribution measures												
% earnings > $200,000				2.3						− 115.6		
				(2.9)						(2030.5)		
Herfindahl index					− 43.6	27.3					− 30233.3	18029.3
					(37.2)	(43)					(24221.9)	(36031.9)
Observations	105	105	105	105	105	105	105	105	105	105	105	105
Covariates												
Census year dummy	x	x	x	x	x	x	x	x	x	x	x	x
All additional						x						x

*$p < .05$. **$p < .01$. ***$p < .001$. $^{+}p < .1$.

than income-equalized funding (columns 4 and 10). This is consistent with a theory of elite capture of the levers of municipal decision-making power.

Relatedly, council districts with greater diversity in income, as measured by the Herfindahl index, receive less than income-equalized funding (columns 5 and 11). This evidence of greater heterogeneity leading to greater funding differentials in lower-income places may be related to lower levels of public goods, which Alesina, Baqir, and Easterly (1999) argued are caused by heterogeneity. Intuitively, places with more divergent tastes for public goods, as proxied by more variation in income, may find it difficult to agree on, lobby for, or provide a common level of public goods. Additionally, more heterogeneous neighborhoods may be less likely to exhibit obvious signs of need and may have a weaker connection to either high- or low-income political coalitions.

Putting all the evidence together, as we do in columns 6 and 12, the picture is rather more murky; we have very little ability to distinguish most coefficients from zero.[18]

The results in Table 5, which does the same analysis for Los Angeles, are even less conclusive. As we saw in the figures and in Table 3, the funding differential for geographically specific expenditures in Los Angeles is strongly associated with the share of LMI people; it is even more strongly associated with the share of very-low-income residents. Apart from this, no covariates systematically explain the funding differential across council districts in Los Angeles.

In sum, then, we find some limited evidence that failure to direct funds to Chicago's LMI population may be driven by income disparities, either through elite capture or because of the difficulty in providing public goods to heterogeneous populations. Other possible explanations for Chicago's less income-equalized distribution of funds rely on the fact that Chicago's 50 council districts dwarfs Los Angeles's 15 districts. A broad literature suggests that larger deliberative bodies lead to higher expenditures (Baqir, 2002; Chen & Malhotra, 2007; Stigler, 1976). Our prior work (Brooks et al., 2011) suggests that a more even distribution across council districts is more likely when council size is larger, consistent with these results. Perhaps the larger size of Chicago's council also requires more bargaining between council members, leading to less focused spending on LMI areas.

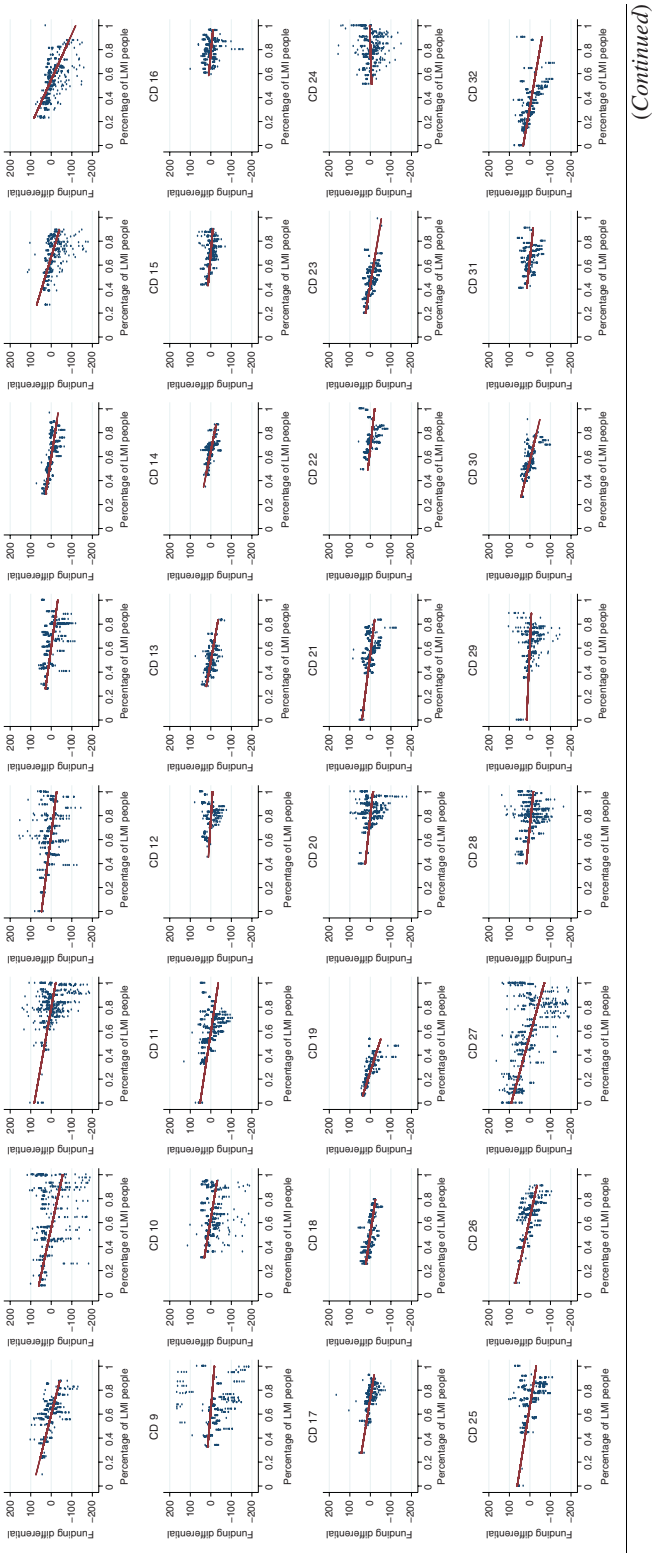
In addition, under a very specific set of assumptions about the distribution of income and grant funds, it is possible that more council districts per capita, as Chicago has, could yield a smaller correlation between the grant share and the share of LMI people. Specifically, suppose that a significant portion of the grant benefits multiple council districts. This diminishes the association of the grant money with the geographical location of the poor, which increases the funding differential. This is consistent with our comparison of the results from Chicago with the results from Los Angeles.[19]

5.2. Block-Group-Level Results

5.2.1. Graphical Analysis

We now turn to explaining the pattern of funding relative to need within council districts. Figure 3 presents, for Chicago, the block-group funding differential in dollar terms on the vertical axis and the share of LMI people in the block group on the horizontal axis. Note that this is slightly different from what we presented for the council district; we believe at the block-group level it is easier to interpret these charts and understand the relevant magnitudes when we present the share of LMI people in the block group, rather

Figure 3. Neighborhood funding differential, all funds: Chicago.



(*Continued*)

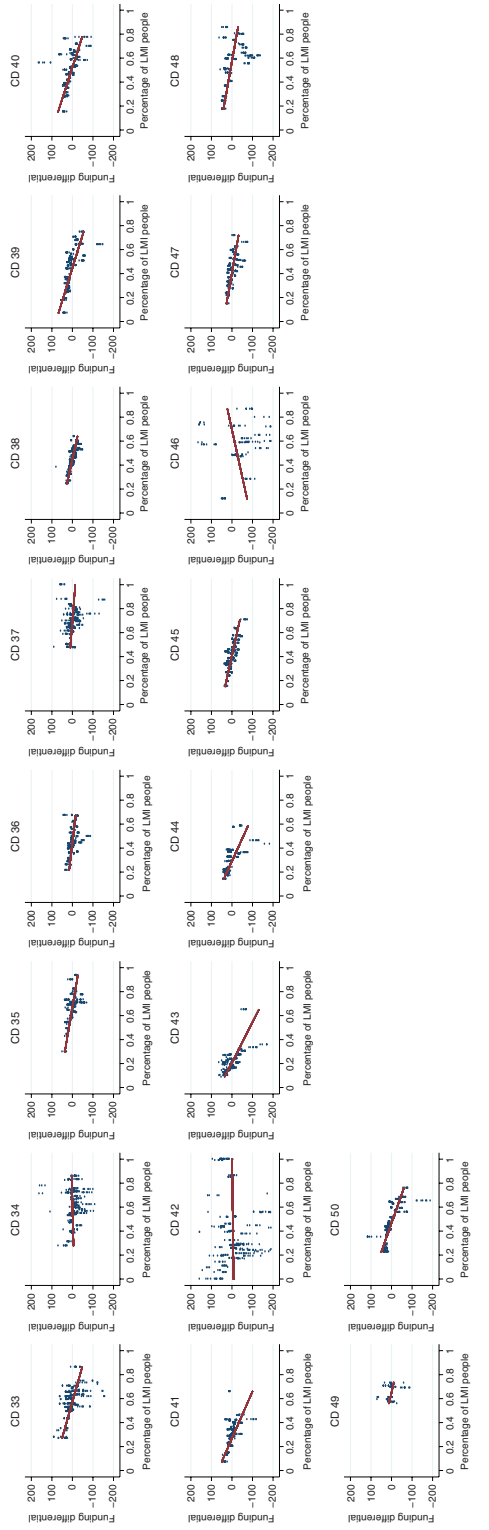


Figure 3. (*Continued*).

than the block group's share of LMI people in the council district. Each subchart shows one of the 50 council districts. Each point in a chart is a block group in a year (we observe neighborhoods for seven years). The red line is the slope of an OLS regression by council district that shows the relation between a block group's LMI share and the funding differential. Looking across council districts, it is clear that, while there are some council districts with positive slopes (Ward 46 stands out particularly), most have negative slopes. We interpret this as showing that neighborhoods with greater shares of LMI people receive less than their perfectly income-equalized share, consistent with the prediction of our theoretical model.

