

# FIELD NOTES

A SERIES DEDICATED TO THE HUMAN EXPLORATION OF OUR PLANET

## THE CONTINENTS AND ISLANDS OF MANKIND



Discussion Paper No. 2

"SCHOOL DECENTRALIZATION"

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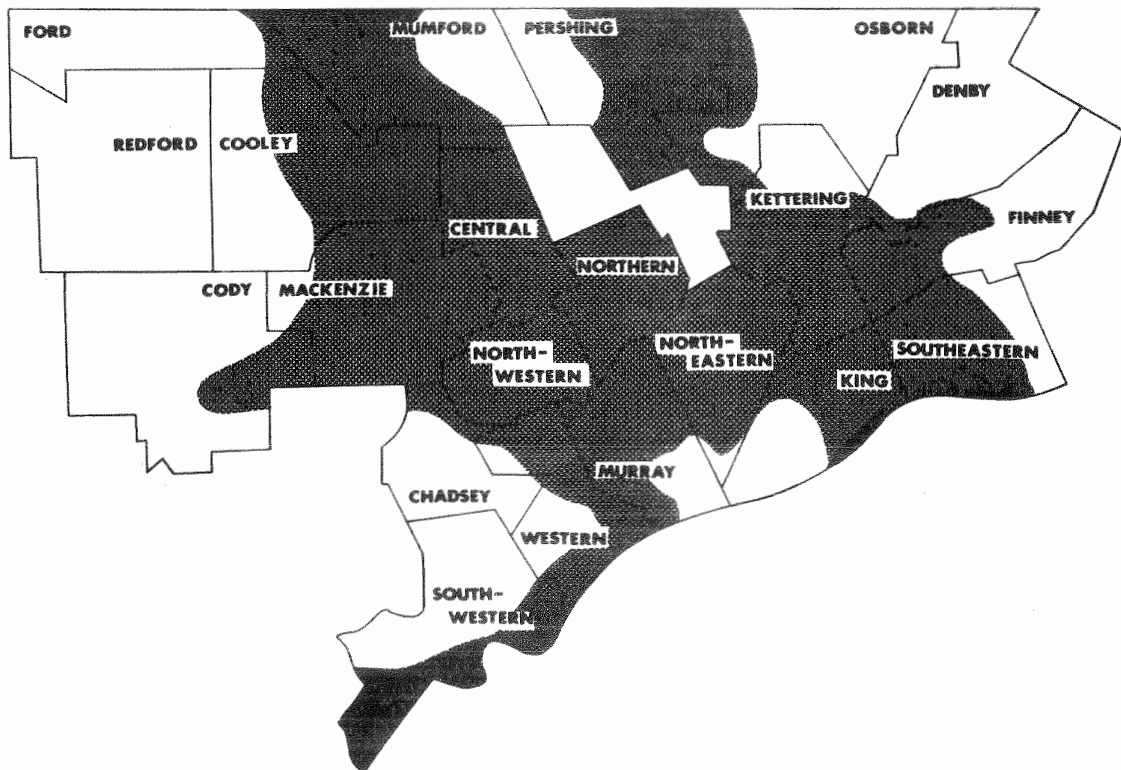
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# **A REPORT TO THE PARENTS OF DETROIT**



## **ON SCHOOL DECENTRALIZATION**

Cover: Grade schools more than fifty percent filled with black children are shown in black.

Detroit Geographical Expedition and Institute

Detroit, Michigan

May, 1970

Mr. John Watson  
Director, West Central Organization  
3354 Grand River  
Detroit, Michigan

State Senator Coleman Young  
State Capitol  
Lansing, Michigan

Gentlemen:

In response to your request for technical assistance in the implementation of Senate Bill No. 635, we hand you herewith a copy of a report entitled "A Report to the Parents of Detroit on School Decentralization" by the Detroit Geographical Expedition and Institute. This is the final version of the report we presented to you in rough form December 22, 1969.

The report is interesting in that it required some of the latest programming techniques in the most advanced languages available on the continent. Five or six university mathematical and geography staffs have worked on the high school and grade school based region problems. We would like to draw special attention to the work of Dr. John Shepherd the geographer from the London School of Economics who this year is fortunately on leave to Queen's University in Kingston, Ontario, and who threw himself and colleagues into the task literally night and day to meet the deadlines set by men of more practical day to day affairs.

Thank you for this opportunity to turn abstract science to good use.

Sincerely,



Miss Gwendolyn Warren  
Administrative Director



Dr. William Bunge, Jr.  
Research Director



Final Report

**"A REPORT TO THE PARENTS OF DETROIT  
ON SCHOOL DECENTRALIZATION"**

by

**William Bunge, Yvonne Colvard, Susan Cozzens, Beverly Edward, Dwight Ferguson, Jerol Jordan,  
Marilyn Middlebrooks, John Trafton, Robert Ward, Gwendolyn Warren**

Assisting scientists in all aspects of this study include Dr. John Shepherd of the Geography Department, Queens University, Kingston, Ontario; Professors Ray Johnston and Charles Baer of the Political Science Department, Wayne State University, Detroit; Assistant Professors Ronald Horvath and Edward Vandervelde of the Geography Department, Michigan State University, East Lansing, Michigan and two geography graduate students from the same department, Charles Ipcar and Melinda Meade; Professor John Nystuen and Assistant Professor Donald Deskins, of the Geography Department, University of Michigan, Ann Arbor, Michigan. The grade school version of the assignment problem has been submitted to research teams of geographers at the following universities; Clark, Harvard, Queens, Northwestern, the University of Pennsylvania, and the University of Washington (Seattle). In addition, the Council of the American Association of Geographers at their quarterly meeting in Chicago, December 12, 1969, under the chairmanship of Professor Ross Mackay, gave attention to the problem as presented by Miss Warren and Dr. Bunge.

Special thanks go to the Wayne State University Center for Urban Studies (Bertram M. Gross, director; Michael Springer, Research Associate; Ray Rickman, Urban Fellow) for housing the Planning Institute and sharing production costs. Thanks also to the Geography Department of Wayne State for housing the Cartographic Institute.

**Detroit Geographical Expedition  
and Institute**





## Chapter I

### Community Control

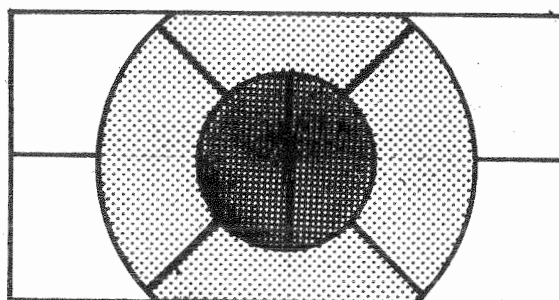
The strategy of this first chapter is to examine the problem of a school decentralization plan afresh, as if no other plans were in existence. As a first step it is necessary to establish the criteria on which the regionalization is to be based. It is possible to optimize the interests of the taxpayer, the school system, the teachers union, the registered voter or the children. Clearly the needs of the children should receive first priority.

#### A. Protection of the Children

Black children are among the most abused children in America. It is imperative that these most endangered children receive the most protection. (The infant mortality rate of black children in the King High School area on the east side of Detroit is higher than that of San Salvador, a fact some Americans consider unpatriotic.) Therefore, a humane research strategy should be to design a plan for the schools which protects the most vulnerable children and is still in strict accordance with the law.<sup>1</sup> The main geographic provision of the bill is that Detroit shall be divided into 7 to 11 regional school districts with not more than 50,000 nor less than 25,000 students in each district. In addition, each of the regional school districts will elect a single member to the central School Board. Federal law requires that each of the regional school districts be contiguous, that is, in one piece.

To meet the primary goal of protecting the most abused children, every possible legal regional combination of Detroit high school districts (over seven thousand) were ranked according to sympathetic authority to the children from most to least. the measure of sympathy used is "the total number of black children under white authority." (Appendix II.) A regional school district is defined as being under white authority where a majority of voters voted for white candidates in the mayoral primary. (A man with white skin color who voted black was considered to be a "black voter" and vice versa.) Assuming short run consistency in racial voting attitudes, it can reasonably be predicted which regional school districts would be under white authority.

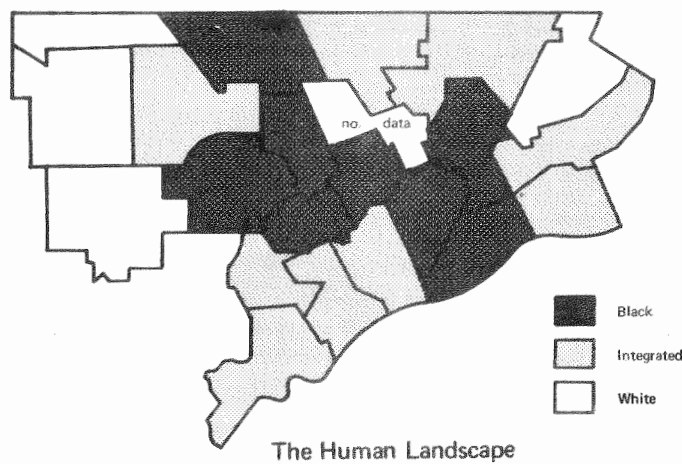
The easiest way to place children under sympathetic authority is to draw districts which reflect the voluntary human landscape of the city. The city's schools fall into three regions, black, integrated, and white, as shown below. In drawing the districts, a special pattern emerges when these regions are preserved. It is this general pattern which this report recommends to the community.



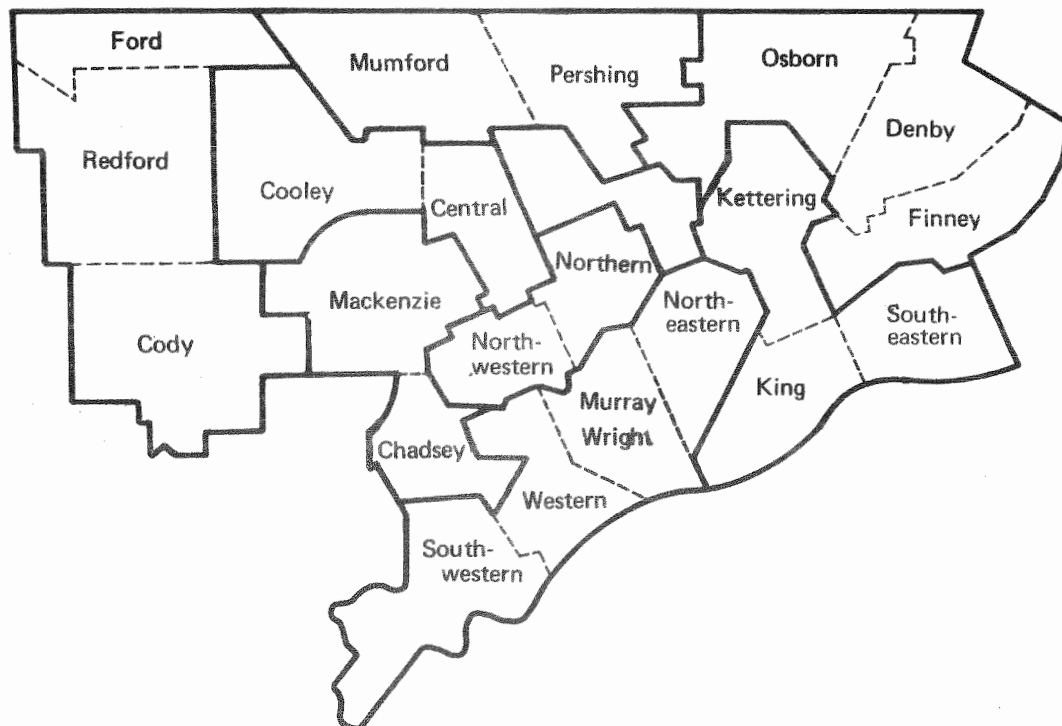
Generalized Pattern for Boundaries of  
Child Protection Districts

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1. State of Michigan, Senate Bill No. 635, approved by the Governor, August 11, 1969. (The complete bill is reproduced in Appendix I.)



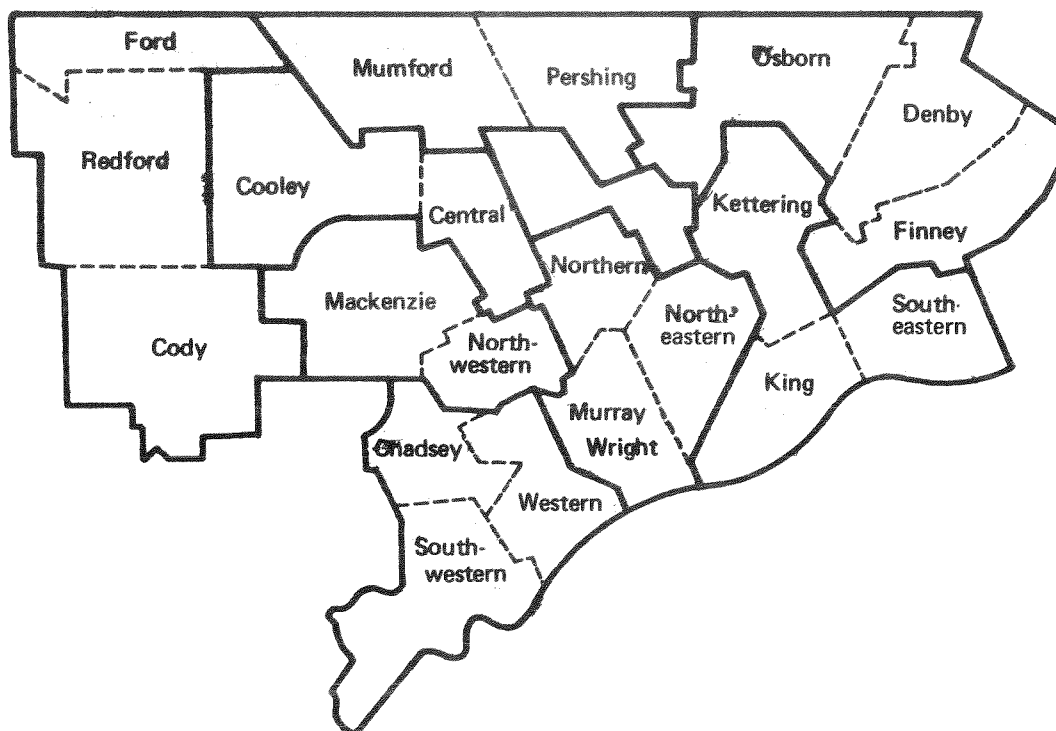
From the 194 plans which follow this pattern, we recommend the regions mapped below as best. This plan places 91.4 per cent of the black children under sympathetic authority.



High School Districts Combined to Maximize Sympathetic Authority <sup>2</sup>

2. The pattern of this plan is essentially the same as the one presented in the progress report, although there are several changes in the actual regional groupings. Late in the preparation of the progress report, the research team discovered inconsistencies in the data provided by the Northwest Council of Organizations. For this report, the data was recomputed correctly. The changes resulted in this slightly altered plan, which places 91.4 per cent of black children under sympathetic authority. More children could have been protected if the law did not stipulate such large regions.

The plan below is our number two choice. It gives maximum control to local communities while following the black-integrated-white pattern. It balances the number of children under the control of the opposite race. Because neighborhood control and sympathetic authority are highly correlated, it also places a great many children under sympathetic authority.

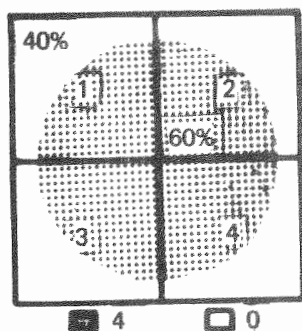


Maximum Community Control Plan

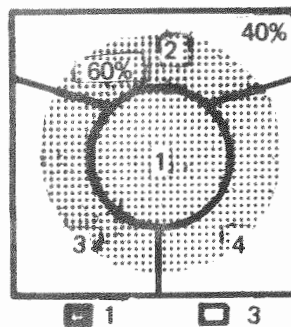
In conclusion, we recommend to the community a pattern which puts like schools together and protects the children from the battles of adults. The wisdom of the community can decide best on which of the many good possibilities will become the final plan.

#### B. Philosophy of Community Control

At this juncture the philosophy of "community control" must be briefly explained. "Community control" is another way of saying "local government" or "sub-urban units" or "homogeneous regions" or simply "democracy." The object of "community control" is to assure that all people, regardless of race, color, religion, national origin or class be given control over their own community's interests. In this case, their community's interest is sympathetic authority over their children in the public schools. The opposite of "community control" is the denial of political power to the community, and this is often accomplished by the device of "gerrymandering." "Gerrymandering" is the drawing of voting boundaries in such a fashion as to leave a group with little or no political power in spite of their numbers. Gerrymandering is geographic vote stealing. The perfectly gerrymandered group is one with huge minorities in all voting districts, in theory many minorities of 49.999999999 per cent. The more voting districts of this nature the more votes the minority group has wasted. Votes are also wasted if they are near 100 per cent, so the group being gerrymandered is often given a few districts with 100 per cent votes especially in situations where the gerrymandering group cannot prevent a few regions from falling to the power of the group being gerrymandered. The gerrymandering group, on the other hand, strives to have nothing but tiny majorities, ideally 50.000000001 per cent, thus wasting not one of their votes. Notice how geographically reasonable gerrymandering can appear on the map. Both examples below of gerrymandering are in every respect legal. The voting districts in both cases are compact, contiguous, equal sized in area and equal sized in population. Yet both are severely gerrymandered. The case of Gerrymandering by the Inner City leaves forty per cent of the people, the entire

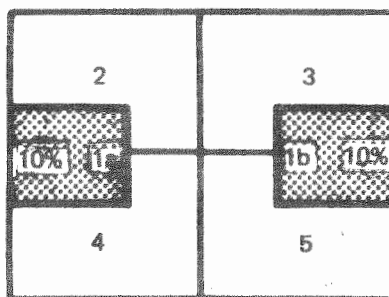


Gerrymandering by the Inner City



Gerrymandering by the Outer City

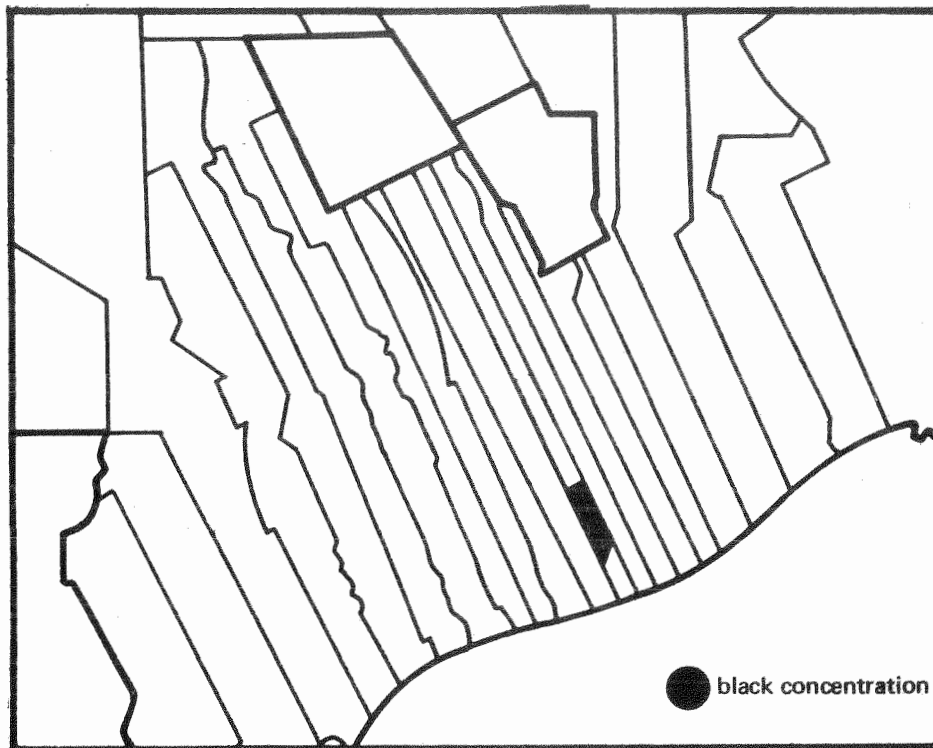
outer ring, without representation. The case of Gerrymandering by the Outer City gives only one voting district to the Inner City and three to the Outer City in spite of the Inner City's clear majority. It leaves a total of thirty five per cent of the people, a doughnut shaped ring, without representation. To drive this point home, it is theoretically possible that a discontinuous plan would be less gerrymandered, though we are in no way advocating such a possible illegality under existing law. The sketch below shows a case where a minority group is geographically split into two parts each representing ten per cent of the group's numbers. If the twenty per cent minority group is to have any representation under a five district plan it must be grouped discontinuously. No geographer in the world would advocate vastly discontinuous regions, but the point is made to center again on the true essence of gerrymandering and to cut through the confusion about "compactness," "contiguity," "equal size in area" and so forth. To repeat most forcefully, the geography of cheating voters, gerrymandering, has only one goal and one clear measure: the degree to which a group is deprived of power below its proportion of members in the total population. (Appendix V.)



