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Concentrated Poverty: Dynamics of Change

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Patterns of neighborhood improvement and decline in the 1990s were complex and in many ways defied conventional wisdom.

America's urban neighborhoods generally fared better in the 1990s than they had over the preceding decade, but patterns of improvement and decline were complex and in many ways defied conventional wisdom. Traditional categorizations (e.g., high-poverty versus low-poverty, weak markets versus strong markets) are much too simple to provide sound guides for policy. Local officials everywhere need to learn how to vary their strategies in response to different neighborhood circumstances and trajectories likely to exist in their cities.

In this analysis, we divide census tracts in the 100 largest metropolitan areas into three groups based on how their poverty rates changed over a decade: *improved* (poverty rate decreased by 5 percentage points or more), *worsened* (rate increased by 5 points or more), and *remained stable* (rate changed by less than 5 points in either direction).

- In the 1990s, a larger share of all tracts worsened (15 percent) than improved (11 percent), but this represented a much more positive result than that of the 1980s, when 19 percent worsened and only 8 percent improved.
- Patterns of change in neighborhoods where poverty is concentrated (mostly in the central cities) have been much more volatile than in those that are less poor. In the 1990s, only 45 percent of high-poverty tracts (poverty rates of 30 percent or more in 1990) were stable, compared with almost 90 percent of low-poverty tracts (poverty rates of less than 10 percent). And among those that changed significantly, the mix was more favorable for high-poverty tracts (37 percent improved, 18 percent worsened) than low-poverty tracts (1 percent improved, 11 percent worsened).
- While stronger market conditions generally implied a more favorable balance, almost all metropolitan areas saw a mix of trends among their neighborhoods in the 1990s. In the strongest markets (top third of metropolitan areas ranked by an index we constructed), a larger share of all tracts improved (15 percent) than worsened (9 percent). In the weaker markets (bottom third by our index), many more worsened (19 percent), but even there, a nontrivial share improved (6 percent).
- Just over half of all tracts that worsened experienced a significant change in racial composition (where racial and ethnic groups that increased in share did so by 15 percentage points or more over the decade). While this was not true everywhere, it appears that a notable worsening of neighborhood poverty in the 1990s was often accompanied by the in-

migration of lower-income minorities. Hispanics accounted for the largest increases in 56 percent of these tracts, and blacks did so in 31 percent.

- Turning to tracts that improved, however, comparatively few of them (22 percent), experienced a similarly large changes in racial composition. Whites and other non-Hispanic nonblack groups accounted for the largest increases in only a third of these (only 300 tracts in all). While this measure is fairly crude, it certainly suggests that where large decreases in poverty took place, gentrification involving notable racial change was generally not the dominant explanation.
- While tracts that experienced significant changes in poverty in the 1990s were found in all parts of the metropolitan area, tracts that improved were predominantly located in the inner portions of the central city and the outer rings of the suburbs. In contrast, tracts that worsened were more prevalent in the outer portions of the cities and, in particular, the inner ring of the suburbs.
- Beyond this, our analysis found no simple set of indicators as of 1990 that reliably differentiated tracts that would improve, remain stable, or worsen over the subsequent decade (regression analysis explained 30 percent of the variation at best). However, given the importance of these changes, local data systems that could provide more reliable early warnings are worth pursuing.

Purpose and Approach

Recent research has shown that after decades of decline, America's cities saw some notable improvements in the 1990s. In particular, the longstanding trend toward concentrated poverty was reversed overall. The share of the poor living in high-poverty neighborhoods (poverty rates of 30 percent or more), which had increased from 25 to 31 percent in the 1980s, dropped all the way back to 26 percent in 2000. The absolute number of poor people in high-poverty neighborhoods grew from 4.9 million in 1980 to 7.1 million in 1990 but decreased to 6.7 million in 2000 (Kingsley and Pettit 2003; see also Jargowsky 2003).

Research to date, however, has not told the whole story. It has emphasized the good news and has not said much about the mix of good and bad in different places. It has not tried to look into the relationships between varying changes in poverty levels and the characteristics and forces that might explain them.

The purpose of this brief is to begin to shed more light on the way the changes in the 1990s took place in the hope of better preparing local leaders to anticipate market forces and, thus, guide neighborhood change more effectively. Specifically, we ask three questions. The first can be answered directly with our data: (1) How did the overall balance between neighborhood improvement and worsening in the 1990s compare with the balance in the 1980s, and how did it vary for different types of neighborhoods in different locations? The other two questions are equally if not more important for policy, but they are much more difficult to answer definitively: (2) To what extent were changes in neighborhood poverty rates (up or down) explained by mobility (people of different income levels moving in and out) rather than changes in the incomes of the original residents? and (3) What characteristics of neighborhoods are good predictors that their poverty rates will either improve or worsen?

For the first question, analysis of the same topic for the 1980s (but only published recently) yielded findings of great importance for local policy. Galster and colleagues (2003) find considerable complexity in patterns of neighborhood change. While many urban neighborhoods saw notable increases in poverty rates, consistent with the overall expansion of concentrated poverty in that decade, a significant number of other, older neighborhoods saw their poverty rates decline. This evidence contra-

dicts the urban "life cycle theory," which held that neighborhoods inevitably deteriorate as they get older and did not hold out much promise for revitalization as the aging process was under way (see Birch 1971; Schwirian 1983). One purpose of our work is to see whether basic findings of Galster and colleagues for the 1980s are corroborated by the changes that occurred in the 1990s.