Figure 4 repeats the same analysis for the 15 city council districts of the city of Los Angeles. As in Chicago, most neighborhood-specific slopes are negative, showing that the average poor neighborhood receives less than the perfectly income-equalized amount.

Figures 5 and 6 repeat the same analysis, but use a funding differential that includes only geographically observable expenditures. When we do this, the findings are no longer as stark. While the majority of slopes remain negative, the negative magnitude is decisively smaller for both cities. We believe that the true allocation, and true relation, is somewhere between these two findings: funds are somewhat less than perfectly income-equalized, and the deviation skews toward more wealthy neighborhoods.

5.2.2 *Regression Analysis*

Columns 3 and 4 of Table 3 formally test the relation between grant allocation and the block group's share of the city's LMI population (Equation (3)). Recall that this neighborhood specification includes council-district fixed effects, so these estimates present the distribution of funds within council districts, on average. In both cities, we find coefficients significantly smaller than one, though significantly larger than zero. In other words, funds are not directed to LMI neighborhoods in proportion to these neighborhoods' share of the city's LMI population. This finding holds regardless of whether we use the funding differential calculated with (column 3) or without (column 4) citywide expenditure. Relative to need, Los Angeles funds LMI neighborhoods somewhat more than Chicago does, similar to the finding at the council-district level.

We explore the determinants of this funding in Table 6. This table uses the same format as Tables 4 and 5, except that it omits the presentation of the voting variables. Though we expected that within-council district variation in the support for a council member might explain the funding differential, none of the voting variables are ever significantly different from zero. The left panel of the table presents results where the dependent variable is the funding differential in dollars including citywide expenditures; the right panel excludes citywide funds. The "all additional" covariates are the same as in the two previous tables.

The negative (and frequently significant) coefficients in columns 1 and 6 confirm the pattern from the pictures: neighborhoods with greater shares of LMI people receive less than income-equalized funding. When we include citywide expenditures, this finding holds for the very-low-income population in both cities as well (column 2); for the geographically designated expenditures, it does not (column 7). We also observe some evidence that neighborhoods with more income heterogeneity, as measured by the Herfindahl index, receive less than income-equalized funding. Only in Los Angeles, however, is this result robust to the inclusion of other covariates.

Figure 4. Neighborhood funding differential, all funds: Los Angeles.

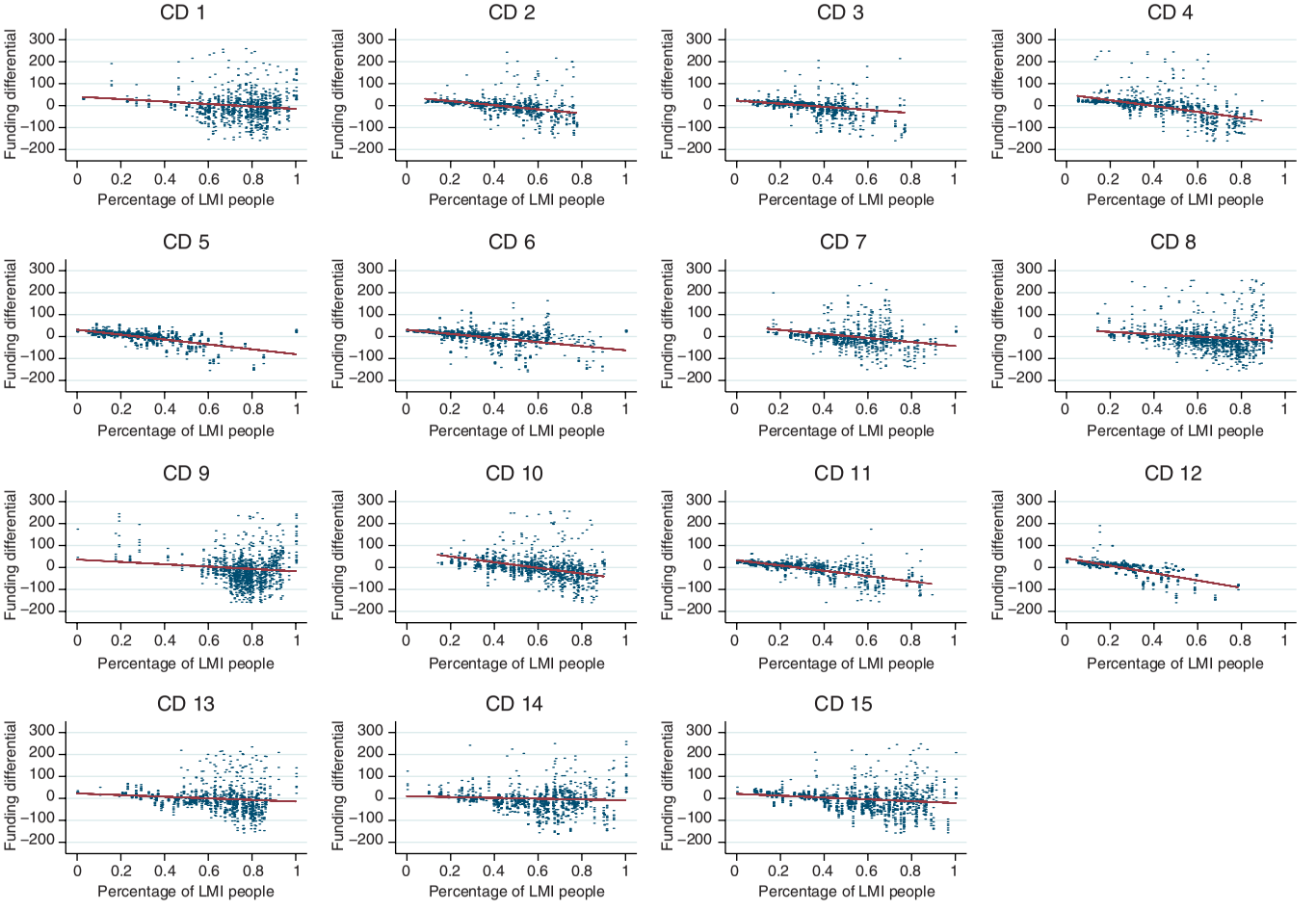
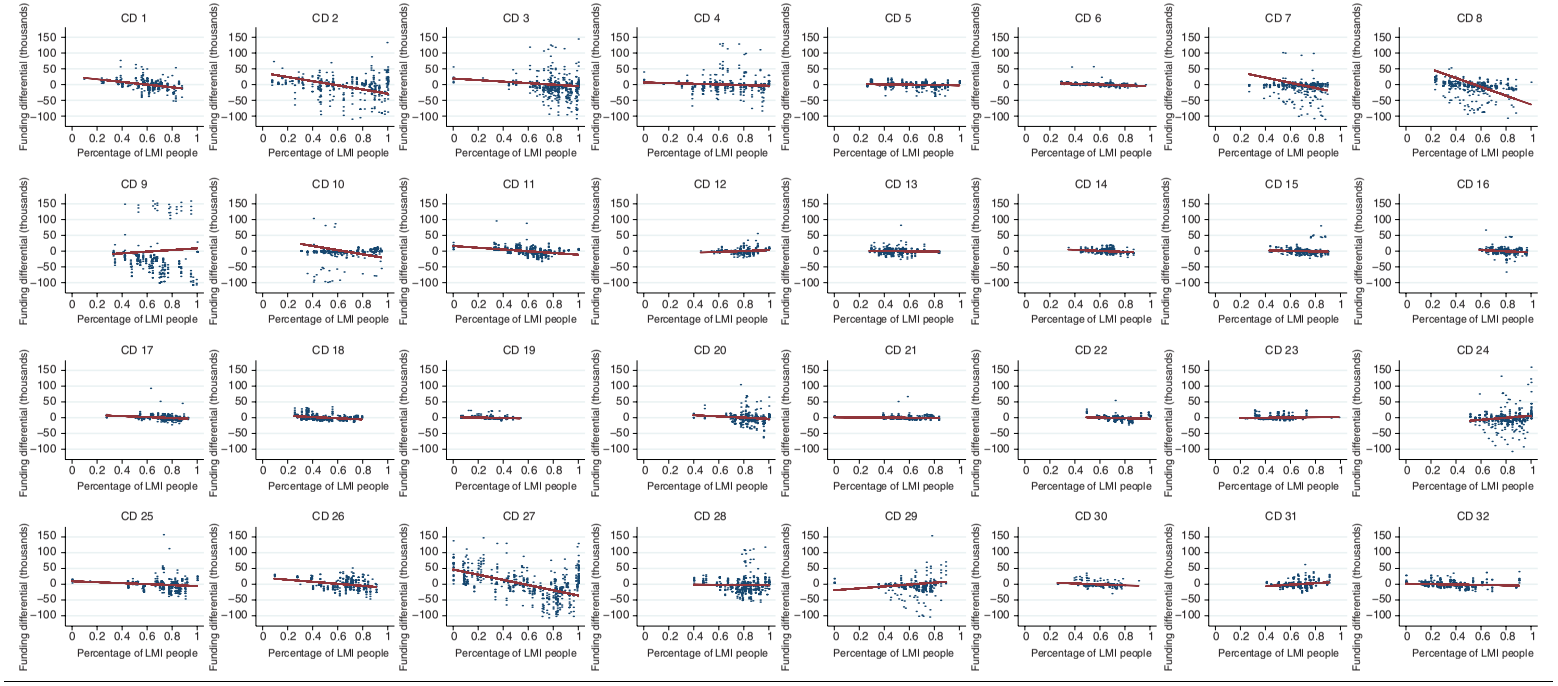


Figure 5. Neighborhood funding differential, without citywide funds: Chicago.