Region 1 is in two parts to prevent gerrymandering.

The most extensively used device for achieving gerrymandering is to increase the size of the voting district just when a people is growing into a majority in a given voting district. In 1918, as black people coming up from the South were beginning to fill up eastside wards, Detroit switched to city-wide government with the power structure and its press campaigning for "governmental efficiency" and "modernization." The black people of Detroit had to wait till 1957 before electing a black representative to the Common Council, a delay of thirty nine years which made Detroit one of the last major American cities to elect a black city representative.<sup>3</sup> Now that the at-large voting in Detroit is about to go black, again there is much talk abroad of "efficiency," "regional planning," and a "Southeastern Michigan government" which would deny black people elected political power.

3. "Race and Representation in Detroit and the Six County Metropolitan Region," Louis H. Masotti, John R. Krause, Jr., Sheldon R. Gawiser, Metropolitan Fund Inc., Detroit, 1968.



Detroit Election Wards, 1915

(Detroit Bureau of Governmental Research, Inc., "The Negro in Detroit," 1926, p. 10, cited in Marc Belding Anderson, "Racial Discrimination in Detroit, A Spatial Analysis of Racism," p. 105; also Metropolitan Fund, Inc., "Race and Representation in Detroit and the Six County Metropolitan Region," 1968, p.10)

1970 - 45	1976 - 60
1971 - 48	1977 - 64
1972 - 50	1978 - 67
1973 - 52	1979 - 70
1974 - 54	1980 - 73
1975 - 57	

Predicted Per Cent of Black Residences in Detroit (Detroit Department of Health, 10/69)

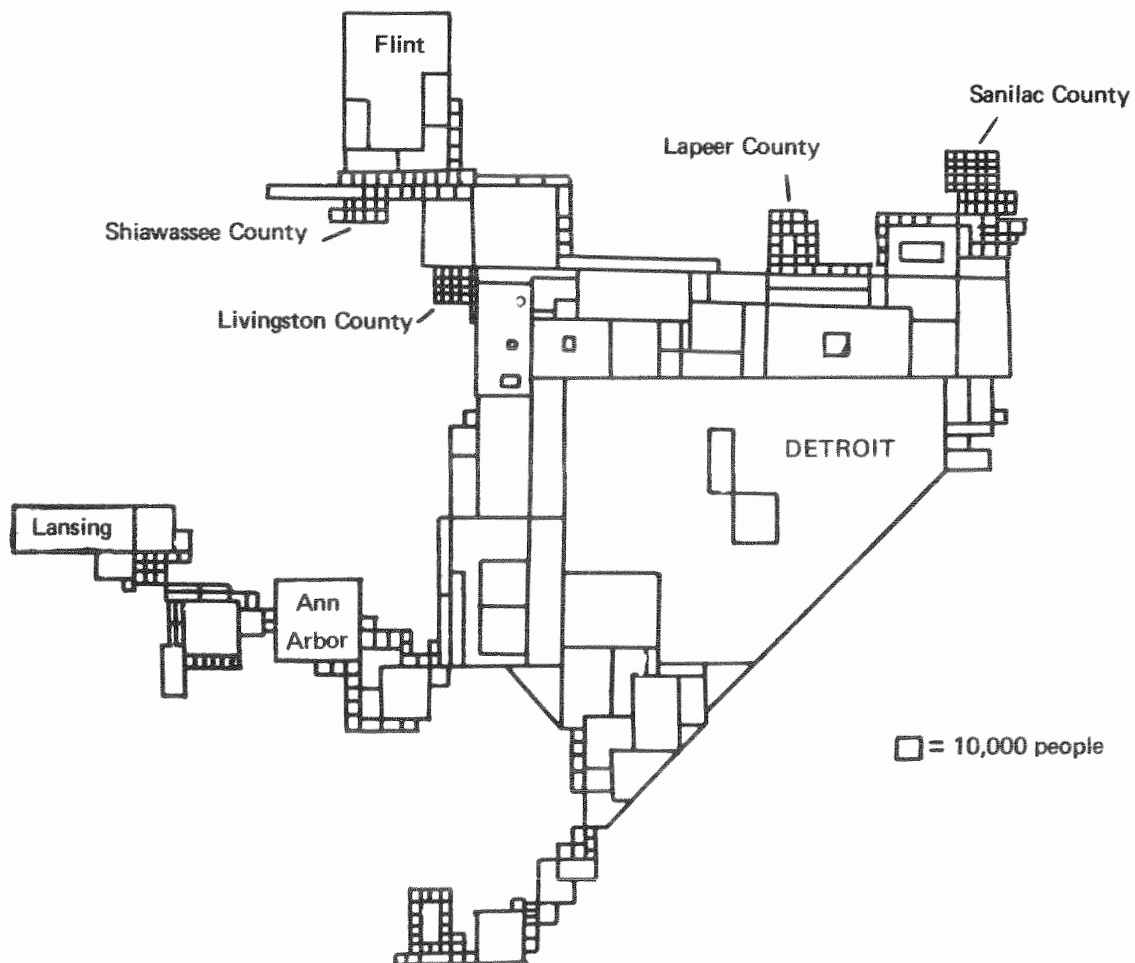
The argument that the rich suburbs added to the central city will be beneficial to the poor is deceptive. Normally in such partnerships the poor lose political power to the affluent and do not gain economic advantage. Even wealth in geographic proximity to the poor is economically and politically remote to them. For instance, General Motors' headquarters on Grand Boulevard near Woodward is in the Northern High School District but what tangible advantage is gained by Northern?

### C. The Decline of Urban Local Government

The result of centuries of gerrymandering by enlarging voter districts has left no local government in American

cities. That is, the tens of millions of Americans who now have moved to or have been born in cities have been effectively disenfranchised out of local government representation. On the map of local governmental districts in Southern Michigan the cities show up as holes. For instance, there is no governmental unit in the cities called "townships."

The average population of townships in the State of Michigan is 2,349 people, about the same number of people as in city block clubs. In order for urban dwellers to enjoy local government comparable to that of the countryside, block clubs should be given governmental status comparable to townships. County sized units of political control have about the same number of people as suburbs on the city fringes. The city itself has no such governmental unit though "community councils" or "homeowners associations" or just plain "districts" have the right numbers of people for this natural political unit. The word "suburb" means "sub-urban," a break down of the huge metropolitan region into units of community control for the non-poor. The middle class "sub-urbs" in Detroit average 37,019 people, the affluent sub-urbs 11,090 people. Most sub-urbs have their own police departments, garbage collection systems, libraries, and other public services, and most pertinent to this discussion, their independent school systems. Black people will not have to move to the sub-urbs to get local government, if



Cartogram of Townships and Cities in Southeastern Michigan  
with Areas of Government in Proportion to Population

sub-urban units of local government are only allowed in the city. The average number of school children in the affluent sub-urban school system is 11,138. Since there are 280,000 school children in the Detroit public school system, in order for our city children to enjoy equal opportunity of local control, Detroit needs 25 school districts, the approximate size of each city high school region, not the seven to eleven regional districts for which provisions have been made. That is, to fight gerrymandering, the greater number of districts up to a high number, the better.

In schools, the human results of the lack of local control are tragic. Because neighborhoods cannot express their special characters in curriculum, the children feel like foreigners at school. The following table indicates the number of references to various ethnic groups in a standard Detroit social studies text.

England	39
Poland	4
Italy	6
Hungary	0
Africa	7
Ireland	3
Scotland	4
Greece	0
Judaism	2

(Our Country, Eibling, King, Harlow)

(Many less obvious groups are also left out. Only 3% of the people listed in the index were women. There were no references at all to Southern mountain culture, even though some areas of our city are heavily Appalachian.)

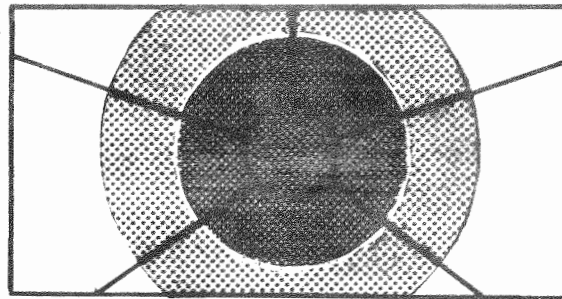
The first step toward expressing local cultures is to give local communities the power to set up their own curriculum. If the people of Southwest Detroit could determine the classes in Chadsey High School, they could add courses in Polish culture and start teaching students the language of their ancestors and relatives. The children could learn to be proud of themselves so that they could accept the other cultures of America calmly. But without neighborhood power, they are denied this chance.

## Chapter 2

### The School Board's Plan

#### A. Major Error in the Pattern of the Plans

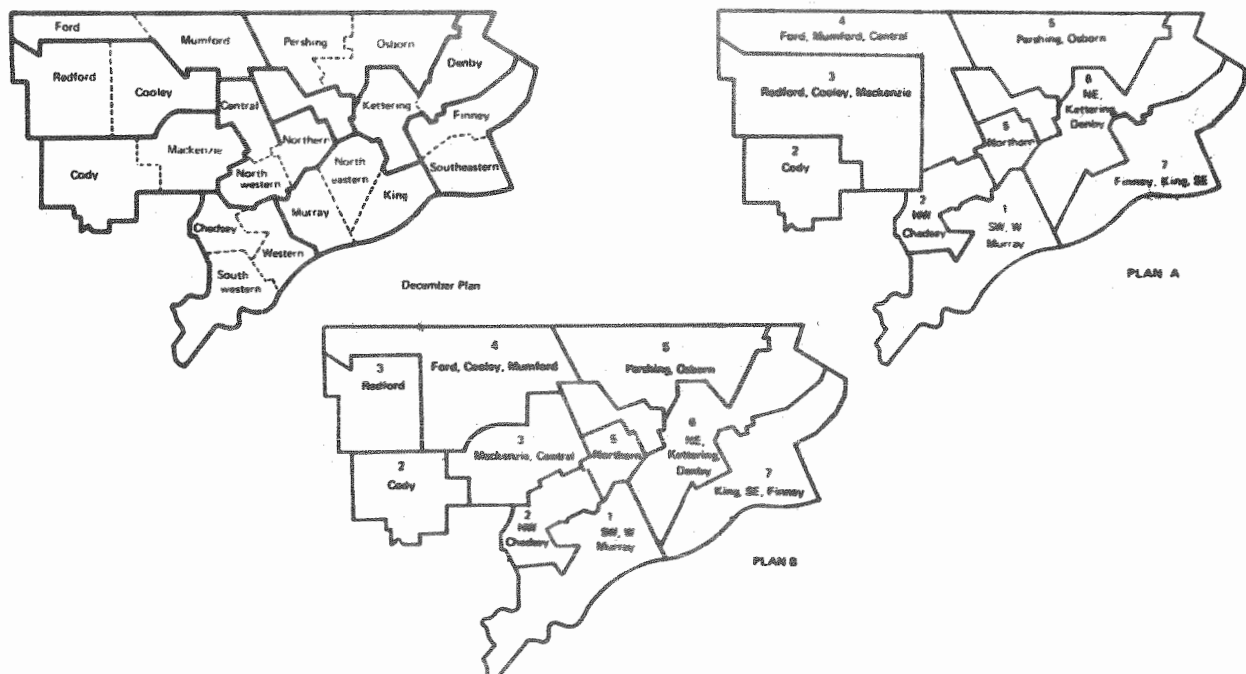
The Detroit Free Press, Sunday, December 7, 1969, released what it claimed to be the essence of the School Board's thinking. The Board's decentralization office March 3, 1970, released seven possible regional plans for public discussion. Although the plans vary greatly in actual regions, most of them are modifications of the pattern generalized below. The pattern puts unlike communities in the same region, fostering conflict. Such plans preclude local ethnic expression, local citizen participation, and local political control. Instead, the parents are divided and the children conquered.



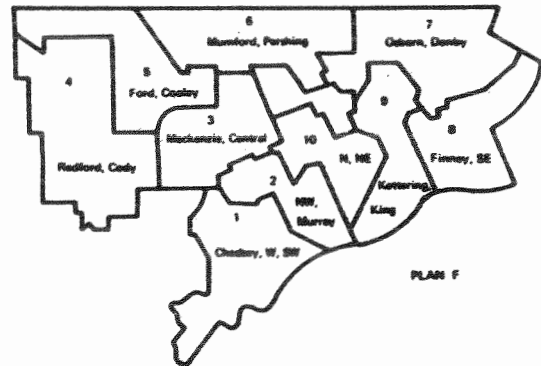
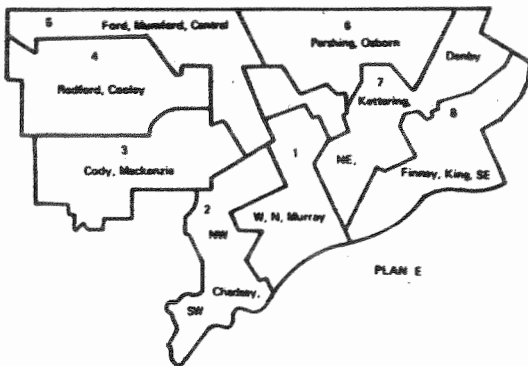
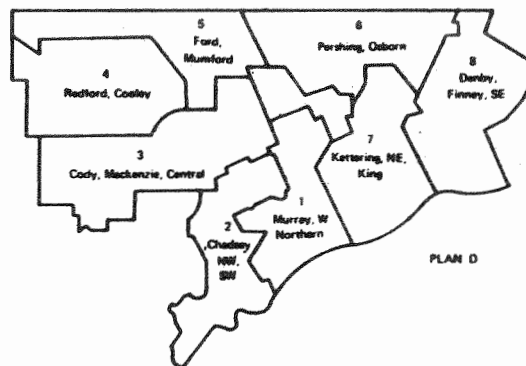
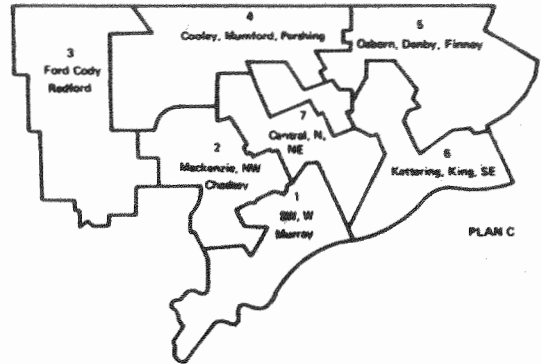
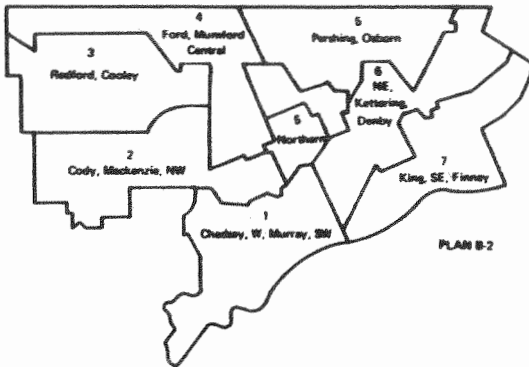
Generalized School Board Conflict Plan

Four of the eight published School Board Plans are illegal. Plans A, B, and B-2 use **discontiguous regions**, in violation of federal law. Plan F forms regions which fall below the 25,000-student minimum set by the state act. The following maps and table show the eight published plans and the percentage of black children who would fall under unsympathetic authority in each.

#### ANALYSIS OF SCHOOL BOARD PLANS

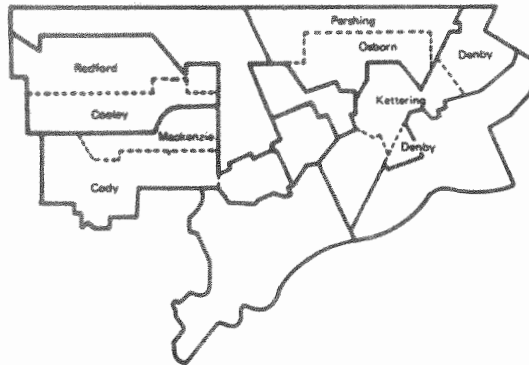






Plan	% black students under unsympathetic authority	No. black - controlled regions	No. white - controlled regions
B	81%	1	6
B-2	81%	1	6
A	80%	1	6
December	67%	2	7
E	65%	3	5
F	42%	4	6
C	37%	3	4
D	33%	4	4

On April 7, the Board announced that it had chosen to implement Plan B-2. At the same time, it announced that some high school feeder patterns would be changed as indicated in the map below.



