

RACIAL RESIDENTIAL SEGREGATION IN OHIO'S EIGHT LARGEST CITIES: 1950-1980¹

PETER J. LEAHY and NANCY GRANT, Department of Urban Studies, The University of Akron, Akron, OH 44325

ABSTRACT. Racial residential segregation patterns in the eight largest Ohio cities are examined from 1950-1980 to determine if certain gains which blacks recently have made in other areas of life have been translated into improved residential integration. Data were collected from the 1950, 1960, 1970, and 1980 United States Censuses of Population and Housing at the census tract level. The index of dissimilarity is used to measure residential segregation at both the central city and outside central city levels of the Standard Metropolitan Statistical area. Results indicate improvement in residential segregation during the 1970s for both the central cities and the suburbs, although the levels of segregation remain high overall. Cleveland, home to nearly one-fourth the black population of the state, remains highly segregated, both in the central city and in its suburbs.

OHIO J. SCI. 85 (1): 2-6, 1985

INTRODUCTION

With the appearance of the pioneer study by Taeuber and Taeuber (1965), racial residential segregation has been a well-documented current social problem in American cities. Using the index of dissimilarity to measure segregation through the 1960 census, the Taeubers found that 80% of the 207 cities in their study had segregation scores above 80. This suggests that at least 80% of the blacks in these sample cities would have had to relocate in order to achieve an egalitarian distribution.

Since the Taeubers' study a number of updates have been performed with various samples and more recent census data. The most recent of these examined 237 Standard Metropolitan Statistical Areas (SMSAs) and their central cities between 1960 and 1970 (Van Valey et al. 1977). This study found an overall general decline in the level of segregation between 1960 and 1970. However, much of the decline was statistical artifact due to the inclusion of new SMSAs over the decade with lower segregation scores. In general

the findings suggested an increase in the largest cities and a decline in medium size and small cities. Importantly, Sorensen et al. (1975) found that generalizations about segregation trends are greatly influenced by the characteristics of the cities that investigators study: variations by region, as well as city size, were documented.

While the index of dissimilarity is an acceptable technique for documenting the concentration of a group within a geographic area, when used in isolation it is unsatisfactory for explaining the distribution. Thus, in this paper we shall apply a broader analysis of census data in order to understand the distributional shifts that have occurred among blacks within the largest metropolitan areas in Ohio since 1950. In addition we also calculate indexes of dissimilarity separately for central cities and areas outside of central cities in order to document the distributional trends within the entire metropolitan area.

METHODS

We have chosen the eight largest cities within Ohio for this analysis since together they accounted for 70% of the entire black population of the state in 1980 (table 1). Cleveland alone is home to nearly one-fourth of the state's black population. While the eight cities share of the state total had decreased

¹Manuscript received 2 May 1984 and in revised form 9 August 1984 (#84-25).

TABLE 1
*Percentage of state black population residing in eight largest Ohio cities: 1950-1980.**

	1950	1960	1970	1980
Total population, Ohio	7,946,627	9,706,397	10,652,017	10,797,630
Black population, Ohio	516,531	795,924	970,477	1,079,763
Black population (8 cities)	380,400	620,011	736,999	754,810
Percentage Distribution				
Akron	4.6	4.8	5.0	5.3
Canton	1.4	1.4	1.4	1.4
Cincinnati	15.1	13.8	12.9	12.1
Cleveland	28.6	31.8	24.7	23.3
Columbus	8.6	9.8	10.3	11.6
Dayton	6.6	7.2	7.7	7.0
Toledo	4.7	5.1	5.5	5.7
Youngstown	4.0	4.0	3.6	3.6
Total, 8 cities	73.6	77.9	71.1	70.0

*Source: U.S. Census of Population and Housing 1950, 1960, 1970, 1980

between 1960 and 1970, there has been very little change since 1970 (table 1).

