

## METROPOLITAN POLICY PROGRAM

# Where Did They Go? The Decline of Middle-Income Neighbor-

hoods in Metropolitan America

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## **Findings**

Analysis of 1970 to 2000 decennial census data for families and neighborhoods in the 100 largest metropolitan areas, and in the cities and suburbs of 12 selected metropolitan areas, finds that:

- Middle-income neighborhoods as a proportion of all metropolitan neighborhoods declined from 58 percent in 1970 to 41 percent in 2000. This dramatic decline far outpaced the corresponding drop in the proportion of metropolitan families earning middle incomes, from 28 percent in 1970 to 22 percent in 2000.
- Between 1970 and 2000, lower-income families became more likely to live in lower-income neighborhoods, and higher-income families in higher-income neighborhoods. Only 37 percent of lower-income families lived in middle-income neighborhoods in 2000, down from 55 percent in 1970.
- The proportion of neighborhoods that were middle-income shrank faster than the proportion of families that were middle-income in each of 12 large metropolitan areas examined. Among the 12 metro areas, Los Angeles-Long Beach, Baltimore, and Philadelphia experienced much more dramatic declines in middle-income neighborhoods than San Antonio and Louisville.
- Only 23 percent of central-city neighborhoods in the 12 large metropolitan areas had a middle-income profile in 2000, down from 45 percent in 1970. A majority of families (52 percent) and neighborhoods (60 percent) in these cities had low or very low incomes relative to their metropolitan area median in 2000.
- A much larger proportion—44 percent—of suburban neighborhoods in the 12 metropolitan areas had a middle-income profile in 2000. Yet this proportion fell over the 30-year period, too, from 64 percent in 1970, accompanying a smaller decline in suburban middle-income families. Suburban middle-income neighborhoods were replaced in roughly equal measure by low-income and very high-income neighborhoods.

Although middle-income families have declined considerably as a share of the overall family income distribution, it is noteworthy that middle-class neighborhoods have disappeared even faster in metropolitan areas, especially in cities. This trend suggests increased sorting of high- and low-income families into neighborhoods that reflect their own economic profiles, and increased vulnerability of middle-class neighborhoods "tipping" towards higher- or lower-income status. The resulting disparities among neighborhoods create new challenges for policies to enhance household mobility, improve the delivery of key public services, and promote private-sector investment in struggling locales.

"The consistent trend is one of a shrinking proportion of families with middle incomes, and an even faster decline in neighborhoods with



middle-income

character."



#### Introduction

iddle-income families, the icon of the American Dream, have become a somewhat less prominent part of the American demographic profile over the last quartercentury. Numerous researchers have documented how growing economic inequality in the U.S., characterized by an increasing bifurcation of the income distribution, has slowed the growth of a once-broad American middle class.2

Researchers have also probed the societal implications of rising economic inequality. According to Dreier, Mollenkopf, and Swanstrom, "A healthy democracy depends on a strong middle class, which functions as a moderating force between the potentially divisive demands of the rich and poor."3 Rising inequality associated with the decline of the middle class may also erode the nation's social and political fabric; researchers like Robert Putnam and William Iulius Wilson have pointed to the deleterious effects that inequality has on social relations.4 Still others have related increasing economic inequality to a growing concentration of political power among the well-off.5

How this "hollowing out" of the national income distribution has affected communities, however, has received considerably less attention in research or popular discourse. Most recent literature on neighborhood income patterns has focused on the poor or the affluent.<sup>6</sup> Other studies have compared indicators of individual economic well-being across central cities and suburbs, typically concluding that growing poverty is increasingly located in the former and growing affluence in the latter.7 Research on the Gautreaux and Moving to Opportunity experiments arguably focuses on moderate- and middle-income neighborhoods, but mainly in the context of how poor families fare after relocating there.

A few recent works have taken a broader view as to the incomes of metropolitan households and neighborhoods. Berube and Tiffany examine the changing income distribution in large U.S. cities.8 Several other studies focus on income distributions within metropolitan neighborhoods, generally finding that they have become more economically homogeneous.9

Research has vet to examine, however, the rise and fall of middleincome families within metropolitan areas, especially how their residential patterns may be changing. If rising economic inequality has contributed to rising economic segregation, the ability of lower-income individuals' to choose and access middle-income neighborhoods may have declined. This, in turn, may limit their access to associated amenities like jobs, decent health care, safe neighborhoods, and adequate political representation. A lack of middle-income neighborhoods may also limit opportunities for lowand moderate-income homeowners to "move up" the property ladder, if the house-price differential between lower- and higher-income neighborhoods is too high.

While this paper does not tackle these broader implications head-on, it focuses on the changing incidence of middle-income families and neighborhoods as one illustration of these broader economic shifts. In this sense, our inquiry represents the "flip side" of research that probes trends in the incidence and concentration of poverty and affluence.

This report documents, for the 100 largest metropolitan areas, how the distribution of families by income changed between 1970 and 2000, and how this in turn altered the income profile of metropolitan neighborhoods. It probes further these patterns in central cities and suburbs of 12 selected metropolitan areas. It finds evidence of a widespread and large-scale decline since 1970 in the share of American neighborhoods classified as "middleincome," in both cities and suburbs, exceeding even the corresponding decline in the share of metropolitan families who are middle-income. This accelerated "sorting" of families by income within metropolitan areas may exacerbate the impacts of increased economic inequality among families alone.

## Methodology

#### Data Source

The primary data source used in the study is the Neighborhood Change Database (NCDB), created by GeoLytics in conjunction with the Urban Institute. We use the NCDB Census "long form" database, which contains sample data from the 1970, 1980, 1990 and 2000 decennial censuses. Because the NCDB contains only census tract-level data, we obtain metropolitan-level median family income from U.S. Census Bureau printed reports for 1970 and 1980, and from the Bureau's Factfinder website for 1990 and 2000 (http://factfinder. census.gov).

#### **Units of Analysis**

This study considers the period from 1970 to 2000, with observations made at each decennial census year (1970, 1980, 1990 and 2000). Our reasons for choosing this time period are twofold. First, prior to 1970 the requisite census tract data are either unavailable or cumbersome to employ.<sup>10</sup> Second, selecting this time period permits comparison of our findings with those of previous research.11

Our primary units of analysis are the 100 largest U.S. metropolitan areas—Metropolitan Statistical Areas (MSAs) and Primary Metropolitan Statistical Areas (PMSAs)—according to the results of Census 2000. As with most units of geography in the census, metropolitan area boundaries may change over time.12 We choose to recognize metropolitan areas as they were defined for the year in which the data



Table 1. Characteristics of 12 Selected Metro Areas, 1970–2000

C	n	Pop.	Median Family	Family Income Change	Central City	City Family Change	Suburban	Suburban Family Change
Region	2000	2000	2000 (\$)	2000 (%)	Families 2000	2000 (%)	2000	1970– 2000 (%)
_						, ,		
S	4,112,198	8	59,313	23.9	82,781	(30.1)	965,844	310.2
S	2,552,994	18	59,324	25.3	147,783	(31.4)	509,354	73.6
MW	8,272,768	3	61,182	13.9	631,118	(23.5)	1,392,643	54.1
W	2,109,282	25	61,185	26.5	121,544	(4.3)	409,410	133.3
MW	1,607,486	36	55,191	14.2	192,950	7.9	230,322	124.9
W	9,519,338	1	46,452	(5.7)	792,758	14.2	1,359,485	26.9
S	1,025,598	61	49,774	14.2	61,998	(29.1)	214,132	73.9
W	2,392,557	21	68,902	29.8	86,463	(2.1)	498,681	54.3
NE	5,100,931	4	58,395	20.5	354,178	(26.0)	939,870	32.7
S	1,592,383	36	44,729	26.3	278,026	62.2	123,924	340.1
W	1,731,183	29	75,219	41.7	142,007	(14.0)	238,595	20.2
S	4,923,153	5	72,247	25.1	115,730	(29.1)	1,114,928	112.2
	S S S MW W MW S W NE S W	Region     2000       S     4,112,198       S     2,552,994       MW     8,272,768       W     2,109,282       MW     1,607,486       W     9,519,338       S     1,025,598       W     2,392,557       NE     5,100,931       S     1,592,383       W     1,731,183	Census Region         Pop. 2000         Rank 2000           S         4,112,198         8           S         2,552,994         18           MW         8,272,768         3           W         2,109,282         25           MW         1,607,486         36           W         9,519,338         1           S         1,025,598         61           W         2,392,557         21           NE         5,100,931         4           S         1,592,383         36           W         1,731,183         29	Census Region         Pop. 2000         Pop. Rank Pank Pank Pank Pank Pank Pank Pank P	Census Region         Pop. 2000         Median Family Income Pop. 1970— 2000 (%)         Income Pop. 1970— 2000 (%)           S         4,112,198         8         59,313         23.9           S         2,552,994         18         59,324         25.3           MW         8,272,768         3         61,182         13.9           W         2,109,282         25         61,185         26.5           MW         1,607,486         36         55,191         14.2           W         9,519,338         1         46,452         (5.7)           S         1,025,598         61         49,774         14.2           W         2,392,557         21         68,902         29.8           NE         5,100,931         4         58,395         20.5           S         1,592,383         36         44,729         26.3           W         1,731,183         29         75,219         41.7	Census Region         Pop. 2000         Rank 2000         Median Family Income 2000 (S)         Income 1970- 2000 (S)         Central City Families 1970- 2000 (S)           S         4,112,198         8         59,313         23.9         82,781           S         2,552,994         18         59,324         25.3         147,783           MW         8,272,768         3         61,182         13.9         631,118           W         2,109,282         25         61,185         26.5         121,544           MW         1,607,486         36         55,191         14.2         192,950           W         9,519,338         1         46,452         (5.7)         792,758           S         1,025,598         61         49,774         14.2         61,998           W         2,392,557         21         68,902         29.8         86,463           NE         5,100,931         4         58,395         20.5         354,178           S         1,592,383         36         44,729         26.3         278,026           W         1,731,183         29         75,219         41.7         142,007	Census Region         Pop. 2000         Median Family Income Family Income 2000 (S)         Income 1970— Pamilies 1970 (Change 2000 (S))         Central Change Change 2000 (S)         Families 1970 (Change 2000 (S))           S         4,112,198         8         59,313         23.9         82,781         (30.1)           S         2,552,994         18         59,324         25.3         147,783         (31.4)           MW         8,272,768         3         61,182         13.9         631,118         (23.5)           W         2,109,282         25         61,185         26.5         121,544         (4.3)           MW         1,607,486         36         55,191         14.2         192,950         7.9           W         9,519,338         1         46,452         (5.7)         792,758         14.2           S         1,025,598         61         49,774         14.2         61,998         (29.1)           W         2,392,557         21         68,902         29.8         86,463         (2.1)           NE         5,100,931         4         58,395         20.5         354,178         (26.0)           S         1,592,383         36         44,729         26.3         278,	Census Region         Pop. 2000         Rank Pop. 2000         Median Family Family Pop. Eamily Income Pop. 2000 (\$)         Eamilies Pop. 2000 (\$)         Samilies Pop. 2000 (\$)

Source: Authors' analysis of GeoLytics Neighborhood Change Database

were collected.<sup>13</sup> As metropolitan areas are meant to estimate labor and housing markets, allowing the boundaries of metropolitan areas to change with each census allows us to capture the income profile of residents and neighborhoods within those markets as they operated at each point in time.

In 12 of these 100 large metropolitan areas, we further probe the changing distribution of families and neighborhoods within central cities and suburbs. The 12 metropolitan areas include: Atlanta, Baltimore, Chicago, Denver, Indianapolis, Los Angeles-Long Beach, Louisville, Oakland, Philadelphia, San Antonio, San Francisco and Washington, D.C.14 These do not constitute a random sample of the 100 large metropolitan areas, nor are they meant to be representative of those areas. Nevertheless, they are a diverse group both geographically and economically, and include both very large (Los Angeles, Chicago) and more mid-sized (Indianapolis, Louisville) areas.15 This diversity helps suggest whether overall

patterns of family and neighborhood income change might vary systematically by any of these metro area characteristics. Table 1 presents summary characteristics for these 12 metro areas, and their central cities and suburbs, over the 1970-to-2000 period.

In keeping with most other quantitative studies that analyze neighborhood income dynamics, we choose census tracts as our secondary unit of analysis.16 According to Iceland, Weinberg and Steinmetz, "Census tracts, which typically have between 2,500 and 8,000 people, are defined with local input, are intended to represent neighborhoods, and typically do not change much from census to census, except to subdivide."17 Although not without controversy, census tracts remain the overwhelming analytical choice for measuring neighborhood characteristics.18

Based upon our review of previous research we include only census tracts that meet the following criteria:19

• A total population of at least 500 people;

- A group quarters population not more than 50 percent of total population: and
- A reported family income distribution.20

Census tracts with populations of at least 500 individuals provide us with a robust sample size, since on average one in six households receives a "long form" on which income data are collected. In addition, because this study focuses on families, tracts with large group quarters population (prisons, college dorms, nursing homes) are excluded to prevent them from skewing our results. Finally, a small number of tracts without income data are by necessity eliminated from our analysis.