This research is based on data for census tracts derived from the Neighborhood Change Database (NCDB), the only major source of tract-level decennial census data in which tract boundaries are defined consistently over time (we use the terms *tracts* and *neighborhoods* interchangeably throughout this brief). Metropolitan area and city boundaries are also held constant, with data for all geographic units for each year presented for boundaries as defined for the 2000 Census.[1] Some of our analysis pertains to all U.S. metropolitan areas as defined at the time of the 2000 Census, but the brief focuses on conditions in the 100 largest metropolitan areas.[2]

A Shifting Balance of Improvement and Deterioration

Table 1 shows the transitions that occurred between poverty categories for the 50,502 tracts that made up all 330 metropolitan areas in both the 1980s and 1990s. The top row, for example, shows that of all the tracts that had poverty rates below 10 percent in 1980, the vast majority (84 percent) were in that same category a decade later; only 15 percent had shifted to categories with poverty rates above 10 percent. The comparable vector for the below–10 percent category in the 1990s looks very similar.

Changes were more frequent, however, where poverty rates were higher. Among tracts that started the 1980s in the highest category (a poverty rate of 30 percent or more), 83 percent wound up in the same category at the end of that decade. But in the 1990s, fewer (73 percent) stayed in the same group, and notably more saw reductions in poverty rates. In the 20–30 percent poverty range, far fewer tracts saw increases in poverty (and more saw reductions) in the 1990s than in the 1980s.

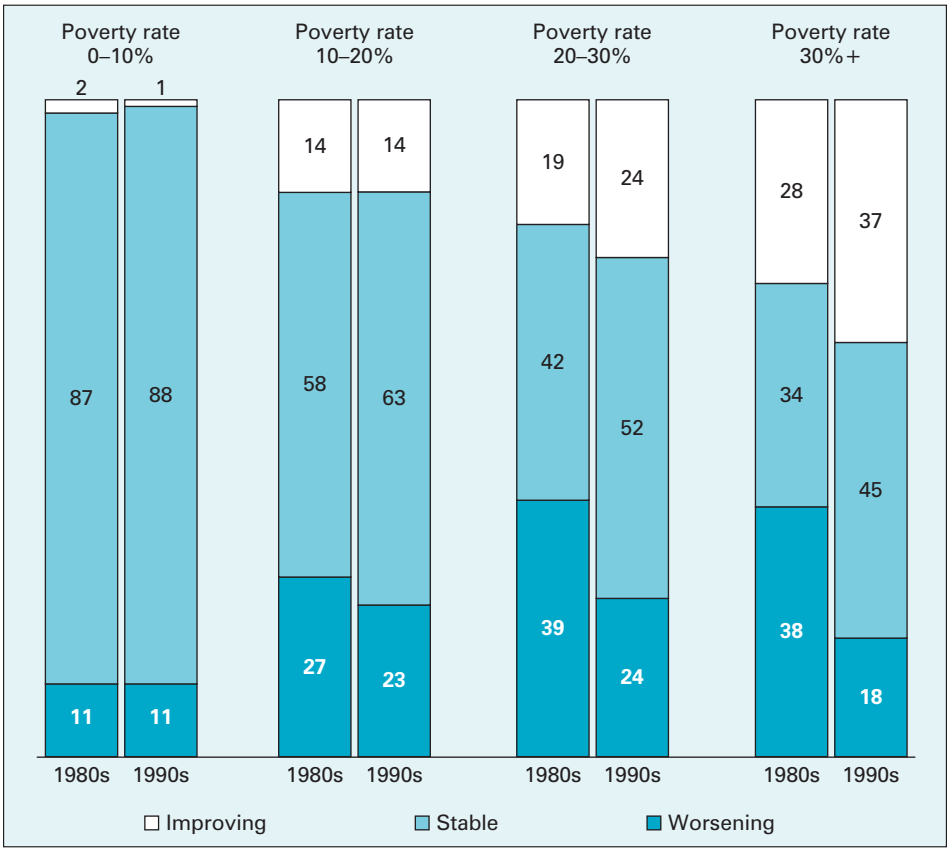
It is easy to see how these transitions yielded a net increase in concentrated poverty in the 1980s and a net reduction over the 1990s, but it is important to keep the complexity in mind. Even in the 1980s, when conditions were worsening overall, tracts saw reductions in poverty; and in the 1990s, when conditions were generally improving, a significant number still experienced a worsening of conditions in that

TABLE 1. Poverty Category Transitions by Poverty Rate, 1980–90 and 1990–2000 (percent of tracts)

	Percent of Tracts by Poverty Rate, End of Decade			
Poverty rate at start of decade	**< 10%**	**10–20%**	**20–30%**	**30%+**
1980–90 Transitions				
< 10%	84	14	1	0
10–20%	24	52	19	5
20–30%	3	20	40	38
30%+	2	3	13	83
1990–2000 Transitions				
< 10%	86	13	1	0
10–20%	24	58	16	2
20–30%	2	29	48	20
30%+	1	4	22	73

Source: Urban Institute analysis of data from the Neighborhood Change Database.

FIGURE 2. Percent of Census Tracts by Change in Poverty Rate by Poverty Rate Category, 100 Largest Metropolitan Areas, 1980s and 1990s



Source: Urban Institute analysis of data from the Neighborhood Change Database.

for low-poverty tracts to 45 percent for high-poverty tracts; the comparable change in the 1980s was a drop from 87 to 34 percent.

- In the 1990s, only 1 percent of low-poverty tracts improved, less than 10 percent of the share that worsened, but 37 percent of the high-poverty tracts improved, two times the share that worsened.
- In low-poverty tracts, the share that improved was miniscule in both decades, but in high-poverty tracts, the 37 percent that improved in the 1990s was 1.5 times the share that improved in the preceding decade.

We noted earlier that Galster and colleagues (2003), using the same category definitions, find that, against a background of generally increasing poverty concentration in the 1980s, the number of poor urban neighborhoods that improved was still significant. This research notably contradicted past theory that continued decline was almost always to be expected in such places. The evidence presented here certainly reinforces that conclusion. Also, those authors thought the significant volatility in poverty rate trajectories they found among high-poverty tracts in the 1980s was noteworthy. The fact that we found similar volatility in the 1990s (albeit with a different balance in outcomes) suggests that volatility itself is a condition to be expected in inner cities. This conclusion makes the task of planning for volatility more hopeful (continued decline is not preordained) but also more challenging.