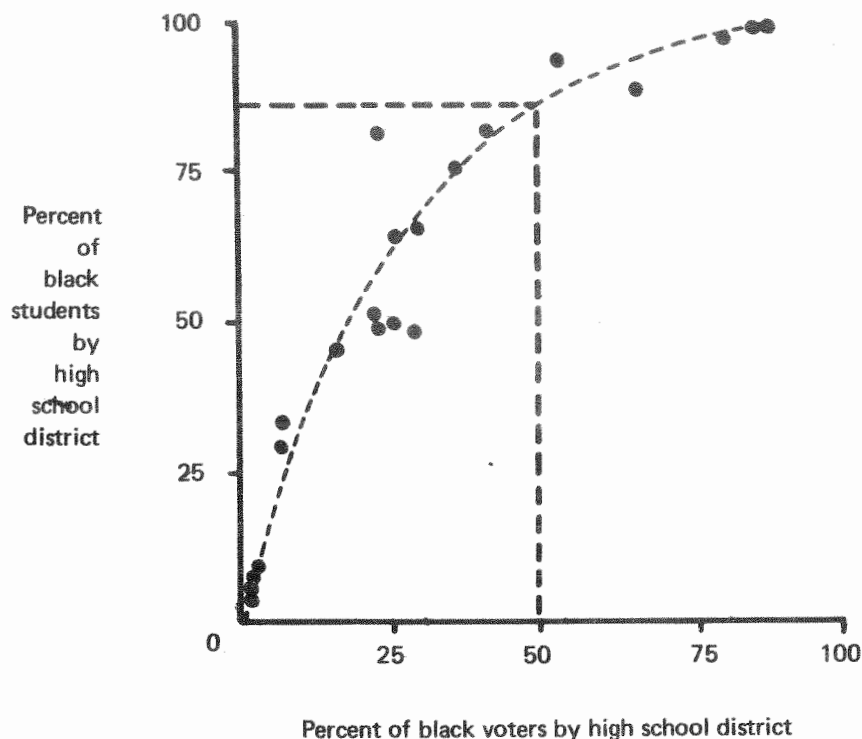
The change in feeder patterns supposedly "furthered integration." However, it affects only the senior high school level.<sup>4</sup> It also contradicts all previous School Board statements, which have stressed that children would continue to attend their present schools. It has no legal or administrative connection with the act of decentralization, although the Board tried to make such a connection by announcing the two decisions at the same time. Finally, it does not affect the power balance of the regional plan at all, since the changes were made within the proposed B-2 regions. Integration under such conditions is harmful to the children. The master and slave were geographically and physically integrated, but the master ruled. This is the type of integration the School Board proposes.

School Board public statements about their planning principles have undertones that it is protecting the white community from counter-gerrymandering by the black people. But "community control" is anti-gerrymandering, fair to all groups, it is not counter-gerrymandering. In addition, black attitudes toward white children are heavily integrationist relative to whites toward black children, that is, "black authority" can not be equated with "white authority" in terms of "unsympathetic authority." Overwhelmingly, as documented in the Kerner Commission Report and many other studies, racism is a social disease of the whites, not the blacks, so equating placing white children under black authority with counterracism is not justified. But regardless of its possible desirability, black gerrymandering is impossible. Black people barely have enough power to control regions where their children are attending schools in overwhelming numbers. A school district with only fifteen per cent white school children has fifty per cent white voters. That is, in the crucial swing situations, the ones that determine power, each white child represents more than six times the voting power of each black child. In positions of such marginality even within their own communities, black community control can hardly afford to dilute itself at all to gerrymander control over white children. The reasons for large white voter registration relative to black are numerous and include an older white population, a white Catholic population who have no children in the black schools but have voter rights over them, and a tradition of racist law in the country making white racists feel more at home with all aspects of the governmental apparatus, including voting, than the oftentimes black victims feel with the apparatus.

Another mis-impression that some School Board statements have given is the confusion over the principle of "one-man, one vote." Man under the Constitution of the United States of America, does not mean a registered voter. Man means every human being including the newest born black infant. Representation in this country is supposed to be proportional to the total population. The placing of white voters in authority over black children under the principles of "one man, one vote" is incorrect.

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4. It was especially hard to understand why the Board decided to re-mix two already-integrated districts, Pershing and Osborn (see map 2.) Although Osborn High School is only 15% black now, the School Board's own prediction (map 3) is that within the next few years that percentage will continue to rise naturally through changing neighborhoods.

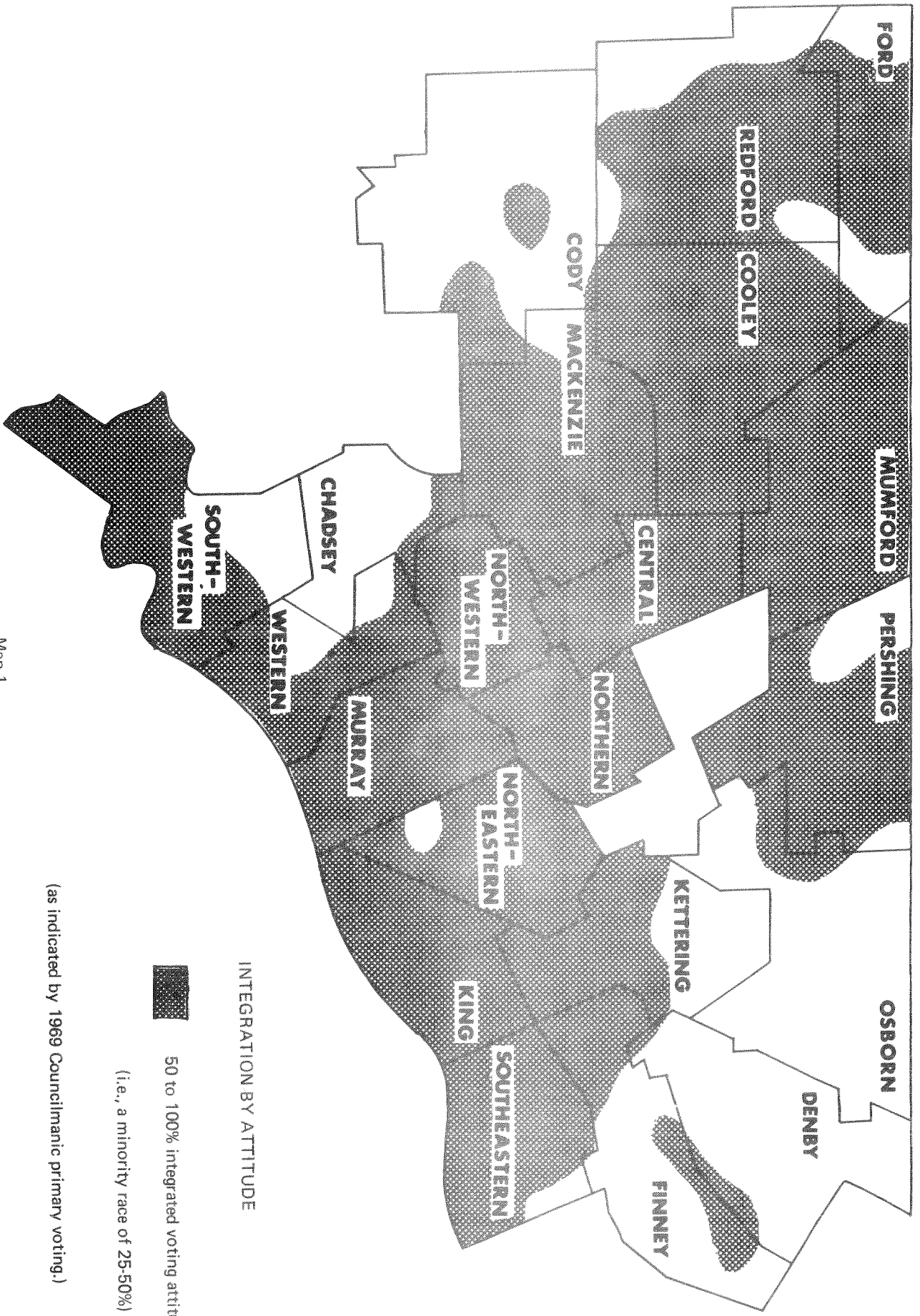


(Metropolitan Fund, 12/68)

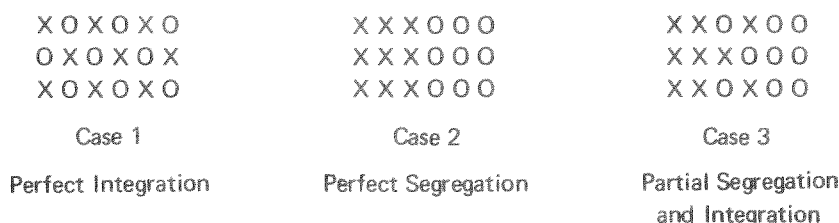
#### B. The School Board Plans' Effects on Integration

If integration is defined as an attitude, "integrationist versus racist," the School Board plan places racists in the saddle of power. The truth of this assertion can be demonstrated. The key aspect of racist attitude relative to power is "Can a voter overcome his prejudices enough to vote for a man of the other race?" If voters in a given precinct vote half white and half black, they are one hundred percent integrationists, or more sharply, if they totally vote for one race they are one hundred percent racist. Using the primary election results of the 1969 Councilmanic race, which allows considerable extremes to register at the polls, analysis of those who voted for the top and bottom major white candidates (Ravitz and Wiezbicki) and the top and bottom major black candidates (Hood and Brown) identify patterns within the city as to degree of racist voting attitudes. Extreme voter racism exists in the totally white areas of the city, the west, northeast and southwest. (Map 1.) It is precisely these racist voters that the School Board plan places in control of integrationist children in such examples as a Denby controlling a Kettering. Indeed, only the principle of community control allows areas like Cody to maintain their right to vote. If the School Board were consistent with its avowed principles of integration, Cody should have a regional district board totally elected by voters imposed from integrationist regions such as Northern.

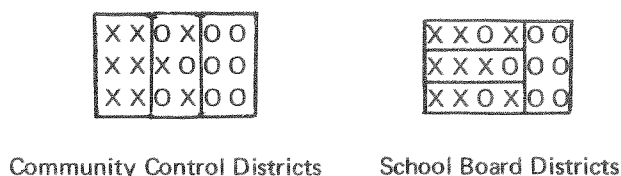
The second definition of integration is not that of attitude, but rather of geographic proximity. The school board, again in the name of integration, puts geographically different regions together and arrives at a stastical integration on paper. True integration, in the sense of "geographic proximity," geographers the world over agree, means that the two races are geographically intermingled. Consider the logic of example illustrations. Case 1 is obviously one of integration. Case 2 is an example of segregation and Case 3 a mixed example of two segregated regions with a zone



Map 1

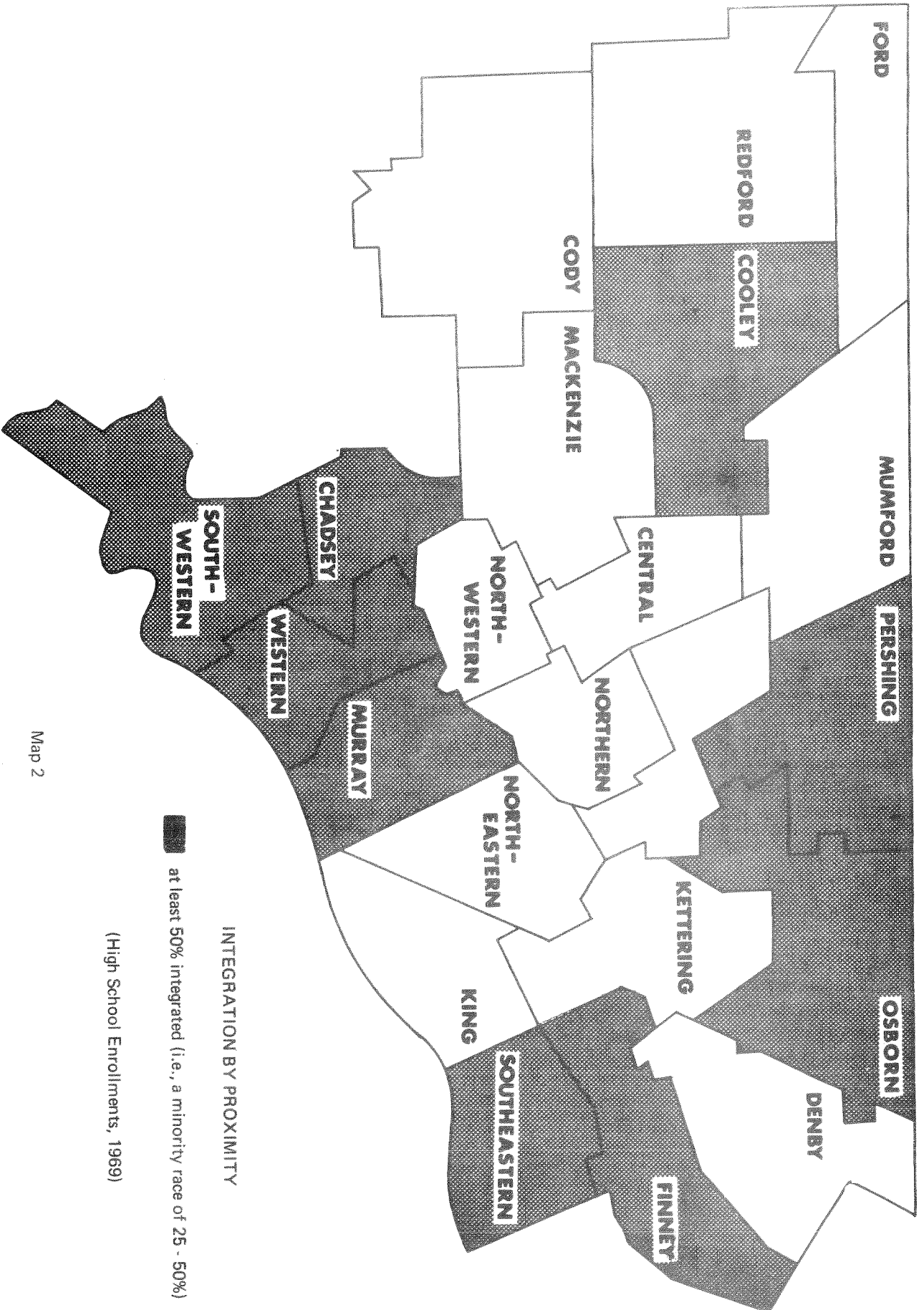


of integration in between. Case 3 typifies reality on Detroit's west side. The grain of the Detroit west side pattern obviously runs north and south, but the School Board pattern runs across this natural grain. The School Board plan destroys the integrated pattern and subordinates it to the racist pattern.



The only way to make the reality of the three cases appear in the statistics, a reality that is so apparent to the naked eye, is to make statistics drawn from small regions. If a huge enough region is statistically lumped together, the Planet Earth itself can be statistically "proven" to have achieved integrated brotherhood for all mankind. Even Case 2, the segregated example, comes out statistically, fifty-fifty if considered as a false whole. On the real-life earth's surface in Detroit, a high school district is the best unit to reflect this natural integration. If a high school has a fifty-fifty racial ratio, it is in fact, as well as in statistic, one hundred percent integrated. The picture of such integration in Detroit is shown on Map 2. Only community control can place these schools under integrationist authority.

Since Americans are such mobile people perhaps the geographic permanence of areas of integration is not as important as the adequate availability of integration in the general region. The metropolitan region of Detroit is growing at approximately two yards a day. If the total urbanized city size doubles, so should the black and integrated areas. This geographic phenomenon is not the result of a pushy people aggressively invading other peoples' neighborhoods, it is simply natural proportional growth. Further, the cause of white flight from integrated areas is not necessarily simply racism. "Integration" to whites too often means bad schools; and young liberal white families, the ones most likely to want to integrate, will not do so at the expense of their children's education. The low quality of education, especially the predictable tremendous overcrowding that accompanies expanding black neighborhoods, is precisely the overwhelming factor that drives out young liberal white couples from integrated areas. The condition of the schools themselves are the most active instrument of segregation in the city today in spite of an officially proclaimed policy of integration. In neighborhoods with good schools such as the Lafayette Tower area and north of the University of Detroit, integration is showing signs of geographic stability. But such integration is only available to the highest paid black families and the middle or higher paid white ones. Modestly financed people of either race cannot buy such permanent integration assuming they so desire. Still, families of average income are achieving a mechanical integration in the northwest portion of Detroit because of the surplus housing for black people. Contrary to seeming dominant white impressions, there is not an infinite supply of black people. If the Greater Detroit Metropolitan Region were geographically integrated only less than one house in every five would contain a black family. With areas of real estate open to black families in northwest Detroit, the supply of solid housing for black people is exceeding the demand and integration has a possibility of becoming geographically fixed. As the former knife edge blurs, as can be seen again especially in northwest Detroit, rather stable geographic integration is a massive possibility. It is this sort of natural integrated community that the School Board plan injures.



Map 2

Integration can be defined a third way as simply a "changing neighborhood." If integration is viewed as the time between "the first black family moving in and the last white one moving out," then the School Board plan must be considered racist in effect because breaking up these zones of change will leave black children under white control many years after the community has become black. Again, the grain of the School Board plan runs athwart the grain of coming change. To be responsive to black change, the community control plan is again clearly fair. The School Board statistician, Merle Hendrickson, has devised an accurate method of predicting racial change. It is based on the fact that neighborhoods tend to form new subdivisions with newly wed couples and about forty years afterwards the couples begin to retire and collectively sell their homes. This creates a vacuum in housing demands, and a second generation of young couples enter. The second generation in Detroit has recently always been black. Using Hendrickson's material (Map 3), clearly Osborn and Denby in the northeast side should be kept as a grouping since the slow grinding wheels of economic real estate is, regardless of the subjective attitudes of the present white residents, about to tip the whole region integrationist.<sup>5</sup> Thus the School Board planning violates integration defined as change and the community control plan does not.

### C. The School Board's Machinery for Making Decisions

When the Board established the Office of School Decentralization, it "encouraged" community participation in planning the new regions. More recent OSD actions, however, have caused citizens trying to participate to wonder whether this attitude was a sham. The OSD's primary ground rule for drawing regions was that high school boundaries should not be changed. The Office itself has broken this rule twice, both in the seven proposed plans and in the final plan. How can community groups participate when the ground rules change constantly? If the Board were really interested in principles other than its own, why did it never ask to see the massive computer print-out of all possible plans, or any of the research which went into this report. On a professional basis, this conduct is peculiar to say the least.

The School Board has the added advantage of controlling its own data, data that has a semi-legal status. For instance, in preparing a community decentralization school plan, the School Board can determine for itself what the legal capacities of the schools are. In 1960 Fitzgerald School was a white school and was given a listed capacity of 1,472 students. Tremendous overcrowding (the broom closet is now the violin room) produced a statistical expansion of the main building to a listed capacity of 1,760 students without the addition of a single brick of physical expansion. The School Board data control has already produced a heavily illegal school system throughout the black city of Detroit. For instance, fire regulations are normally based on the number of humans per square foot, but not in the schools. Firedoors are illegally locked, making a tragedy an increased probability, though school records indicate "safe."