#### Variables

Family income data from each census provide the foundation for our analysis.<sup>21</sup> The NCDB provides a grouped frequency distribution of family income for each decade by census tract. From these distributions, we calculate family income groupings based



upon U.S. Department of Housing and Urban Development (HUD) income guidelines.<sup>22</sup> We specify six mutually exclusive income groups, based upon the median family income for the metropolitan area in which the family is located (Area Median Income, or AMI):

- Very Low Income (VLI) families earning 50 percent or less of AMI
- Low Income (LI) families earning 50 to 80 percent of AMI
- Moderate Income (MI) families earning 80 to 100 percent of AMI
- High-Moderate Income (HMI) families earning 100 to 120 percent of AMI
- High Income (HI) families earning 120 to 150 percent of AMI
- Very High Income (VHI) families earning over 150 percent of AMI

Using median family income data for each census tract, we classify metropolitan neighborhoods into the same six income categories as we classify metropolitan families. For example, census tracts with a median family income less than 50 percent of their metropolitan area's AMI are considered Very Low Income.23

This classification system offers notable advantages over the conventional use of the poverty line to create a simple dichotomy of poor and nonpoor families. First, it controls implicitly for regional and metropolitan differences in income levels and cost of living by providing a standard based upon each metropolitan area's median income. Second, because it standardizes income distribution categories across metro areas, it allows us to make straightforward comparisons among metro areas, both in one year and over time.24 Notably, the system is not designed to produce an equal distribution of families or neighborhoods among its six categories. For instance, as shown below, the proportion of families in the 100 largest metropolitan areas occupying the Very High Income category—with incomes above 150 percent of their metropolitan area

medians—has long exceeded one-sixth.

Our approach employs a relative rather than an absolute measure to specify income groups. Because metropolitan areas vary significantly in their costs of living, wages, and housing affordability, we thought it more meaningful to specify income groups based upon each metropolitan area's income structure. For example, the 2000 median family income in the San Jose, CA PMSA was \$81,717, over three times as high as that in the McAllen-Edinburg-Mission, TX MSA (\$26,009). If one used an absolute approach to classifying families, a family with a given income would occupy the same category in both San Jose and McAllen, even though it would arguably enjoy a much higher standard of living in the latter area than the former. A relative approach takes account of these intermetropolitan differences.

While it is not our purpose here to probe why the income distribution has bifurcated in recent decades, the academic literature points to both economic and demographic explanations (neither mutually exclusive). Among the economic hypotheses are that technological change, trade, de-unionization, decline in the value of the minimum wage, rapid growth in CEO compensation, and the emergence of "winner-take-all" labor markets have produced polarization in the earnings distribution. The second argument concerns the economic bifurcation of family households in the United States, particularly into two-earner couples and single-parent families. Research by Bradbury and Katz finds that the proportion of married-couple families with working women increased from 54 percent in 1969 to 82 percent in 1998.25 Meanwhile, between 1970 and 2000, single-parent families with children rose from 6 to 13 percent of all families. Changes in the labor supply and living arrangements of families may thus contribute to rising inequality in the family income distribution as well.26

## **Findings**

A. Middle-income neighborhoods as a proportion of all metropolitan neighborhoods declined from 58 percent in 1970 to 41 percent in 2000. Family income trends in large metropolitan areas over the 1970 to 2000 period tell a familiar story: The proportions of families with lower incomes and higher incomes have risen, while the proportion with middle incomes has fallen.

While the total number of families in each income category increased as the population grew, the shift in the overall distribution of families by income is most instructive. The share of families in the highest (very-highincome, or VHI) category increased the most (4.5 percentage points) between 1970 and 2000. At the same time, the share in the lowest (very-lowincome, or VLI) category increased by a sizeable 3.4 percentage points (Table 2, top panel).27

The rise in the proportion of families at the extremes of the distribution came at the expense of the share of families in the middle—those comprising the moderate-income (MI) and high-moderate-income (HMI) categories. The percentage of metropolitan families in these categories dropped by 3.4 and 3.1 percentage points, respectively, between 1970 and 2000.28 As a result, families earning between 80 percent and 120 percent of their metropolitan area median incomes—what many would consider to be the "middle class"-shrank from 28 percent of the total in 1970 to less than 22 percent by 2000.

Even more striking, however, are the dramatic changes that occurred in the distribution of neighborhoods by income. Like families, each of the six census tract income categories increased in number between 1970 and 2000 as the 100 largest metropolitan areas expanded in size (Table 2, bottom panel). The shift in the distribution of neighborhoods by median



Table 2. Family and Neighborhood Income Profile, 100 Largest Metropolitan Areas, 1970–2000

		1970	1	1980	1	990		2000
Family Income Type	Number	Share (%)	Number	Share (%)	Number	Share (%)	Number	Share (%)
Very-Low Income	4,868,953	17.2	6,486,870	19.7	7,469,257	20.1	8,964,590	20.6
Low Income	5,235,315	18.5	5,772,577	17.5	6,581,298	17.7	7,760,663	17.8
Moderate Income	4,194,087	14.8	4,200,097	12.7	4,470,359	12.0	4,959,425	11.4
High-Moderate Income	3,737,161	13.2	3,959,984	12.0	4,068,718	10.9	4,418,013	10.1
High Income	3,550,033	12.6	4,609,022	14.0	4,870,826	13.1	5,268,445	12.1
Very-High Income	6,659,657	23.6	7,929,880	24.1	9,772,706	26.3	12,238,602	28.1
Addendum: Middle-Income	7,931,247	28.0	8,160,081	24.7	8,539,077	22.9	9,377,438	21.5
		1970	]	1980	1	990		2000
Neighborhood Type	Number	Share (%)	Number	Share (%)	Number	Share (%)	Number	Share (%)
Very-Low Income	861	3.5	2,186	7.5	2,938	9.1	3,141	8.2
Low Income	5,133	20.8	6,158	21.2	6,854	21.3	9,235	24.0
Moderate Income	7,805	31.7	7,618	26.3	7,786	24.2	8,644	22.5
High-Moderate Income	6,552	26.6	6,837	23.6	6,484	20.2	7,091	18.4
High Income	3,108	12.6	4,209	14.5	4,944	15.4	5,831	15.1
Very-High Income	1,199	4.9	1,982	6.8	3,125	9.7	4,557	11.8
Addendum: Middle-Income	14,357	58.2	14,455	49.9	14,270	44.4	15,735	40.9

Note: Very-low-income families have incomes below 50 percent of the metropolitan area median, and very-low-income neighborhoods have median family incomes under 50 percent of the metropolitan area median. Other income ranges include: low-income (50 to 80 percent); moderate-income (80 to 100 percent); high-moderate-income (100 to 120 percent); high-income (120 to 150 percent); and very high-income (over 150 percent). Middle-income combines the moderate and high-moderate income categories.

Source: Authors' analysis of GeoLytics Neighborhood Change Database

income broadly mirrored the shift in family income distribution: declines in the middle and growth at the tails. But the magnitude of the neighborhood income shift exceeded that of the family income shift. Neighborhoods near the bottom (VLI and LI) increased in share by roughly 8 percentage points between 1970 and 2000, and those near the top (HI and VHI) experienced nearly a 10 percentage-point surge. Conversely, the proportion of neighborhoods with incomes near the middle (MI and HMI) steadily dropped each decade, from 58 percent in 1970 to 41 percent in 2000—a 17 percentage-point decline.

Thus, middle-income neighborhoods have been "squeezed" to a far greater degree in recent decades than middle-income families in large metropolitan areas. Neighborhoods in the middle still represent a far greater share of total neighborhoods (41 percent) than do families in that same category (21 percent). But they have declined much more rapidly in proportional terms.

Notwithstanding their long-term overall decline, the quantity of middleincome neighborhoods in large metropolitan areas varies widely (Table 3). In several metro areas, including a handful that lie just outside much larger urban centers (e.g., Nassau-Suffolk outside New York and Tacoma outside Seattle), between half and three-quarters of all neighborhoods

have a middle-income profile. These metro areas have above-average proportions of middle-income families, though not far above average.

By the same token, several large metro areas in California and Texas, as well as in the greater New York area, have fewer than one-third of their neighborhoods meeting this designation. Not surprisingly, they have below-average proportions of middleincome families, but families in these metro areas appear to segregate by income across neighborhoods to a much greater degree than in other regions.29



Table 3. Top and Bottom Metro Areas by Middle-Income Share of Neighborhoods, 2000

		Lower-	Middle-	Higher-
Rank	Metro Area	Income	Income	Income
1	Scranton—Wilkes-Barre—Hazleton, PA MSA	13.2	74.2	12.6
2	Nassau-Suffolk, NY PMSA	15.1	64.7	20.2
3	Grand Rapids-Muskegon-Holland, MI MSA	23.7	59.4	17.0
4	Tacoma, WA PMSA	21.9	58.1	20.0
5	Harrisburg-Lebanon-Carlisle, PA MSA	24.6	57.2	18.1
6	Allentown-Bethlehem-Easton, PA MSA	23.9	55.1	21.0
7	Sarasota-Bradenton, FL MSA	22.4	54.5	23.1
8	Greenville-Spartanburg-Anderson, SC MSA	26.7	54.4	18.9
9	Wilmington-Newark, DE-MD PMSA	24.5	54.0	21.6
10	Seattle-Bellevue-Everett, WA PMSA	22.6	53.9	23.5
91	Tucson, AZ MSA	34.9	32.8	32.3
92	Orange County, CA PMSA	30.9	32.7	36.4
93	El Paso, TX MSA	38.9	32.5	28.6
94	Bakersfield, CA MSA	33.6	32.1	34.3
95	Dallas, TX PMSA	39.2	31.3	29.5
96	Newark, NJ PMSA	39.5	30.4	30.2
97	Houston, TX PMSA	39.7	30.0	30.3
98	Memphis, TN-AR-MS MSA	41.8	29.7	28.5
99	New York, NY PMSA	34.5	29.6	35.9
100	Los Angeles-Long Beach, CA PMSA	37.3	28.3	34.4

Note: Low-income neighborhoods have median family incomes under 80 percent of metropolitan area median family income. The range for middle-income neighborhoods is 80 to 120 percent, and 120 percent and above for high-income neighborhoods.

Source: Authors' analysis of GeoLytics Neighborhood Change Database

B. Between 1970 and 2000, lowerincome families became more likely to live in lower-income neighborhoods, and higher-income families in higher-income neighborhoods. Parallel shifts in the distribution of families and neighborhoods by income have wrought significant changes in the typical locations for families at different income levels. In short, it seems that families increasingly sorted into neighborhoods that reflected their own income profiles.

In 1970, more than half of both lower-income and higher-income families lived in a neighborhood that could be described as middle-income (Figure 1). Furthermore, over two-thirds of

middle-income families lived in such locations. By 2000, however, just 37 percent of lower-income families, and 48 percent of middle-income families, inhabited middle-income neighbor-

The pattern in 2000 does point to increasing heterogeneity in some neighborhoods, with increased proportions of lower-income families inhabiting higher-income neighborhoods (15 percent), and higher-income families inhabiting lower-income neighborhoods (12 percent). By and large, however, families at either end of the distribution appeared to occupy more economically homogeneous neighborhoods in 2000 than they did in 1970.

Middle-income families, too, increasingly reside in either lowincome or high-income neighborhoods, but apparently in insufficient quantity to render these places "middle-income" neighborhoods. Why this has occurred, and the likely consequences, should be the subject of future investigation. Whether families are actively seeking out these higherand lower-income neighborhoods, or are merely witnessing their existing neighborhoods change around them, suggest very different implications for policy and thus merit additional research.

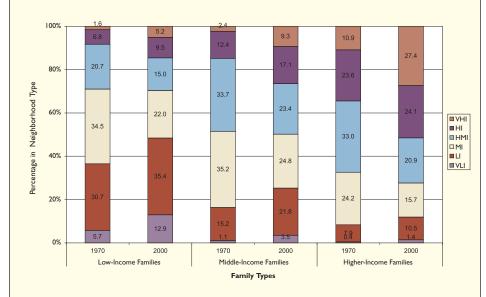
C. The proportion of neighborhoods that were middle-income shrank faster than the proportion of families that were middle-income in each of 12 large metropolitan areas examined.

The aggregate results for the 100 largest metropolitan areas obscure potentially important distinctions in how family and neighborhood incomes changed in individual areas over the three decades. Table 4 shows, for each of the 12 selected metro areas, the incomes that define each of the family and neighborhood types in 2000. Based on the varying median family incomes in these regions, a very-lowincome family (or neighborhood) might have an income (or median income) anywhere from less than \$22,365 in the San Antonio area, to less than \$37,610 in the San Francisco area. (Appendices A and B provide a snapshot of the family and neighborhood income distributions in each of the 100 largest metropolitan areas in 2000.)

At the broadest level, these metropolitan areas followed the national trend. All 12 experienced declines between 1970 and 2000 in the proportion of their families and neighborhoods classified as middle-income. and increases at both the low- and high-income ends of the distribution. Moreover, as was the case nationwide,



Figure 1. Share of Families by Income and Neighborhood Type, 100 Largest Metropolitan Areas, 1970–2000



See text for description of income categories. Source: Authors' analysis of GeoLytics Neighborhood Change Database

each of the 12 areas saw its proportion of neighborhoods that were middleincome fall by a greater amount than the proportion of families that were middle-income.