Variations by Region and Housing Market Strength

How, and to what extent, do these outcomes vary across the nation's large metropolitan areas? To answer that question, we divided the 100 metropolitan areas by region and by the strength of their housing markets in the 1990s (table 2). To construct the index, we first calculated the percent change in average gross rent and in the average value of owner-occupied homes.[4] We then converted the rental and owner indicator values into *Z*-scores for each metropolitan area and then averaged the two scores to create the index.[5] Finally, we ranked metropolitan areas by their combined index value. We then labeled the top third of metros by this average (those with the largest increases) as "strong markets," the lowest third as "weak markets," and those in between as "intermediate markets."

Across all types of metropolitan areas in all regions, roughly three-quarters of all tracts were in the stable category in the 1990s, but there were notable variations in improvement and decline by market type. In the strong markets, a much larger share of all tracts improved than worsened (15 versus 9 percent). In the weak markets, the pattern was reversed (6 percent improved and 19 percent worsened); in the intermediate markets, the shares that worsened and improved were about the same (14 and 15 percent).

These basic relationships were similar in all regions, so the regional shares of improving versus worsening neighborhoods varied depending on where their metropolitan markets fell on the spectrum from strong to weak. The weak markets were located dominantly in the Northeast

TABLE 2. Change in Poverty by Metropolitan Market Strength

		Total				1990 Poverty Rate 30% or More			
			Percent of Tracts				Percent of Tracts		
	Number of metropolitan areas	Number of tracts	Improving (pov.chg. −5% or more)	Stable (pov.chg. +5% to −5%)	Worsening (pov.chg. +5% or more)	Number of tracts	Improving (pov.chg. −5% or more)	Stable (pov.chg. +5% to −5%)	Worsening (pov.chg. +5% or more)
Northeast	20	8,483	8	74	18	899	40	43	17
Intermediate market	4	3,441	12	64	24	516	42	41	17
Weak market	16	5,042	5	80	15	383	37	46	17
Midwest	20	8,726	15	77	8	1,222	65	27	8
Strong market	9	3,814	17	76	7	548	69	25	5
Intermediate market	11	4,912	14	77	10	674	61	29	10
South	37	11,255	13	73	13	1,272	53	37	10
Strong market	15	3,331	16	73	11	395	52	39	9
Intermediate market	15	5,134	16	71	13	655	58	35	7
Weak market	7	2,790	7	78	16	222	39	41	21
West	23	9,570	8	73	18	671	35	41	23
Strong market	9	3,487	13	79	8	190	66	27	6
Intermediate market	3	1,001	8	76	17	53	45	36	19
Weak market	11	5,082	5	69	26	428	20	48	31
Top 100 Metropolitan Areas	100	38,034	11	74	15	4,064	51	36	13
Strong market	33	10,632	15	76	9	1,133	63	30	7
Intermediate market	33	14,488	14	72	15	1,898	54	34	11
Weak market	34	12,914	6	75	19	1,033	30	46	24

Source: Urban Institute analysis of data from the Neighborhood Change Database.

(most of the mid-sized urban centers of New England) and the West (metropolitan areas in southern and central California with sluggish economies in the 1990s). In these two groups of weak markets, worsening tracts notably outnumbered improving ones. The same two groups account for all the metropolitan areas identified in our earlier research as having experienced an increase in concentrated poverty in the 1990s—the exceptions to the dominant national trend (Kingsley and Pettit 2003).

As to strong markets, there were 9 of them in the West, along with 9 in the Midwest and 15 in the South. The South experienced roughly equal shares of improving and worsening tracts, and the Midwest had the most favorable ratio of improving tracts to worsening ones overall.

Among high-poverty tracts, improving tracts outnumbered worsening ones even in weak-market metropolitan areas, although the ratios became more favorable as market strength increased. For the weak-market metropolitan areas overall, 30 percent improved and 24 percent worsened. In the strong markets, the relationship was remarkably positive: 63 percent improved and only 7 percent worsened.

Mobility versus Changes in the Circumstances of Residents

Our second objective was to learn more about the extent to which changes in neighborhood poverty rates in the 1990s were due to mobility (households at different income levels moving in and out) rather than changes in the incomes of the existing residents. The question is critical to the way the findings are interpreted. If the "improvements" observed were mainly the result of mobility (gentrification displacing lower-income populations) the results would be regarded as problematic rather than beneficial.

Unfortunately, the census does not have data for tracts on in- and out-movers by income level, so we cannot answer the question directly. However, certain indicators can shed some light on the issue. One is calculated from census data on the total number of residents (over 5 years old) at the time of the census that had lived in a different house or apartment five years earlier (keep in mind that this measure includes moves within the same tract or from neighboring tracts as well as those from more distant locations).

The overwhelming conclusion to be drawn from examining these data is that there was a substantial amount of movement almost everywhere in the 1990s. In the median tract in the large metropolitan areas, 45 percent (almost half) of the residents had moved over the past five years. Only a quarter of all tracts had move rates below 37 percent, and the highest quarter of the tracts had rates exceeding 54 percent.

There were variations in these rates for different types of neighborhoods, but the variations were not dramatic. For example, mobility increases with poverty rates, but the range is narrow: from a median of 43 percent for low-poverty tracts to 49 percent for high-poverty tracts.

Analysis of this indicator is a useful backdrop to our understanding, but it does not get at exactly what we are looking for. A poor neighborhood that improved in the 1990s by our definition (poverty rate dropped by 5 points or more) and had a high share of households that had moved over the past five years was not necessarily gentrifying. It is possible that the in-movers had incomes and other characteristics similar to the existing residents and that the movers and nonmovers alike were incrementally increasing their incomes to create the noted reduction in poverty. With gentrification, in contrast, it would be expected that those moving in are mostly from a different race or class than the original residents.