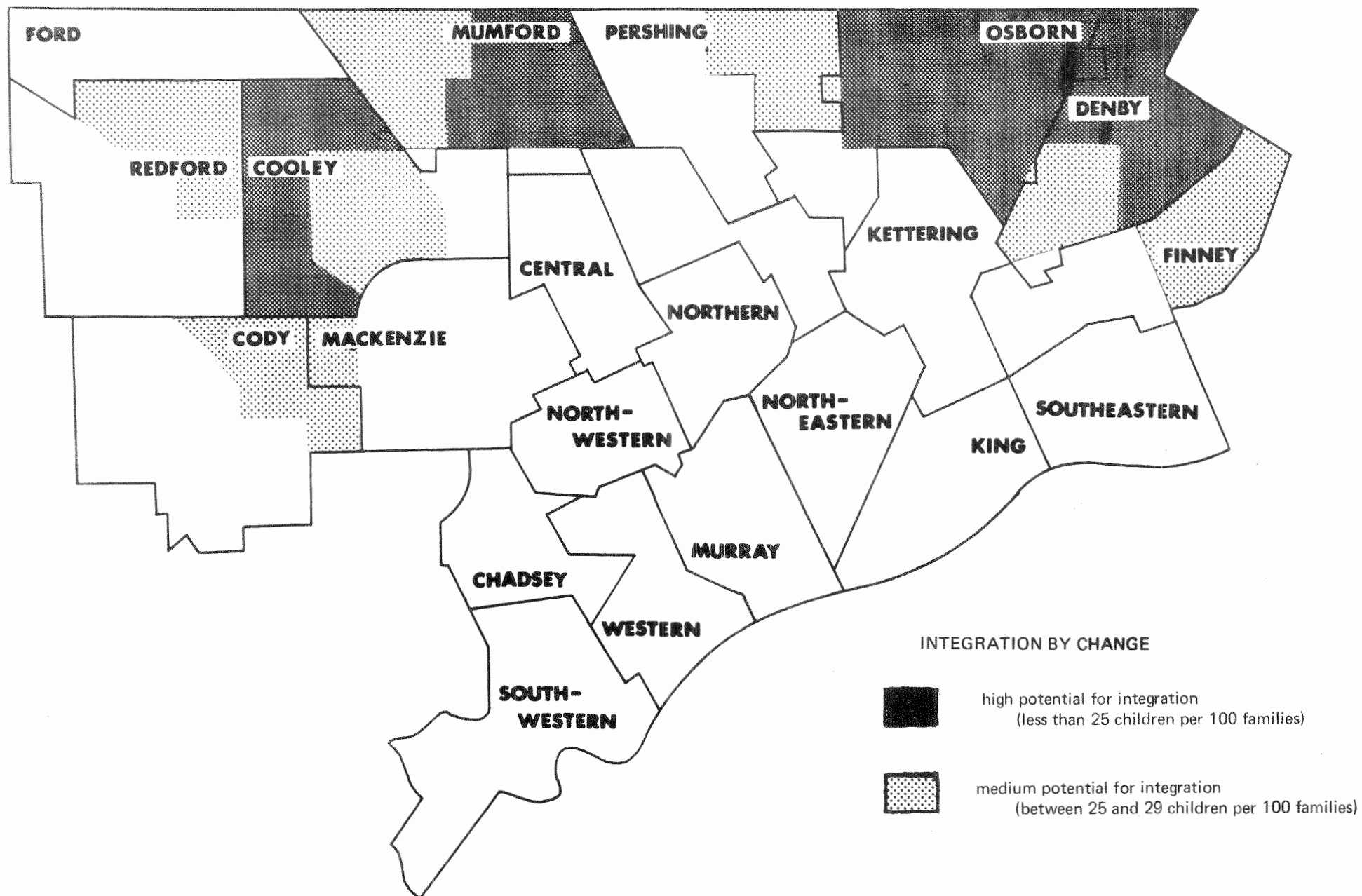
In addition, the School Board itself is a privileged group, protected from the reality of the average school and prone to have distorted images of the school system. All the School Board members live in high-income area. (See map below.) Two of them have sent their children to private schools.

Their local schools are also privileged. Hampton Elementary School, where three of the seven Board members live, houses its children in a five year old building. At the same time, the children in the adjacent district of Fitzgerald (where no Board members live) attend classes in a building constructed between 1926 and 1930. Fitzgerald children pour out of school directly onto busy Puritan, while most Hampton children never have to cross a major street to get home. Fitzgerald's playground is strewn with broken glass; Hampton's holds a total of fourteen

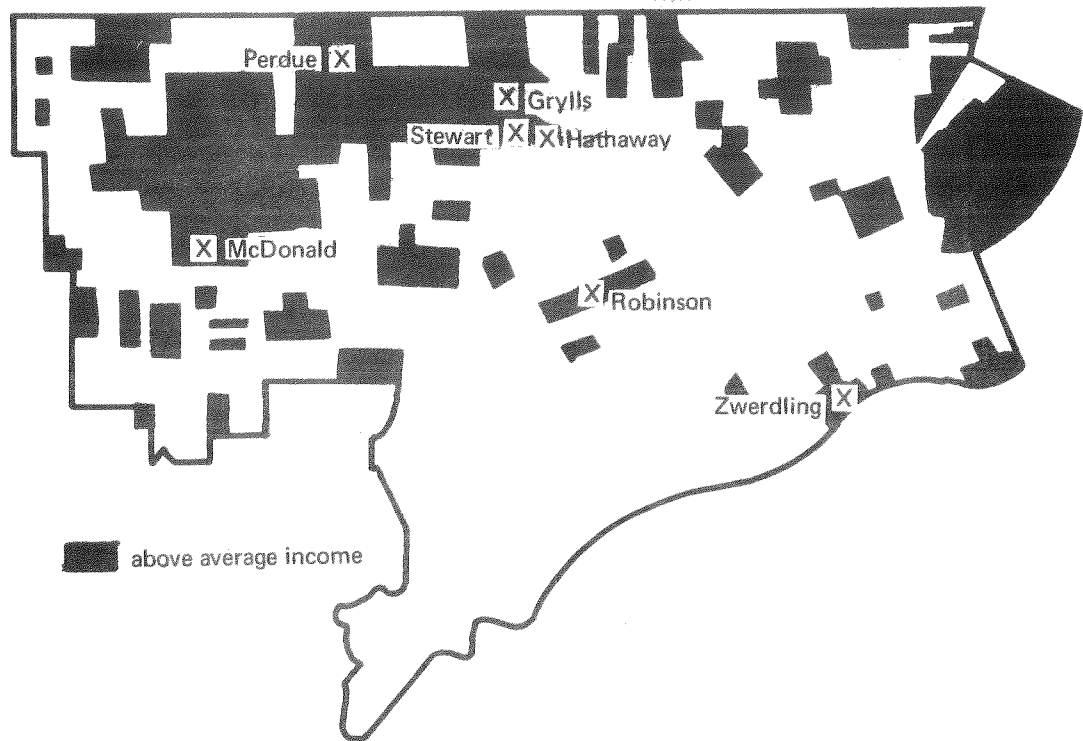
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5. Urban renewal of the "negro removal" sort as accorded at the Chrysler School in earlier decades was based on removing extremely poor black families and building luxury apartments on the site of their former homes and completely reversing racial balances. This luxury apartment planning has become too difficult politically so that much more modestly priced dwellings are now being constructed on urban renewal projects that keep the racial balances about the same as today, i.e., whites are no longer pouring in behind the black community downtown.









Residences of School Board Members

pieces. All of these disparities are symptoms of a situation in which one group (Hampton) has power and another does not. It is no wonder that one Hampton PTA member opposes decentralization on the grounds that it will limit the power of her local school. She lives in a region which is already so powerful that it feels threatened by the regional power the rest of the city craves. Since the School Board members all see the system from such regions, it is no wonder that they are not realistic about their decisions.

	Hampton	Fitzgerald
age of building	5 years	40 years
glass on playground	1 pound	364 pounds
Iowa test scores: fourth grade	six months ahead of national average	six months behind national average
traffic accidents near school	none in 1969	4 in 1969
overcrowding	no temporary classrooms necessary	11 temporary class- rooms necessary

Finally, the School Board itself stands to lose power from decentralization. Many of the problems of the Detroit school system are based on the fact that it is too large to function efficiently. In the affluent suburbs, where

school systems are allowed to assume their naturally efficient size, each one serves approximately 11,000 students. In other words, bigger is not always better. Most of the functions now unnaturally concentrated at the Schools Center Building could be operated at much less cost to the entire system if they were distributed regionally. As community participation increased, the value of services volunteered would also begin to lower overall costs, in addition to falling costs of antagonism (vandalism, etc.). The money saved could be invested in education instead of unnecessary administration. However, the central school board which runs the inefficient, overgrown bureaucracy has been given the power to decide whether this will happen. In such a position, it is understandable that the Board would fight for its life. No bureaucracy in the world has ever dismantled itself voluntarily. The situation is like asking a patient to take out his own appendix.

Such factors do not induce confidence in the School Board's ability to judge the question of decentralization fairly. At such a moment of crisis, only parents can be trusted to make a decision which will be good for the children. The School Board plan is so technically inept that the temptation to charge cynical manipulation of a good bill badly implemented is overruled by a second possibility, just plain incompetence in the technical advice being received. The time has come for parents and competent technical help from the community to sit down and reason together with the School Board and its technicians. Only this effort may save the children from further injury.

Act No. 244  
Public Acts of 1969  
Approved by Governor  
August 11, 1969

STATE OF MICHIGAN  
75TH LEGISLATURE  
REGULAR SESSION OF 1969

Introduced by Senators Young, Brown and Cartwright

## ENROLLED SENATE BILL No. 635

AN ACT to require first class school districts to be divided into regional districts and to provide for local district school boards and to define their powers and duties and the powers and duties of the first class district board.

*The People of the State of Michigan enact:*

Sec. 1. Not later than January 30, 1970, the school board of each first class district shall divide its district into not less than 7 nor more than 11 regional school districts with not more than 50,000 nor less than 25,000 students in each district.

Sec. 2. In addition to the present members of the first class board there shall be elected by the registered and qualified electors of each district to the first class board 1 member from each of the districts for a term of 4 years. The members of the first class school district board provided in section 2 to be elected by regions shall be elected in the general election to be held in November, 1970 and every fourth year thereafter for a term commencing on January 1 next following their election. The candidates shall be nominated in primary elections in the manner provided by law for the present first class school district members.

The term of office of the present first class school board members shall hereafter be 4 years. The terms of office of present first class school board members which expire June 30, 1971 are extended to January 1, 1973. The term of office of present first class school board members which expire June 30, 1973 are shortened to January 1, 1973. The 5 at large positions on the first class district school board which expire January 1, 1973 shall be filled at the general election to be held in November, 1972 for a term of 4 years. The terms of office of present first class school district board members which expire on June 30, 1975 are extended to January 1, 1977 and shall be filled at the general election to be held in November, 1976 for a term of 4 years.

Sec. 3. In each regional district there shall be elected 9 members to the regional board. No person shall be elected who is not a resident of the regional district from which he is elected. The members shall be nominated and elected by the registered and qualified electors of each district as is provided by law for the nomination and election of first class school board members except that signatures required on nominating petitions shall be not less than 500 nor more than 1,000. The members shall be elected for terms of 4 years. Except that of the members elected at the general election in 1970 the 5 members receiving the highest number of votes shall be elected for a term of 4 years and the 4 members receiving the next highest number of votes shall be elected for a term of 2 years.

Sec. 4. The first class school district board shall retain all the powers and duties now possessed by a first class school district except for those given to a regional school district board under the provisions of this act.

Sec. 5. Effective upon the commencement of its term of office, the regional school district board, subject to guidelines established by the first class district board, shall have the power to:

- (1) Employ and discharge a superintendent for the regional school district from a list or lists of candidates submitted by the district board.
- (2) Employ and discharge, assign and promote all teachers and other employees of the regional school district, subject to review by the first class school district board, which may overrule, modify or affirm the action of the regional district board.
- (3) Determine the curriculum, use of educational facilities and establishment of educational and testing programs in the regional school district.
- (4) Determine the budget for the regional school district based upon the allocation of funds received from the first class school district board.

Sec. 6. The rights of retirement, tenure, seniority and of any other benefits of any employee transferred to a regional school district or between regional school districts from the first class district shall not be abrogated, diminished or impaired.

Sec. 7. The first class school district board shall perform the following functions for the regional school districts:

- (1) Central purchasing.
- (2) Payroll.
- (3) Contract negotiations for all employees, subject to the provisions of Act No. 336 of the Public Acts of 1947, as amended, being sections 423.201 to 423.216 of the Compiled Laws of 1948, and subject to any bargaining certification and to the provisions of any collective bargaining agreement pertaining to affected employees.
- (4) Property management and maintenance.
- (5) Bonding.
- (6) Special education programs.
- (7) Allocation of funds for capital outlay and operations to each regional school district.
- (8) On or before November 1, 1970, establish guidelines for the implementation of the provisions of section 5.

## COMPUTER EVALUATION OF ALL DECENTRALIZATION POSSIBILITIES

Dr. John W. Shepherd  
Department of Geography  
Queen's University  
Kingston, Ontario

Dr. M.A. Jenkins  
Consultant, Computing Center  
Queen's University  
Kingston, Ontario

The computer analysis of the decentralization proposal was carried out in two stages, using the practical advantage of each of two different programming languages. With an APL\360 time-sharing system operated by the user with a keyboard we were able to heuristically determine a cross-section of solutions, each of them giving different political control over a decentralization scheme. Switching to the ALGOL language on the IBM 360/50 at Queen's University in Kingston, Ontario, but using the results obtained under the initial study, we were able to generate all the legal solutions and to sample a number of the pertinent ones.

The same simple approach was used to generate the amalgamation plans in the two stages. First, the set of new regions, given the constraints of 1) contiguity, 2) enrolled population of 25,000 to 50,000 students and 3) non-isolation of an illegal group,<sup>1</sup> is found from the twenty-one original districts. There are just over 160 possible combinations into new regions on this basis. To perform this operation is a relatively simple task using a connectivity matrix and the enrollment figures of each district.

However to do the job efficiently, i.e. without duplication of regions, is a complex problem in graph theory. It involves the breakdown of the original set of all groups into strategic sub-groups and ordering the identification of each region in such a way that any new region is seen once and only once by the computer. This problem has not yet been solved in this instance.

Fitting the regions which were discovered together and relocating them back on the map of Detroit without over-lapping was done initially in a gerrymandering fashion. That is, we produced one set of plans with white political control dominant and the other with Black control dominant. An attempt was made to find a number of integrated solutions. Thus, in the first set of regions we grouped all the heavily black voting school districts together, thus "wasting" a large number of fair votes in "over-kill". We let the white dominated districts be grouped with the "mixed" areas in various combinations. This process forced a range of solutions from mildly white dominated plans to extremely white dominated ones.

From this analysis it was possible to obtain an idea of the portionate dominance for a variety of criteria in sampling the exhaustive part of the study. From an essentially similar computing algorithm, but this time using ALGOL language, no less than 7,367 maps satisfying the initial constraints were found. Of these, those that contained at least one of the following criteria were sampled.

Table for criteria:

Black Students under Black control - 90%  
White students under White control - 96%  
All students under Black control - 70%  
All students under White control - 78%  
All students under homogeneous control - 80%<sup>2</sup>  
All students under heterogeneous control - 44%<sup>3</sup>

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1. An example of isolating an illegal group occurs when the computer joins Western, Chadsey and Northwestern, forming a legal region, but leaving Southwestern isolated. Since Southwestern does not include 25,000 students, it cannot be its own region legally, and we have isolated an illegal group.

2. Homogeneity is defined as the percentage of black under black control plus white percent under white control, that is, a measure of fairness in the community control sense of the word.

3. Heterogeneity is defined as the percentage of black students under white control and white students under black control, a measure of integrated political control of districts and not of the composition of the individual schools.

The results of the study were analyzed on two levels - that of the total number of districts and the political control of each. These were the important factors in the composition of the first central school board for the decentralization system.

Table 1: of which black controlled

	1	2	3	4	5	6
No. of districts						
6	4	14	1	0	0	0
7	94	824	1665	513	24	0
8	0	448	1879	1474	269	28
9	0	0	41	45	38	6

Table 2:

No. of districts	Black	White
6	3	3
7	5	2
8	6	2
9	6	3

From this analysis, it is possible to see that other things being equal, the eight district solution gives a majority of four black members on the metropolitan schoolboard, whereas a seven or nine district one gives a minority of only three blacks on the schoolboard. From table one, it is clear that there are twenty-eight sub-solutions to choose from in the eight district scheme, twenty-four in the seven district one, but only six in the nine district plan.

However this result had to be reassessed in the light of the control over students in this system of individual new districts. The range of results is contained in the following table.

Table 3: per cent category

	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50-60	60-70	70-80	80 - 90	90 - 100
BB	0	34	91	571	1254	2752	1762	209	162	32
WW	0	0	0	0	0	20	448	2478	2630	1791
AB	7	102	824	2199	2635	1340	228	32	0	0
AW	0	0	32	228	1322	2609	2227	840	102	0
HOM	0	0	0	0	56	766	4671	1842	42	0
HET	0	42	1817	4607	845	56	0	0	0	0

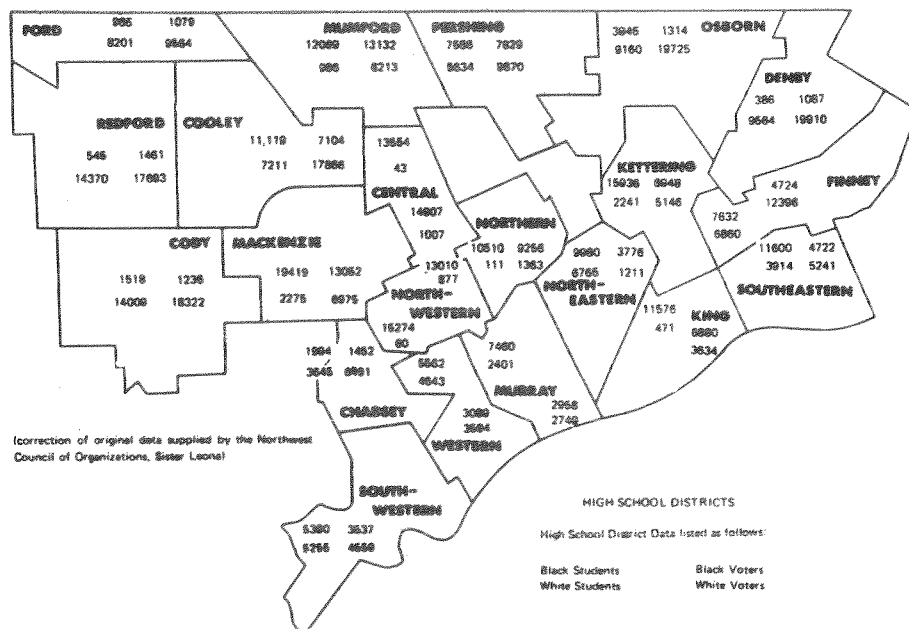
BB -- % black children under "black" authority  
 WW -- % white children under "white" authority  
 AB -- % all students under "black" authority  
 AW -- % all students under "white" authority  
 HOM -- % all students under same-race authority  
 HET -- % all students under opposite-race authority

In Table 3, note that simply from the distribution of solutions, it is much easier to keep white children under white control (high white-under-white %) than it is to protect black children from white racists (high black-under-black %). At most, the black community can protect only 91.4% of its children, whereas the white community can retain control of 99.9% of theirs. At worst, the white community can lose control over only 45% of the white school children, although the black students can fall 75% under white control. Also, it is much easier to gerrymander for white voters (high all-under-white %) than for black ones (high all-under-black %).

The homogeneous and heterogeneous lines complement each other. Plans which put a high number of black children under black control are also generally high on the "homogeneous" or "neighborhood power" line. Plans which place large percentages of students under white control place low on that same line.