Data are derived from the U.S. Censuses of Population and Housing at the census tract level to examine the distribution of blacks within these eight cities since 1950. The index of dissimilarity is calculated separately at the census tract level for the eight central cities since 1950, and for all areas outside of the central cities, but within the SMSA, since 1960. The latter is an attempt to measure the "suburban share" of the SMSA population. (We are aware that the SMSA definition generally overstates the degree of urbanism of an area. However, for the eight cities in this study the area outside the central city within the SMSA can be taken to be a fairly good approximation of "suburbanism.") This will enable us to compare changes in the city to simultaneous changes in the suburbs. Comparing outside central city scores before 1960 is inappropriate because of the definitional changes the SMSA has undergone after 1950. The formula for the index is:

$$I.D. = 1/2 \sum_{X_i=1}^K |A\% - B\%|$$

where: $A\%$ is the percentage of city whites (or outside central city whites) residing in census tract X_i and $B\%$ is the percentage of city blacks (or outside central city blacks) residing in tract X_i and K is the number of census tracts within the central city (or outside of the central city).

The index provides a precise measure of segregation at different points in time (Shyrock and Siegel 1971). The index value has a straightforward interpretation; it specifies the minimum percentage of members of a group who would have to change place of residence in order to produce total integration. Total integration would exist when a group was distributed in each geographical unit (here, the

census tract) in the same degree as it was distributed in the overall population of the city (or outside central city).

The index does have a major limitation, however; that is it does not explain segregation (how or why it comes about), but simply quantifies the degree to which it is present.

RESULTS

Table 2 presents the percentage black in each of these Ohio cities from 1950 to 1980. Without exception, every city has experienced an increase since 1950. The rate of increase of this black population has been slowing down, however, mirroring national trends (table 3). In the case of Cleveland there has even been a net outflow of blacks from the central city.

Table 4 suggests a dramatic change in black metropolitan location for the Cleveland metropolitan area. As a percentage of the SMSA population living outside the central city, blacks in the Cleveland SMSA increased from 13.46% in 1970 to 27.28% in 1980, an increase of over 100%. Cincinnati (15.19% in 1970 to 23.63% in 1980) and Dayton (20.70% in 1970 to 28.73% in 1980) also exhibited substantial increases in black suburbanization. These cities also recorded the next lowest percentage change in the black population residing within the central city. Since the three cities accounted for 42.3% of Ohio's

TABLE 2
Percentage black, selected Ohio cities: 1950-1980.*

City	1950	1960	1970	1980
Akron	8.66	13.05	17.50	24.34
Canton	6.09	9.81	12.51	15.99
Cincinnati	15.53	21.82	27.64	33.85
Cleveland	16.17	28.89	38.33	43.80
Columbus	12.33	16.61	18.46	22.11
Dayton	14.09	21.94	13.79	17.41
Toledo	8.02	12.71	13.79	17.41
Youngstown	12.38	19.14	25.24	33.34
\bar{X} unweighted	11.36	18.00	23.00	28.47
\bar{X} weighted by population	13.20	20.67	25.45	29.84

*Source: U.S. Census of Population and Housing
1950, 1960, 1970, 1980

black population in 1980, these suburbanization trends take on added significance.

Four Ohio cities—Canton, Youngstown, Dayton, and Cleveland—now have over 25% of their black SMSA population residing outside the central city. Toledo and Akron appear to offer the least opportunity for metropolitan blacks to reside outside the city, as does Columbus, although the annexation policy of that city makes interpretation of this statistic problematic. Despite this overall indication of increasing suburbanization, in 1980 the average "suburban share" of the eight cities remained below the national average distribution of blacks outside the central city within the SMSA (21.6% versus 23.4% nationally). The rate of increase for these eight cities was higher, however, between 1970 and 1980 than the national rate (49.3% versus 43.0%).