(*Continued*)

Figure 5. (*Continued*).

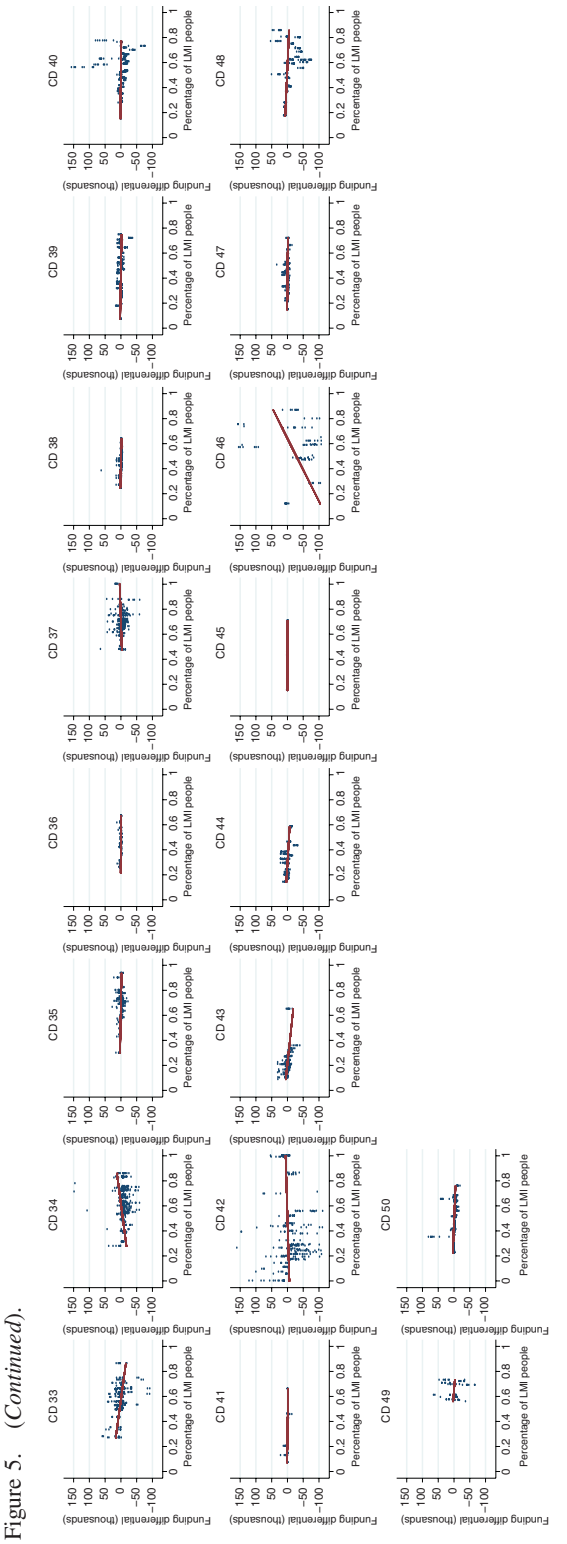


Figure 6. Neighborhood funding differential, without citywide funds: Los Angeles.

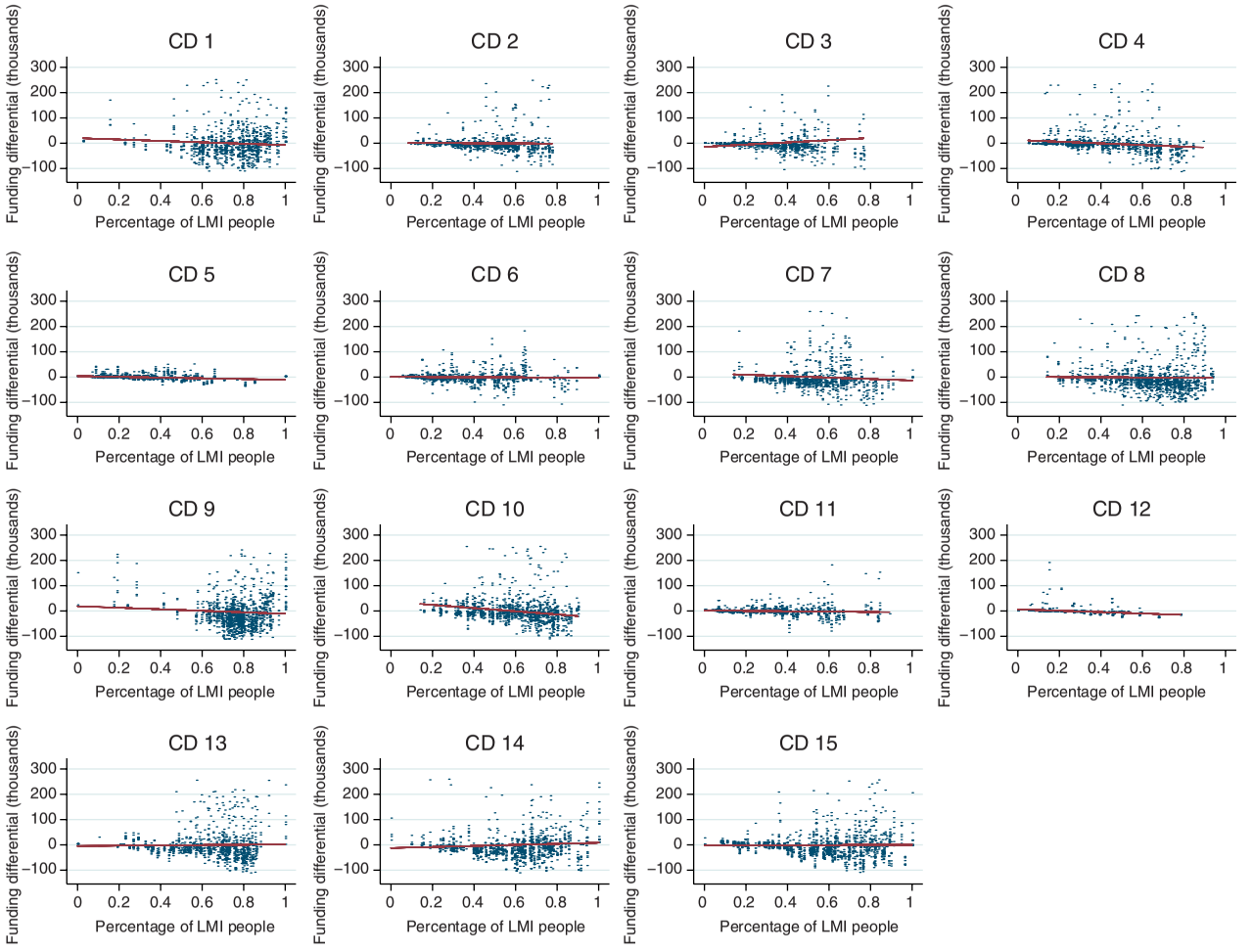


Table 6. Explaining block-group funding differentials.

	With citywide expenditures ($ in thousands)					Without citywide expenditures ($ in thousands)				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Chicago										
Income measures										
% low/moderate income	−109.2***				−74.2***	−23.6*				−13.6^{+}
	(10.9)				(8.7)	(9.9)				(7.8)
% very low income		−90.6***					−18.5			
		(19.2)					(12.7)			
Income Dbn measures										
% earnings > $200,000			−27.8^{+}					−13.6		
			(14.5)					(9.5)		
Herfindahl index				−140.7***	−16.1				−59.2***	−15.3
				(16.3)	(20.7)				(11.2)	(17)
Observations		15,402	15,402	15,402	15,402	15,402	15,402	15,402	15,402	15,402
Los Angles										
Income measures										
% low/moderate income		−83.8***			−46.3*	−10.3				6.5
		(11.4)			(18.7)	(6.5)				(15.8)
% very low income			−87.0*				7.2			
			(30.1)				(15.7)			
Income Dbn measures										
% earnings > $200,000				6.2				0.3		
				(5.4)				(3.8)		
Herfindahl index					−223.8**	−169.3**			−146.8*	−123.1*
					(57.7)	(44.3)			(54)	(43.3)
Observations	14,329	14,329	14,329	14,329	14,329	14,329	14,329	14,329	14,329	14,329
Covariates										
Year and council-district fixed effects	x	x	x	x	x	x	x	x	x	x
All additional						x				x

Note. We use the largest consistent sample size; results are not appreciably different if we use the full sample for each estimation.
*$p < .05$. **$p < .01$. ***$p < .001$. $^{+}p < .1$.