This chart, and the mountains of computer work it capsulizes, can be very valuable to the people of Detroit. Having an evaluation of every possible solution to the problem is a very valuable tool. Simply knowing how good or bad the final plan can possibly be (the range of percentages here) is a definite advantage in realistic discussions. We hope that the city will utilize the research presented here to its fullest scientific extent.

The remainder of this appendix consists of a sampling of the top and bottom of the computer print out of possible high school combinations. Four statistics were prepared and mapped for each high school district. (See map entitled "High School Districts.") The left hand column is students and the right hand column is voters. The top row is black and the bottom white. The print-out symbols are explained in the table above.



MAP

+3757

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN		COOLEY		KATTERING		MUR. WRIGHT		MACKENZIE		MUMFORD		FINNEY		FORD	
	NORTHERN		CENTRAL		KING		WESTERN		CHADSEY		PERSHING		DENBY		REDFORD	
	SO. EASTERN		NO. EASTERN		SO. EASTERN		NO. WESTERN		CHADSEY		PERSHING		OSBORN		CODY	
BLACK	+25784	+24673	+39112	+28382	+21413	+19655	+11963	+3028								
WHITE	+171	+7254	+6526	+13510	+5920	+5620	+25584	+36580								
TOTAL	+25955	+31927	+45738	+41892	+27333	+26275	+37547	+39608								
POLITICAL CONTROL	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	WHITE								

MAJORITY ENROLLMENT		POLITICAL CONTROL		NUMBER OF DISTRICTS	
BLACK	BLACK	BLACK	BLACK	+6	
WHITE	WHITE	BLACK	BLACK	0	
WHITE	WHITE	WHITE	WHITE	+2	
BLACK	BLACK	WHITE	WHITE	0	
BLACK STUDENTS UNDER BLACK CONTROL		NUMBER		PERCENTAGE	ABOVE CRITERION
WHITE STUDENTS UNDER WHITE CONTROL		+159019		91.4	*
		+62164		60.8	
ALL STUDENTS UNDER BLACK CONTROL		+199120		72.1	*
ALL STUDENTS UNDER WHITE CONTROL		+77155		27.9	
ALL STUDENTS UNDER HOMOGENEOUS CONTROL		+221183		80.1	*
ALL STUDENTS UNDER HETEROGENEOUS CONTROL		+55092		19.9	

MAP

+3472

24

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN WESTERN SO. WESTERN	CCOLEY CENTRAL	KETTERING KING SO. EASTERN	MUR. WRIGHT NORTHERN NO. EASTERN	MACKENZIE CHADSEY	MUMFORD PERSHING	FINNEY DENBY OSBORN	FORD REDFORD CODY
BLACK	+26216	+24673	+39112	+27950	+21413	+19655	+11963	+3020
WHITE	+9958	+7254	+6626	+3723	+5920	+6620	+25584	+36580
TOTAL	+36174	+31927	+45738	+31673	+27333	+26275	+37547	+39608

## POLITICAL

CONTROL	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	WHITE	WHITE
---------	-------	-------	-------	-------	-------	-------	-------	-------

MAJORITY ENROLLMENT	POLITICAL CONTROL	NUMBER OF DISTRICTS
BLACK	BLACK	+6
WHITE	BLACK	0
WHITE	WHITE	+2
BLACK	WHITE	0

	NUMBER	PERCENTAGE	ABOVE CRITERION
BLACK STUDENTS UNDER BLACK CONTROL	+159019	91.4	*
WHITE STUDENTS UNDER WHITE CONTROL	+62164	60.8	
ALL STUDENTS UNDER BLACK CONTROL	+199120	72.1	*
ALL STUDENTS UNDER WHITE CONTROL	+77155	27.9	
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	+221183	80.1	*
ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+55092	19.9	



MAP

+1843

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN		COOLEY		KETTERING		MUR. WRIGHT		MUMFORD		CHADSEY		FINNEY		FORD	
	MACKENZIE		CENTRAL		KING		NORTHERN		PERSHING		WESTERN		DENBY		REDFORD	
	SO. EASTERN NO.		SO. EASTERN NO.		SO. EASTERN NO.		SO. EASTERN NO.		SO. EASTERN NO.		SO. WESTERN		OSBORN		COOK	
BLACK	+34693		+24673		+39112		+27950		+19655		+12936		+11963		+1028	
WHITE	+2335		+7254		+6626		+3723		+6620		+13543		+25584		+36580	
TOTAL	+37028		+31927		+45738		+31673		+26275		+26479		+37547		+39608	

POLITICAL CONTROL	BLACK	BLACK	BLACK	BLACK	BLACK	BLACK	WHITE	WHITE	WHITE

MAJORITY ENROLLMENT		POLITICAL CONTROL		NUMBER OF DISTRICTS	
BLACK	WHITE	BLACK	BLACK	+5	
WHITE	BLACK	WHITE	WHITE	0	
WHITE	WHITE	WHITE	WHITE	+3	
BLACK	WHITE	WHITE	WHITE	0	

		NUMBER	PERCENTAGE	ABOVE CRITERION
BLACK STUDENTS UNDER BLACK CONTROL	WHITE STUDENTS UNDER WHITE CONTROL	+146083	84.0	
ALL STUDENTS UNDER BLACK CONTROL	ALL STUDENTS UNDER WHITE CONTROL	+75707	74.0	
ALL STUDENTS UNDER BLACK CONTROL	ALL STUDENTS UNDER WHITE CONTROL	+172641	62.5	
ALL STUDENTS UNDER BLACK CONTROL	ALL STUDENTS UNDER WHITE CONTROL	+103634	37.5	
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+221790	80.3	*
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+54485	19.7	

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN NORTHERN NO. EASTERN KING	COOLEY CENTRAL REDFORD	KETTERING DENBY OSBORN	MUR. WRIGHT WESTERN SO. WESTERN	MACKENZIE CHADSEY CODY	MUMFORD FORD PERSHING	FINNEY SO. EASTERN
BLACK	+47340	+25218	+20267	+18402	+22931	+20620	+19232
WHITE	+1853	+21624	+20965	+12299	+19929	+14821	+10774
TOTAL	+49193	+46842	+41232	+30701	+42860	+35441	+30006

POLITICAL  
CONTROL

BLACK	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
-------	-------	-------	-------	-------	-------	-------

MAJORITY ENROLLMENT	POLITICAL CONTROL	NUMBER OF DISTRICTS
BLACK	BLACK	+1
WHITE	BLACK	0
WHITE	WHITE	+1
BLACK	WHITE	+5

	NUMBER	PERCENTAGE	ABOVE CRITERION
BLACK STUDENTS UNDER BLACK CONTROL	+47340	27.2	
WHITE STUDENTS UNDER WHITE CONTROL	+100412	98.2	*
ALL STUDENTS UNDER BLACK CONTROL	+49193	17.8	
ALL STUDENTS UNDER WHITE CONTROL	+227082	82.2	*
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	+147752	53.5	
ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+128523	46.5	*

ENROLLMENTS FOR THE NEW DISTRICTS

NO. WESTERN	COOLEY	KETTERING	MUR. WRIGHT	MACKENZIE	MUMFORD	FINNEY
'CHADSEY	CENTRAL	KING	WESTERN	CODY	FORD	DENBY
NORTHERN	REDFORD	OSBORN	SO. WESTERN	PERSHING	SO. EASTERN	
NO. EASTERN						

BLACK	+37758	+25218	+31457	+18402	+20937	+20620	+19618
WHITE	+5027	+21624	+11872	+12299	+16284	+14821	+20338
TOTAL	+42785	+46842	+43329	+30701	+37221	+35441	+39956

POLITICAL CONTROL	BLACK	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
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MAJORITY ENROLLMENT	POLITICAL CONTROL	NUMBER OF DISTRICTS
BLACK	BLACK	+1
WHITE	BLACK	0
WHITE	WHITE	+1
BLACK	WHITE	+5

BLACK STUDENTS UNDER BLACK CONTROL	NUMBER	PERCENTAGE	ABOVE CRITERION
WHITE STUDENTS UNDER WHITE CONTROL	+37758	21.7	
	+97238	95.1	
ALL STUDENTS UNDER BLACK CONTROL	+42785	15.5	
ALL STUDENTS UNDER WHITE CONTROL	+233490	84.5	*
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	+134996	48.9	
ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+141279	51.1	*

## ENROLLMENTS FOR THE NEW DISTRICTS

NO. WESTERN	COOLEY	KETTERING	MUR.	BRIGHT	MACKENZIE	MUMFORD	FINNEY
NORTHERN	CENTRAL	KING	WESTERN	CHADSEY	FORD	DENBY	
NO. EASTERN	REDFORD	OSBORN	SO. WESTERN	CODY	PERSHING	SO. EASTERN	

BLACK	+35764	+25218	+31457	+18402	+22931	+20620	+19618
WHITE	+1332	+21624	+11872	+12299	+19929	+14821	+20338
TOTAL	+37146	+46842	+43329	+30701	+42860	+35441	+39956

POLITICAL	BLACK	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE
CONTROL							

## MAJORITY ENROLLMENT

## POLITICAL CONTROL

BLACK	BLACK
WHITE	BLACK

WHITE	WHITE
BLACK	WHITE

+1

+1

+5

## ABOVE CRITERION

## PERCENTAGE

## NUMBER

BLACK STUDENTS UNDER BLACK CONTROL	+35764	20.6
WHITE STUDENTS UNDER WHITE CONTROL	+100883	98.6

ALL STUDENTS UNDER BLACK CONTROL	+37146	13.4
ALL STUDENTS UNDER WHITE CONTROL	+239129	86.6

ALL STUDENTS UNDER HOMOGENEOUS CONTROL	+136647	49.5
ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+139628	50.5

\*

\*

\*

## Comparison of All Plans Submitted

	a	b	c	d	e	f	g	h*	i*
1.	80.0	71.2	71.2	64.1	61.8	59.5	58.6	39.4	31.4
2.	20.0	28.8	28.8	35.9	38.2	40.5	41.4	60.6	68.6
3.	20.5	15.1	15.1	14.4	19.5	22.7	10.0	4.2	20.8
4.	79.5	84.9	84.9	85.6	80.5	77.3	90.0	95.8	79.2

\* High School Boundaries Altered

1. Percentage of black children under black control.
2. Percentage of black children under white control.
3. Percentage of white children under black control.
4. Percentage of white children under white control.

- a. Northwest Community Organization
- b. Action Committee For Education
- c. Detroit Council of Organizations
- d. Edison School Parents Club
- e. Ad-Hoc Committee for Community Control of Schools
- f. Promotion Study Success, Inc.
- g. Berkowitz Plan
- h. Detroit Board of Education
- i. First District Democratic-Education Committee

## APPENDIX III

The following game has been submitted to the following team leaders:

Professor Gerald Karaska  
Department of Geography  
Clark University  
Worcester, Massachusetts

Professor Richard Morrill  
Department of Geography  
University of Washington  
Seattle, Washington

Professor Thomas Reiner  
Department of Regional Science  
Wharton School of Business  
University of Pennsylvania  
Philadelphia, Pennsylvania

Professor Duane Marble  
Department of Geography  
Northwestern University  
Evanston, Illinois

Professor William Warntz  
Computer Graphics  
Harvard University  
Cambridge, Massachusetts

Dr. John Shepherd  
Department of Geography  
Queens College  
Kingston, Ontario

Dear Gerald, Duane, Dick, Bill, Tom and John,

One way or the other I'm sure you are all alerted to the problem before the Detroit school children. The problem is to prevent racist authority over the most vulnerable children, Detroit's poor children who are also overwhelmingly black. Therefore, our objective function is to minimize "the number of black children under white authority." "White authority" is not a biological reference since a "white voter" is defined not by skin color but by ability to vote for black individuals. The details of the operational procedures in these definitions will follow when we mail you the progress report. We need as much speed as possible since the law still reads that this decision must be reached by January 30th of the coming year. There might be an extension. Implementation is next fall.

Public interest is extreme and the geographers will make a presentation to a rather large community audience the 28th of December at the University of Detroit in the early evening. You are all most cordially invited to attend, by the way.

To become more formal:

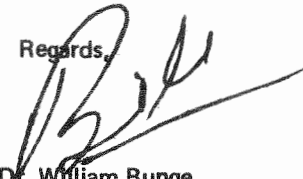
1. The objective function is to minimize the number of black children under white authority.
2. Contiguity must be maintained.
3. Metric compactness is not a constraint, topological contiguity will do under the law and in life.
4. Each regional school district must contain between 25,000 and 50,000 students.
5. There must be from 7 to 11 regions.
6. High School capacities must be matched to within ten percent of their listed upper limits.
7. Junior high school capacities are not important since grades can be held over in grade school and grade school capacities expanded by temporary measures, a well established practice.
8. High school students are taken to be 19 percent of the total school population, the city wide average.

What follows are the map of the schools necessary for a connectivity matrix, a listing of total school

population (k through 12) by race for each grade school region, a listing of "white" and "black" voters for each grade school region, and a listing of high school capacities and the grade school location of the high schools.

If you have any questions just call me at home 313-341-6694 day or night.

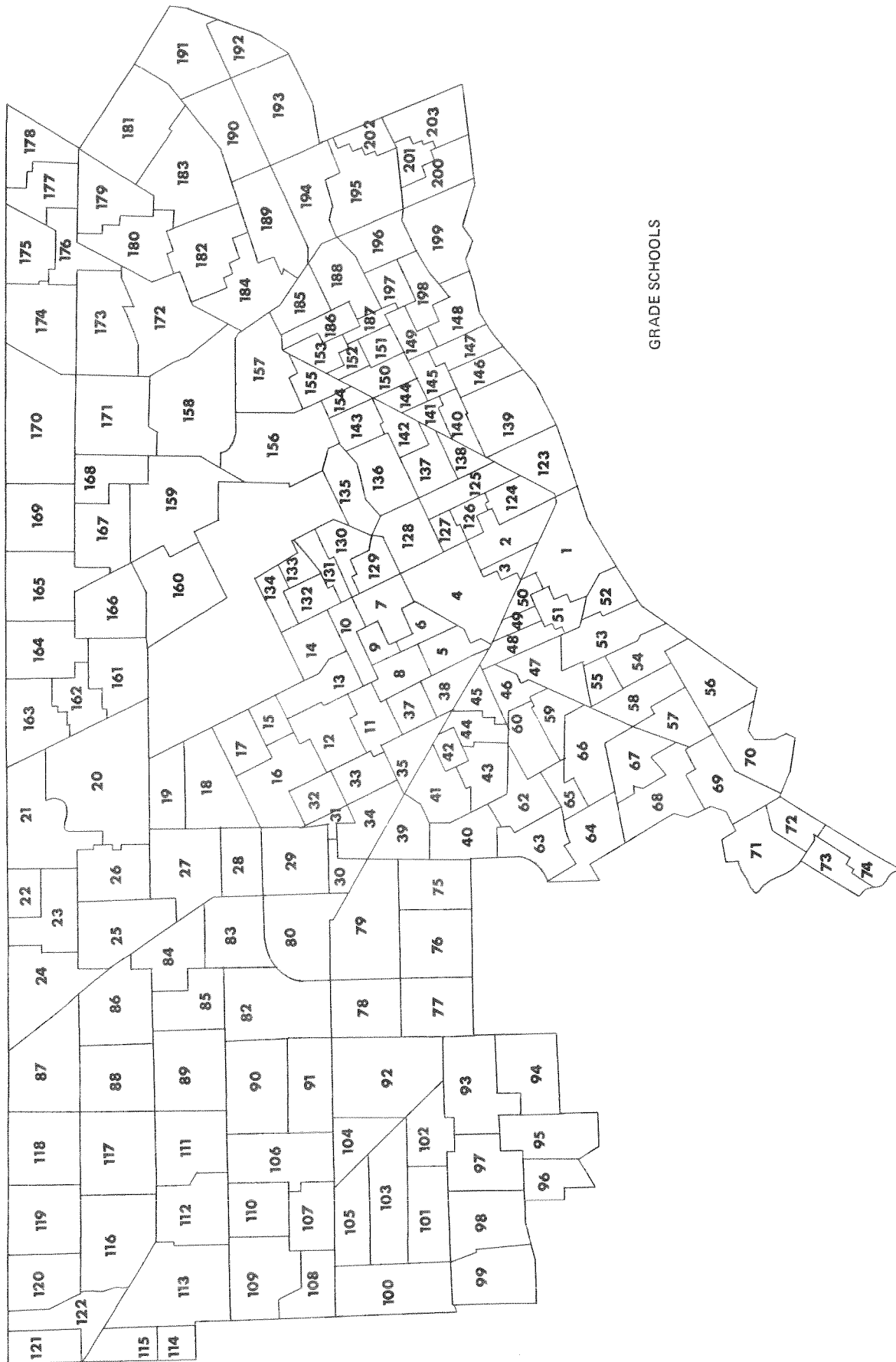
Regards,



Dr. William Bunge  
Research Director, Detroit  
Geographical Expedition and Institute

#### High School Student Capacities Located by Grade Schools

High School	Capacity	Grade School	No.
Chadsey	2008	Hanneman	62
Southwestern	1930	Beard	57
Western	1950	Maybury	54
Cody	3248	Everett	102
Northwestern	2840	Woodward	38
Mackenzie	2820	Barton	75
Redford	2710	Burt	112
Central	2350	Roosevelt	42
Cooley	2460	Burns	82
Ford	2550	Pitcher	118
Mumford	2600	Schulze	25
Pershing	2600	Atkinson	167
Northern	2230	Alger	132
Osborn	2630	Fleming	173
Denby	2480	Carleton	181
Finney	2160	Marquette	191
Southeastern	2310	Lillibridge	196
King	1910	Duffield	139
Kettering	2730	Cooper	156
Murray	2640	Edmonson	4
Northeastern	1620	Campbell	137



GRADE SCHOOLS



	Black students	White students	Austin voters	Beck-Gribbs voters
1. Franklin	495	1006	152	575
2. Burton	240	721	377	896
3. Couzens	1234	13	598	282
4. Edmonson	2467	674	1305	628
5. Estabrook	788	0	598	103
6. Goldberg	1536	48	629	63
7. Fairbanks	869	86	616	468
8. Thirkell	1750	0	1543	133
9. Sanders	1362	0	940	72
10. Crosman	2013	0	1191	133
11. Brady	1870	0	2097	138
12. Roosevelt	2392	0	3160	164
13. Peck	1694	0	956	72
14. Doty	1415	14	1804	289
15. Longfellow	1112	11	862	36
16. McCulloch	2628	10	3349	237
17. Glazier	1238	0	1005	63
18. Custer	2970	12	2371	230
19. Hally	1372	14	1643	317
20. Hampton	541	661	1155	2070
21. Pasteur	37	1823	1665	952
22. Higginbotham	837	0	931	30
23. McDowell	1839	38	1466	407
24. Vernor	1885	109	1773	798
25. Schulze	1997	61	1368	943
26. Bagley	2329	97	2267	550
27. Fitzgerald	3941	80	2199	839
28. Clinton	2443	156	1000	263
29. Courtis	2737	85	1656	359
30. Noble	1117	47	525	133
31. Winterhalter	554	6	982	63
32. Birney	1042	0	979	46
33. Keidan	3016	0	1339	78
34. McKerrow	2355	48	1173	145
35. Angell	2176	0	1941	105
37. Jamieson	2165	0	1891	82
38. Woodward	1259	13	953	153
39. Ruthruff	1710	14	834	164
40. Sherrill	1251	1011	1506	149
41. Pattengill	2278	0	2104	121
42. Biddle	730	0	313	11
43. Sampson	1382	0	1795	96
44. Wingert	1090	0	1103	65
45. McGraw	642	6	663	53
46. Columbian	1613	0	994	66
47. Craft	1086	111	589	187
48. Chaney	849	50	301	48
49. Kennedy (and	1169	584	146	102
50. Kennedy Annex)				