Accordingly, we next looked at data on changing racial/ethnic composition in these neighborhoods. For simplicity, we divided the population into four groups: Hispanics and three racial groups (white, black, and other), always defined to exclude Hispanics of those races.[6] Then, for the one or more groups that increased their population share over the decade, we recorded the number of percentage points by which they did so. For example, if the Hispanic share in a tract went up by 9 points, the black share went up by 3 points, and the share for the other groups declined, our overall "race change score" for the tract would be 12 points.

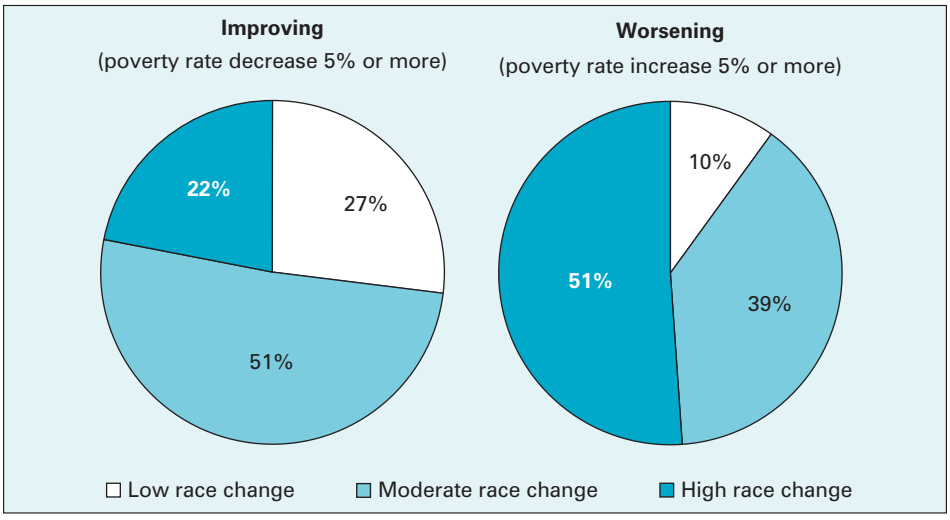
Interestingly, the data show very few tracts whose racial/ethnic compositions changed dramatically over the decade. Only one-quarter of all tracts in the 100 largest metropolitan areas experienced a shift of 15 percentage points or more by our measure. The median score was 7 points, and the bottom quarter had scores of 3 points or less.

If any one race's share of the population in an improving poor neighborhood went up by only 7 percent over the decade (the median), we doubt most observers would consider this a major change in neighborhood composition. To explore the issue further, we decided to term anything in the upper quartile of the distribution (change of 15 points or more) as "high race change" and anything in the lowest quartile (below 3 points) as "low race change."

Results were quite different for neighborhoods on different trajectories (figure 3). Worsening tracts were much more likely to experience high race change. Whereas only a quarter of all tracts saw a race change of 15 points or more, just over half of all worsening tracts did so. Overwhelmingly in this group, the changes were associated with people of color moving in: Hispanics accounted for the largest share increases in 56 percent of the worsening high–race change tracts, and blacks were the leading group in another 31 percent (figure 4). While this was not true everywhere, it appears that among neighborhoods where poverty worsened notably in the 1990s, the in-migration of lower-income minorities was an important influence.

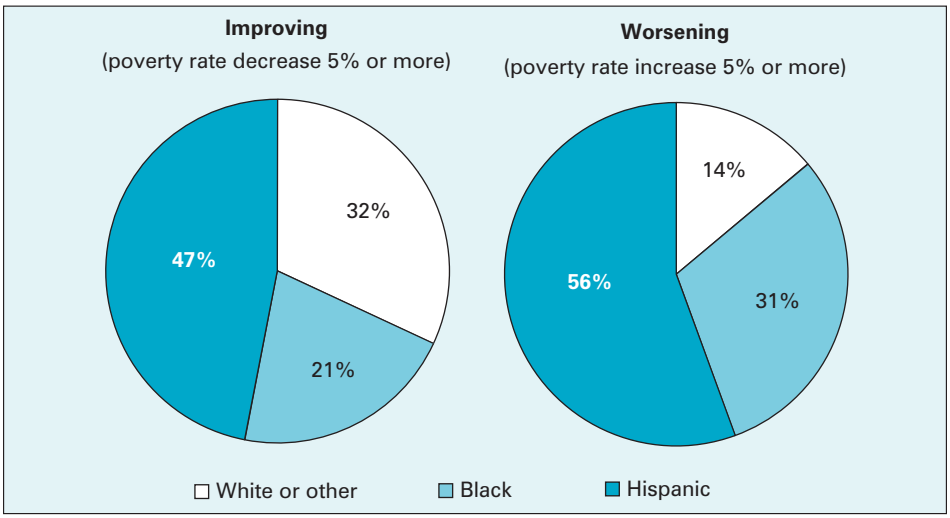
The patterns differed for improving tracts. Change from one race or ethnicity to another was not the dominant factor. Only 22 percent of the improving tracts—fewer than average—were in the high–race change

FIGURE 3. Extent of Racial Change for Improving and Worsening Census Tracts, 100 Largest Metropolitan Areas, 1990–2000



Source: Urban Institute analysis of data from the Neighborhood Change Database.

FIGURE 4. Most Rapidly Growing Racial or Ethnic Group in High–Race Change, Improving and Worsening Census Tracts, 100 Largest Metropolitan Areas, 1990–2000



Source: Urban Institute analysis of data from the Neighborhood Change Database.

category, and a larger share (27 percent) fell in the low–race change category. For the latter, and for many in the moderate–race change group, it appears that the primary explanation for the reduction in poverty must be increases in income for the original population (or people like them), rather than higher-income households of a different race moving in to replace them.