In sum, then, we observe that LMI council districts and neighborhoods in Chicago receive less than they would under perfectly income-equalized funding. The same is true for Los Angeles neighborhoods. However, in Los Angeles, LMI council districts receive more funds than they would under perfectly income-equalized funding. Very few covariates systematically explain the funding differential. There is limited evidence from both cities that the income distribution—either the share of very-high-income people or greater income heterogeneity—drives the funding differential.

6. Discussion

How do we interpret the net impact of these council-district and neighborhood results? What do they mean for the receipt of funds by LMI people? Our results suggest that the greatest beneficiaries of CDBG grants—relative to a perfectly income-equalized grant—are the wealthiest neighborhoods in the poorest council districts using the Los Angeles coefficients, and the wealthiest neighborhoods in the wealthiest council districts using the Chicago coefficients. By the "greatest beneficiaries" we do not mean the most funds in an absolute sense but the most relative to the share of the LMI population. We illustrate our findings with a numerical example in Table 7.

We begin by considering what the coefficients from Los Angeles imply, since there the council-district and neighborhood results point in different directions. For simplicity, we round the Los Angeles coefficients from Table 3 to 2 for the council district level and 1/3 for the neighborhood level. Assume four neighborhoods of 100 people each, for ease of exposition. Council District 1 contains Neighborhoods 1 and 2, with shares of LMI people of 0.2 and 0.4 respectively, and Council District 2 contains Neighborhoods 3 and 4, with shares of LMI people of 0.3 and 0.6. Assume that the city receives \$150 in CDBG funds. Under perfectly income-equalized funding, each neighborhood would receive a grant equal to its share of the city's LMI population—20, 40, 30, and 60, respectively ($20 + 40 + 30 + 60 = 150$, column 4).

We now consider how this \$150 grant would be allocated if allocation followed the coefficients we estimate for Los Angeles. Under perfect income equalization, Council District 1 would receive \$60 (\$20 + \$40), while the second district would receive \$90 (\$30 + \$60). Our coefficient of two at the council level, however, describes a deviation from this. Council District 2 has 20% more of the city's poor population than Council District 1, and the coefficient tells us that it should therefore receive additional funds equal to twice this much. Mathematically, this is $g_{CD2} - g_{CD1} = 2 \times (0.6 - 0.4) \times 150$, where g_{CDi} is the grant amount for Council District i. We also know that the total amount allocated to both council districts must be \$150: $g_{CD1} + g_{CD2} = 150$. Solving these two equations, we find that Council District 1 should receive \$45, and Council District 2, \$105 (column 5).[20]

We use the same procedure to understand what our estimated coefficient implies for the allocation of funds across neighborhoods within council districts. Recall that our neighborhood-level coefficient for Los Angeles is roughly 1/3. Neighborhood 1 has 1/3 more of the council district's LMI residents (column 3), and it should receive one-third as much funds, based on our coefficient. Mathematically, $g_{N2} - g_{N1} = 1/3 \times (2/3 - 1/3) \times 45$, where g_{Ni} is the grant amount for neighborhood i. We also know that the total grant across the two neighborhoods must sum to \$45: $g_{N2} + g_{N1} = 45$. Solving these two equations yields \$20 for Neighborhood 1 and \$25 for Neighborhood 2 (column 5). Applying a similar logic, our coefficient implies \$46.66 for Neighborhood 3 and \$58.33 for Neighborhood 4.

Table 7. Implied distribution of funds from estimated coefficients.

	Assumptions			Dollar allocation, grant = $150		
	Share of LMI people (1)	City share of LMI people (2)	District share of LMI people (3)	Perfect income equalization (4)	With Los Angeles coefficients (5)	With Chicago coefficients (6)
Council District 1	0.3	0.4	–	60	45	69
Neighborhood 1	0.2	0.133	1/3	20	20	31.63
Neighborhood 2	0.4	0.267	2/3	40	25	37.38
Council District 2	0.45	0.6	–	90	105	81
Neighborhood 3	0.3	0.2	1/3	30	46.66	37.13
Neighborhood 4	0.6	0.4	2/3	60	58.33	43.88

Note. LMI = low- and moderate-income. We assume a population of 100 in each neighborhood.

In sum, the neighborhoods receive grants of $20, $25, $46.66, and $58.33, respectively. Therefore, we have a reversal of grant amounts relative to the perfectly income-equalized case. Wealthy Neighborhood 3 in the relatively less wealthy Council District 2 gets a grant of $44.66 with an LMI share of 30%. At the same time, the relatively poor Neighborhood 2 in the relatively wealthy Council District 1 receives a grant of $25 with an LMI share of 40%. Therefore, the relatively wealthier neighborhood receives more money than its poorer neighbor.

When we do the same analysis with the coefficients from the Chicago estimates—rounding the council district coefficient to 0.4 and the neighborhood coefficient to 0.25—we get the amounts in column 6 of Table 7. Chicago's case is more intuitively straightforward because both the council-district and neighborhood coefficients reflect less than perfect income equalization. Following the estimated coefficients, Chicago's Neighborhoods 1–4 receive $31.63, $37.38, $37.13, and $43.88, respectively. The distribution of grants is much more uniform in Chicago than in Los Angeles, because both the district and neighborhood coefficients work to smooth the grant allocations. Here the greatest beneficiaries, relative to the perfectly income-equalized case, are the wealthy neighborhoods in wealthy council districts.

7. Conclusion

Our findings suggest that CDBG funds do reach LMI people, though not always in proportion to their population share. Los Angeles and Chicago follow the letter of the law and allocate 70% of grant funds to LMI neighborhoods. However, in both cities some wealthier areas receive more funds than their share of the low-income population would predict. In addition, we find suggestive evidence that council districts and neighborhoods with very unequal income distributions are likely to receive less funding than more homogeneous areas with similar shares of LMI people.

Directing funds toward LMI people exactly in proportion to their share of the population may not always be either a realistic or desirable policy goal. Those who advocate for concentrating grant funds in a limited number of needy areas might prefer measures of funding concentration. To fully understand any city's strategy for funding, additional qualitative research is necessary.

Apart from our evidence on income, we find that very few political or demographic covariates consistently explain the funding differential. This could be in part because funding decisions are driven by idiosyncratic factors—for example, the location of the nonprofit organizations and community development corporations that receive funds, or the preparedness of these grantees to spend funds—that we do not measure. If we were able to control for those features, perhaps we could then tease out a role for politics in the distribution of funds. It might also be the case that our sample size is simply too small, and that were we able to observe grants and political variables for a larger number of cities we would be able to discern the role of political and demographic covariates.

We were limited in our analysis by the substantial share of grant dollars that are classified by Chicago and Los Angeles as "citywide." For the productivity of future research on CDBG, HUD might wish to ask cities to do a better job in describing the geographic allocation of funds they code as citywide. However, the reporting requirements for CDBG recipient jurisdictions are already quite onerous, and it is difficult to know whether such a request would yield quality data.

This being said, we do believe that HUD could go quite a distance toward making the bothersome work that grantees already do in reporting to HUD their use of funds—the

result of which is public information—more readily available to researchers. First, HUD could make the data publicly available without a Freedom of Information Act request. There are some geographies that HUD is limited in disclosing—for example, the location of a domestic-violence shelter—but for the most part there is no compelling reason to limit the availability of these data. Second, HUD could make the data available in a more readily comprehensible format. We received data in multiple different tables that required linking with little documentation. If this is not possible with the already collected data, HUD should at the very least make ease of publication a goal of future data collection.

Turning from data mechanics to policy, we believe that there is a clear political-economy argument against making CDBG serve low-income populations exclusively (Gelbach & Pritchett, 2001, 2002; Weinzierl, 2012). At present, the program offers local decision-makers substantial flexibility. We observe that local decision-makers take advantage of this flexibility and have at least some preference for "spreading" funds across space. If federal policymakers required local officials to spend more CDBG funds in LMI areas, or limited the acceptable neighborhoods to only very-low-income ones—a move that seems unlikely with the current Congress—it seems quite possible that the program would lose political support. This potential failure of the coalition is consistent with arguments put forth by Stein and Bickers (1995)[21] and with the federal experience with revenue sharing, as documented by Dommel (1974). Furthermore, it is not obvious that increasing the required share of funds for LMI people and places would achieve the desired result. Such a rule change would not affect our numerical example in Table 7 and could result in a relatively wealthier neighborhood in a poorer council district receiving more grant dollars than a neighborhood with more LMI people in a wealthy council district.

Perhaps the best administrative solution to encourage greater intra jurisdictional direction of funds toward needy people would be to reward cities that substantially direct funds to needy people and places or concentrate funds in a few needy places. Such a reward could be a greater flexibility in the use of funds across years, allowing cities to roll over CDBG funds and easing the administrative burden. Alternatively, cities could be rewarded by loosening other restrictions on the types of activities that CDBG funds. HUD already provides some degree of reduced administrative burden for cities that designate Neighborhood Revitalization Strategy Areas, which are contiguous geographic areas with relatively needy populations. These "carrot" rather than "stick" approaches might be the best politically feasible solutions to further encourage the direction of CDBG funds toward LMI people and places.

Our local results also have suggestive implications for program design at the national level. If similar tensions between support and flexibility hold sway nationally, there is a benefit in CDBG not exclusively funding very-low-income places or people. Allocating grant funds widely, rather than simply to the most needy political jurisdictions, ensures political support, but comes at the cost of economic efficiency. Whether the grant program as a whole is still worthwhile depends on the benefits from grants to those who need them, relative to the cost of giving funds to not particularly needy jurisdictions. If a program that spends some funds in low-income areas is better than no program at all, calling for greater direction of funds toward low-income recipient jurisdictions could be counterproductive.