51.	Owen	722	241	187	210
52.	Preston	334	123	85	85
53.	Webster	761	528	144	335
54.	Maybury	252	755	100	740
55.	McKinstry	297	660	45	257
56.	Cary	872	373	273	170
57.	Beard	130	867	56	728
58.	Neinas	461	1704	79	893
59.	Newberry	1206	320	320	408
60.	Sill	1539	315	713	712
62.	Hanneman	637	405	314	648
63.	Priest	454	1225	372	2269
64.	Holmes	286	699	71	634
65.	Clippert	92	561	19	802
66.	Logan	246	737	66	1941
67.	Harms	120	974	84	887
68.	Bennett	225	1383	72	949
69.	Higgins	140	1131	72	1059
70.	Morley	693	1040	132	394
71.	Hunter	227	290	23	173
72.	Jeffries	985	0	592	15
73.	Boynton	1008	10	1009	81
74.	Mark Twain	1304	0	1219	46
75.	Barton	1330	70	1366	670
76.	McFarlane	1787	221	736	1330
77.	Parkman	84	852	66	1249
78.	Ford	250	445	95	1139
79.	Parker	1775	999	779	1720
80.	Monnier	2009	441	1028	948
82.	Burns	783	1601	394	2497
83.	Guest	1705	301	776	777
84.	King	945	207	642	1079
85.	Cervený	708	654	233	994
86.	Winship	540	498	696	1401
87.	Bow	347	2169	417	2508
88.	Bewton	185	973	96	2123
89.	Crary	72	1130	294	3311
90.	Edison	162	790	261	2574
91.	Dossin	64	846	169	1986
92.	Coolidge	78	1870	164	2517
93.	Herman	1746	1318	302	1639
94.	Gardner	30	963	85	1883
95.	Carver	23	1125	45	1253
96.	Leslie	109	800	42	1814
97.	Dixon	39	1266	84	1604
98.	Kosciusko	31	1016	64	1407
99.	Ann Arbor Trail	27	886	36	674
100.	McLean	8	376	18	384
101.	McColl	104	766	75	1267
102.	Everett	11	533	46	677
103.	Mann	122	813	111	1513
104.	Marsh	206	400	27	337
105.	Weatherby	6	578	68	948

106.	Vetal	16	1574	177	2098
107.	Gompers	18	894	29	452
108.	Healy	11	612	60	836
109.	Hubert	31	1592	48	897
110.	Harding	163	1649	118	567
111.	Cooke	0	1440	197	2054
112.	Burt	28	1358	183	2338
113.	Houghten	33	1689	91	1486
114.	Yost	158	599	17	253
115.	Lodge	167	631	45	702
116.	Holcomb	26	1286	206	2370
117.	Emerson	56	1345	198	2740
118.	Pitcher	148	1496	185	1782
119.	McKenny	168	2226	239	2326
120.	Dow	30	1450	140	1372
121.	Burgess	10	988	56	857
122.	Larced	16	510	64	783
123.	Chrysler	157	178	744	893
124.	Foster	1055	0	1119	265
125.	George	502	0	500	64
126.	Lincoln	718	0	456	39
127.	Trowbridge	241	0	400	33
128.	Balch	954	0	1022	167
129.	Palmer	782	8	838	88
130.	Breitmeyer	847	9	761	45
131.	Moore	906	0	730	33
132.	Alger	791	16	1530	90
133.	Maybee	707	0	468	17
134.	Dwyer	1114	0	647	54
135.	Parke	738	534	201	864
136.	Ferry	1157	596	426	1606
137.	Campbell	1738	23	946	340
138.	Norvell	556	0	350	20
139.	Duffield	40	1289	1055	284
140.	Bunche	1679	0	879	44
141.	Harris	761	8	351	21
142.	Williams	1750	24	867	298
143.	Thomas	830	92	389	134
144.	Marcy	1026	21	645	75
145.	Berry	1529	6	1042	84
146.	Bellevue	1364	0	719	198
147.	Field	1729	175	795	366
148.	Monteith	1565	115	586	1514
149.	Nichols	1716	34	605	171
150.	Jones	2204	0	1162	115
151.	Joyce	1425	0	880	74
152.	Hillger	1021	0	874	75
153.	Chandler	1551	48	582	122
154.	Rose	1160	36	451	145
155.	Stephens	1681	17	715	127
156.	Cooper	1686	1124	513	1685
157.	Holmes	3105	423	805	938
158.	Lynch	129	791	51	1616
159.	White	787	1327	221	1856

160.	Davison	2751	56	1552	821
161.	Greenfield Park	638	1396	389	1571
162.	Greenfield Union	69	1084	48	570
163.	Grayling	932	248	154	1370
164.	Marshall	1290	924	601	1584
165.	Mason	648	647	616	2128
166.	Courville	3003	30	2441	308
167.	Atkinson	1246	13	1718	531
168.	Pierce	549	334	259	501
169.	Van Zile	677	734	471	1622
170.	Law	97	496	125	2745
171.	Grant	194	674	118	1256
172.	Wilkins	205	1614	155	3236
173.	Fleming	15	1062	102	2717
174.	Pulaski	387	1205	112	3068
175.	Trix	336	920	77	1725
176.	Richard	35	604	68	1342
177.	Burbank	67	795	69	1547
178.	McGregor	168	714	93	1832
179.	Columbus	14	1372	131	2081
180.	Robinson	10	1376	122	2226
181.	Carleton	16	1551	206	3724
182.	Goodale	0	1594	149	3025
183.	Wayne	29	1401	226	3952
184.	Macomb	20	1110	147	1359
185.	Hutchinson	1802	55	507	170
186.	Marxhausen	1506	0	939	83
187.	Pingree	1233	0	516	46
188.	St. Clair	3489	81	1596	150
189.	Hamilton	986	554	405	1558
190.	Stellwagon	10	1020	214	2719
191.	Marguerite	7	742	148	2096
192.	Hanstein	32	284	27	682
193.	Clark	15	1487	304	3525
194.	Hosmer	155	1390	286	2296
195.	Carstens	1112	1815	331	848
196.	Lillibridge	2975	398	762	220
197.	Howe	1939	20	1069	85
198.	Scripps	1520	31	746	175
199.	Lingeman	881	721	250	401
200.	Stark	1178	24	603	182
201.	Keating	2072	310	613	280
202.	Ives	71	713	56	757
203.	Guyton	308	1234	221	1463

PROPOSED SOLUTION from the University of Washington <sup>1</sup>.

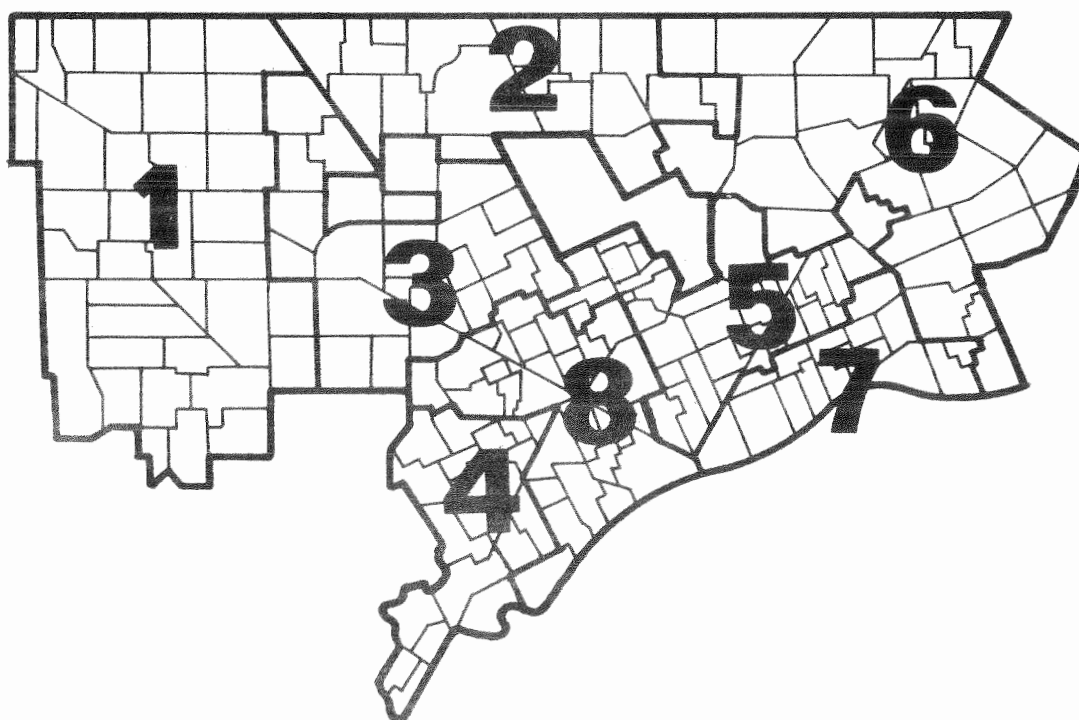
Dear Gwen and Bill and friends:

Here is the best we can do under the time constraints. . . .

We should point out that none of the proposed solutions, the Detroit School Board's, the existing high school districts, the ideal high school (yours), the NW community, or mine, meet the criteria given. None come within 10% for several districts, most have districts falling below 25,000 or going over 50,000. It is impossible, given the criteria, to obtain a solution with less than 25% black students under white control. Therefore we relaxed these constraints in order to reduce the number of black students under white control.

Our solution, which reduces the value to 12 + %, is, we think, the best that can be achieved without violating the constraints much more. . . .

Sincerely,  
Dick Morrill




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1. After the publication of the progress report, we decided against recommending grade-school based regions, even though they offered the best opportunity to protect black children. There were several reasons for this decision, including the fact that changing boundaries would be disruptive to the school children and would reduce what the black community calls "natural integration" at the high school level. Since we had posed the problem, however, we include the results to date here.

University of Washington print out

REGION	NO.DISTS.	B.VOTE	W.VOTE	B.STDS	W.STDS	TTL ST	CONTROL
8	28	23048.	6321.	32177.	7003.	39180.	B
5	33	23867.	8748.	37252.	3735.	40987.	B
3	22	27264.	13268.	38383.	5004.	43387.	B
2	19	21822.	16491.	26161.	7992.	34153.	B
4	17	5213.	12639.	9753.	11661.	21414.	W
1	38	4618.	56720.	4783.	41261.	46044.	W
7	15	12064.	5047.	23833.	3382.	27215.	B
6	27	5293.	57452.	8967.	27892.	36859.	W

CAPCTY	MAXCAP	HSSTD	XCSCAP	PRCAP
7430.	8173.	7444.	728.	100.19
6580.	7238.	7787.	-549.	118.35
7630.	8393.	8243.	149.	108.04
5200.	5720.	6489.	-769.	124.78
3936.	4329.	4068.	260.	103.37
8508.	9358.	8748.	610.	102.82
4220.	4642.	5170.	-528.	122.53
7270.	7997.	7003.	993.	96.33

too small

W. REGIONS 3 B. REGIONS 5

WHITE CONTROL

W.STDS 80814. B.STDS 23503.

BLACK CONTROL

W.STDS 27116. B.STDS 157806.

TTL STDS 289239. TTL B.STDS 181309. TTL W.STDS 107930.