The magnitude of these shifts, however, varied significantly among the 12 metro areas. Some like San Antonio and Washington experienced relatively muted changes in their family and neighborhood income distributions. In the San Antonio area, the proportion of families with middle incomes dropped by a little over 3 percentage points between 1970 and 2000, and the proportion of similar neighborhoods fell by a little over 8 percentage points (Table 5, top panel). The corresponding figures for all 100 metropolitan areas were 7 and 17 percentage points, respectively.

Los Angeles and Chicago, by contrast, experienced much more dramatic shifts. As a proportion of all families, those with middle incomes fell by 9 percent in Los Angeles from 1970 to 2000, while the middleincome neighborhood share plum-

Table 4. Income Category Thresholds, 12 Selected Large Metropolitan Areas, 2000

Income Category Thresholds, 2000 (\$)

		Income	Category Inresnote	us, 2000 (\$)	
				High	
	Very Low	Low	Moderate	Moderate	High
	Income	Income	Income	Income	Income
Metropolitan Area	(50%)	(80%)	(100%)	(120%)	(150%)
Atlanta, GA MSA	29,657	47,450	59,313	71,176	88,970
Baltimore, MD PMSA	29,662	47,459	59,324	71,189	88,986
Chicago, IL PMSA	30,591	48,946	61,182	73,418	91,773
Denver, CO PMSA	30,593	48,948	61,185	73,422	91,778
Indianapolis, IN MSA	27,596	44,153	55,191	66,229	82,787
Los Angeles-Long Beach, CA PMSA	23,226	37,162	46,452	55,742	69,678
Louisville, KY-IN MSA	24,887	39,819	49,774	59,729	74,661
Oakland, CA PMSA	34,451	55,122	68,902	82,682	103,353
Philadelphia, PA-NJ PMSA	29,198	46,716	58,395	70,074	87,593
San Antonio, TX MSA	22,365	35,783	44,729	53,675	67,094
San Francisco, CA PMSA	37,610	60,175	75,219	90,263	112,829
Washington, DC-MD-VA-WV PMSA	36,124	57,798	72,247	86,696	108,371

Source: Authors' analysis of GeoLytics Neighboorhood Change Database



Table 5. Change in Share of Families and Neighborhoods by Income Type, Selected Large Metro Areas, 1970–2000

Families—Change in Share 1970-2000 (% points)

				High		Very	Addend.	Addend.	Addend.
	Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
100 Largest Metro Areas	3.4	(0.7)	(3.4)	(3.1)	(0.5)	4.5	2.7	(6.5)	4.0
Atlanta, GA MSA	1.7	(0.6)	(1.8)	(2.2)	(1.3)	4.1	1.1	(4.0)	2.9
Baltimore, MD PMSA	3.5	(1.1)	(3.1)	(2.7)	(1.5)	4.8	2.4	(5.8)	3.3
Chicago, IL PMSA	4.4	(1.2)	(4.6)	(3.5)	1.2	3.6	3.2	(8.1)	4.8
Denver, CO PMSA	2.2	(0.5)	(2.8)	(2.6)	(0.9)	4.6	1.6	(5.3)	3.7
Indianapolis, IN MSA	3.3	(0.6)	(3.9)	(3.3)	(0.8)	5.2	2.8	(7.2)	4.5
Los Angeles-Long Beach, CA PMSA	5.4	(2.0)	(4.3)	(4.4)	(1.9)	7.2	3.4	(8.7)	5.3
Louisville, KY-IN MSA	3.7	(0.3)	(3.4)	(3.5)	(2.6)	6.1	3.5	(6.9)	3.4
Oakland, CA PMSA	3.2	(1.5)	(4.6)	(3.8)	1.8	4.7	1.8	(8.3)	6.5
Philadelphia, PA-NJ PMSA	5.0	(1.6)	(4.4)	(3.3)	(1.0)	5.3	3.4	(7.7)	4.3
San Antonio, TX MSA	1.9	(0.2)	(1.8)	(1.6)	(1.6)	3.2	1.7	(3.4)	1.7
San Francisco, CA PMSA	4.1	(0.3)	(3.0)	(4.0)	0.4	2.7	3.8	(7.0)	3.2
Washington, DC-MD-VA-WV PMSA	3.0	(1.8)	(1.8)	(1.6)	1.8	0.5	1.2	(3.4)	2.2

Neighborhoods—Change in Share 1970-2000 (% points)

			- teignoorne	High	,0 111 011110 1	Very	Addend.	Addend.	Addend.
	Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
100 Largest Metro Areas	4.7	3.2	(9.2)	(8.2)	2.5	7.0	7.8	(17.4)	9.5
Atlanta, GA MSA	(2.1)	3.7	(2.3)	(9.0)	3.4	6.4	1.5	(11.3)	9.8
Baltimore, MD PMSA	8.2	8.4	(7.5)	(15.8)	3.0	3.7	16.6	(23.2)	6.6
Chicago, IL PMSA	7.2	1.0	(13.0)	(7.8)	4.2	8.4	8.1	(20.7)	12.6
Denver, CO PMSA	2.0	7.6	(11.5)	(5.0)	0.3	6.7	9.5	(16.5)	7.0
Indianapolis, IN MSA	5.4	8.6	(17.2)	(3.3)	1.9	4.5	14.0	(20.5)	6.4
Los Angeles-Long Beach, CA PMSA	5.2	4.7	(12.2)	(11.4)	0.5	13.2	9.9	(23.6)	13.7
Louisville, KY-IN MSA	(1.0)	3.6	(3.5)	(5.2)	1.5	4.6	2.6	(8.7)	6.1
Oakland, CA PMSA	7.5	(5.1)	(5.7)	(7.9)	(1.1)	12.2	2.5	(13.6)	11.1
Philadelphia, PA-NJ PMSA	8.4	3.9	(13.6)	(9.3)	4.3	6.4	12.3	(22.9)	10.6
San Antonio, TX MSA	2.3	7.9	(10.7)	2.4	(3.2)	1.3	10.2	(8.4)	(1.9)
San Francisco, CA PMSA	4.2	3.8	(6.5)	(8.3)	(2.4)	9.2	8.0	(14.8)	6.8
Washington, DC-MD-VA-WV PMSA	4.3	2.5	(7.3)	(2.5)	(3.3)	6.4	6.7	(9.8)	3.1

See text for description of income categories

Source: Authors' analysis of GeoLytics Neighborhood Change Database

meted 24 percentage points. In the Los Angeles area today, 28 percent of neighborhoods are either moderate- or high-moderate-income by our classification, compared to 41 percent across the 100 largest metro areas.

Changes in the income profile of

families and neighborhoods in a particular metropolitan area do not necessarily indicate that the area itself has grown richer or poorer compared to others. The income classes employed here define families and neighborhoods relative to each area's median

family income. As poverty in the Los Angeles area increased over the past three decades, for instance, the median income baseline against which its families and neighborhoods were measured grew more slowly than in other parts of the nation.30 The varying



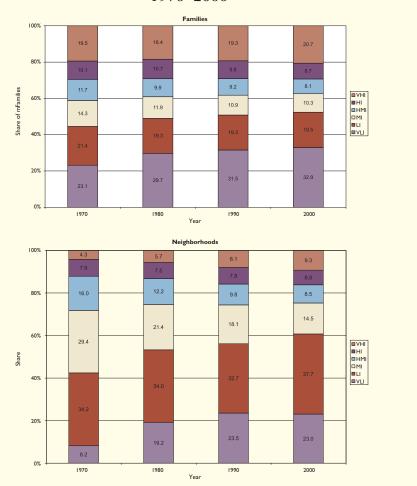
degree to which middle-income families and neighborhoods "disappeared" in these 12 metros thus reflects their differing rates of family income polarization, and changes in income segregation across their neighborhoods.

The variation in family and neighborhood income shifts at the metropolitan level extends beyond the middle-income category. By definition, the shares of neighborhoods in each part of the classification must total to 100 percent, so that as the share in the middle falls, the share of either lower- or higher-income neighborhoods, or both, must rise. In different metropolitan areas, very different types of neighborhoods increased in proportion as the middle-income categories declined.

In Los Angeles, for instance, the 24 percentage-point decline in the share of neighborhoods with middle incomes over the 1970 to 2000 period accompanied a 14 percentage-point rise in the share with higher (HI and VHI) incomes (Table 5, bottom panel). A similar middle-income neighborhood drop-off in Baltimore, however, yielded a 17 percentage-point rise in the share of neighborhoods with lower (VLI and LI) incomes. Among areas with more modest middle-income declines, the Oakland and Atlanta areas clearly shifted toward upper-income neighborhoods, while the San Antonio and Indianapolis areas acquired more lower-income neighborhoods.

Moreover, there was a strong relationship between the emergence of higher-income families and higher-income neighborhoods in these 12 metropolitan areas. Areas that saw significant increases in the proportions of families with high and very high incomes—Oakland, Chicago, and Los Angeles—had the largest increases in neighborhoods of that type.<sup>31</sup> The opposite held true in San Antonio and Washington, which had only small increases in the shares of their families with high incomes. These trends suggest that in areas where income

Figure 2. Share of Families and Neighborhoods by Income Category, Central Cities of 12 Large Metropolitan Areas, 1970–2000



See text for description of income categories. Source: Authors' analysis of GeoLytics Neighborhood Change Database

polarization produced relatively more families with high incomes, there were greater proportional increases in neighborhood-level income segregation. Thus, it may be that rapid growth in family incomes at the top of the income distribution produced greater sorting of higher-income families into higher-income neighborhoods.<sup>32</sup>

D. Only 23 percent of central-city neighborhoods in the 12 large metropolitan areas had a middle-income profile in 2000, down from 45 percent in 1970.

Though our sample of 12 metropolitan areas provides a more detailed look at particular places, metropolitan-level analysis may nonetheless obscure important income dynamics that separate central cities from their surrounding suburbs, especially in large regions like those examined here. Moreover, the distribution of neighborhoods and families by income may have undergone quite different changes in the context of population losses affecting several of these cities over the 1970-to-2000 period.

The central cities in our 12-metro-



Table 6. Change in Share of Families and Neighborhoods by Income Type, Central Cities of 12 Large Metropolitan Areas, 1970–2000

Families—Change in Share 1970-2000 (% points)