What about the 22 percent that did experience high race change? The composition is surprising. One might have expected that most of these cases would fit the gentrification model, with many higher-income whites moving in. In fact, Hispanics accounted for the largest share increases in 47 percent of all improving high–race change tracts, and blacks were the leaders in another 21 percent, leaving only 32 percent of the cases accounted for primarily by in-migration of whites and other races (figure 4).

Characteristics of High–Race Change Neighborhoods

How do the characteristics of high–race change neighborhoods differ across these categories? Table 3 looks first at differences in their locations by region. Most tracts where Hispanics took the lead are found in the West and South (mostly Texas metropolitan areas), the West being more dominant for worsening tracts than improving tracts. Among tracts where blacks were the growth leaders, the Midwest accounted for by far the largest share of improving tracts, but the South, and secondarily the Northeast and Midwest, were all important among worsening tracts. Improving tracts where whites and other races grew fastest were split fairly evenly across regions, but worsening tracts in this category were found mostly in the Northeast and West.

TABLE 3. Characteristics of High–Race Change Tracts

	No. of Improving Tracts with High Race Change by Most Rapidly Growing Group				No. of Worsening Tracts with High Race Change by Most Rapidly Growing Group			
	Total	Hispanic	Black	White/other	Total	Hispanic	Black	White/other
By Region								
Northeast	147	48	29	70	663	286	219	158
Midwest	261	82	101	78	342	111	209	22
South	287	159	58	70	803	371	395	37
West	241	150	9	82	1,003	799	46	158
Total	936	439	197	300	2,811	1,567	869	375
By Predominant Race in 1990								
Hispanic	128	116	6	6	336	329	4	3
Black	124	40	59	25	316	31	277	8
White or other	216	45	34	137	521	227	158	136
No predominant race	468	238	98	132	1,638	980	430	228
Total	936	439	197	300	2,811	1,567	869	375

Source: Urban Institute analysis of data from the Neighborhood Change Database.

The table also presents data on the racial/ethnic characteristics of these tracts in 1990 (a predominant race/ethnicity is defined as having accounted for 60 percent or more of a tract's population in that year). The first finding of interest is that tracts with no predominant race at the start of the decade account for a very high share of the total in this high–race change group: half the improving tracts and three-fifths of the worsening ones. And these tracts account for around 50 to 60 percent regardless of which race or ethnicity was the fastest growing over the 1990s. This suggests that, where major shifts in the racial or ethnic composition of neighborhoods occur, they most often do so slowly—not typically even within the span of a decade.

The standout finding for the remaining tracts (high race change in the 1990s but with one predominant race/ethnicity at the start) is that the predominant group at the start was most likely to be the fastest growing over the decade. This was true for around two-thirds of these cases, among improving tracts as well as worsening ones. An example would be a neighborhood that was 61 percent black in 1990 jumping to 76 percent black by 2000. In other words, these are neighborhoods that were further polarizing racially. This does not imply that such polarization was a major trend in the 1990s. In fact, research by Rawlings, Harris, and Turner (2003) shows that the number of racially diverse tracts increased in metropolitan America in that decade; their stability in that status was looking up as well. The data presented here simply say that some of the opposite phenomenon (polarization) is still going on.

Probably the most important finding in this section, however, is how little we found of what looks like gentrification, at least as it is most often defined. Witnessing the poverty reductions in many urban neighborhoods in the 1990s, many observers seemed to assume that gentrification (with higher-income whites displacing lower-income minorities) was behind most of them. Even though our measures are crude, our findings sharply contradict that assumption. Only 300 tracts (7 percent of all 4,278 tracts that improved in the 100 largest metropolitan areas in the 1990s) were high–race change tracts where whites (or other non-Hispanic, nonblack groups) accounted for the largest increases. To be sure, these do not account for all gentrifying tracts. For example, there are no doubt others where whites started moving in and replacing minorities near the end of the 1990s that did not meet our 15 percent change threshold for the high–race change category for the decade as a whole (census data do not let us isolate these). Nonetheless, the number that does meet our criteria is surprisingly small.

What Kinds of Neighborhoods Improved or Worsened?

Public officials and others interested in neighborhood well-being would obviously benefit from knowing ahead of time the characteristics that differentiate neighborhoods likely to decline, remain stable, or improve. Unfortunately, our analysis does not offer very satisfying guidance in this regard. However, some of the characteristics we examined are noteworthy.