Acknowledgments

The analysis and conclusions set forth are those of the authors and do not indicate concurrence by the Board of Governors of the Federal Reserve. We are very grateful to the many research assistants who

helped bring this project to fruition; they are listed individually in the Appendix. In addition to Brooks, Justin Phillips (Columbia University) supervised some of the data assembly for this project. We are grateful to the Russell Sage Foundation for funding (received before Brooks joined the Federal Reserve Board). Staffers at the U.S. Department of Housing and Urban Development—Todd Richardson and Sue Miller—have been extremely helpful. We also appreciate the help from city officials in Los Angeles and Chicago in obtaining voting records and precinct maps. Attendees at the 2012 National Tax Association meetings, and in particular our discussant Laura Feiveson, offered very helpful comments.

Notes

1. Note that our method does not allow us to distinguish between funds that are geographically targeted—directed toward needy places—and funds that are socially targeted—directed toward needy people. We discuss this limitation in greater detail in the data section.
2. Galster et al. (2004) investigated CDBG's impact on neighborhood outcomes and found improvements only when spending was both high in absolute terms and high relative to the number of poor people.
3. Galasso and Ravallion (2005) examined how central-government and local-government targeting interact in Bangladesh's Food for Education program; Araujo, Ferreira, Lanjouw, and Özler (2008) analyzed the role of inequality in village-level allocation of project funds; and Foster and Rosenzweig (2004) explored the effect of democratic reforms on the provision of local public goods in India. This literature generally concludes that funds are diverted from strict targeting, and de Janvry, Finan, and Sadoulet (2012) showed that diversion is less likely when politicians face reelection incentives. A related literature focuses more carefully on the outcomes of such programs (Alatas, Banerjee, Hanna, Olken, & Tobias, 2012).
4. The exact details of entitlement status and the grant formulae are given by Brooks et al. (2011) and Richardson et al. (2003).
5. Rules on the use of funds have changed over time. Here we explain the current rules, which govern the use of CDBG funds during the years of our neighborhood-level data.
6. We thank an anonymous referee for this language.
7. For the first three years of CDBG, hold-harmless grantees received their annual average under the prior categorical programs; one-third of this hold-harmless amount was withheld in the third year, two-thirds in the fifth year, and the jurisdictions reverted to the formula in year 6. Thanks to an anonymous referee for this language.
8. In the early years of the program, it is a slight simplification to say that 80% of funds were directed to entitlement communities; see Richardson et al. (2003) for full details on the split.
9. For cities with sufficiently small numbers of LMI people, HUD allows some leeway in meeting the 70% standard. This leeway does not apply to either of our case-study cities.
10. We thank an anonymous referee for pointing out HUD's role with respect to the legislation.
11. All numbers in this section are from the 2000 Census and for 2000 CDBG allocations.
12. We also experimented with weighting each block group by population; this choice is usually immaterial to the results.
13. Citywide dollars go to both LMI people and LMI places.
14. In recent years, HUD has broadened the definition of LMI to include households earning up to 120% of the area median; this does not apply for our study period.
15. We thank an anonymous referee for helping us clarify this.
16. Figures A1–A4 repeat these figures for all years; the qualitative evidence does not differ substantively by year.
17. We also observe voter turnout for the most recent council-district election, but these two rates are extremely highly correlated.
18. The coefficients on the council-member characteristics, not presented, are generally statistically insignificant.
19. We thank an anonymous referee for bringing this to our attention.
20. Here is an alternative way to think about the same problem. The difference between the amounts the two council districts would receive if funds were perfectly income-equalized ($90 – $60 = $30) should be multiplied by 2 (the coefficient). Therefore, Council District 2 should receive $60 more than Council District 1. Given the requirement that these amounts sum up to $150, Council District 1 receives $45 and Council District 2 receives $105.

21. Stein and Bickers (1995) developed the subsystem model, in which players in a political system form a network of relationships that helps them to achieve their goals. The authors showed how a coordinated effort of all players within a subsystem can help sustain continuous funding of targeted programs.
22. To be exact, HUD's definition relies on the units of family and nonfamily households, not people.

Notes on Contributors

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Appendix

This Appendix describes how we created and assembled the data used in this article.

The project relies on two key units of analysis. The first is the census block group, which we sometimes aggregate up to the council-district level. A block group is a subdivision of a census tract. For Los Angeles in 2000, a block group has on average 1,495 people; in Chicago, this figure is 1,168. We express all geographic data in terms of Census 2000 block groups, converting from 1990 block groups when necessary. The second unit of analysis is the individual CDBG grant, which we call, following the HUD, an "activity." Our activity-level analysis sometimes includes attributes of the block group in which the activity takes place.

We appreciate the many research assistants who worked valiantly on the data assembly for this project, and who contributed greatly to its completion. In particular, we wish to thank Claire Brennecke, Victor Couture, Pamela Faber, Galo Falchetorre, Joshua Holm, Ryan Pulleyblank, Munir Shah, Katie Winograd, and Nafez Zouk. A number of additional research assistants supervised by Justin Phillips at Columbia University also contributed to the project.

Figure A1. Council-district funding differential, all funds: Chicago.

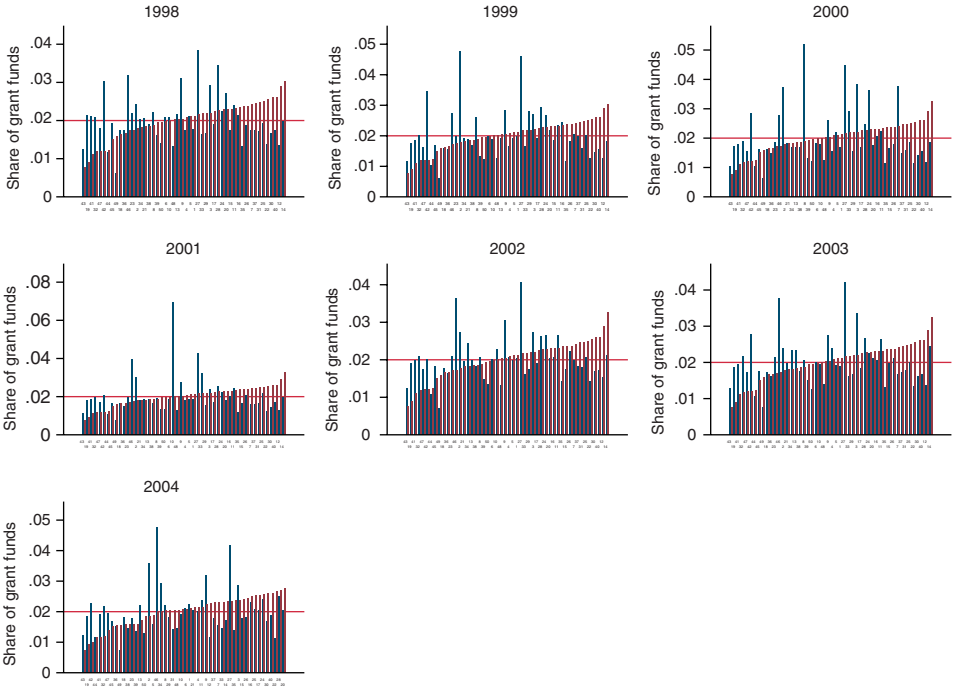


Figure A2. Council-district funding differential, without citywide funds: Chicago.

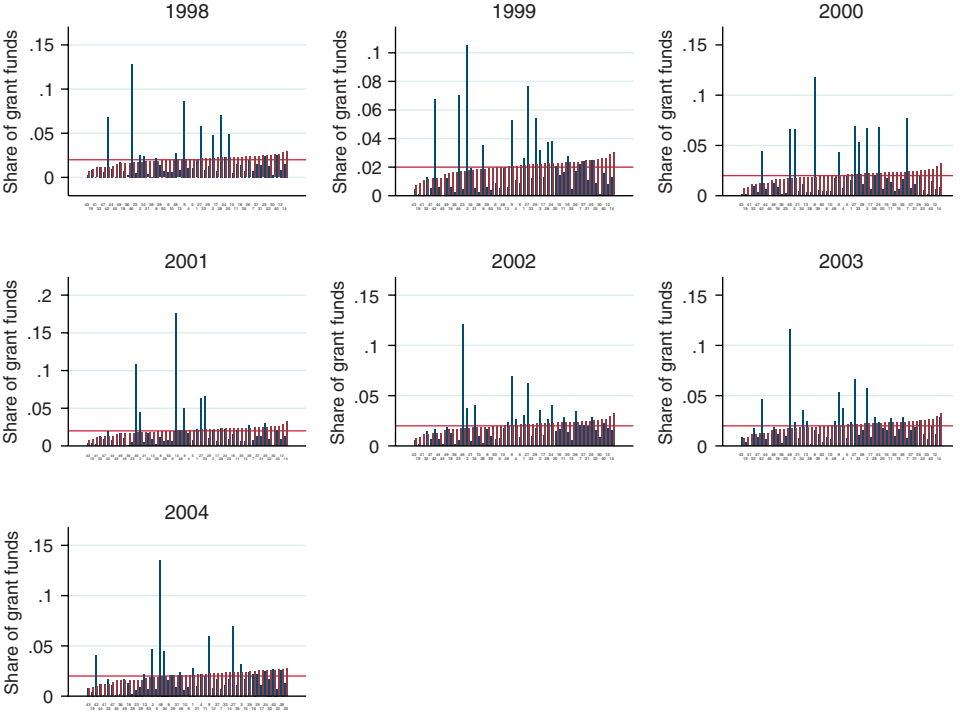


Figure A3. Council-district funding differential, all funds: Los Angeles.