			High		Very	Addend.	Addend.	Addend.
Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Income	Income	Income	Income	Income	Income	Income	Income	Income
11.9	(6.0)	(4.6)	(4.1)	(3.0)	5.7	5.9	(8.7)	2.8
16.8	(1.3)	(4.0)	(4.2)	(3.7)	(3.6)	15.5	(8.2)	(7.3)
12.1	(2.2)	(4.9)	(3.9)	(0.3)	(0.8)	9.9	(8.8)	(1.1)
7.7	(1.0)	(2.5)	(2.6)	(2.0)	0.4	6.7	(5.0)	(1.6)
7.5	1.1	(3.3)	(3.3)	(1.8)	(0.3)	8.7	(6.6)	(2.1)
8.2	(1.2)	(3.4)	(3.8)	(2.3)	2.5	7.0	(7.2)	0.2
9.5	(1.9)	(3.7)	(3.3)	(3.6)	3.0	7.6	(7.0)	(0.6)
13.1	(4.0)	(4.5)	(3.5)	0.1	(1.1)	9.1	(8.0)	(1.1)
16.4	(0.8)	(4.7)	(4.1)	(2.9)	(3.8)	15.6	(8.9)	(6.7)
4.6	0.8	(2.0)	(2.2)	(2.5)	1.3	5.4	(4.2)	(1.2)
5.1	(2.1)	(3.2)	(3.5)	0.8	2.9	2.9	(6.7)	3.8
10.3	(6.4)	(4.1)	(2.9)	0.9	2.2	3.8	(7.0)	3.1
	Income 11.9 16.8 12.1 7.7 7.5 8.2 9.5 13.1 16.4 4.6 5.1	Income         Income           11.9         (6.0)           16.8         (1.3)           12.1         (2.2)           7.7         (1.0)           7.5         1.1           8.2         (1.2)           9.5         (1.9)           13.1         (4.0)           16.4         (0.8)           4.6         0.8           5.1         (2.1)	Income         Income           11.9         (6.0)         (4.6)           16.8         (1.3)         (4.0)           12.1         (2.2)         (4.9)           7.7         (1.0)         (2.5)           7.5         1.1         (3.3)           8.2         (1.2)         (3.4)           9.5         (1.9)         (3.7)           13.1         (4.0)         (4.5)           16.4         (0.8)         (4.7)           4.6         0.8         (2.0)           5.1         (2.1)         (3.2)	Very Low         Low         Moderate         Moderate           Income         Income         Income         Income           11.9         (6.0)         (4.6)         (4.1)           16.8         (1.3)         (4.0)         (4.2)           12.1         (2.2)         (4.9)         (3.9)           7.7         (1.0)         (2.5)         (2.6)           7.5         1.1         (3.3)         (3.3)           8.2         (1.2)         (3.4)         (3.8)           9.5         (1.9)         (3.7)         (3.3)           13.1         (4.0)         (4.5)         (3.5)           16.4         (0.8)         (4.7)         (4.1)           4.6         0.8         (2.0)         (2.2)           5.1         (2.1)         (3.2)         (3.5)	Very Low Income         Low Income         Moderate Income         Moderate Income         High Income           11.9         (6.0)         (4.6)         (4.1)         (3.0)           16.8         (1.3)         (4.0)         (4.2)         (3.7)           12.1         (2.2)         (4.9)         (3.9)         (0.3)           7.7         (1.0)         (2.5)         (2.6)         (2.0)           7.5         1.1         (3.3)         (3.3)         (1.8)           8.2         (1.2)         (3.4)         (3.8)         (2.3)           9.5         (1.9)         (3.7)         (3.3)         (3.6)           13.1         (4.0)         (4.5)         (3.5)         0.1           16.4         (0.8)         (4.7)         (4.1)         (2.9)           4.6         0.8         (2.0)         (2.2)         (2.5)           5.1         (2.1)         (3.2)         (3.5)         0.8	Very Low Income         Low Income         Moderate Income         Moderate Income         High Income         High Income           11.9         (6.0)         (4.6)         (4.1)         (3.0)         5.7           16.8         (1.3)         (4.0)         (4.2)         (3.7)         (3.6)           12.1         (2.2)         (4.9)         (3.9)         (0.3)         (0.8)           7.7         (1.0)         (2.5)         (2.6)         (2.0)         0.4           7.5         1.1         (3.3)         (3.3)         (1.8)         (0.3)           8.2         (1.2)         (3.4)         (3.8)         (2.3)         2.5           9.5         (1.9)         (3.7)         (3.3)         (3.6)         3.0           13.1         (4.0)         (4.5)         (3.5)         0.1         (1.1)           16.4         (0.8)         (4.7)         (4.1)         (2.9)         (3.8)           4.6         0.8         (2.0)         (2.2)         (2.5)         1.3           5.1         (2.1)         (3.2)         (3.5)         0.8         2.9	Very Low         Low         Moderate Income         Moderate Income         High Income         High Income         Lower Income           11.9         (6.0)         (4.6)         (4.1)         (3.0)         5.7         5.9           16.8         (1.3)         (4.0)         (4.2)         (3.7)         (3.6)         15.5           12.1         (2.2)         (4.9)         (3.9)         (0.3)         (0.8)         9.9           7.7         (1.0)         (2.5)         (2.6)         (2.0)         0.4         6.7           7.5         1.1         (3.3)         (3.3)         (1.8)         (0.3)         8.7           8.2         (1.2)         (3.4)         (3.8)         (2.3)         2.5         7.0           9.5         (1.9)         (3.7)         (3.3)         (3.6)         3.0         7.6           13.1         (4.0)         (4.5)         (3.5)         0.1         (1.1)         9.1           16.4         (0.8)         (4.7)         (4.1)         (2.9)         (3.8)         15.6           4.6         0.8         (2.0)         (2.2)         (2.5)         1.3         5.4           5.1         (2.1)         (3.2) <td>Very Low         Low         Moderate Income         Moderate Income         High Income         High Income         Lower Income         Middle Income           11.9         (6.0)         (4.6)         (4.1)         (3.0)         5.7         5.9         (8.7)           16.8         (1.3)         (4.0)         (4.2)         (3.7)         (3.6)         15.5         (8.2)           12.1         (2.2)         (4.9)         (3.9)         (0.3)         (0.8)         9.9         (8.8)           7.7         (1.0)         (2.5)         (2.6)         (2.0)         0.4         6.7         (5.0)           7.5         1.1         (3.3)         (3.3)         (1.8)         (0.3)         8.7         (6.6)           8.2         (1.2)         (3.4)         (3.8)         (2.3)         2.5         7.0         (7.2)           9.5         (1.9)         (3.7)         (3.3)         (3.6)         3.0         7.6         (7.0)           13.1         (4.0)         (4.5)         (3.5)         0.1         (1.1)         9.1         (8.0)           16.4         (0.8)         (4.7)         (4.1)         (2.9)         (3.8)         15.6         (8.9)      <tr< td=""></tr<></td>	Very Low         Low         Moderate Income         Moderate Income         High Income         High Income         Lower Income         Middle Income           11.9         (6.0)         (4.6)         (4.1)         (3.0)         5.7         5.9         (8.7)           16.8         (1.3)         (4.0)         (4.2)         (3.7)         (3.6)         15.5         (8.2)           12.1         (2.2)         (4.9)         (3.9)         (0.3)         (0.8)         9.9         (8.8)           7.7         (1.0)         (2.5)         (2.6)         (2.0)         0.4         6.7         (5.0)           7.5         1.1         (3.3)         (3.3)         (1.8)         (0.3)         8.7         (6.6)           8.2         (1.2)         (3.4)         (3.8)         (2.3)         2.5         7.0         (7.2)           9.5         (1.9)         (3.7)         (3.3)         (3.6)         3.0         7.6         (7.0)           13.1         (4.0)         (4.5)         (3.5)         0.1         (1.1)         9.1         (8.0)           16.4         (0.8)         (4.7)         (4.1)         (2.9)         (3.8)         15.6         (8.9) <tr< td=""></tr<>

Neighborhoods—Change in Share 1970-2000 (% points)

				High		Very	Addend.	Addend.	Addend.
	Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
Atlanta	22.5	(14.0)	(12.6)	(3.5)	(1.7)	9.3	8.5	(16.1)	7.6
Baltimore	26.1	10.4	(23.8)	(12.2)	(1.5)	1.0	36.4	(36.0)	(0.5)
Chicago	17.6	3.8	(20.6)	(8.7)	2.3	5.6	21.4	(29.3)	7.9
Denver	6.6	5.9	(6.5)	1.2	(6.4)	(1.0)	12.5	(5.2)	(7.3)
Indianapolis	9.5	8.4	(11.5)	(6.7)	(3.1)	3.3	17.9	(18.1)	0.2
Los Angeles	11.1	4.9	(10.9)	(9.5)	(2.1)	6.6	15.9	(20.4)	4.5
Louisville	5.4	9.6	(16.0)	2.1	(5.6)	4.6	14.9	(14.0)	(1.0)
Oakland	29.3	(18.1)	(11.0)	(3.0)	(5.0)	7.8	11.2	(14.0)	2.8
Philadelphia	24.4	8.1	(19.1)	(12.0)	(2.6)	1.1	32.5	(31.1)	(1.4)
San Antonio	3.4	13.7	(9.4)	(3.5)	(3.4)	(0.8)	17.1	(12.9)	(4.2)
San Francisco	7.6	(1.1)	(10.7)	(5.6)	1.0	8.9	6.4	(16.3)	9.9
Washington, D.C.	18.9	(14.5)	(5.2)	(4.6)	(1.5)	6.8	4.4	(9.8)	5.4

See text for description of income categories

Source: Authors' analysis of GeoLytics Neighborhood Change Database

area sample lost families in the aggregate over the three-decade study period. In 1970 they were home to 3.3 million families, 41 percent of their metropolitan total. By 2000 only 3.0 million families lived there, just 27 percent of all metropolitan families. Only Indianapolis, Los Angeles, and San Antonio managed to gain families over this period.33

Consistent with the metropolitan-

level trend, the 12 cities saw their shares of families with both very high and very low incomes increase, though by different magnitudes (Figure 2, top panel).34 The share of families with incomes at least 50 percent higher than the metropolitan median (VHI families) increased by a little over 1 percentage point. Meanwhile, the share with incomes at least 50 percent below the metropolitan median (VLI

families) jumped nearly 10 percentage points.

The slight rise in the proportion of very-high-income families in these cities may be interpreted by many as a positive sign. However, the much sharper increase in the proportion of families with very low incomes, and an 8-percentage point decline in middleincome families, somewhat overshadow that good news. By 2000, only



18 percent of families in these central cities had a middle-income profile.

Every one of the 12 cities experienced a drop in the share of its families with middle incomes, and a rise—often dramatic—in the share with very low incomes (Table 6, top panel). Family incomes polarized considerably in Atlanta and, to a somewhat lesser degree, Washington and Los Angeles. In Philadelphia and Baltimore, by contrast, rapid growth in the share (and number) of families with very low incomes accompanied steep declines in the share of families throughout the rest of the income distribution.35 San Antonio, the only one of the 12 cities to have experienced an absolute increase in middle-income families, nonetheless saw the share of its families in the middle decline. albeit by a smaller amount than other cities.

How did these family income trends change the neighborhood income map in central cities? Thirty-five years ago, 45 percent of neighborhoods in these 12 cities could be classified as middleincome (Figure 2, bottom panel). Although central-city neighborhoods in 1970 were not equally represented in all six income categories (VHI neighborhoods were only 4 percent and VLI neighborhoods 8 percent of the total), most neighborhoods had median incomes not too dissimilar from the metropolitan median.

By 2000, this portrait of city neighborhoods had changed dramatically. First, the share of neighborhoods with a middle-income profile (MI and HMI) dropped by a stunning 22 percentage points, to 23 percent overall. This outpaced the 17-percentage-point drop in these neighborhoods that occurred across the 100 largest metro areas. The narrowing of the middleincome share was most rapid in the 1970s, when city populations dropped rapidly, but the middle-income decline occurred to some degree in each decade. Second, very-high-income neighborhoods more than doubled as a

proportion of all neighborhoods in these cities, from 4 percent to 9 percent. Here, the largest uptick occurred during the 1980s. Third, very-lowincome neighborhoods greatly expanded their share, by 15 percentage points over the 30-year period. Notably, their proportion did not increase in the 1990s; instead, LI neighborhoods-between 50 and 80 percent of the metropolitan median increased in share by 5 percentage

These results reinforce other research finding a decline in concentrated poverty in the 1990s in major American cities.<sup>36</sup> In neighborhoods of extreme poverty, defined variously as those in which at least 30 percent or 40 percent of residents live in families with incomes below the poverty threshold, median family incomes are typically very low, often less than \$20,000. This places most of these neighborhoods well below the VLI threshold for the 12 cities, which generally exceeds \$25,000. Thus, in cities like Chicago, the proportion of neighborhoods with very low median incomes continued to rise in the 1990s even as neighborhoods of extreme poverty receded.

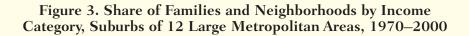
Within particular cities, changes in neighborhood incomes again amplified shifts in family incomes, most notably at the bottom and middle of the distribution (Table 6, bottom panel). Among the 12 cities, Baltimore experienced by far the steepest decline in middleincome neighborhoods, as their share of total city neighborhoods plummeted by 36 percentage points over the three-decade period. This magnified by many times the 8 percentage-point drop in the share of Baltimore families with middle incomes during that period. The largest increase in VLI neighborhoods occurred in Oakland, even though its share of families in that category rose less rapidly than that in Baltimore and Philadelphia. At the other end of the spectrum, Oakland, Philadelphia, Chicago, and Indianapolis all experienced declines in the share of their families in the highest-income category, and yet each saw their proportion of VHI neighborhoods rise. Finally, it bears noting that Atlanta, Oakland, and Washington also saw the proportion their neighborhoods with low incomes (LI) decline, suggesting that the gulf between their very low-income neighborhoods and the rest of the city may have widened.

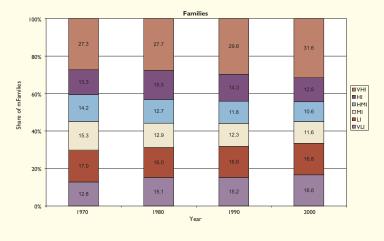
Overall, middle-income families constitute a declining proportion of families in each of the 12 cities, and neighborhoods with a similar income profile have disappeared even faster. For the most part, families and neighborhoods nearer to the bottom of the income distribution have taken their place, though several cities have seen a notable rise in higher-income neighborhoods as well. These trends raise concerns as to what sorts of neighborhood environments are accessible to less affluent families in cities, and the extent to which broader city revival in the 1990s benefited these residents and their communities.

E. A much larger proportion—44 percent—of suburban neighborhoods in the 12 metropolitan areas had a middle-income profile in 2000. Conventional wisdom holds that middle-income families fled the cities for the suburbs over the past several decades. As shown in Finding B, however, middle-income families declined as a share of population throughout large metropolitan areas from 1970 to 2000, following broader national trends that produced greater polarization in the income distribution.

Thus, it comes as no surprise that the suburbs of the 12 metropolitan areas also saw the share of their families who have middle incomes shrink over the last three decades (Figure 3, top panel). They constituted roughly 30 percent of all families in 1970, but just 22 percent in 2000. This exceeds their 18 percent share in central cities, though not by a tremendous degree.











Source: Authors' analysis of GeoLytics Neighborhood Change Database

The difference between the neighborhood profiles of cities and suburbs is far more dramatic. A plurality—44 percent—of suburban neighborhoods were classified as middle-income in 2000, compared to just 23 percent of central-city neighborhoods. In suburbs, these neighborhoods split relatively evenly between those with median incomes above (HMI) and below (MI) the metropolitan median, in contrast to central cities, where MI neighborhoods well outnumbered HMI neighborhoods (Figure 2, bottom panel).