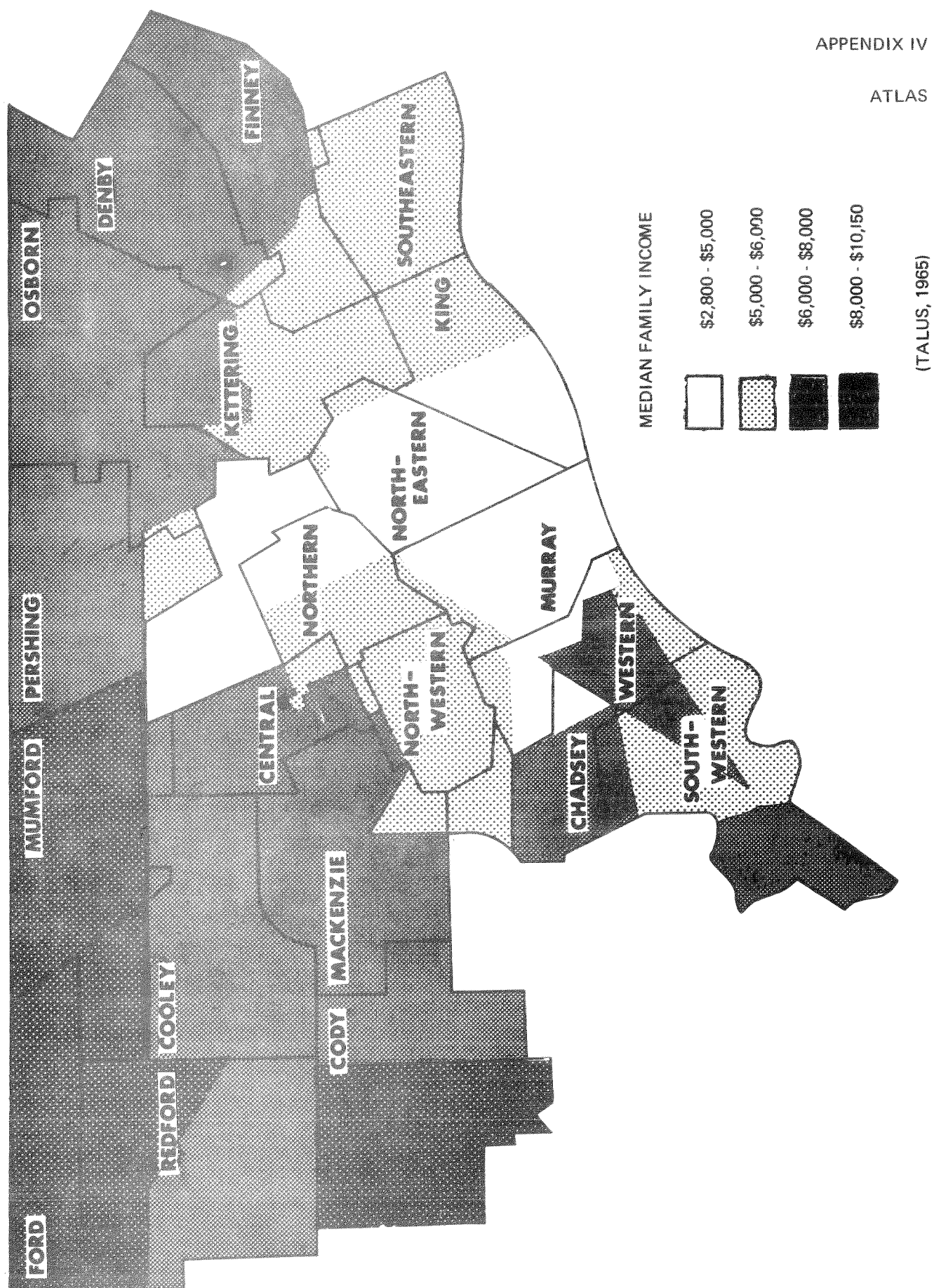
WHITE CONTROL BLACK CONTROL

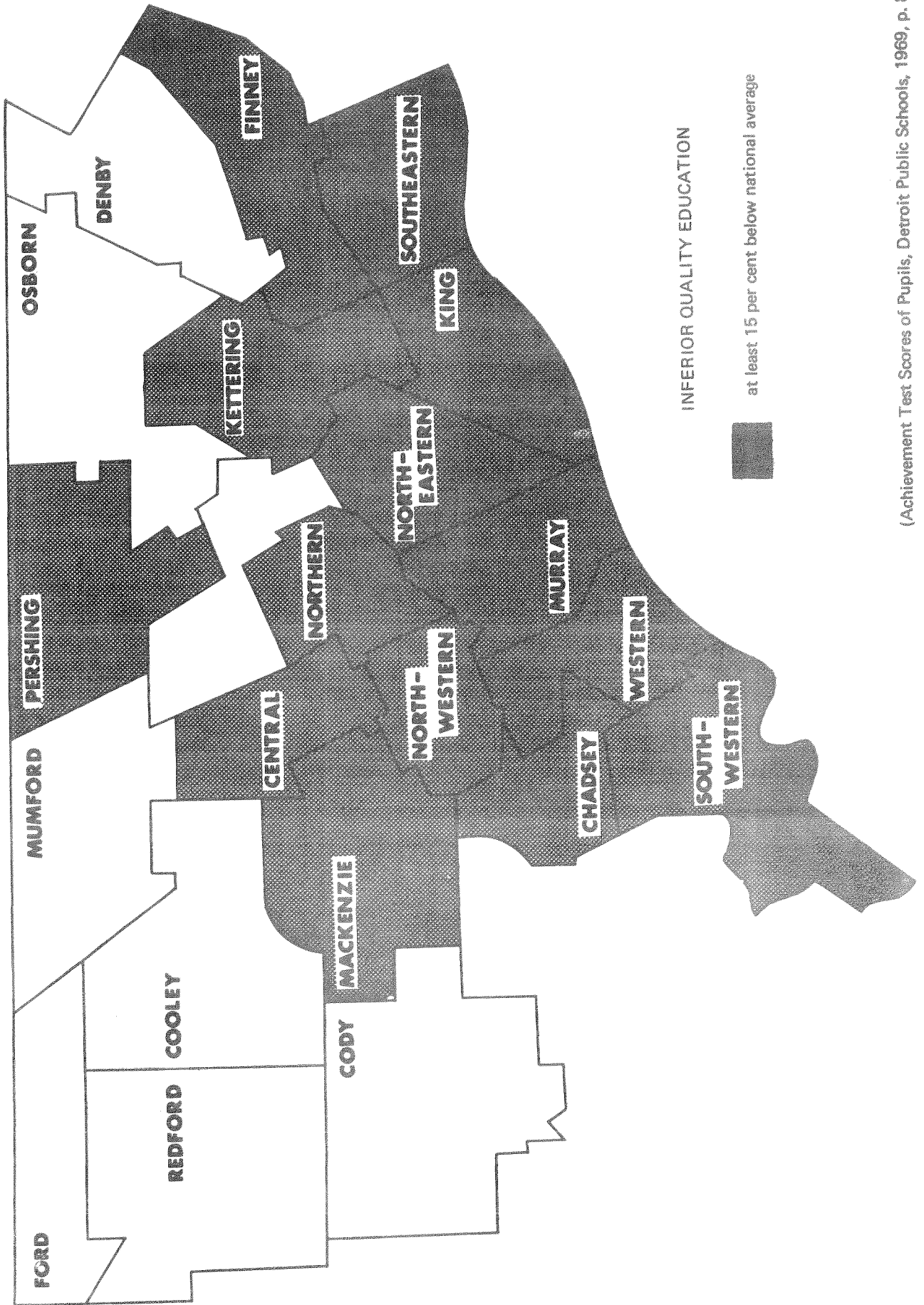
WHITE STDS 74.876 25.123

BLACK STDS 12.962 87.037

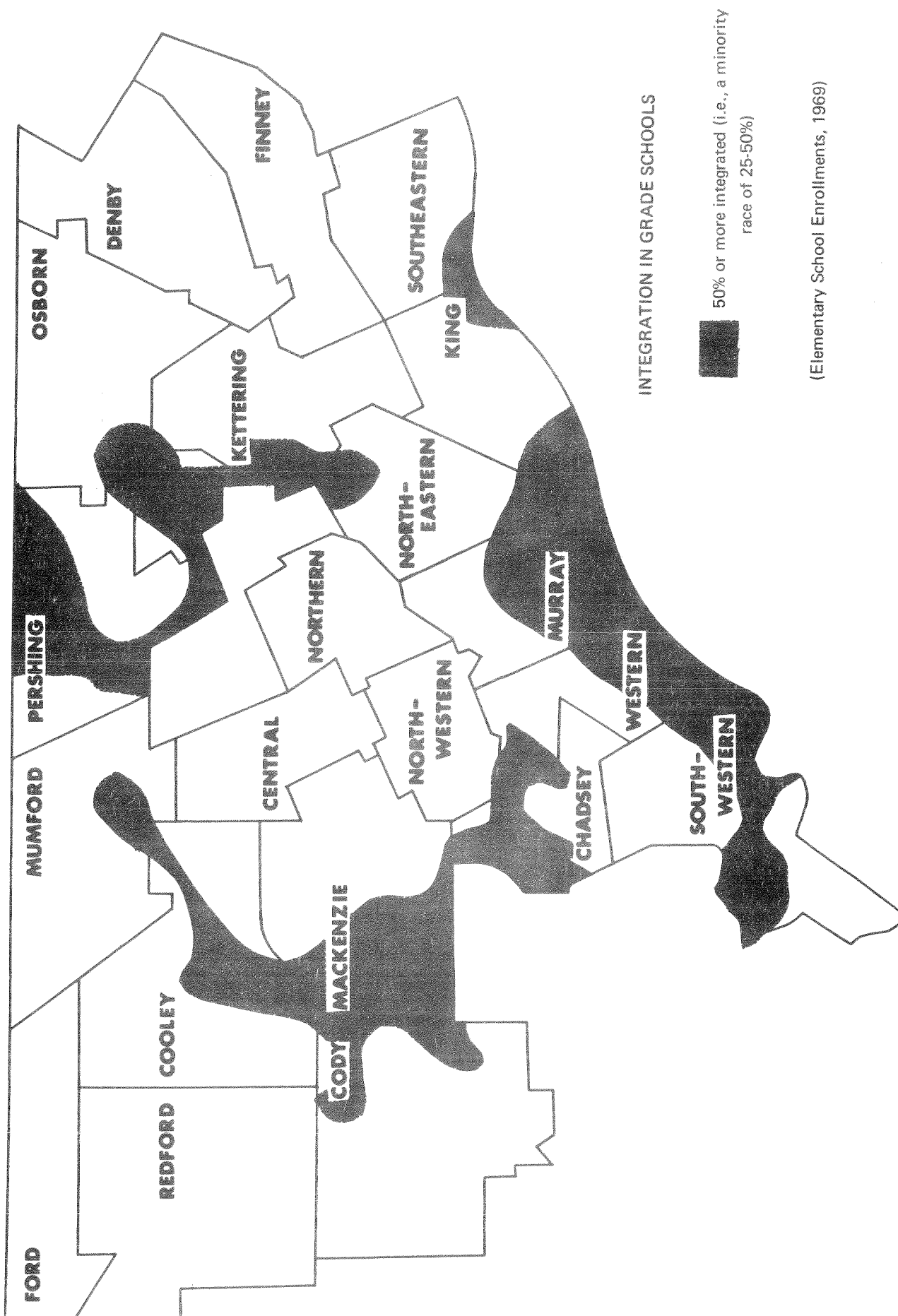
## APPENDIX IV

## ATLAS

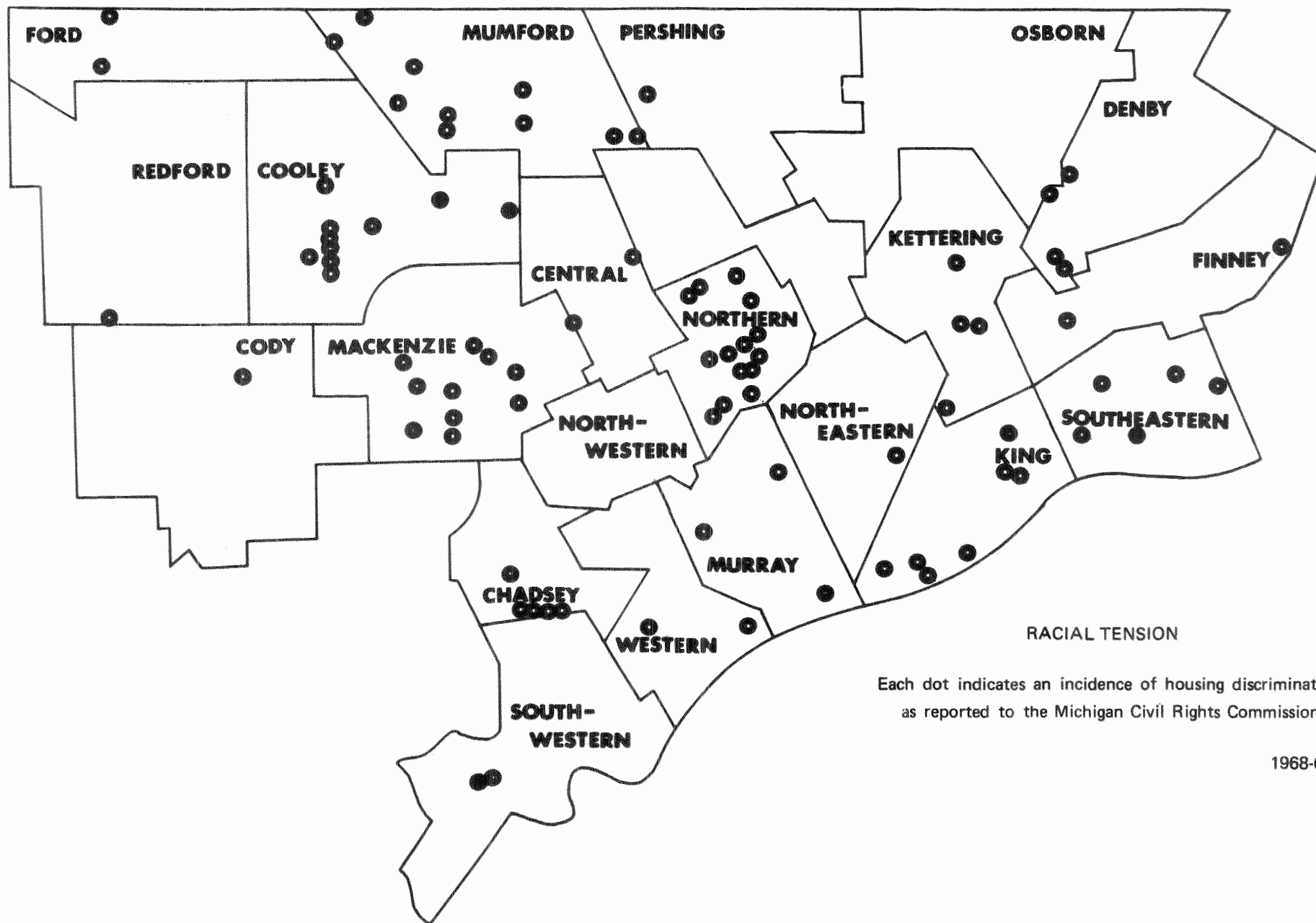


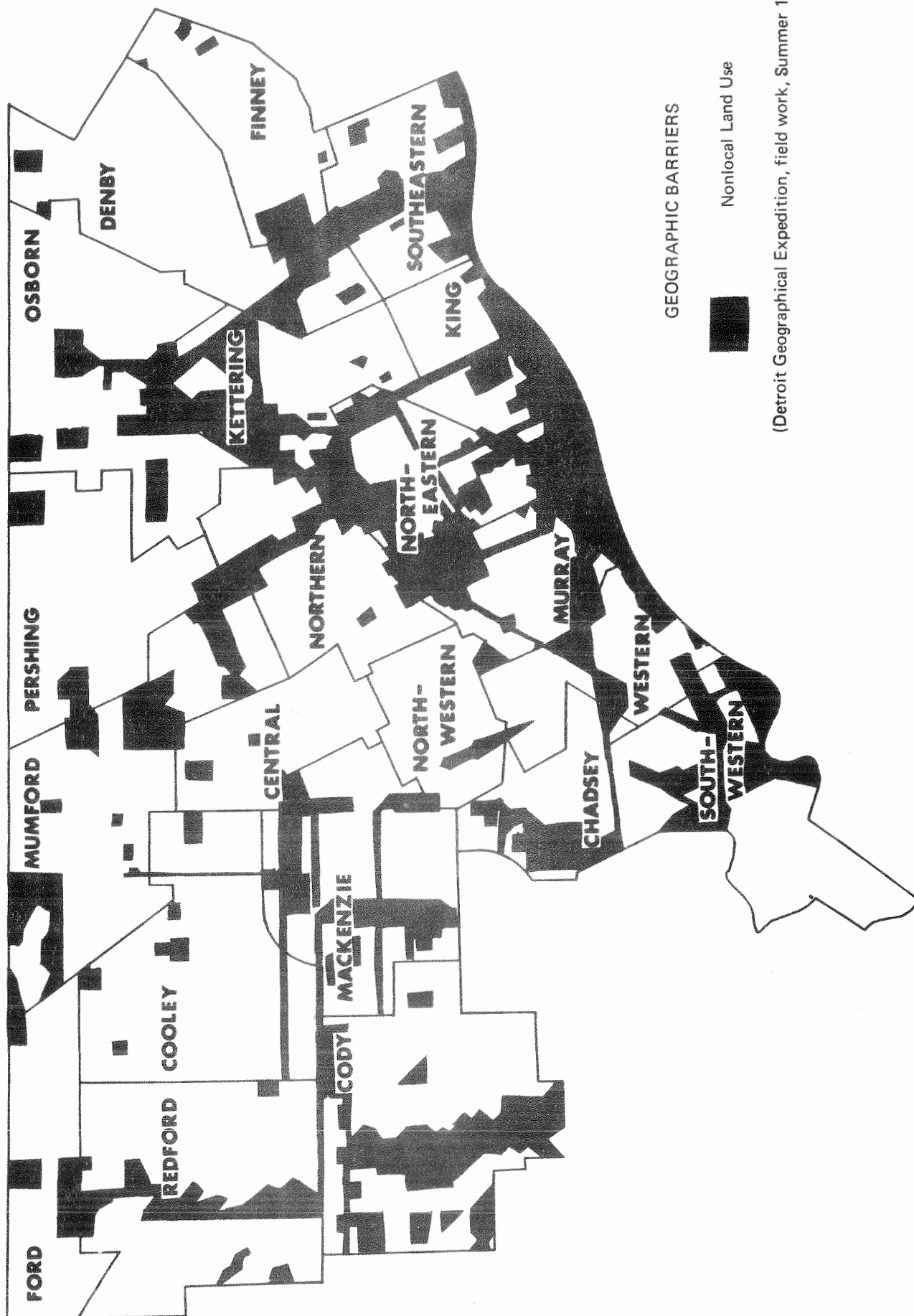






(Elementary School Enrollments, 1969)

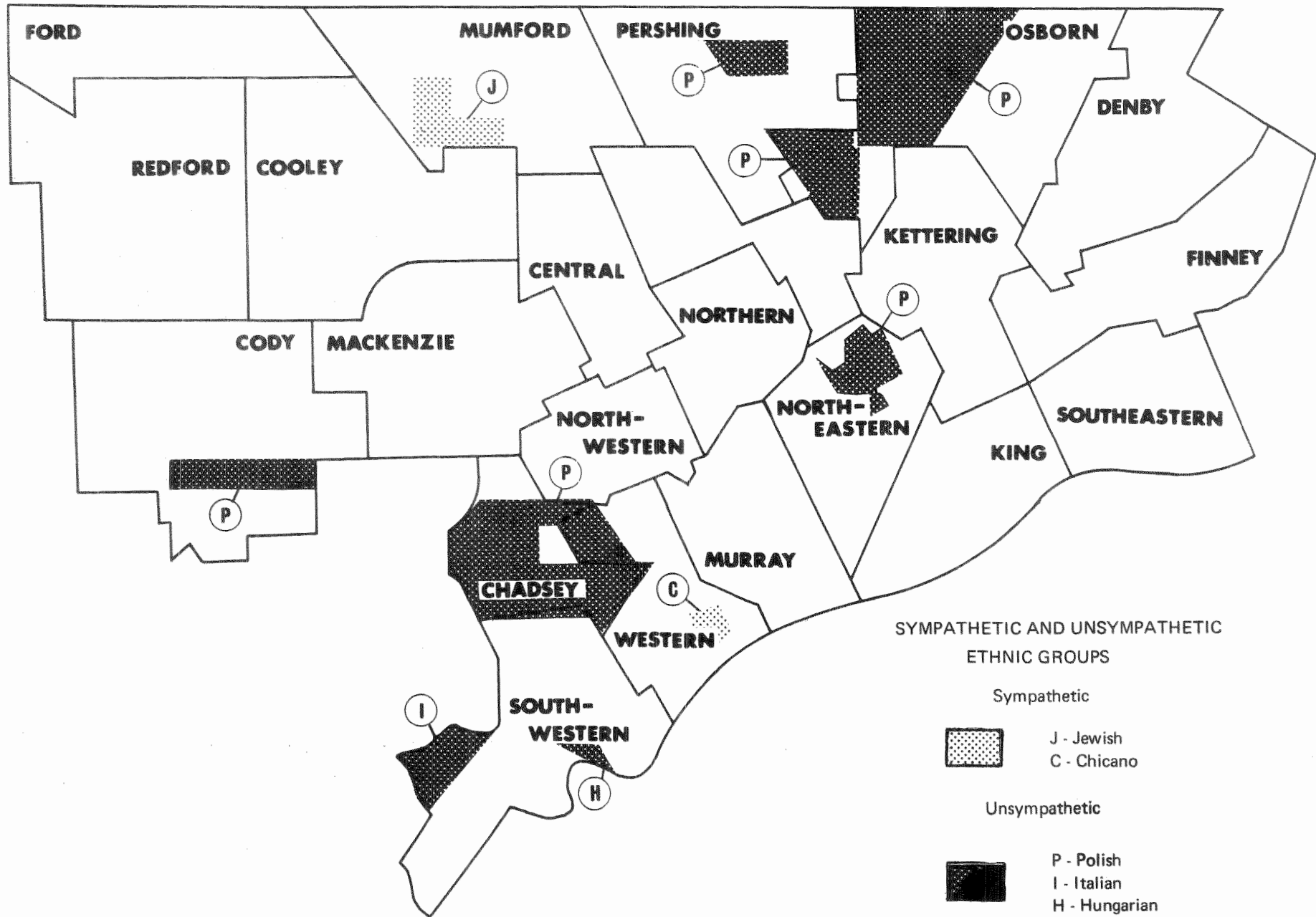




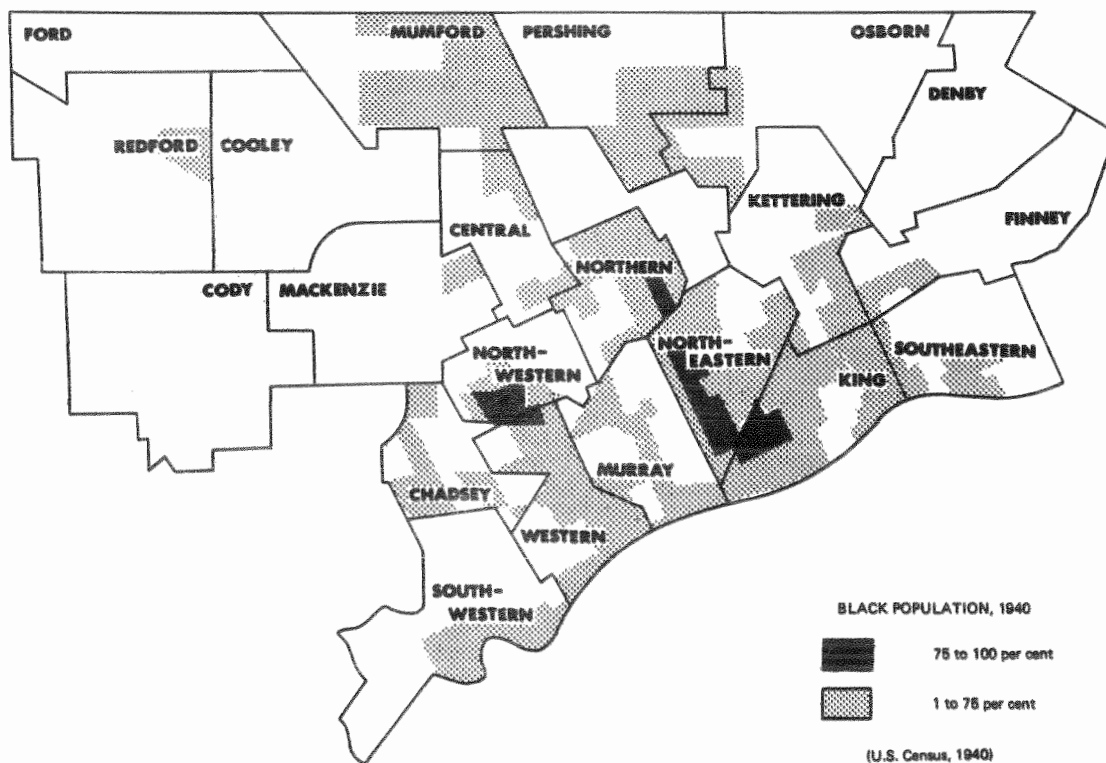
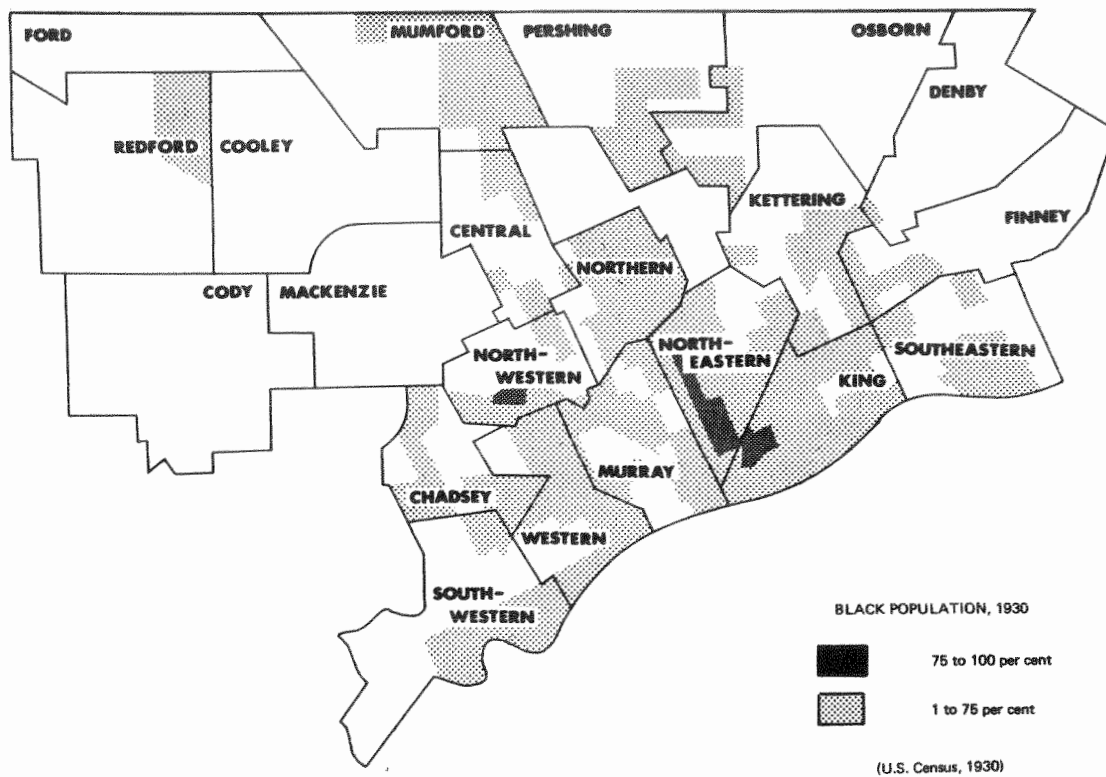
# GEOGRAPHIC BARRIERS