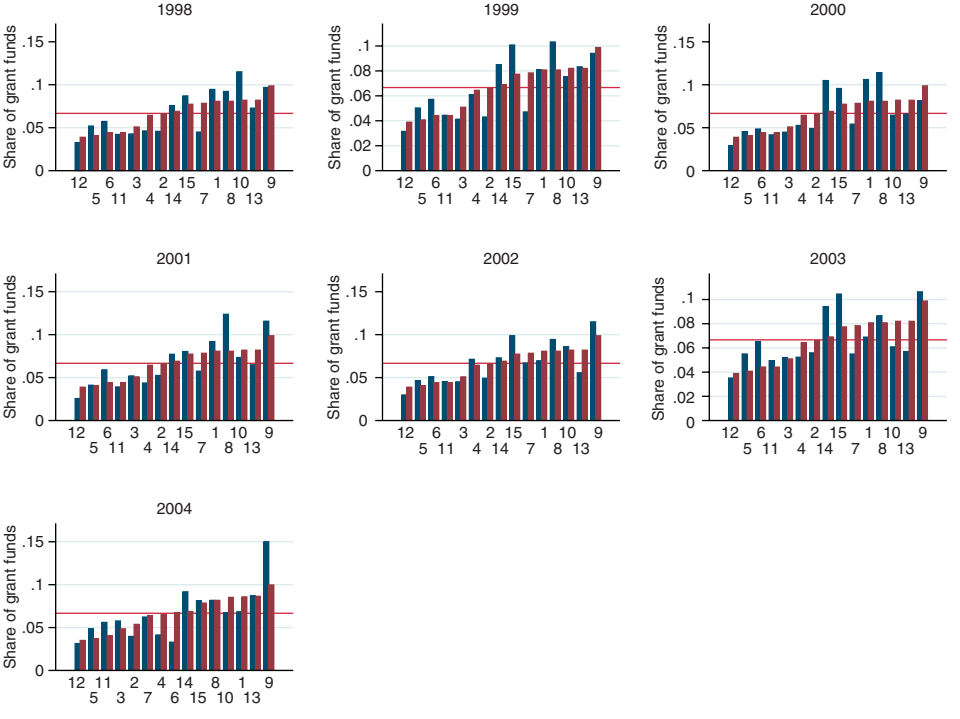
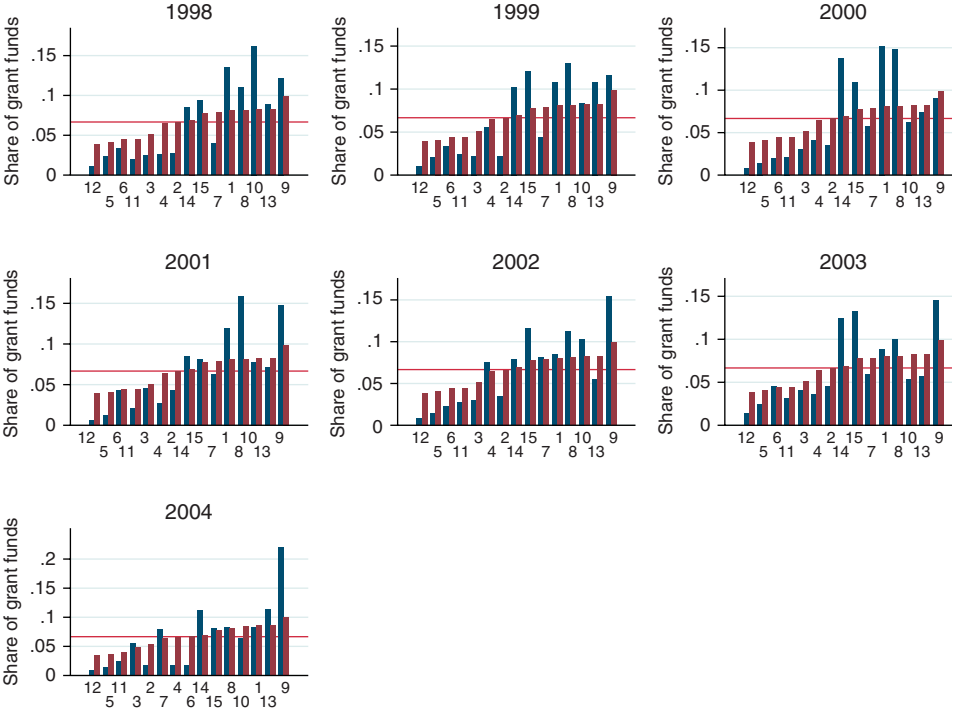


Figure A4. Council-district funding differential, without citywide funds: Los Angeles.



Some of the information in this Appendix relies on helpful conversations with CDBG and city experts. We are grateful to Kimberly Danna (Chicago Field Office, HUD) and Dick Simpson (Political Science, University of Illinois at Chicago). We are very grateful to Mark Drayse, assistant professor in the Department of Geography, California State University, Fullerton, for sharing with us his digitized map of 1999 voting precincts for Los Angeles.

1. CDBG Funds Data

To prepare block-group-level and activity-level information on CDBG allocations, we undertook three major steps. First, we assembled and verified data from HUD's internal CDBG database. Second, we manually coded each CDBG activity with information about the activity and its location. Finally, we cleaned and verified the manually coded data.

1.1. Assembling and Verifying HUD Data

HUD requires each recipient grantee of CDBG funds to electronically report each subgrant the grantee makes. HUD's system for this reporting is called the Integrated Disbursement and Information System, or IDIS. We invoked the Freedom of Information Act request to request extracts from the IDIS. We received these IDIS data from HUD in 2006. These data included full information on grants from 1998 to 2004. Unfortunately, the IDIS data extracts came without instructions on how to piece the files together. With help from HUD staffers Karen Pierce and Kenneth Nelson and a fair amount of experimentation, we arrived at total annual grants from IDIS consistent with annual allocations reported by HUD.

To verify that we were using the files correctly, we compared our calculations from the IDIS database to HUD's true allocations in Table A1 for Los Angeles and Chicago, the two cities upon which we focus. All of our IDIS-calculated grant revenue figures are within 2.5% of the true allocation except for Los Angeles in fiscal year 2004, which appears incomplete from this table. Cities are also able to spend "program income," which is income derived by grantees from CDBG-funded investments. For example, were a city

Table A1. IDIS-calculated CDBG allocations compared with HUD-reported allocations.

	From IDIS		From HUD	
Fiscal year	Program income ($)	CDBG revenue ($)	CDBG allocation ($)	Ratio of IDIS revenue to allocation
Chicago				
1998	55,175,143	109,438,000	109,438,000	1.000
1999	7,111,868	110,103,000	110,103,000	1.000
2000	19,189,620	106,959,272	107,502,000	0.995
2001	27,472,148	113,122,000	111,054,000	1.019
2002	6,759,427	107,487,561	109,282,000	0.984
2003	15,240,912	102,364,000	102,363,000	1.000
2004	12,177,101	100,852,000	100,851,000	1.000
Los Angeles				
1998	12,766,078	89,252,867	89,459,000	0.998
1999	24,713,943	89,999,000	89,999,000	1.000
2000	16,071,102	90,290,375	89,787,000	1.006
2001	17,155,181	93,572,335	92,946,000	1.007
2002	56,913,546	91,743,487	91,095,000	1.007
2003	26,769,240	86,567,016	88,545,000	0.978
2004	15,085,889	39,952,153	86,758,000	0.461

to use CDBG funds to provide below-market-rate mortgages, repayments of those mortgages to the city would count as program income. Table A1 also reports the amount of program income spent by city and fiscal year.

Federal fiscal year t is October 1 of year $t-1$ to September 30 of year t. However, CDBG funds are allocated by CDBG program year, which is not equivalent to the fiscal year. Furthermore, HUD program years vary by grantee. For Los Angeles, program year t runs from April 1 of year t to March 31 of year $t+1$. For Chicago, CDBG program year t runs from January 1 through December 31 of year t. The CDBG revenue we calculated for Los Angeles from program year 2004 is based on a different timing variable in the IDIS data, and allocations for program year 2004 are broadly consistent with program year 2003. All further discussion of CDBG funds will refer to program year. Please see Section 8 to see how we make consistent "years."

1.2. Manual Cleaning

After assembling the relevant activities and the funds spent on them by grantees, we reviewed each activity to find the location of that activity. We required each activity to fall into one of four geographic categories:

1. *Citywide:* These are activities that are provided across the city. For example, we distribute funds used to administer the program equally across all census block groups.
2. *Broad area greater than neighborhood:* These are activities provided in large sections of the city, such as "the Valley" for Los Angeles, or "South Side" for Chicago.
3. *Broad-area neighborhood:* These activities are provided in a "neighborhood" that we center around the census block group of the provider. For example, targeted neighborhood-revitalization loans could be directed to a small neighborhood. We use two different radii (half-mile and quarter-mile) to expand these "broad" neighborhood areas and test for robustness in our work to these two definitions.
4. *Specific neighborhood:* These activities are locatable in specific census tracts or block groups. For example, an activity in Chicago's Ward 12 can be located to the census tracts in Ward 12.