Consistent with the decline in their share of families with middle incomes,

suburbs also witnessed a drop in the prevalence of middle-income neighborhoods over the 1970-to-2000 period (Figure 3, bottom panel). Here, too, a 20 percentage-point slide (from 64 percent in 1970) in middle-income neighborhood share outpaced the 8 percentage-point drop in the share of comparable families living in suburbs. Suburban families thus appeared to segregate by income to a greater degree than implied by the change in the distribution of income alone. Unlike in central cities, however, that increased segregation took place in the context of population gains; the total

number of families in the suburbs of these 12 metro areas increased by 3.3 million over this period, compared to a 300,000-family decline in their central cities.37

Another factor distinguishes the long-term middle-income neighborhood decline in suburbs from that in cities. In the central cities of the 12 metro areas examined, low-income neighborhoods replaced middleincome neighborhoods in large measure over the 30-year period. In suburbs, neighborhoods at both ends of the income spectrum grew in share. Specifically, as the proportion of suburban neighborhoods with middle incomes shrank from 1970 to 2000, the proportion with either low or very high incomes increased. A relatively small number of very low-income (VLI) neighborhood existed in the 12 metro-area suburbs in 2000, though that proportion was up from 1970. Over one-third of suburban neighborhoods in 2000 were higher-income, versus one-fifth that were lowerincome. Thus, while the income profile of city neighborhoods gradually tilted towards the lower end, the profile of suburban neighborhoods polarized but remained tilted towards the higher end.

Though suburban middle-income neighborhoods have waned, they remain much more prevalent as a share of all neighborhoods (44 percent) than in central cities (23 percent) of these 12 metro areas. An important implication is that lowerincome families seem to enjoy greater access to middle-income neighborhoods in suburbs than in cities. In cities, lower-income (VLI and LI) families made up 52 percent of all families in 2000 (Figure 2, top panel), but 60 percent of all neighborhoods were lower-income (Figure 2, bottom panel). Suburbs of these 12 metro areas inverted this trend, with lowerincome families comprising a greater share (33 percent; Figure 3, top panel) of all families than lower-income



Table 7. Change in Share of Families and Neighborhoods by Income Type, Suburbs of 12 Large Metropolitan Areas, 1970–2000

Families—Change in Share 1970–2000 (% points)

Very Low Income	Low Income	Moderate	High Moderate	High	Very	Addend.	Addend.	Addend.
Income		Moderate	Moderate	High	III:l.			~~. 7
	Income			riigii	High	Lower	Middle	Higher
		Income	Income	Income	Income	Income	Income	Income
5.5	1.3	(2.1)	(3.3)	(2.8)	1.4	6.9	(5.4)	(1.4)
3.4	0.6	(3.0)	(3.0)	(2.1)	4.1	4.1	(6.1)	2.0
4.3	1.2	(4.6)	(4.2)	0.9	2.4	5.5	(8.8)	3.3
2.8	0.8	(3.3)	(3.4)	(1.5)	4.6	3.6	(6.7)	3.1
0.7	(1.9)	(5.0)	(3.8)	(0.3)	10.4	(1.2)	(8.8)	10.0
4.0	(2.5)	(4.9)	(4.8)	(1.8)	9.9	1.5	(9.7)	8.1
5.4	1.5	(3.7)	(4.6)	(3.6)	4.9	6.9	(8.2)	1.3
2.4	(0.6)	(4.8)	(4.1)	1.8	5.2	1.8	(8.9)	7.1
2.7	(0.9)	(4.3)	(3.3)	(0.9)	6.8	1.7	(7.6)	5.9
(2.9)	(1.5)	(0.1)	1.0	1.2	2.4	(4.4)	0.9	3.5
5.0	1.6	(3.0)	(4.6)	(0.3)	1.2	6.6	(7.6)	1.0
5.0	(0.4)	(1.9)	(2.0)	0.9	(1.7)	4.6	(3.9)	(0.7)
	4.3 2.8 0.7 4.0 5.4 2.4 2.7 (2.9) 5.0	3.4 0.6 4.3 1.2 2.8 0.8 0.7 (1.9) 4.0 (2.5) 5.4 1.5 2.4 (0.6) 2.7 (0.9) (2.9) (1.5) 5.0 1.6	3.4 0.6 (3.0) 4.3 1.2 (4.6) 2.8 0.8 (3.3) 0.7 (1.9) (5.0) 4.0 (2.5) (4.9) 5.4 1.5 (3.7) 2.4 (0.6) (4.8) 2.7 (0.9) (4.3) (2.9) (1.5) (0.1) 5.0 1.6 (3.0)	3.4       0.6       (3.0)       (3.0)         4.3       1.2       (4.6)       (4.2)         2.8       0.8       (3.3)       (3.4)         0.7       (1.9)       (5.0)       (3.8)         4.0       (2.5)       (4.9)       (4.8)         5.4       1.5       (3.7)       (4.6)         2.4       (0.6)       (4.8)       (4.1)         2.7       (0.9)       (4.3)       (3.3)         (2.9)       (1.5)       (0.1)       1.0         5.0       1.6       (3.0)       (4.6)	3.4       0.6       (3.0)       (3.0)       (2.1)         4.3       1.2       (4.6)       (4.2)       0.9         2.8       0.8       (3.3)       (3.4)       (1.5)         0.7       (1.9)       (5.0)       (3.8)       (0.3)         4.0       (2.5)       (4.9)       (4.8)       (1.8)         5.4       1.5       (3.7)       (4.6)       (3.6)         2.4       (0.6)       (4.8)       (4.1)       1.8         2.7       (0.9)       (4.3)       (3.3)       (0.9)         (2.9)       (1.5)       (0.1)       1.0       1.2         5.0       1.6       (3.0)       (4.6)       (0.3)	3.4       0.6       (3.0)       (3.0)       (2.1)       4.1         4.3       1.2       (4.6)       (4.2)       0.9       2.4         2.8       0.8       (3.3)       (3.4)       (1.5)       4.6         0.7       (1.9)       (5.0)       (3.8)       (0.3)       10.4         4.0       (2.5)       (4.9)       (4.8)       (1.8)       9.9         5.4       1.5       (3.7)       (4.6)       (3.6)       4.9         2.4       (0.6)       (4.8)       (4.1)       1.8       5.2         2.7       (0.9)       (4.3)       (3.3)       (0.9)       6.8         (2.9)       (1.5)       (0.1)       1.0       1.2       2.4         5.0       1.6       (3.0)       (4.6)       (0.3)       1.2	3.4       0.6       (3.0)       (3.0)       (2.1)       4.1       4.1         4.3       1.2       (4.6)       (4.2)       0.9       2.4       5.5         2.8       0.8       (3.3)       (3.4)       (1.5)       4.6       3.6         0.7       (1.9)       (5.0)       (3.8)       (0.3)       10.4       (1.2)         4.0       (2.5)       (4.9)       (4.8)       (1.8)       9.9       1.5         5.4       1.5       (3.7)       (4.6)       (3.6)       4.9       6.9         2.4       (0.6)       (4.8)       (4.1)       1.8       5.2       1.8         2.7       (0.9)       (4.3)       (3.3)       (0.9)       6.8       1.7         (2.9)       (1.5)       (0.1)       1.0       1.2       2.4       (4.4)         5.0       1.6       (3.0)       (4.6)       (0.3)       1.2       6.6	3.4       0.6       (3.0)       (3.0)       (2.1)       4.1       4.1       (6.1)         4.3       1.2       (4.6)       (4.2)       0.9       2.4       5.5       (8.8)         2.8       0.8       (3.3)       (3.4)       (1.5)       4.6       3.6       (6.7)         0.7       (1.9)       (5.0)       (3.8)       (0.3)       10.4       (1.2)       (8.8)         4.0       (2.5)       (4.9)       (4.8)       (1.8)       9.9       1.5       (9.7)         5.4       1.5       (3.7)       (4.6)       (3.6)       4.9       6.9       (8.2)         2.4       (0.6)       (4.8)       (4.1)       1.8       5.2       1.8       (8.9)         2.7       (0.9)       (4.3)       (3.3)       (0.9)       6.8       1.7       (7.6)         (2.9)       (1.5)       (0.1)       1.0       1.2       2.4       (4.4)       0.9         5.0       1.6       (3.0)       (4.6)       (0.3)       1.2       6.6       (7.6)

Neighborhoods—Change in Share 1970–2000 (% points)

				High		Very	Addend.	Addend.	Addend.
	Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
Atlanta, GA MSA	2.8	17.4	(6.9)	(21.3)	3.4	4.6	20.1	(28.2)	8.0
Baltimore, MD PMSA	0.7	10.1	1.2	(20.2)	3.5	4.6	10.9	(19.0)	8.1
Chicago, IL PMSA	1.6	8.3	(4.0)	(14.5)	(0.3)	8.8	9.9	(18.4)	8.5
Denver, CO PMSA	1.3	12.7	(14.7)	(10.3)	0.8	10.1	14.0	(25.0)	10.9
Indianapolis, IN MSA	0.7	14.6	(30.8)	(1.4)	10.4	6.5	15.3	(32.2)	16.9
Los Angeles-Long Beach, CA PMSA	1.7	5.9	(13.8)	(13.8)	2.1	18.0	7.6	(27.6)	20.1
Louisville, KY-IN MSA	0.6	12.2	1.6	(19.6)	2.4	2.8	12.8	(18.0)	5.3
Oakland, CA PMSA	2.2	0.6	(4.9)	(10.7)	(0.6)	13.3	2.8	(15.6)	12.7
Philadelphia, PA-NJ PMSA	2.9	3.5	(11.5)	(9.0)	6.2	7.9	6.4	(20.5)	14.2
San Antonio, TX MSA	0.0	(1.4)	(16.5)	16.5	(3.6)	5.1	(1.4)	0.0	1.4
San Francisco, CA PMSA	1.4	7.5	(3.3)	(10.3)	(4.8)	9.5	8.9	(13.6)	4.7
Washington, DC-MD-VA-WV PMSA	2.4	8.5	(9.2)	(3.4)	(4.6)	6.3	10.9	(12.5)	1.7

See text for description of income categories

Source: Authors' analysis of GeoLytics Neighborhood Change Database

neighborhoods comprise of all neighborhoods (21 percent; Figure 3, bottom panel). Notwithstanding the current pattern, 30-year trends clearly point to the emergence of more lowerincome communities within suburban America.38

Though the absolute number of middle-income families increased in nine of the 12 suburban areas studied (Los Angeles, Philadelphia, and San

Francisco were the exceptions), the share of families with middle incomes decreased in all but San Antonio's suburbs from 1970 to 2000 (Table 7, top panel). The 12 metro areas split fairly evenly, however, in the nature of their suburban family income shifts. Six (Atlanta, Baltimore, Chicago, Denver, Louisville, San Francisco, and Washington) experienced a more significant uptick in lower-income families, while

the remaining suburban areas shifted towards higher-income families. This mixed picture contrasts significantly with that in the central cities, where all but one (San Francisco) saw family incomes trend downward. The largest suburban increases in lower-income families occurred in the Atlanta and San Francisco metro areas, while the largest suburban increases in higherincome families took place in the Indi-



anapolis and Los Angeles metro areas.

Neighborhood trends at the suburban metropolitan level show that the largest share declines of middle income neighborhoods (MI & HMI) occurred in suburban Indianapolis, Los Angeles and Atlanta. These neighborhoods were offset by growth in the shares of: LI neighborhoods in Atlanta, LI and HI in Indianapolis, and VHI in Los Angeles. Another difference among the suburban areas of our 12 metropolitan areas is that middle-income neighborhoods in Atlanta and Indianapolis actually increased in total numbers but declined in share because they were surpassed by growth of other neighborhood income categories. Los Angeles was one of very few metropolitan areas that actually experienced numerical declines in suburban middle-income neighborhoods between 1970 and 2000.

Though the 12 metropolitan suburbs studied here retain far more middle-income neighborhoods than their central cities, the trends in each area type are moving in the same direction. In suburbs as well as in cities, the decline in middle-income neighborhoods far outpaced the decline in middle-income families from 1970 to 2000. Metropolitan suburbs clearly exhibit more income diversity today than 35 years ago, and middle-income neighborhoods no longer constitute the majority of all neighborhoods. Yet these suburbs display the same concerning trend as cities, with their families dividing economically among neighborhoods even faster than they are dividing by income.

#### Conclusion

he consistent trend evident across the 100 largest metropolitan areas and selected central cities and suburbs is one of a shrinking proportion of families with middle incomes, and an even faster decline in neighborhoods with

middle-income character.

This decline in middle-income neighborhoods raises significant challenges for policy towards lower-income people and places. For instance, programs like Moving To Opportunity (MTO) and similar rental subsidy programs aim to aid poor families by helping them move to more economically viable and diverse areas. Increased economic inequality among neighborhoods, and shrinking numbers of middle-income communities, may reduce the number of areas to which these families could potentially relocate. Upper-income areas where homeowners predominate, while perhaps desirable destinations, might not provide, and may resist more strongly, low-cost rental units in which these families could live.

More broadly, the polarization associated with the decline of middle-class neighborhoods is likely to create greater disparities across jurisdictional boundaries that could ultimately create greater political conflict and competition for scarce resources. As this report demonstrates, such disparities are relevant not just to central cities, but to their surrounding first suburbs, which house an increasing proportion of the nation's low-income population.39 Such polarization may also frustrate efforts to attract private-sector investment to a broad array of neighborhoods, if high-income consumers increasingly occupy only the well-off corners of metropolitan areas.