Applying the index of dissimilarity to data from the eight Ohio central cities produces the results shown in table 5. Overall, segregation levels in these cities have been substantial since 1950. In general, there was also very little change in aggregate segregation levels between 1950 and 1970. Between 1960 and 1970 segregation levels rose in five of the eight cities and registered only very slight declines in the

TABLE 3
Percent change in black population by decade.*

City	1950-1960	1960-1970	1970-1980
Akron	59.96	27.21	19.74
Canton	56.67	23.50	10.05
Cincinnati	40.72	14.03	4.32
Cleveland	71.50	13.72	-12.68
Columbus	75.36	27.23	25.35
Dayton	68.04	29.08	0.98
Toledo	65.94	30.90	16.70
Youngstown	53.35	10.59	9.06

*Source: U.S. Census of Population and Housing
1950, 1960, 1970, 1980

TABLE 4
Percentage of black suburbanization: blacks in the
SMSA not in the central city.*

City	1950	1960	1970	1980
Akron	11.11	9.05	11.22	12.99
Canton	44.17	39.78	36.14	37.46
Cincinnati	18.69	15.25	15.19	22.63
Cleveland	4.09	9.38	13.46	27.28
Columbus	14.70	4.04	6.37	7.28
Dayton	20.34	18.51	20.70	28.73
Toledo	9.43	6.85	3.94	5.72
Youngstown	41.24	32.22	30.30	30.89
\bar{X} unweighted	20.47	16.89	17.17	21.62
\bar{X} weighted by population	14.86	10.80	14.48	21.38

*Source: U.S. Census of Population and Housing
1950, 1960, 1970, 1980

remaining three. Between 1970 and 1980, however, the trend appears to have reversed. Five of the eight cities indicated clear decreases in segregation levels, while the other three registered slight decreases. No city registered increases in segregation levels during the 1970s.

Despite this recent change, Ohio's eight largest cities remain substantially segregated in 1980 with an average score of 73.7. Two in particular retain very high levels of residential segregation: Cleveland (86.5) and Dayton (80.9). Despite leading the state in the rate of black suburbanization between 1970 and 1980, blacks within the city of Cleveland remain as seg-

TABLE 5
*Indexes of dissimilarity for the eight largest Ohio cities and change by decade: 1950-1980.**

Cities	1950	1960	1970	1980	Change 1950-60	Change 1960-70	Change 1970-80
Akron	72.6	74.8	73.1	69.0	+	-	-
Canton	N.A.	73.0	76.4	65.2	N.A.	+	-
Cincinnati	80.5	81.1	75.3	74.5	+	-	-
Cleveland	86.2	85.3	86.7	86.5	-	+	0
Columbus	74.3	72.6	77.5	69.1	-	+	-
Dayton	87.2	88.3	88.2	80.9	+	0	-
Toledo	81.5	81.5	81.9	76.1	0	+	-
Youngstown	N.A.	65.2	68.6	68.3	N.A.	+	0
\bar{X} unweighted	80.4	77.7	78.5	73.7	-	+	-
\bar{X} weighted by population	81.5	79.6	80.1	75.6	-	+	-

*Source: U.S. Census of Population and Housing 1950, 1960, 1970, 1980

regated today as they were in 1950. No other large Ohio city has such a poor record. Since Cleveland accounts for nearly one-quarter of the entire state's black population, the implications of this are quite important.

Table 6 presents the indexes of dissimilarity for the remaining SMSA area outside of the central city. We note that suburban segregation, while still high, has fallen substantially in the last decade compared to the 1960-1970 trends. In every SMSA the level of suburban residential segregation declined between 1970 and 1980, in six of the eight SMSAs quite substantially. This compares to the 1960-1970 period when suburban residential segregation decreased in only two SMSAs. Three cities, Cincinnati, Youngstown and Canton, had higher residential segregation in their suburbs than in their central cities. The other five cities had higher central city segregation levels in 1980. Cleveland, the most highly segregated central city of the eight, also has the most highly segregated suburbs with a score of 81.4 followed by Cincinnati at 75.6.