Panel A of Table A2 shows the number of activities classified into each type of location category by city and year. Panel B repeats this form, but reports total grant expenditure by each geographic activity type.

For each activity, we also answered a small set of supplementary questions.

- What is the census block group of the activity provider?
- Is the address of the provider a city address?
- Who provides this activity? (3 mutually exclusive answers)
  - City
  - Community development corporation
  - Other provider (e.g., commercial bank)
- Is this activity administered by the city?
- Does this activity target a specific racial constituency? (three nonexclusive answers)
  - Black
  - Hispanic
  - Asian
- Is this activity provided by a faith-based organization?

Table A2. Expenditures and activities by geographic classification type.

		Los Angeles				Chicago			
	Year	Citywide	Board area > neighborhood	Board area neighborhood	Specific tracts or block groups	Citywide	Board area > neighborhood	Board area neighborhood	Specific tracts or block groups
Panel A: Activities	1998	143	10	439	179	178	2	154	200
	1999	177	21	463	316	454	8	401	475
	2000	185	12	362	396	318	7	317	327
	2001	183	13	434	413	316	5	405	308
	2002	170	17	337	300	305	5	440	284
	2003	161	20	358	268	334	4	498	306
	2004	132	15	289	231	318	4	478	280
	Year	Citywide	Board area > neighborhood	Board area neighborhood	Specific tracts or block groups	Citywide	Board area > neighborhood	Board area neighborhood	Specific tracts or block groups
Panel B: Expenditure ($)	1998	41,122,137	700,413	30,643,500	10,888,812	71,102,434	11,405	10,236,577	5,874,981
	1999	44,442,789	4,238,068	32,122,466	11,416,444	92,051,435	1,463,177	23,295,351	12,260,912
	2000	49,197,716	760,892	38,360,822	19,410,103	85,910,013	2,490,195	25,078,217	11,409,041
	2001	62,942,785	1,399,040	63,512,794	24,688,068	83,361,100	2,494,996	24,703,882	8,361,823
	2002	51,125,096	3,827,101	38,091,033	15,520,348	98,967,302	417,373	20,777,287	9,430,359
	2003	45,635,146	1,424,003	23,854,974	15,100,471	88,482,070	119,281	20,775,077	10,196,376
	2004	39,711,505	1,875,854	29,395,988	12,305,922	63,279,113	251,796	18,136,990	7,936,958

Table A3. Number of activities and expenditure on "hopeless" activities, by year.

	Los Angeles			Chicago		
Year	Number of activities	Nominal dollar value	Share of year's spending	Number of activities	Nominal dollar value	Share of year's spending
1998	3	184,008	0.002	0	0	0.000
1999	4	60,102	0.001	6	136,145	0.001
2000	7	599,914	0.006	1	13,000	0.000
2001	7	94,910	0.001	1	17,500	0.000
2002	1	1,991	0.000	2	67,500	0.001
2003	1	8,975	0.000	1	10,000	0.000
2004	2	20,000	0.000	0	0	0.000

Note. "Hopeless" activities are those which we could not assign to any geographic area. They never account for more than half a percent of CDBG expenditures in any given year.

Of course, in any coding scheme, we need to make subjective judgment calls. In Los Angeles, we classified community centers as CDC-provided. If the activity improved the city physical plant and no recipient was identified, we coded the observation as being provided by the city.

1.3. Checking Manual Cleaning

After the manual cleaning, we conducted a number of consistency checks to verify the data. Specifically, we verified that:

- no activities were gained or lost in the manual cleaning
- each activity was counted in only one type of geography (as described in Section 1.2)
- each activity had only one type of provider (city, CDC, or other)
- all locations we identified were in the city (this did make some activities unusable, because some, such as domestic-violence shelters, may be located outside the city)
- each activity had a HUD-specified code for the type of activity (called a matrix code)

In addition, we reviewed the coding of all activities in the top 1% of the allocation distribution that were not coded as being citywide expenditures. This ensured that our results were not skewed due to a misclassification of one very large amount in a specific geographic area.

This process yielded some activities which we considered "hopeless" from a coding perspective. Fortunately, there were few of these. Table A3 reports the number of these activities and their total allocations by year. In no year do they account for more than 0.6% of annual allocations. We were able to code the location of many, but not all, providers. In Los Angeles, we coded 84% of the provider locations; in Chicago, this figure is 98%.

2. Elections Data

We used precinct-level data on municipal local elections gathered from local elections officials. As we describe below, we added this to our block-group-level data-set by making precinct–block group crosswalks.

2.1. Los Angeles

For later years, we downloaded data from the Los Angeles City Clerk's election website (http://clerk.lacity.org/Elections/ElectionArchives/). For earlier years, we received hard copies of voting data from the City Clerk's office and scanned the files. Special thanks to Bernie Mariscal in the City Clerk's Office for his help. Data were not available for one election (and thus two key years) for Los Angeles.

Data

- *1995:* Councilors in even-numbered districts are elected; precinct-level data are missing; data apply for years 1996–1999.
- *1997:* Mayor and councilors in odd-numbered districts are elected; data apply for years 1998–2001.
- *1999:* Councilors in even-numbered districts are elected; data apply for years 2000–2003.
- *2001:* Mayor and councilors in odd-numbered districts are elected; data apply for years 2002–2005.
- *2003:* Councilors in even-numbered districts are elected; data apply for years 2004–2008.

Corresponding Maps

- *1995:* Maps exist in hard copy in City Archives for some council districts; we did not digitize them because the data are missing.
- *1997:* Hard-copy maps were photographed by Chip Raches; we digitized maps from the photos.
- *1999:* We received electronic maps from Mark Drayse, Department of Geography, California State University at Fullerton.
- *2001:* We received electronic maps from the city.
- *2003:* We received electronic maps from the city.

When data came as hard copy, rather than electronically, we cleaned the data until vote totals were less than 5% different from reported citywide vote totals.

2.2. Chicago

Chicago had elections in 1995, 1999, and 2004. The mayor and all city council members are elected at the same time. Maps in all years were not electronic; we digitized PDF maps into ArcGIS files. Voting data for 1995 and 1999 were in hard copy; 2003 elections data are available electronically online from the Chicago City Clerk's office.

2.3. Precinct to Block-Group Crosswalks

For each election we constructed a precinct–block group crosswalk in order to assign votes from precincts to census block groups. In Los Angeles, the city frequently does not use the same precincts for the primary and general elections.

The general method for constructing the cross-walk was to weight each precinct's contribution to a block group by its fraction of the land area. To do this, we first overlapped GIS precinct and block-group maps. We then used ArcGIS's "union" tool to find the geographic intersection of all precinct and block-group polygons. We then programmed in SAS to properly attribute each precinct to a census block group or groups.

We would prefer to weight the precinct's contribution to a block group by the population of that section of the precinct. However, doing this would require analysis of population density at a more finely grained geographic level than is publicly available.

The precinct to block-group matching infrequently posed difficulties when a block group was associated with more than one precinct from different council districts. In this case, we attributed the block group to the council district of the precinct which occupied the largest area of the block group. Usually, when a block group received votes for city council members from more than one precinct, we summed these votes to get a block-group-level total. In the case with multiple council districts per block group, we could not do this, since council members must be consistent with the assigned council district.

In general, we dropped the votes associated with precincts that did not contribute to the council district to which the block group was assigned. This system worked well for Chicago. Los Angeles was more complicated because council district elections are staggered every two years. Each district is elected every four years, but even-district and odd-district elections are separated by two years. We used the same principle—dropping votes associated with precincts that do not contribute to the council district to which the block group is assigned—as in Chicago. This caused the final vote totals in our data to slightly understate the original totals, but we think this is the best and most consistent way to represent local elections at the block-group level.

Of the roughly 2,400 block groups in Los Angeles, this left a very small number of block groups (64, or 2.5% of observations) that did not fall consistently into one council district (or two council districts, consistent with a redistricting pattern). We suspect that this error is due to the quality of the precinct maps, which do not always cover the entire city (they omit areas with little population, for example). In these cases, we keep the block group with more votes in a given year.

2.4. Other Voting-Data Issues

Our analysis does not include absentee votes. Table A4 reports absentee votes as a share of all votes cast in Los Angeles and Chicago for each election we analyze.

In Los Angeles, summary vote statistics did not report absentee votes separately in 1997. In 1999 and 2001, absentee votes hovered at slightly over 20% of all votes cast. In the 2003 elections, absentee voters accounted for 32% of votes in the primary, and 43% in the general election. These numbers are unfortunately high, and we do not have any means of assigning the absentee voters to specific precincts. However, neither do watchful politicians.

In Chicago, all ballots, including absentee ones, are marked with a ward and precinct, so absentees are attributed to the proper geographic location. However, in 1995 and 1999 there were very small numbers of votes—less than one-half of 1% of the ballots cast—that were called "absentee." A call to Jim Allen, public information officer at the Chicago Board of Elections, was unable to resolve what these votes are. However, they are few enough that we do not expect them to pose any threat to our analysis.