To respond effectively to these challenges, we must better understand why it is that middle-income neighborhoods are vanishing faster than middleincome families. Increasingly, middleincome families do not reside in either homogeneous, middle-class settlements or in diverse neighborhoods with both low- and high-income neighbors equally represented. Instead, they seem to reside in communities with disproportionate numbers of either low-income or high-income families. As hypotheses to guide future

research, we would posit that a combination of forces has contributed to this outcome, including:

- Fewer new developments (either suburban subdivisions or core redevelopment areas) are designed for a homogeneous clientele of middle-income families;
- Gentrification has converted many formerly middle-income urban core neighborhoods into higherincome neighborhoods;
- Lower-income families have moved into economically declining, formerly homogeneous, middle-income neighborhoods in both central cities and suburbs; and
- High-income families have vacated formerly middle-income but highly diverse neighborhoods, and moved to more homogeneously high-income areas (perhaps communities protected by gates or exclusionary zoning).

Policy recommendations must await a more definitive diagnosis of the causes of the disappearing middleincome neighborhood. For example, if the construction of homogeneous, high-income developments or exclusionary zoning contributed to this polarization, policies to mandate inclusionary zoning might provide an appropriate response. On the other hand, gentrification pressures might call for strategies to preserve neighborhood affordability for middle- and lowerincome families. The in-migration of low-income households into vulnerable middle-income neighborhoods would likely prove even more challenging for policymakers to tackle. Inevitably, local market dynamics shape the specific factors associated with middle-income neighborhood decline in different cities and metropolitan areas. The detailed sources and social significance of these transitions thus represent crucial topics for future exploration.



Appendix A: Share of Families by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share)

	· ·	Very Low	Low	Moderate	High Moderate	High	Very High	Addend. Lower		Addend. Higher
	Metropolitan Area	•	Income	Income	Income	Income	Income	Income	Income	-
1	Minneapolis-St. Paul, MN-WI MSA	16.9	18.8	13.9	12.5	14.4	23.5	35.7	26.4	37.9
2	Grand Rapids-Muskegon-Holland, MI MSA	17.6	18.8	13.2	12.1	13.8	24.6	36.4	25.2	38.3
3	Salt Lake City-Ogden, UT MSA	16.4	19.8	13.4	11.7	13.1	25.6	36.2	25.1	38.7
4	Seattle-Bellevue-Everett, WA PMSA	18.2	18.6	12.7	11.9	13.1	25.5	36.7	24.6	38.6
5	Omaha, NE-IA MSA	17.5	19.2	12.7	11.7	13.3	25.5	36.8	24.4	38.8
6	Wichita, KS MSA	17.7	19.1	12.8	11.6	14.2	24.7	36.8	24.4	38.8
7	Harrisburg-Lebanon-Carlisle, PA MSA	17.3	19.2	12.9	11.5	13.8	25.2	36.6	24.4	39.1
8	Nassau-Suffolk, NY PMSAd	18.0	18.6	13.2	11.0	13.2	26.0	36.6	24.2	39.2
9	Wilmington-Newark, DE-MD PMSA	18.8	18.0	12.8	11.4	12.9	26.1	36.9	24.2	38.9
10	Ann Arbor, MI PMSA	17.8	18.6	12.8	11.3	14.0	25.4	36.5	24.2	39.4
11	Middlesex-Somerset-Hunterdon, NJ PMSAb	18.0	18.9	12.8	11.1	13.1	26.1	36.9	23.9	39.2
12	Kansas City, MO-KS MSA	18.3	18.8	12.5	11.3	12.9	26.2	37.1	23.8	39.1
13	Denver, CO PMSA	18.3	18.9	12.5	11.2	12.3	26.8	37.2	23.7	39.1
14	Greensboro—Winston-Salem—High Point, NC MSA	19.1	18.4	12.4	11.3	13.1	25.8	37.5	23.7	38.9
15	Sarasota-Bradenton, FL MSA <sup>f</sup>	17.7	19.6	12.6	10.9	12.0	27.1	37.3	23.6	39.1
16	Nashville, TN MSA	18.7	18.1	12.4	11.1	12.8	26.8	36.8	23.6	39.6
17	Hartford, CT MSA	20.1	17.5	12.0	11.6	13.0	25.7	37.7	23.6	38.8
18	Milwaukee-Waukesha, WI PMSA	19.7	17.8	12.2	11.3	13.0	25.9	37.5	23.6	38.9
19	Portland-Vancouver, OR-WA PMSA	18.2	19.0	12.4	11.2	12.7	26.5	37.2	23.6	39.2
20	Allentown-Bethlehem-Easton, PA MSA	18.1	19.3	12.2	11.2	13.4	25.9	37.4	23.4	39.3
21	Norfolk-Virginia Beach-Newport News, VA-NC MSA	19.2	18.5	12.2	11.1	13.3	25.8	37.7	23.3	39.1
22	Tacoma, WA PMSA	18.7	18.9	11.9	11.3	13.7	25.5	37.5	23.2	39.2
23	Akron, OH PMSA	18.9	18.4	12.1	11.1	13.0	26.5	37.4	23.1	39.5
24	Scranton—Wilkes-Barre—Hazleton, PA MSA	18.7	18.8	12.4	10.8	12.7	26.7	37.5	23.1	39.4
25	Vallejo-Fairfield-Napa, CA PMSA	19.1	18.8	11.9	11.2	13.0	26.0	37.9	23.1	39.0
26	Jacksonville, FL MSA	19.4	18.5	12.0	11.0	12.9	26.2	37.9	23.0	39.1
27	Cincinnati, OH-KY-IN PMSA	19.4	18.2	12.1	11.0	12.5	26.8	37.6	23.0	39.4
28	Charlotte-Gastonia-Rock Hill, NC-SC MSA	19.0	18.6	12.0	11.0	12.5	26.9	37.6	23.0	39.4
29	Rochester, NY MSA	19.5	18.2	12.0	11.0	13.0	26.4	37.7	23.0	39.3
30	Albany-Schenectady-Troy, NY MSA	19.2	18.6	12.0	11.0	12.9	26.3	37.8	23.0	39.2
31	Richmond-Petersburg, VA MSA	19.5	18.2	11.9	11.1	12.7	26.7	37.7	23.0	39.3
32	Columbus, OH MSA	19.4	18.3	11.9	11.1	12.7	26.6	37.7	23.0	39.3
33	Indianapolis, IN MSA	19.2	18.6	11.9	11.0	12.7	26.6	37.8	23.0	39.3
34	Dayton-Springfield, OH MSA	19.1	18.6	12.0	10.9	13.1	26.2	37.8	23.0	39.3
35	Las Vegas, NV-AZ MSA	18.8	18.8	12.3	10.7	12.5	27.0	37.6	22.9	39.5
	Gary, IN PMSA	20.1	17.6	11.7	11.2	13.9	25.5	37.7	22.9	39.4
37	Austin-San Marcos, TX MSA	19.7	18.3	11.9	10.8	12.0	27.3	38.0	22.7	39.3
38	Louisville, KY-IN MSA	19.9	18.0	12.0	10.7	12.6	26.7	38.0	22.7	39.3
39	St. Louis, MO-IL MSA	19.4	18.4	11.8	10.9	12.9	26.6	37.8	22.7	39.5
40	Orlando, FL MSA	18.6	18.7	12.4	10.3	12.1	27.9	37.4	22.7	40.0
	Youngstown-Warren, OH MSA	18.8	18.8	12.3	10.3	12.9	27.0	37.5	22.6	39.8
	New Haven-Meriden, CT PMSA	21.0	17.0	11.6	10.9	12.4	27.2	38.0	22.5	39.5
	Toledo, OH MSA	20.4	17.9	11.6	10.9	13.3	25.9	38.4	22.5	39.2
	Raleigh-Durham-Chapel Hill, NC MSA	20.0	18.0	11.8	10.7	11.8	27.8	38.0	22.5	39.5
45	Baltimore, MD PMSA	20.4	17.7	11.8	10.7	12.1	27.3	38.1	22.4	39.4



Appendix A: Share of Families by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share) continued

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Metropolitan Area	Very Low Income	Low	Moderate Income	Moderate Income	High Income	High Income	Lower Income	Middle Income	-
46 Little Rock-North Little Rock, AR MSA	19.8	18.0	12.0	10.4	12.6	27.2	37.8	22.4	39.7
47 Atlanta, GA MSA	19.9	18.1	11.9	10.5	11.8	27.9	37.9	22.4	39.7
48 Monmouth-Ocean, NJ PMSA <sup>c</sup>	19.4	18.3	11.8	10.6	12.8	27.0	37.8	22.4	39.9
49 Greenville-Spartanburg-Anderson, SC MSA	19.9	18.2	11.8	10.5	12.7	26.9	38.1	22.3	39.6
50 Honolulu, HI MSA	20.3	17.9	11.7	10.6	11.9	27.7	38.2	22.3	39.6
51 Cleveland-Lorain-Elyria, OH PMSA	20.0	17.9	11.6	10.7	12.8	27.0	37.9	22.3	39.8
52 Washington, DC-MD-VA-WV PMSA	19.7	17.9	12.0	10.2	12.8	27.3	37.6	22.2	40.1
53 Chicago, IL PMSA	20.6	17.5	11.5	10.7	11.8	27.8	38.1	22.2	39.6
54 Knoxville, TN MSA	19.7	18.2	12.0	10.2	12.3	27.6	37.9	22.2	39.9
55 Columbia, SC MSA	20.3	17.6	11.7	10.5	12.9	27.0	37.9	22.2	39.9
56 Syracuse, NY MSA	19.9	18.3	11.7	10.5	13.2	26.4	38.3	22.2	39.6
57 Ventura, CA PMSA	19.6	18.4	11.8	10.3	12.7	27.2	38.0	22.1	39.9
58 Buffalo-Niagara Falls, NY MSA	20.3	18.0	11.6	10.5	12.9	26.7	38.3	22.1	39.6
59 Pittsburgh, PA MSA	19.5	18.7	11.7	10.3	12.7	27.1	38.2	22.0	39.8
60 Tampa-St. Petersburg-Clearwater, FL MSA	18.8	19.1	12.0	10.0	11.8	28.2	37.9	22.0	40.1
61 Boston, MA-NH PMSA	20.5	17.4	11.6	10.2	13.0	27.2	37.9	21.9	40.2
62 Fort Worth-Arlington, TX PMSA <sup>a</sup>	19.2	18.5	11.6	10.3	12.3	28.1	37.8	21.9	40.4
63 Tulsa, OK MSA	19.8	18.4	11.7	10.1	12.5	27.5	38.2	21.8	40.0
64 Phoenix-Mesa, AZ MSA	19.4	18.7	11.6	10.2	12.2	27.9	38.1	21.8	40.1
65 Providence-Fall River-Warwick, RI-MA MSA	21.4	17.0	11.1	10.6	13.1	26.7	38.5	21.7	39.8
66 Springfield, MA MSA	21.8	17.0	10.9	10.8	13.6	25.9	38.8	21.7	39.5
67 San Jose, CA PMSA	20.2	18.0	11.3	10.3	12.4	27.8	38.2	21.6	40.2
68 Oklahoma City, OK MSA	20.0	18.2	11.8	9.9	12.3	28.0	38.1	21.6	40.2
69 Detroit, MI PMSA	21.2	17.5	11.1	10.3	12.0	27.9	38.7	21.4	39.8
70 Philadelphia, PA-NJ PMSA	21.3	17.4	11.1	10.3	11.9	28.0	38.7	21.4	39.9
71 Oakland, CA PMSA <sup>e</sup>	21.0	17.5	11.3	9.8	12.5	27.9	38.5	21.2	40.4
72 Tucson, AZ MSA	20.0	18.5	11.3	9.9	11.5	28.8	38.5	21.2	40.3
73 Charleston-North Charleston, SC MSA	21.3	17.4	11.2	9.9	12.4	27.7	38.7	21.1	40.2
74 Albuquerque, NM MSA	20.9	17.6	11.3	9.8	11.6	28.8	38.5	21.0	40.5
75 Sacramento, CA PMSA	20.3	18.2	11.1	9.9	12.2	28.4	38.5	21.0	40.5
76 Mobile, AL MSA	22.2	16.4	11.1	9.9	12.2	28.2	38.6	21.0	40.4
77 Bergen-Passaic, NJ PMSA	20.8	17.8	11.2	9.7	12.4	28.0	38.7	20.9	40.4
78 Orange County, CA PMSA	20.7	18.0	11.0	9.7	11.7	29.0	38.7	20.7	40.7
79 Birmingham, AL MSA	21.6	17.4	10.9	9.8	12.1	28.3	39.0	20.6	40.4
80 West Palm Beach-Boca Raton, FL MSA	19.9	18.6	11.1	9.5	10.8	30.1	38.4	20.6	40.9
81 San Antonio, TX MSA	21.1	18.0	10.8	9.7	11.7	28.8	39.0	20.5	40.5
82 Fort Lauderdale, FL PMSA	20.8	18.2	10.8	9.6	11.9	28.7	39.0	20.5	40.5
83 Newark, NJ PMSA	22.0	16.7	10.9	9.6	12.1	28.8	38.7	20.4	40.9
84 Dallas, TX PMSA	21.1	17.9	10.6	9.6	11.3	29.4	39.0	20.2	40.7
85 Riverside-San Bernardino, CA PMSA	21.6	17.4	10.8	9.4	12.0	28.8	39.0	20.2	40.8
86 San Diego, CA MSA	21.0	17.9	10.6	9.5	11.5	29.5	38.9	20.1	41.0
87 San Francisco, CA PMSA	21.3	17.6	11.1	8.9	11.3	29.8	38.9	20.0	41.1
88 Memphis, TN-AR-MS MSA	22.6	16.6	10.5	9.3	12.1	28.9	39.2	19.9 19.8	41.0
89 Stockton-Lodi, CA MSA 90 Baton Rouge, LA MSA	22.8 22.6	16.5 16.6	10.6 10.5	9.2 9.2	11.8 12.2	29.1 29.0	39.2 39.2	19.8	40.9
90 Baton Rouge, LA MSA 91 El Paso, TX MSA	22.6	17.5	10.5	8.8	10.8	30.7	39.2	18.9	41.2
71 Lilidsu, IA MISA	22.1	17.3	10.1	0.0	10.8	30.7	37.0	10.9	71.)