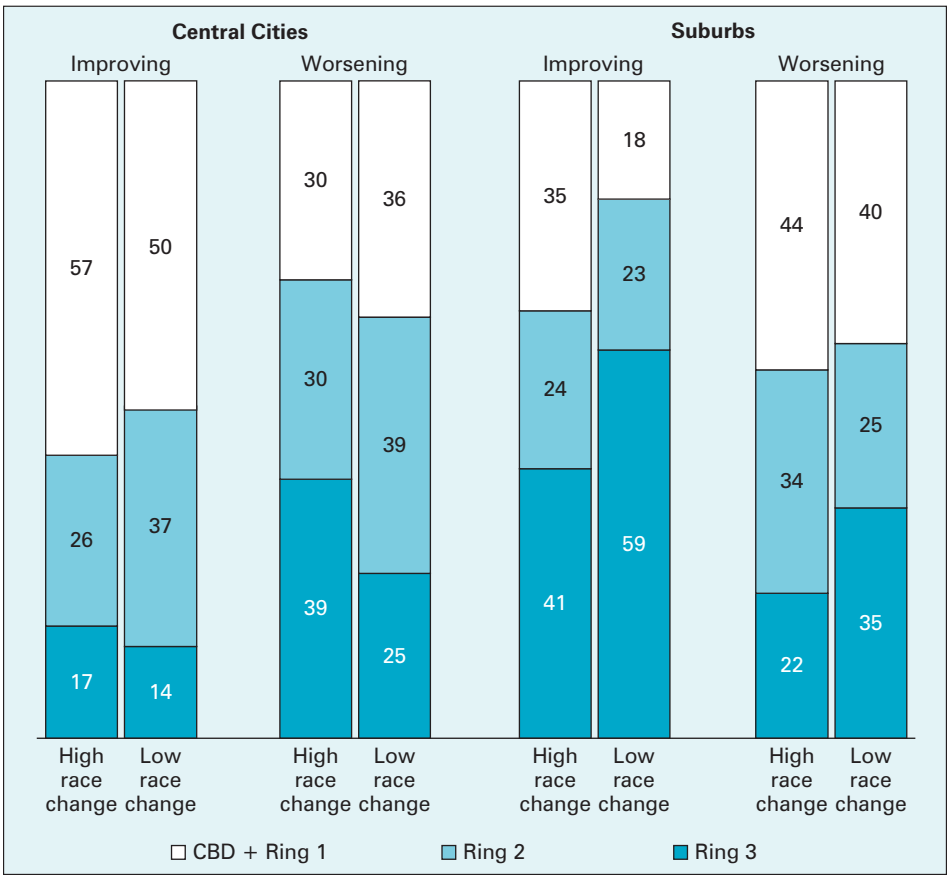
One of them is location. We divided the tracts in each metropolitan area into seven geographical divisions (following the approach developed by Berube and Forman 2002). The first includes all central-city tracts with centroids located within 1 mile of the centroid of the central business district (CBD). We then established three other rings within in the central city, dividing all remaining central-city tracts into terciles based on the distance between their centroids and that of the CBD. Finally, we defined three suburban rings in a similar manner (dividing all suburban tracts into terciles based on the distance between their centroids and that of the central-city CBD).

The results are shown in figure 5. It is important to note first that some tracts of all types as we have defined them are found in each location; that is, there is considerable mix for all groups. Nonetheless, differences in patterns are distinct. Tracts that improved were overwhelmingly located at the inner and outer extremes of the metropolis. More than half of those in the central city were located in the CBD or ring 1 (57 percent for high–race change tracts and 50 percent for low–race change tracts). Improving suburban tracts were predominantly located in ring 3 (41 percent for high–race change tracts and 59 percent for low–race change tracts).

In contrast, worsening tracts were most often located in the middle: ring 3 in the cities and ring 1 in the suburbs. This was consistently true in the suburbs where ring 1 accounted for the largest shares of those that worsened; 44 percent for high–race change tracts and 40 percent for low–race change tracts. It was also true for high–race change tracts in the cities where 39 percent were in ring 3; although for low–race change tracts, the largest share (39 percent) was found in ring 2.

What other initial characteristics might differentiate improving from worsening neighborhoods? Since we know that important differences in conditions are associated with

FIGURE 5. Location of Improving and Worsening Census Tracts, 100 Largest Metropolitan Areas, 1980s and 1990s



Source: Urban Institute analysis of data from the Neighborhood Change Database.

poverty levels, we next divided all tracts into two groups—poverty rates under 20 percent and poverty rates of 20 percent or more—and then compared characteristics of improving and worsening tracts within these groups. We looked at 1990 values of a number of traditional indicators of well-being (e.g., education levels, public assistance rates), as well as household composition and housing tenure. We also looked at 1990–2000 population growth (or decline) and the percent of the tracts' 2000 population that had moved over the preceding five years. Values of many of these indicators were indeed different for lower- versus higher-poverty categories, but we found almost no notable differences between improving and worsening tracts on average within those categories.

We next constructed a multivariate model to test the independent effects of the above factors on the change in poverty rate from 1990 to 2000. The independent variables included measures of the metropolitan economy, tract location, initial tract poverty rate, racial composition, racial change, and six social conditions (table 4). Our results generally validated the bivariate relationships noted earlier, but together the predictors only explained about a third of the variation in neighborhood poverty change in the 1990s.

Consistent with the 2003 analysis of poverty rate trends in the 1980s by Galster and colleagues, neighborhood trajectories over the 1990s were linked to economic and housing conditions in the surrounding metropolitan area. Every percentage point increase in the metropolitan poverty rate over the 1990s corresponded to a 0.33 percentage point increase in the tract poverty rate. In addition, a strong or intermediate housing market correlated with about a

TABLE 4. Regressions on Change in Poverty Rates, 1990–2000

	All tracts	Poor tracts
Adjusted R^2	0.33	0.29
Number of observations	37,630	3,996
Coefficients		
Intercept	–3.40**	0.03
	Metropolitan Area	
Economic/Population Trends, 1990–2000		
Change in metropolitan poverty rate	0.33**	0.26*
Percent change in metropolitan population	0.00	0.06**
Housing Market (omitted variable: weak market)		
Strong metropolitan housing market	–0.55**	–3.43**
Intermediate metropolitan housing market	–0.48**	–3.42**
	Census Tract	
Location		
In central city: distance in miles from central business district	0.04**	–0.01
In suburbs: distance in miles from central business district	–0.02**	–0.03
Poverty Rate, 1990		
Poverty rate	–0.42**	–0.66**
Poverty rate squared	0.00**	0.00
Racial Composition, 1990 (omitted variable: majority white tracts)		
Greater than 60% black	1.35**	0.81
Greater than 60% Hispanic	–0.30	–1.97*
Greater than 60% other minority race	1.01**	0.31
No dominant race	0.40**	–0.60
Racial Change, 1990–2000 (omitted variable: low racial change)		
High racial change: shift to Hispanic	2.97**	–0.10
High racial change: shift to black	3.25**	2.53**
High racial change: shift to white/other	–0.29*	–6.96**
Moderate racial change: Hispanic	0.77**	1.57**
Moderate racial change: black	1.03**	2.12**
Moderate racial change: white/other	–0.06	–2.12**
Social Conditions, 1990		
Percent of population age 16+ not working	0.20**	0.76**
Percent renter-occupied	0.04**	–0.01
Percent foreign-born	–0.05**	–0.07*
Percent of population >age 25 without high school degree	0.01*	–0.06
Rental vacancy rate	0.02**	–0.07
Percent of families that are female-headed	0.03**	–0.08*
Sq. of percent of population age 16+ not working	–0.0010**	–0.01**
Sq. of percent renter-occupied	0.0004**	0.001**
Sq. of percent foreign-born	0.0009**	0.001
Sq. of percent of population >age 25 without high school degree	0.0009**	0.001
Sq. of rental vacancy rate	–0.0004*	0.002
Sq. of percent of families that are female-headed	0.0001	0.000