DISCUSSION

In general residential segregation, measured at the census tract level, has improved in the eight Ohio central cities from 1970 to 1980 and also within their

suburbs. Levels remain quite high, however, with an average index value in 1980 of 73.7 for the eight central cities and a value of 68.4 for the suburbs.

Our evidence further suggests that metropolitan decentralization of blacks has been occurring during the same period that SMSA residential segregation has declined. This has been particularly the case in Cleveland, Cincinnati, and Dayton. Unfortunately, this decentralization has not greatly alleviated the residential segregation of those blacks remaining in the city as we have noted. However, an analysis of the segregation indexes of SMSA area outside of the central city indicates that this suburban movement of blacks has been accompanied by some decrease in residential segregation there. Suburban segregation nevertheless remains highest in two of these three metropolitan areas—Cleveland and Cincinnati. (See also Cuyahoga Plan 1983.)

A recent study of American blacks by the Census Bureau has shown that blacks have made important overall gains in education and occupational attainment over the last 12 yr. [There has been actual regression in other important areas of black life, however, such as family composition, poverty rates, and unemployment levels (Matney and Johnson 1983).] However the progress measured in these other areas of

TABLE 6
*Indexes of dissimilarity for the eight largest Ohio SMSA areas outside of the central city: 1960-1980.**

Cities	1960 Index	1970 Index	1980 Index	Change 1960-70	Change 1970-80
Akron	77.1	66.5	61.2	-	-
Canton	71.0	71.7	70.5	+	-
Cincinnati	84.5	85.8	75.6	+	-
Cleveland	74.3	97.7	81.4	+	-
Columbus	68.7	78.8	59.0	+	-
Dayton	79.2	79.0	66.1	0	-
Toledo	79.9	74.8	63.8	-	-
Youngstown	78.3	78.8	69.6	+	-
\bar{X} unweighted	76.6	79.1	68.4	+	-
\bar{X} weighted by population	77.4	83.6	71.2	+	-

*Source: U.S. Census of Population and Housing 1950, 1960, 1970, 1980

black life has yet to be replicated at the neighborhood level of the eight Ohio SMSAs studied. Nevertheless, the data do provide evidence that the 1970s was the first decade since 1950 in which black residential integration has substantially improved. This improvement took place in both the city and the suburbs of the SMSA. Whether the trends will continue or accelerate in the 1980s, of course, will determine whether and how quickly we will achieve a more egalitarian residential society.

LITERATURE CITED

- Cuyahoga Plan of Ohio, Inc. 1983 A report on population and race: Estimates of the racial composition of Cleveland's neighborhoods and suburbs, 1976-1981. Cuyahoga Plan of Ohio, Inc. (February). 17 p.
- Matney, W. and D. L. Johnson 1983 America's black population 1970-1982: A statistical view. U.S. Dept. Commerce, Bur. Census. (July). 27 p.
- Shyrock, H. S. and J. S. Siegel 1971 The methods and materials of demography (2 vols.). U.S. Dept. Commerce, Bur. Census, Population Div. p. 262-263.
- Sorenson, A., K. E. Taeuber and L. J. Hollingsworth, Jr. 1975 Indexes of residential segregation for 109 cities in the U.S.: 1940-1970. Sociological Focus. 8. (April).
- Taeuber, K. E. and A. F. Taeuber 1965 Negroes in cities: Residential segregation and neighborhood change. Aldine Press, Chicago, IL 284 p.
- Van Valey, L., W. C. Roof and J. E. Wilcox 1977 Trends in residential segregation: 1960-1970. Amer. J. Soc. 82. No. 4. (January): 826-844.

Editor's Note

The Ohio Journal of Science

3rd Annual Paper of the Year Award for 1984

will be presented at the
 94th Annual Meeting of The Ohio Academy of Science
 on 20 April 1985.