## Appendix A: Share of Families by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share) continued

				High		Very	Addend.	Addend.	Addend.
	Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
92 New Orleans, LA MSA	23.7	16.2	9.8	9.1	10.9	30.4	39.8	18.9	41.3
93 Fresno, CA MSA	22.7	17.0	10.1	8.8	10.5	31.0	39.7	18.9	41.4
94 Jersey City, NJ PMSA	23.0	16.6	10.1	8.7	10.4	31.1	39.7	18.8	41.5
95 Houston, TX PMSA	22.5	17.2	10.0	8.8	11.1	30.4	39.7	18.8	41.5
96 Miami, FL PMSA	23.0	17.0	10.0	8.5	10.5	31.0	40.0	18.5	41.5
97 Bakersfield, CA MSA	23.5	16.7	9.8	8.3	10.7	31.0	40.2	18.1	41.7
98 McAllen-Edinburg-Mission, TX MSA	23.5	16.9	9.4	8.2	9.8	32.2	40.3	17.7	42.0
99 Los Angeles-Long Beach, CA PMSA	23.9	16.5	9.5	7.9	10.1	32.1	40.4	17.4	42.2
100 New York, NY PMSA	26.2	15.0	8.7	7.5	9.6	33.1	41.2	16.2	42.7

#### Notes:

- <sup>a</sup> Fort Worth was part of the Dallas SMSA in 1980
- <sup>b</sup> Middlesex-Somerset-Hunterdon, NJ PMSA did not exist in 1970 and 1980
- <sup>c</sup> Monmouth-Ocean PMSA did not exist in 1970
- $^{\rm d}$  Nassau-Suffolk, NY PMSA was part of New York, NY SMSA in 1970
- $^{\circ}$  Oakland, CA PMSA was part of the San Francisco SMSA in 1970 and 1980

See text for description of income categories

Source: Authors' analysis of GeoLytics Neighborhood Change Database

<sup>&</sup>lt;sup>f</sup> Sarasota-Bradenton, FL MSA did not exist in 1970



Appendix B. Share of Neighborhoods by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share)

		Very Low		Moderate		High	High	Addend. Lower	Middle	Higher
	Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	
	Scranton—Wilkes-Barre—Hazleton, PA MSA	0.5	12.6	47.8	26.4	9.9	2.7	13.2	74.2	12.6
	Nassau-Suffolk, NY PMSA	0.7	14.4	36.7	28.0	13.3	6.9	15.1	64.7	20.2
3	Grand Rapids-Muskegon-Holland, MI MSA	5.4	18.3	30.4	29.0	12.9	4.0	23.7	59.4	17.0
4	Tacoma, WA PMSA	3.2	18.7	21.3	36.8	18.1	1.9	21.9	58.1	20.0
5	Harrisburg-Lebanon-Carlisle, PA MSA	4.3	20.3	32.6	24.6	14.5	3.6	24.6	57.2	18.1
6	Allentown-Bethlehem-Easton, PA MSA	6.5	17.4	29.7	25.4	16.7	4.3	23.9	55.1	21.0
7	Sarasota-Bradenton, FL MSA	0.7	21.7	27.3	27.3	12.6	10.5	22.4	54.5	23.1
8	Greenville-Spartanburg-Anderson, SC MSA	4.4	22.3	35.9	18.4	12.1	6.8	26.7	54.4	18.9
9	Wilmington-Newark, DE-MD PMSA	6.5	18.0	30.9	23.0	13.7	7.9	24.5	54.0	21.6
10	Seattle-Bellevue-Everett, WA PMSA	1.9	20.7	28.1	25.8	17.2	6.3	22.6	53.9	23.5
	Youngstown-Warren, OH MSA	9.0	22.4	27.6	25.6	12.8	2.6	31.4	53.2	15.4
	Portland-Vancouver, OR-WA PMSA	2.2	22.2	31.3	21.2	16.9	6.3	24.3	52.5	23.1
	Little Rock-North Little Rock, AR MSA	5.9	21.3	33.8	18.4	14.7	5.9	27.2	52.2	20.6
	Nashville, TN MSA	7.1	21.0	31.5	20.6	9.2	10.5	28.2	52.1	19.7
	Greensboro—Winston-Salem—High Point, NC MSA		21.8	30.0	21.4	15.2	7.4	26.1	51.4	22.6
16	Middlesex-Somerset-Hunterdon, NJ PMSA	4.2	19.7	30.1	21.2	17.8	6.9	23.9	51.4	24.7
	Jacksonville, FL MSA	5.1	26.2	31.8	19.5	9.7	7.7	31.3	51.3	17.4
	Ann Arbor, MI PMSA	5.4	19.9	21.7	29.5	18.7	4.8	25.3	51.2	23.5
19	Dayton-Springfield, OH MSA	7.1	21.4	27.3	23.5	14.7	5.9	28.6	50.8	20.6
20	Pittsburgh, PA MSA	4.9	24.4	31.9	18.4	12.9	7.5	29.3	50.3	20.4
21	Minneapolis-St. Paul, MN-WI MSA	6.1	20.7	29.5	20.7	16.8	6.3	26.8	50.1	23.1
22	Knoxville, TN MSA	10.2	21.9	27.7	21.9	10.2	8.0	32.1	49.6	18.2
23	Salt Lake City-Ogden, UT MSA	2.9	21.1	26.4	22.9	18.9	7.9	23.9	49.3	26.8
24	Toledo, OH MSA	10.0	21.9	26.9	21.3	13.1	6.9	31.9	48.1	20.0
	Jersey City, NJ PMSA	0.6	24.5	25.8	21.9	15.5	11.6	25.2	47.7	27.1
26	Monmouth-Ocean, NJ PMSA	5.5	20.5	27.2	20.5	15.0	11.4	26.0	47.6	26.4
27	Buffalo-Niagara Falls, NY MSA	10.8	21.0	23.8	23.8	15.7	4.9	31.8	47.6	20.6
28	McAllen-Edinburg-Mission, TX MSA	0.0	28.8	31.3	16.3	7.5	16.3	28.8	47.5	23.8
29	San Jose, CA PMSA	3.9	22.6	24.6	22.8	14.2	11.9	26.4	47.5	26.1
30	Albany-Schenectady-Troy, NY MSA	8.5	21.4	28.1	19.2	18.3	4.5	29.9	47.3	22.8
31		9.8	18.0	28.8	18.0	20.0	5.4	27.8	46.8	25.4
	Vallejo-Fairfield-Napa, CA PMSA	1.9	27.2	24.3	22.3	20.4	3.9	29.1	46.6	24.3
	Rochester, NY MSA	14.7	17.4	26.4	19.8	15.9	5.8	32.2	46.1	21.7
	Charlotte-Gastonia-Rock Hill, NC-SC MSA	5.1	26.1	30.2	15.9	10.5	12.2	31.2	46.1	22.7
	Hartford, CT MSA	13.8	16.3	22.3	23.4	17.4	6.7	30.1	45.7	24.1
	Cincinnati, OH-KY-IN PMSA	11.1	22.9	24.1	21.6	12.3	8.0	33.9	45.7	20.4
	Omaha, NE-IA MSA	5.0	24.9	26.2	19.5	15.4	9.0	29.9	45.7	24.4
38	Orlando, FL MSA	2.2	23.5	29.9	15.7	14.8	13.9	25.6	45.7	28.7
39	Akron, OH PMSA	11.5	22.4	23.0	21.2	13.3	8.5	33.9	44.2	21.8
40	1	2.8	26.1	27.0	18.0	14.3	11.8	28.9	45.0	26.1
	Ventura, CA PMSA	4.5	24.0	25.3	19.5	18.2	8.4	28.6	44.8	26.6
	Indianapolis, IN MSA	7.8	29.4	20.4	24.3	11.1	6.9	37.2	44.7	18.0
43	*	8.2	20.5	26.0	18.5	15.3	11.4	28.8	44.5	26.7
44		10.8	24.0	24.2	20.2	11.9	8.8	34.8	44.4	20.8
	Mobile, AL MSA	13.2	19.1	31.6	12.5	17.6	5.9	32.4	44.1	23.5
46	Richmond-Petersburg, VA MSA	10.2	22.0	24.9	19.2	15.1	8.6	32.2	44.1	23.7



Appendix B. Share of Neighborhoods by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share) continued

		Very Low		Moderate		High	High	Addend. Lower	Middle	Higher
	Metropolitan Area	Income	Income	Income	Income	Income	Income	Income		Income
	Springfield, MA MSA	14.8	16.5	22.6	20.9	21.7	3.5	31.3	43.5	25.2
48	Providence-Fall River-Warwick, RI-MA MSA	9.1	20.9	22.0	21.3	20.5	6.3	29.9	43.3	26.8
49	Bergen-Passaic, NJ PMSA	9.3	18.6	22.3	20.6	17.0	12.1	27.9	42.9	29.1
	Wichita, KS MSA	3.7	29.4	22.8	19.9	14.7	9.6	33.1	42.6	24.3
51	Detroit, MI PMSA	12.7	19.6	21.5	20.6	14.5	11.1	32.3	42.1	25.6
52	Sacramento, CA PMSA	6.4	24.8	20.1	22.0	16.7	10.0	31.2	42.1	26.7
53	Raleigh-Durham-Chapel Hill, NC MSA	9.8	22.9	21.0	21.0	15.1	10.2	32.7	42.0	25.4
54	Fort Lauderdale, FL PMSA	4.0	26.0	22.0	19.9	13.0	15.2	30.0	41.9	28.2
	New Haven-Meriden, CT PMSA	12.3	22.1	19.7	22.1	15.6	8.2	34.4	41.8	23.8
56	Charleston-North Charleston, SC MSA	9.7	25.7	23.0	18.6	11.5	11.5	35.4	41.6	23.0
57	Riverside-San Bernardino, CA PMSA	4.5	28.7	23.7	17.9	13.6	11.7	33.2	41.6	25.2
58	Tulsa, OK MSA	3.2	25.9	25.9	15.4	15.0	14.6	29.1	41.3	29.6
59	Cleveland-Lorain-Elyria, OH PMSA	14.4	20.4	20.0	21.0	15.6	8.5	34.9	41.0	24.1
60	Las Vegas, NV-AZ MSA	1.6	22.8	22.5	18.5	23.9	10.7	24.4	41.0	34.6
61	Philadelphia, PA-NJ PMSA	10.7	18.2	20.6	20.1	17.9	12.6	28.8	40.7	30.5
62	Kansas City, MO-KS MSA	9.4	26.0	23.7	17.0	13.4	10.5	35.4	40.7	23.9
63	Gary, IN PMSA	11.0	26.5	19.9	20.6	20.6	1.5	37.5	40.4	22.1
	Albuquerque, NM MSA	3.4	26.1	23.9	16.5	18.8	11.4	29.5	40.3	30.1
65	Baltimore, MD PMSA	12.6	22.1	22.1	17.7	16.9	8.5	34.8	39.8	25.4
66	Washington, DC-MD-VA-WV PMSA	7.9	24.8	20.0	19.8	14.3	13.3	32.7	39.8	27.6
	Louisville, KY-IN MSA	6.3	28.5	21.3	18.4	15.5	10.0	34.7	39.7	25.5
68	Milwaukee-Waukesha, WI PMSA	18.4	20.3	23.3	16.4	16.1	5.5	38.7	39.7	21.6
69	San Francisco, CA PMSA	7.3	21.2	23.9	15.6	17.2	14.8	28.5	39.5	32.0
70	Stockton-Lodi, CA MSA	6.7	25.2	16.0	23.5	21.0	7.6	31.9	39.5	28.6
71		4.1	27.4	19.5	19.9	17.9	11.0	31.6	39.4	29.0
	Oakland, CA PMSA	11.0	21.5	24.6	14.7	14.1	14.1	32.5	39.3	28.2
73	Columbus, OH MSA	9.5	27.5	22.3	16.9	12.0	11.7	37.1	39.2	23.7
	Fort Worth-Arlington, TX PMSA	6.6	26.2	24.5	14.7	17.0	11.0	32.9	39.2	28.0
	Austin-San Marcos, TX MSA	7.5	27.8	21.0	17.9	13.9	11.9	35.3	38.9	25.8
	San Diego, CA MSA	7.6	22.3	18.8	19.6	16.6	15.1	29.9	38.4	31.6
	Norfolk-Virginia Beach-Newport News, VA-NC MSA		27.4	22.6	15.7	18.0	9.4	34.3	38.3	27.4
78	Oklahoma City, OK MSA	5.4	30.8	21.5	16.3	16.7	9.3	36.2	37.8	26.0
79	Birmingham, AL MSA	9.2	25.0	24.0	13.8	15.8	12.2	34.2	37.8	28.1
	Honolulu, HI MSA	3.4	29.8	18.5	19.0	21.0	8.3	33.2	37.6	29.3
	Atlanta, GA MSA	10.5	25.8	22.0	15.4	13.8	12.5	36.3	37.4	26.3
	Baton Rouge, LA MSA	11.9	22.9	22.0	15.3	18.6	9.3	34.7	37.3	28.0
83		7.1	29.2	22.1	15.0	18.6	8.0	36.3	37.2	26.5
84	Chicago, IL PMSA	12.3	24.8	19.8	16.6	14.7	11.8	37.1	36.4	26.5
	Fresno, CA MSA	4.6	29.3	19.0	17.2	10.3	19.5	33.9	36.2	29.9
86	New Orleans, LA MSA	14.3	23.9	19.0	16.1	13.2	13.5	38.2	35.1	26.8
	Phoenix-Mesa, AZ MSA	5.3	29.0	16.5	18.3	16.4	14.5	34.3	34.9	30.9
88	San Antonio, TX MSA	3.5	37.8	17.3	17.0	10.3	14.1	41.3	34.3	24.4
	West Palm Beach-Boca Raton, FL MSA	5.4	26.8	18.8	15.3	16.9	16.9	32.2	34.1	33.7
90	Miami, FL PMSA	7.6	29.0	18.8	14.4	13.2	17.0	36.7	33.1	30.2
	Tucson, AZ MSA	5.1	29.7	17.9	14.9	16.4	15.9	34.9	32.8	32.3
92	Orange County, CA PMSA	3.7	27.3	17.1	15.6	20.6	15.7	30.9	32.7	36.4