Source: Urban Institute analysis of data from the Neighborhood Change Database.
* = significant at .05 level.
** = significant at .01 level.

0.5 point reduction in poverty compared to weak markets. With these two economic measures in the model, the change in metropolitan population was not significantly related to changes in poverty rates.

The model verified that neighborhood location matters. For central-city tracts, being farther away from the CBD was positively correlated with rising poverty rates. The suburban tracts exhibited the opposite relationship, with locations in the inner suburbs more likely to face increasing poverty. Also consistent with tabular presentations earlier in this brief, higher initial poverty levels were associated with a decrease in poverty rates.

Race and racial change were both strong predictors of poverty rate trends. Neighborhoods with greater than 60 percent non-Hispanic black or other non-Hispanic minority populations in 1990 were more likely to experience rising poverty rates than predominantly white tracts. This pattern also held for those areas with no dominant race, though to a lesser extent. Having moderate or high levels of racial change with growing shares of blacks or Hispanics was associated with worsening poverty compared to neighborhoods with little racial change (defined for this purpose as 0.8 to 3.3 points). Major racial shifts in the white or other minority population share related to improvement in poverty rates, but the associated decreases reached only about one-tenth of the absolute magnitude of the poverty rate increases seen with the minority shifts.

Even taking all the above factors into account, all six social conditions in the model were significantly correlated to poverty changes. The percent of population age 16 and older that was not working overwhelmed the others in influence, but even that relationship was fairly weak—only a 0.20-point increase in poverty for every 1-point increase in the nonemployment rate. Of the six indicators, only the percent foreign-born showed an inverse relationship, with higher proportion of immigrants associated with falling poverty rates. This supports other research showing that poverty rates for immigrants decreased more quickly than for native-born individuals in the 1990s (Chapman and Bernstein 2003). The significance of all but one of the squared indicators, even with very small coefficients, demonstrates the continuing need to explore key threshold levels for different neighborhood characteristics.

We also performed the regression analysis separately for census tracts with poverty rates of 30 percent or higher. The findings revealed that the factors related to changes in poverty rates for these distressed areas differed in important ways from those for all tracts.[7] First, poverty trends in poor tracts were more strongly tied to the health of the metropolitan housing market, with the coefficients for the strong and intermediate status six times higher than for all tracts.

Second, the connections between racial characteristics and changing poverty rates in poor tracts diverged in significance and strength from the patterns for all tracts. In a very different pattern than for all neighborhoods, majority-Hispanic tracts were the only racial category proved significantly correlated in the model restricted to high-poverty tracts. Hispanic tracts were linked to a 2-point improvement in the poverty rate compared with mostly white ones. Earlier we noted that most high-poverty tracts that improved in the 1990s did not see major jumps in the share of white population, but where the racial shifts did occur, this model shows they were accompanied by major shifts in poverty rates. For poor neighborhoods, a large shift toward a white or other non-Hispanic, nonblack minority population was accompanied by a 7-point fall in poverty rate—the highest coefficient in both models. Unlike the general model, the moderate increases in the share of whites also came up significant for poor tracts.

Implications

After decades of bleak news for American cities, the 1990s saw some notable improve-

ments, particularly a reduction in the concentration of poverty. If people have come to believe a continuation of this overall trend is inevitable, however, this brief should shake them out of their complacency. Indeed, there were net improvements, and they may well continue, but countervailing forces were also operating as poverty rates increased in significant numbers of other metropolitan neighborhoods. In terms of the overall pattern of change, the 1990s looked like the 1980s, with large numbers of neighborhoods both improving and worsening in each decade. It is just that in the 1990s, the balance shifted in a more positive direction.

Conditions in regional economies and housing markets are clearly important to these outcomes. Where markets are strong, the share of neighborhoods that improve will be higher than where markets are weak. However, the results are always a mix; some neighborhoods worsen even in the strongest markets and vice versa. Our regression analysis explained only about a third of the variation across metropolitan areas. Clearly, there should be room for local policy to make a difference.

Beyond efforts to bolster local economies and housing markets, what should local officials try to do? This research makes it very clear that few areas in cities are truly static. Changes in neighborhood fortunes in both directions are almost sure to occur, and officials need to be alert for them, anticipate them, and take preparatory actions when and where they can.

This analysis is unable to offer many clues as to what changes to expect where. But with vast improvements in local data sets and GIS capacities, there is a potential to develop local "early warning" and monitoring systems that should be able to provide substantially better guidance than has been possible up to now (Chandler et al. 2006). Officials should watch for abrupt changes in a number of indicators—for example, property sales volumes, median sales prices, foreclosure rates, tax arrears, rates of food stamp receipt, and share of students eligible for free and reduced-price lunches. These indicators are being updated at a neighborhood level, and made accessible in an automated form, in a growing number of cities.