3. Community Development Corporation/Community-Based Organization Data

For CDCs in Chicago and Los Angeles, we classified organizations into eight main types:

- Business assistance
- Culture

Table A4. Role of absentee voting.

	Year	Type	Date	Total ballots cast	Total at-poll ballots	Total absentee ballots	Absentee share of total
Los Angeles							
	1997	Primary	April		absentee votes not separately reported		
	1997	General	June		absentee votes not separately reported		
	1999	Primary	April	292,518	214,592	77,926	0.266
	1999	General	June	285,037	224,914	60,123	0.211
	2001	Primary	April	593,786	448,261	145,525	0.245
	2001	General	June	632,200	511,555	120,645	0.191
	2003	Primary	March	224,234	152,925	71,309	0.318
	2003	General	May	184,868	105,275	79,593	0.431
Chicago							
	1995	Primary	February	581,331	579,172	2,159	0.004
	1995	General	April	620,615	619,319	1,296	0.002
	1999	Primary	February	622,653	621,551	1,102	0.002
	1999	General	April	86,620	86,615	5	0.000
	2003	Primary	February	483,993	483,993	0	0.000
	2003	General	April	35,133	35,133	0	0.000

Note. This table overstates total votes in Los Angeles because "total at-poll ballots" include noncity votes cast for Los Angeles Unified School District and Los Angeles Community College District elections. Also, for Los Angeles, absentee votes are by mail only in 1999 and 2001 and include early touchscreen voting in 2003.

- Drug abuse and prevention
- Housing
- Children
- Neighborhood/ethnic/religious
- Other problems: food, debt, clothing, health, immigrants, legal services
- Seniors/disabled

Given the location of a CDC, we could then calculate the total number of CDCs by block group, and the number of CDCs by type in each block group.

3.1. *Los Angeles*

For a comprehensive list of community development corporations, we relied on the listing in the annual *Los Angeles County Rainbow Resource Directory*, published by Resource Directory in Carson, CA (http://catalog.library.ucla.edu/cgi-bin/Pwebrecon.cgi?v1=4&ti=1,4&Search_Arg=rainbow%20resource%20directory&Search_Code=TKEY^&SL=None&CNT=50&PID=upt6Q2E6L7HbABhGAkBvfP9ziUl&SEQ=20131216114533&SID=1). For data-availability reasons, we used organizations from the 2005 directory. We were able to code 99% of the organizations.

3.2. *Chicago*

Data came from the 1994–1995 *Human Care Services Directory* (https://libcat.uchicago.edu/ipac20/ipac.jsp?session=138722F26491L.362579&profile=ucpublic&uri=link=3100007~!3323821~!3100001~!3100002&aspect=subtab13&menu=search&ri=1&source=~!horizon&term=Human+care+services+directory+of+Metropolitan+Chicago.&index=ALTITLP). We entered the name and address of each CDC in the city of Chicago in the categories listed above. In total, we geocoded 87% of the CDC observations.

4. Council-Member Attributes and Council-District Committees

4.1. *Los Angeles*

Los Angeles data concerning committee assignments came from the City Clerk's office. We identified the committees with oversight of CDBG through interviews with council staff and a search of city council documents (we tracked which committees were primarily responsible for resolutions addressing the CDBG program). The two with primary responsibility are the Economic Development and Employment committee and the Housing and Community Development committee (there are slight variations in the names of these committees over time). Eventually (August 2003) these two committees were combined into a single committee, called the Housing, Community, and Economic Development Committee.

4.2. *Chicago*

The city of Chicago has no council member equivalent to the Los Angeles council president. In general, mayoral appointees to committees are voted on by the city council. The committee that has the first review of CDBG allocations is the Committee on the Budget and Government Operations. Data on committee membership came from the *Journal of the Proceedings, City Council—City of Chicago*.

5. Consumer Price Index

We relied on the Consumer Price Index from the Bureau of Labor Statistics for all urban consumers. All dollar figures are expressed in real 2006 dollars.

6. Decennial Census Data

We used data from the 1990 (ICPSR 9782) (U.S. Department of Commerce, 1999) and 2000 (ICPSR 13355 (U.S. Department of Commerce, 2002a) for Illinois and ICPSR 13346 (U.S. Department of Commerce, 2002b) for California) decennial censuses, Summary File 3A or its 2000 equivalent. We used data at the block group–place level. In 1990 and 2000 this is summary level 90. We aggregated these data to the block-group level.

7. LMI Neighborhood Definitions

HUD defines LMI neighborhoods as those neighborhoods where more than 50% of people have income below a cut-off.[22]

7.1. Definitions Based on 2000 Census Data

Census 2000–based LMI block groups are posted on the HUD website. The data provided includess information on all CDBG recipient jurisdictions. To the best of our knowledge, these data were available for recipient jurisdictions beginning in program year 2004. The 2000 data are available online at http://www.hud.gov/offices/cpd/systems/census/lowmod/index.cfm.

7.2. Definitions Based on 1990 Census Data

For CDBG program years relying on 1990 census data (1998–2003), we had a much more difficult time finding qualifying LMI block groups or tracts. According to HUD economist Todd Richardson, for the 1990 data HUD relied upon a special tabulation of LMI people by block group prepared by the census. (These numbers are not calculable from publicly available data, because they require knowing the exact number of people in a tract or block group below a specific income threshold. Publicly available data report only the number of people or households in broad income groups. The share below a specific threshold would require assumptions about the distribution of income within groups.) HUD's Office of Policy Development and Research told us that they no longer have this file. The census does not have this special tabulation on file, and the programmer who created it has retired. Our attempts to get these data from HUD field offices were also unsuccessful. Thus, we rely on secondary data sources to trace back eligible tracts.

7.2.1. Los Angeles

The city of Los Angeles published, in their *2003–2004 Action Plan*, a map of qualifying census tracts. We digitized the map and arrived at a list of LMI tracts. For each qualifying tract, we observed the range of the share of people who qualified (e.g., 50–70%, 70–85%, etc.). For nonqualifying tracts, we know only that the share of LMI people is less than 50%.

7.2.2. Chicago

For Chicago, we rely on a tract map published in the 2001 CDBG Consolidated Annual Performance and Evaluation Report, available in the Chicago Public Library

(http://www.chipublib.org/search/details/cn/8322227). For each tract, we observed only whether the tract was coded as LMI.

8. Timing

8.1. Chicago

Chicago's CDBG program year begins January 1. The mayor usually sends a budget to the city council in October, and the budget must be approved by the city council by December 31 of each year. Thus, officials elected in year t take office in the spring, and have an impact on the budget in year $t+1$. If a candidate is appointed to an open seat, we assume that the candidate appointed in year t has an effect on the budget in year $t + 1$ unless he or she is appointed November or later.

8.2. Los Angeles

CDBG allocations are made in the spring of each year. Council members take office and committee assignments are made in July of each year. Therefore, a council member elected in year t can only impact allocations in year $t + 1$. As a rule, we assign council and voting variables to year $t + 1$ unless the council member could have been in place to participate in spring decisions.

9. Interviews

We are very grateful to the city officials and local experts who helped us understand the CDBG process. We list interviewees below.

9.1. Chicago

- Aruguete, Joy, August 28, 2007. Executive director, Bickerdike Redevelopment Corporation, and member, Mayor's Community Development Advisory Committee.
- Bares, Kimberly, August 28, 2007. President, DevNorth, and member, Mayor's Community Development Advisory Committee.
- Berman, Gerry, August 29, 2007. Coordinating planner, Office of Management and Budget, City of Chicago.
- Bookman, Joel, August 29, 2007. Director, New Communities Program, Local Initiative Support Corporation, Chicago.
- Hollins, Anita, August 28, 2007. Co-president, Chicago Community Ventures.
- Kennedy, Carol, August 28, 2007. Program director, Office of Workforce Development, City of Chicago.
- McGrath, Molly, August 28, 2007. Deputy budget director, Office of Management and Budget, City of Chicago.

9.2. Los Angeles

- Gardea, Jose, July 18, 2008. Chief of staff, Council Member Ed Reyes.
- Gaston, Rhonda, November 6, 2007. Senior director of operations, Housing and Economic Development, Mayor's Office, City of Los Angeles.
- Huber, William, and Huber, Virginia, July 16, 2008. President and secretary, Citizens Unit for Participation.

- Perry, Jan, July 18, 2008. Member, Los Angeles City Council.
- Smith, Cabria, July 16, 2008. President, Valley Interfaith Council.
- Sainz, Robert, July 18, 2008. Assistant general manager, Community Development Department, City of Los Angeles.
- Semark, Douglas, July 17, 2008. Executive director, Gang Alternative Program.
- To, Mary, July 16, 2008. Chief executive officer, Asian Youth Center.
- Westall, Andrew, July 17, 2008. Senior deputy, office of Council Member Herb Wesson, Jr.

References

U.S. Department of Commerce, Bureau of the Census. (1999). *Census of Population and Housing, 1990 [United States]: Summary Tape File 3A*. ICPSR09782-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. doi:10.3886/ICPSR09782.v1

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U.S. Department of Commerce, Bureau of the Census. (2002b) *Census of Population and Housing, 2000 [United States]: Summary File 3, California*. Washington, DC: U.S. Dept. of Commerce, Bureau of the Census [producer], 2002. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor]. doi:10.3886/ICPSR13346.v1