Appendix B. Share of Neighborhoods by Income Category, 100 Largest Metropolitan Areas, 2000 (Ranked by Middle-Income Share) continued

					High		Very	Addend.	Addend.	Addend.
		Very Low	Low	Moderate	Moderate	High	High	Lower	Middle	Higher
	Metropolitan Area	Income	Income	Income	Income	Income	Income	Income	Income	Income
93	El Paso, TX MSA	6.3	32.5	20.6	11.9	13.5	15.1	38.9	32.5	28.6
94	Bakersfield, CA MSA	3.7	29.9	15.7	16.4	18.7	15.7	33.6	32.1	34.3
95	Dallas, TX PMSA	9.1	30.1	18.7	12.5	12.2	17.3	39.2	31.3	29.5
96	Newark, NJ PMSA	16.0	23.4	14.3	16.0	15.4	14.8	39.5	30.4	30.2
97	Houston, TX PMSA	8.4	31.3	15.4	14.6	12.0	18.3	39.7	30.0	30.3
98	Memphis, TN-AR-MS MSA	16.3	25.5	15.2	14.4	14.1	14.4	41.8	29.7	28.5
99	New York, NY PMSA	11.1	23.4	16.2	13.4	15.1	20.8	34.5	29.6	35.9
100	Los Angeles-Long Beach, CA PMSA	8.5	28.7	14.8	13.5	13.6	20.8	37.3	28.3	34.4

See text for description of income categories Source: Authors' analysis of GeoLytics Neighborhood Change Database

#### Endnotes

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- 10. Several data sets exist that contain tract level data for the period of 1940 to 1970, including the Elizabeth and Donald Bogue data series housed at the Inter-University Consortium of Political and Social Research (www.icpsr.



- org). However, usability of the data is cumbersome and more importantly, not all of the metropolitan areas needed in this study are covered uniformly over time.
- 11. A. J. Abramson, M. S. Tobin, and M. R. VanderGoot, "The Changing Geography of Metropolitan Opportunity: The Segregation of the Poor in U.S. Metropolitan Areas, 1970 to 1990." Housing Policy Debate 6 (1) (1995): 45-72; R. Farley, "Residential Segregation in Urbanized Areas of the United States in 1970: An Analysis of Social Class and Racial Differences." Demography 14 (4) (1977): 497-518; D. S. Massey and M. Eggers, "The Spatial Concentration of Affluence and Poverty During the 1970s." Urban Affairs Quarterly 29 (2) (1993): 299-315.
- 12. Metropolitan areas have changed numerous times between 1970 and 2000; new ones have been created; some have expanded due to growth in outlying counties; others have been subdivided based on changes in commuting trends. The U. S. Office of Management and Budget (OMB) redefines metropolitan areas after each census as new data on population and commuting become available. The most recent census-based revision occurred in June 2003; this report analyzes metropolitan areas based on the definitions in effect at the time of Census 2000. For more information, see William Frey and others, "Tracking American Trends Into the 21st Century: A Field Guide to the New Metropolitan and Micropolitan Definitions." In A. Berube, B. Katz, and R. Lang, eds., Redefining Urban and Suburban America: Evidence from Census 2000, volume 3 (Washington: Brookings, 2006).
- 13. One option would have been to include in subsequent years only those census tracts that constituted our 1970 sample of metropolitan areas, but this would have excluded areas of post-1970 suburban growth. Another option would have been to work backward from all tracts constituting metropolitan areas in 2000, but this would have produced many missing observations because not all areas of the country were tracted in 1970 and 1980.
- 14. These metropolitan areas (MSAs and PMSAs) were selected in consultation with the Brookings Institution. They overlap to a large extent those metropolitan areas under study at Brookings for related projects (see, e.g., Matt Fellowes, "The Price is Wrong: Roadblocks to the Middle Class," forthcoming 2006).

- 15. Each of these 12 metros areas also has a large, readily identifiable central city at its core. In each decade, we used 2000 centralcity boundaries to assign census tracts to the city or its suburbs. If the centroid of the census tract lay within the central city's borders, it was treated as part of the city; otherwise it was allocated to the suburbs.
- 16. G. Galster and R. Mincy, "Explaining the Changing Fortunes of Metropolitan Neighborhoods, 1980-1990." Housing Policy Debate 4 (3) (1993): 303-354; Abramson, Tobin, and VanderGoot, "The Changing Geography of Metropolitan Opportunity"; Jargowsky, Poverty and Place; Jargowsky, "Stunning Progress, Hidden Problems"; D. S. Massey and N. A. Denton, "The Dimensions of Residential Segregation." Social Forces 67 (2) (1988): 281-315; Massey and Eggers, "The Spatial Concentration of Affluence and Poverty During the 1970s"; G. Galster and others, "The Fortunes of Poor Neighborhoods." Urban Affairs Review 39 (2) (2003): 205-227.
- 17. J. Iceland, C. Sharpe, and E. Steinmetz, "Class Differences in African American Residential Patterns in U.S. Metropolitan Areas: 1990-2000." Paper presented at the annual meetings of the Population Association of America, Minneapolis, MN, 2002.
- 18. According to Massey and Denton, census tracts possess the following flaws. First, by definition, they are intended to be homogeneous in terms of race/ethnicity, income, occupation and housing. Second, there are disparities in the geographic size of tracts between central cities and suburbs because population rather than geography determines tract size. In areas where the population is less dense (e.g. outlying suburbs) census tracts tend to be larger when compared to more dense tracts in central cities. Yet, according to Massey and Denton, "switching down to blocks or up to tract groups will not eliminate any of the problems." Massey and Denton, "The Dimensions of Residential Segregation."
- 19. B. Lee and P. Wood, "The Fate of Residential Integration in American Cities: Evidence from Racially Mixed Neighborhoods, 1970-1980." Journal of Urban Affairs 12 (4) (1990): 425-436; I. G. Ellen, "Stable Racial Integration in the Contemporary United States: An Empirical Overview." Journal of Urban Affairs 20 (1) (1998): 27-42.

- 20. Because of respondent confidentiality, certain demographic measures like income are suppressed under certain circumstances. Thus, we were presented with several situations in which we were provided with total population and racial characteristics but no income statistics. However, we do not expect this to have an impact on our results because the number of tracts with missing data is very small.
- 21. The U.S. Census Bureau defines a family as two or more people who are related by birth, marriage or adoption and living in the same household. Households represent all persons living together in a housing unit, and families are a type of household. Studies of income segregation use either households or families as the base of their income measure. While the pattern of income distribution is likely not to differ, there are income differences between the two. As households include families, unrelated persons and persons living alone, it is a more inclusive measure leading to lower median income results than with families. Families do not include unrelated individuals or one-person households, thus resulting in income ranges and medians that trend higher. In this study, we have chosen to use families as the basis for our income calculations because NCDB does not provide household income distribution for the years prior to 2000, and because HUD uses the family as its unit of analysis for its programmatic income guidelines. In addition, we compared to household and family income groupings for households and families and found that changes in group share were very similar.
- 22. These income groupings serve many public policy purposes including defining Home Mortgage Disclosure Act (HMDA) guidelines and housing aid thresholds for HUD. U.S. Department of Housing and Urban Development, Rental Housing Assistance at a Crossroads: A Report to Congress on Worst Case Housing Needs (GPO, 1996).
- 23. Note that for most neighborhood types, a given income category does not imply that families in that income range predominate. A high-moderate-income neighborhood, for instance, where the median family income is between 100 and 120 percent of the metropolitan median, may have relatively few families in that income bracket. A family in that bracket, however, has a representative income for the neighborhood. For tracts in the very low and very high income categories, the nec-



- essary implication is that at least half the families have incomes that would place them in that range.
- 24. While the grouped family income distribution found in the NCDB provides us with the necessary data to create these income categories, the numerical boundaries of our six HUDdefined income groups do not match the grouped NCDB income distribution data. Based on U.S. Census procedures we interpolated the data in the NCDB categories to obtain a reasonably accurate estimate of family counts within our categories. For income ranges of \$2,500 or less we used linear interpolation, and used Pareto interpolation for larger income ranges. See the Technical Appendix to Berube and Tiffany, "The Shape of the Curve."
- 25. Katherine Bradbury and Jane Katz, "Women's Labor Market Involvement and Family Income Mobility When Marriages End." New England Economic Review Q4 (2002).
- 26. Jones and Weinberg, "The Changing Shape of the Nation's Income Distribution."
- 27. The number of families in the VLI and VHI categories each increased by 84 percent over this period between 1970 and 2000.
- 28. The number of families in the combined MI and HMI categories in the 100 largest metro areas increased by 18 percent from 1970 to
- Across all 100 metro areas, there was a significant correlation (R=0.64) between the percentage of families who were middle-income and the percentage of neighborhoods that were middle income in 2000. Four of the ten metro areas with the highest shares of middleincome neighborhoods also ranked among the ten metro areas with the highest shares of middle-income families.
- 30. Shannon McConville and Paul Ong, "The Trajectory of Poor Neighborhoods in Southern California, 1970-2000." In Redefining Urban and Suburban America: Evidence from Census 2000, volume 2 (Washington: Brookings, 2005).

- 31. The correlation between the change in the proportion of families with high incomes, and the proportion of neighborhoods with high incomes, was quite strong (R=0.8), much more so than the corresponding relationship at the lower-income end. This relationship held among all 100 metropolitan areas as well.
- 32. For further testing of this hypothesis see Watson, "Metropolitan Growth and Neighborhood Segregation by Income."
- 33. See note 21 for a discussion of our choice to use families rather than households.
- 34. Central cities in this analysis are defined as the largest central city in the metropolitan area. In order to maintain a consistency across cities, we used 2000 boundaries as defined by US Census Bureau T.I.G.E.R. line files. Utilizing geographic information systems technology, we assigned census tracts in each of the decennial censuses to either the central city or to the remainder of the metropolitan area, which we refer to as the suburbs.
- 35. These trends align with other research finding that Atlanta, Los Angeles, and Washington have a "divided" household income profile, and that Baltimore and Philadelphia have a low-income dominant "stressed" profile. Berube and Tiffany, "The Shape of the Curve."
- 36. Jargowsky, "Stunning Progress, Hidden Problems. G. Thomas Kingsley and Kathryn L. S. Pettit, "Concentrated Poverty: A Change in Course" (Washington: Urban Institute, 2003).
- 37. A significant proportion of that suburban increase was attributable, of course, to expansions in the definitions of metropolitan areas over the 1970-to-2000 period.
- 38. Robert Puentes and David Warren, "One-Fifth of the Nation: A Comprehensive Guide to America's First Suburbs" (Washington: Brookings Institution, 2006); Jargowsky, "Stunning Progress, Hidden Problems."
- 39. Ibid.

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## Acknowledgments

The authors thank Kurt Metzger, who provided invaluable input into the completion of this report.

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