If local stakeholders have more reliable advanced warning, what should they do with it? Given the threat of displacement, neighborhoods that are gentrifying should probably warrant the highest priority for attention. Our analysis showed that most improving neighborhoods in the 1990s were not experiencing marked racial change, but the number that were doing so was still significant, and displacement is a risk in others where higher-income groups of the same race as current residents are moving in. Typically, where gentrification is under way, the goal should not be to stop the process—neighborhoods in this category have needed an injection of new investment for many years. Rather, the objective should be to moderate and guide it so significant numbers of residents can be retained and also benefit from the improvements; that is, so the result will be a sustainable mixed-income community.

This scenario might have seemed naïve a decade ago, and it still is unlikely to work where gentrification is already advanced. However, where certain techniques are initiated early enough, they appear promising at this point (see the options described in Levy, Comey, and Padilla 2006 and at http://policylink.org/EDTK). These include inclusionary zoning along with the facilitation of ownership change and other property-by-property interventions that preserve units at affordable prices. Of course, some new subsidies will be needed as well, but techniques like these help to moderate the amounts of subsidy required—enough so local governments in a number of cities now appear willing to devote substantial amounts of their own revenues toward these ends.

What about neighborhoods that are worsening? Most important at the outset is to ensure that local public policies are not exacerbating the problem by reconcentrat-

ing the poor—for example, by locating too many voucher recipients or subsidized units in any neighborhood. Even if that is not happening, however, the evidence presented earlier shows that sizeable numbers of low-income families are moving into some new types of neighborhoods on their own. What should be done in these cases?

Actually, the underlying objectives should be similar to those for gentrification. Stakeholders should not want to stop the process; that is, they do not want to prevent lower-income families (from the inner cities and elsewhere) from moving into better neighborhoods. But again, stakeholders probably want to find ways to guide the process so many current residents (in this case from higher-income families) will remain and a sustainable, mixed-income community will result.

Early actions in this case should emphasize ensuring that more lower-income residents moving in does not translate into a deterioration in neighborhood conditions. This may entail extra efforts to keep the streets clean, enforce codes to sustain property maintenance, community policing to keep the crime rate low, and services for the new entrants to help them adapt to and sustain themselves successfully in their new environments. Many of these techniques have been tested in the "healthy neighborhoods approach" (Boehlke 2001).

America has now learned a great deal about the tragic consequences of concentrated poverty and how past trends in that direction were exacerbated by a range of public policies. The research presented in this brief demonstrates that poverty concentration is certainly not inevitable. Alternative policies and programs do exist that can help push the trends away from polarization and hopefully create many more of what Katz (2004) has called "neighborhoods of choice and connection."

Notes

1. The NCDB was developed by the Urban Institute and GeoLytics, Inc. Documentation can be found at http://www.geolytics.com. To avoid outliers, the database for this analysis excludes 286 tracts with less than 200 population in 1980, 1990, and 2000. It also excludes 679 metropolitan tracts as defined in 2000 that were in areas that were not tracted in 1980 (i.e., for which no 1980 tract-level data exist). Since census tract boundaries do not always conform to municipal boundaries, we define each city as the aggregation of 2000 census tracts that most closely approximates the official place boundary, and use those same boundaries for 1980 and 1990. Thus our city population totals may differ from the place totals published by the Bureau of the Census.
2. Actually, there were 331 metropolitan areas in 2000, but we exclude Barnstable-Yarmouth because census tracts were not defined within it in 1980. We selected the largest 100 Primary Metropolitan Statistical Areas (PMSAs) and Metropolitan Statistical Areas (MSAs) based on their 1990 populations. We exclude suburban PMSAs that did not have large central cities within their own boundaries. The Bureau of the Census recognizes several individual municipalities as "central cities" in many metropolitan areas. For this analysis, we generally accept only the predominant city as the central city (e.g., Chicago in the Chicago PMSA). In seven cases, however, we classified two municipalities as together making up the central city: Anaheim/Santa Ana, CA; Fort Lauderdale/Hollywood, FL; Greensboro/Winston Salem, NC; Greenville/Spartanburg, SC; Minneapolis/St. Paul, MN; Tampa/St. Petersburg, FL; and West Palm Beach/Boca Raton, FL.
3. With the categories above, tracts with poverty rates near the boundary lines between categories can move from one to another if their rates change by only 1 or 2 percentage points, so this approach could distort perceptions depending how observations are bunched near the boundaries.
4. These two measures are highly, but not perfectly, correlated (Pearson correlation coefficient = 0.76).
5. The *Z*-score expresses the value for a particular variable in terms of the number of standard deviations from the mean it represents for that variable. By scaling all values by the mean and standard deviation, the *Z*-score generates a measure that always has a mean of 0 and a standard deviation of 1, thereby eliminating scale effects.
6. To allocate non-Hispanics who identified more than one race in the 2000 Census into the three racial categories, we applied an algorithm developed by demographer Jeffrey Passel that we believe achieves reasonable comparability over time (see explanation in Tatian 2003).
7. There were several other notable differences between the two models. The metropolitan change in population became significant but in a counterintuitive direction, with increases in population associated with increases in poverty. And location in relation to the CBD did not persist as a significant predictor for poor tracts, likely because most poor tracts in 1990 were clustered in the center city.

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The Rockefeller Foundation has funded the Urban Institute to conduct a project that will advance knowledge about neighborhood change in America's urban areas, particularly as it occurred over the 1990s. The project has had two purposes. The first was to develop the Neighborhood Change Database (NCDB)—the only database that contains nationwide census data at the tract level with tract boundaries and variables consistently defined across the four U.S. censuses from 1970 through 2000 (for more information about the NCDB, visit http://www.geolytics.com). The second was to conduct research on neighborhood change using the NCDB, focusing particularly on changes in the concentration of poverty, conditions in distressed neighborhoods, and racial patterns. This brief is one product of that research.

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