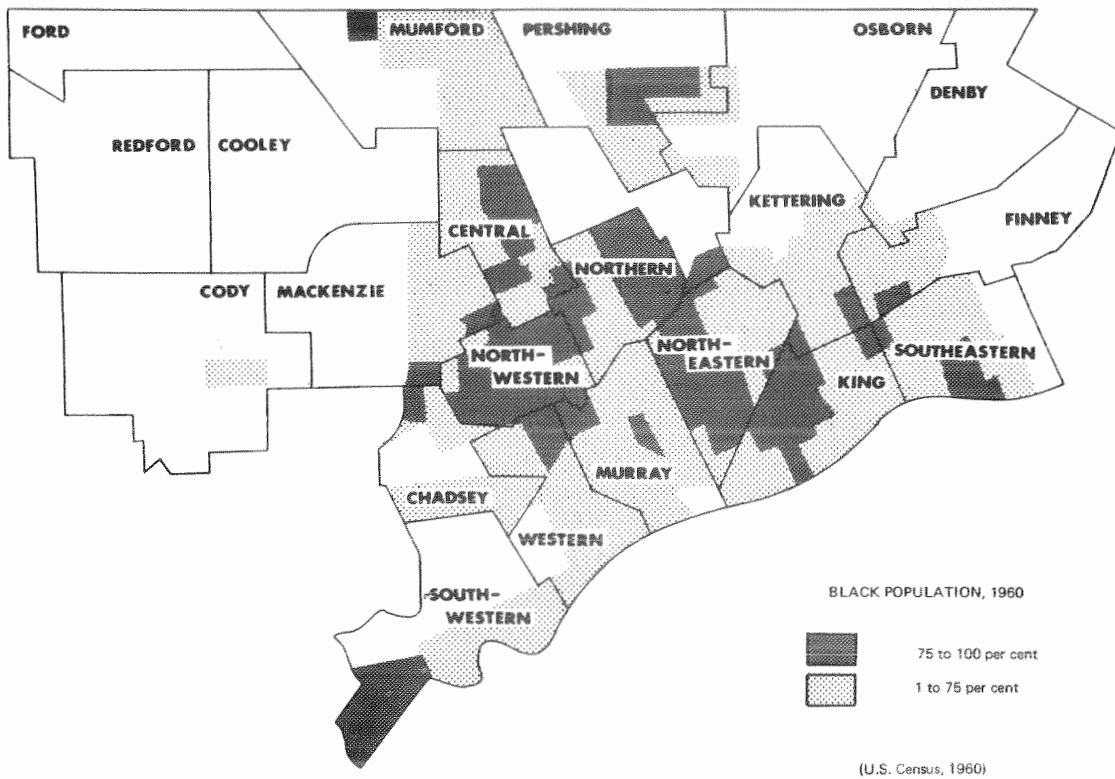
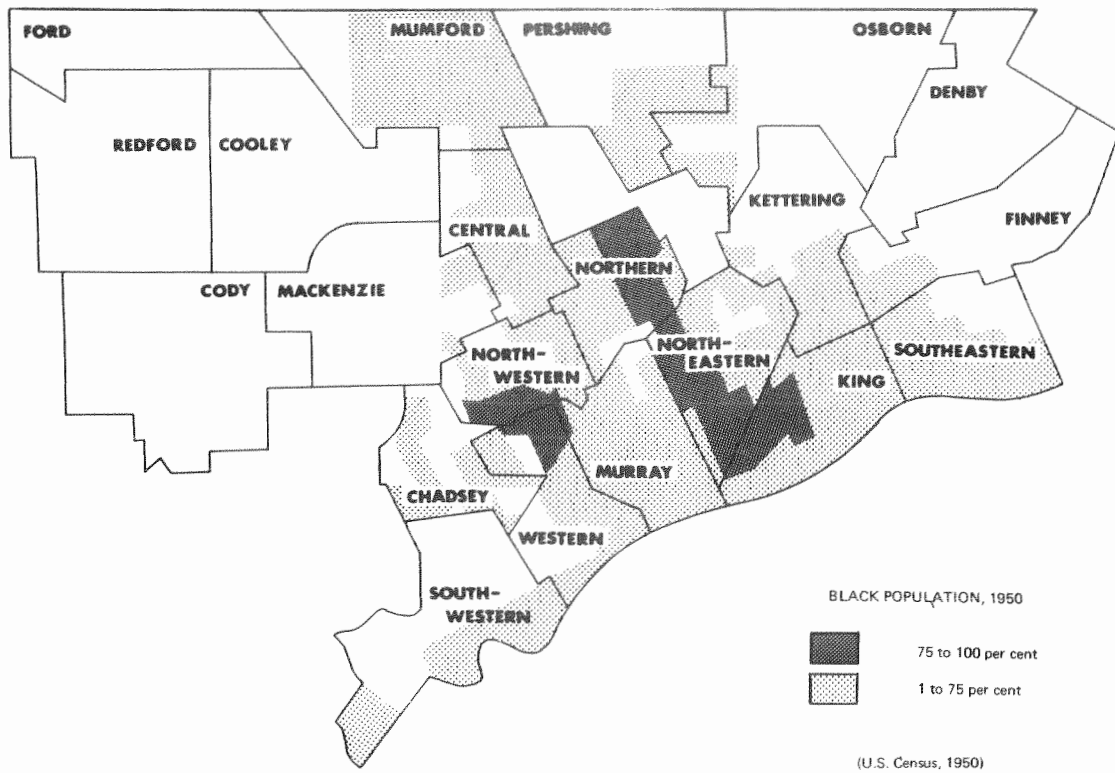
Nonlocal Land Use

(Detroit Geographical Expedition, field work, Summer 1969)





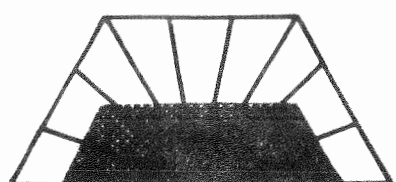




## THEORETICALLY PERFECT COMMUNITY CONTROL AND GERRYMANDERING

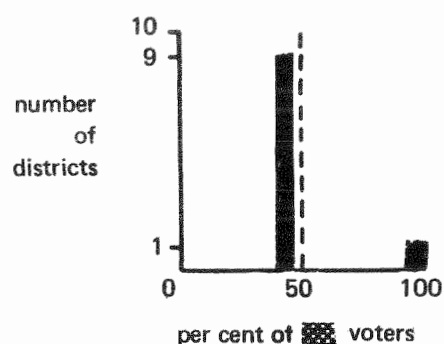
The following diagrams analyze possible divisions of a hypothetical city in which the population is divided evenly (50-50) into two interest groups. Both segregated and integrated distributions of the interest groups are analyzed.

## I. Gerrymandered Division of Segregated Area

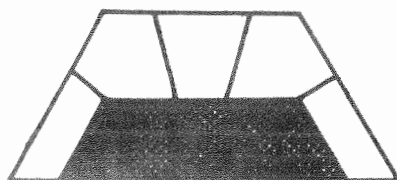


□ controls 9 districts

▨ controls 1 district

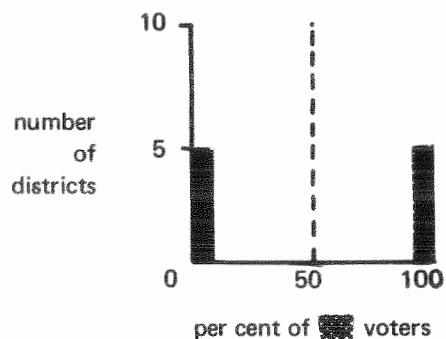


## II. Democratic Division of Segregated Area

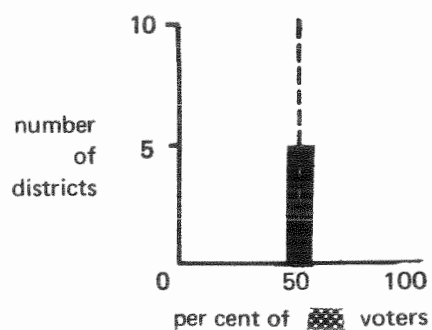
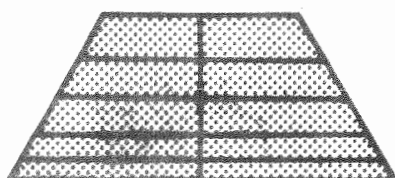


□ controls 5 districts

▨ controls 5 districts



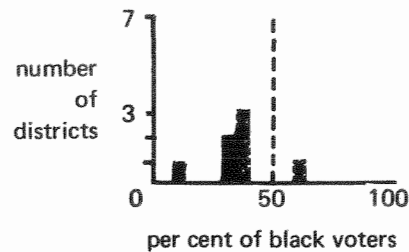
## III. Democratic Division of Integrated Area



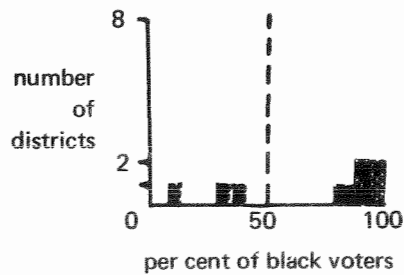


When the School Board plan and the plans presented in this report are graphed, the School Board pattern most closely resembles pattern I. The child sympathy and community control plan most closely resemble pattern II.

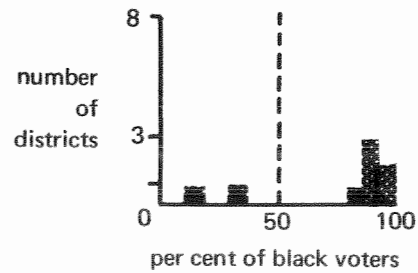
School Board Plan



Community Control Plan



Child Sympathy Plan



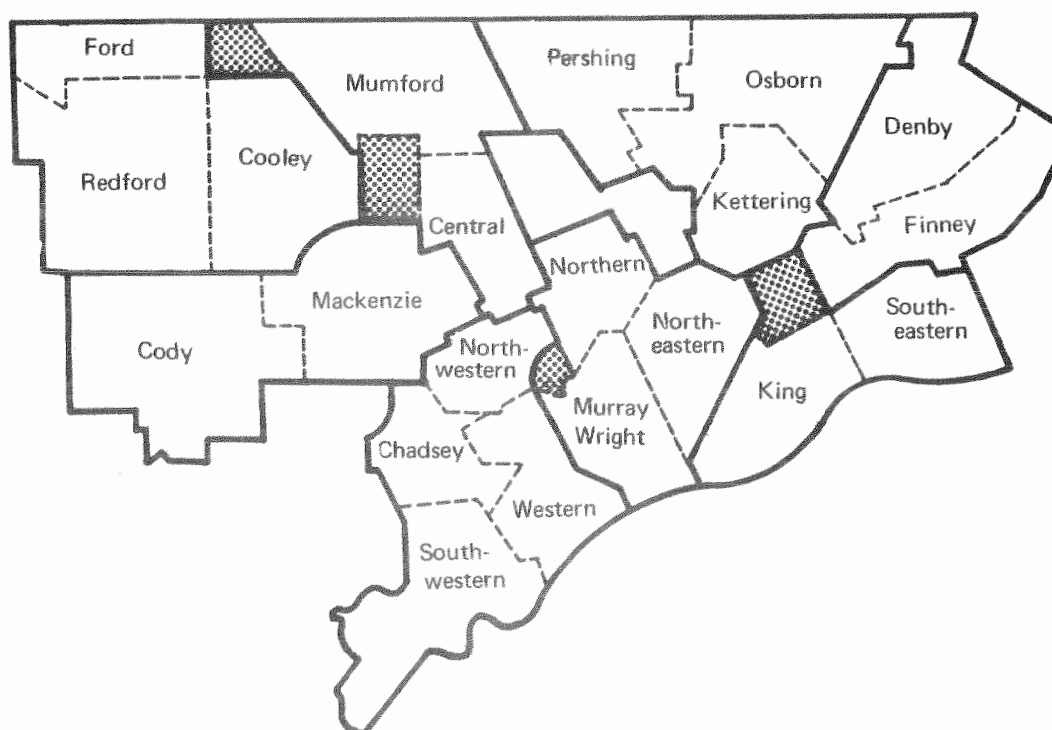
#### Guidelines for Community Control Districts

1. It is necessary but not sufficient for perfect community control that the boundaries of the voting districts coincide with the boundaries of the community.
2. It is necessary but not sufficient for perfect community control that the proportionality of the communities be reflected in the proportion of voting districts. In terms of applied mathematics, this means a great number of voting districts.

## POSTSCRIPT

Both parents and students reacted vehemently against the School Board's "integration" plan. Violence broke out in Osborn and Cooley High Schools, in addition to a walkout in the Kettering area and several other demonstrations. Opposition was so strong among parents that four School Board members were recalled in a general vote August 4. The city is now in preparation for the November elections, in which the empty Board seats will be filled and the first regional boards elected. A dominantly black organization closely associated with Mr. John Watson is using this report as the basis of its campaign strategy.

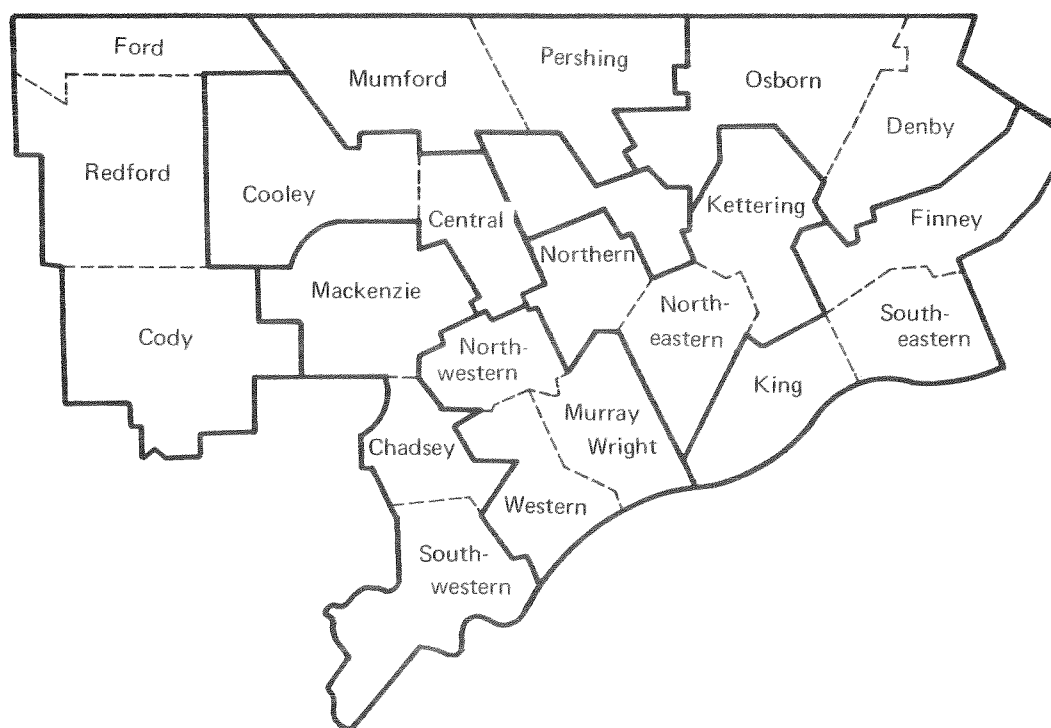
The original decentralization bill has been replaced by a new one which stipulates that the final regional plan must have eight compact, contiguous regions which are as nearly equal in population as possible. (It removes the restraints on the number of students in each region.) The three man boundary commission, appointed by Governor Milliken under this new law, released the plan below August 4. One of the most striking aspects of this new plan is that in several areas children attend schools in one district while their parents vote for officials in another. These areas are shaded on the map.



Science must rupture with law if law becomes unreal in ways such as making it illegal to assert that the earth is round, as law at one time did. The decentralization law violates the needs of children. The ratio of black to white children in the schools is two to one, but the law puts white adults in a one to one position of power. Further, the law of equal adult population results in "taxation without representation," that is, tyranny, since many voters do not have voting authority over their own children. Such gerrymandering is without precedent in human geographic history! What next? Will black Detroit be allowed to vote in elections in Biafra but not in Michigan? Further, both white racism and "black pride" are strongest in "changing neighborhoods." A high school like Cooley, with 75%

black students likely this fall, is not only welded to a white racist hinterland which will keep the authority over the children white for decades, but it is also a high school district in which the black parents have been disenfranchised and forced to vote in a different district than the one where their children attend school. While scientists are more certain of predicting eclipses of the moon than human explosions, it is certainly likely that Cooley High School will explode under the irrationality of this injustice. The pattern that emerges shows that everywhere where the black community is expanding it will be punished with white school boards, evidently to make sure that black people stay "in their place" in the ghetto.

Still, science is forced to be reasonable. Given that the present law is an unnatural law, a false law, what is the closest point to meeting its requirements that can be found without losing contact with the world of reality? There is no such thing as "Children Power" precisely because children are so powerless. If "only the strong" survived, all adults would have died in infancy. It is precisely the powerlessness of children that commands our concern for them. They are biologically the weakest link with life. Therefore, the needs of the children must come first, or the species (at least subsections of it) perishes. Since there are twice as many black children in the school system as white children, they must have twice the amount of sympathetic authority as white children. This means that six out of nine regions should be under black control. Since the law reads that there are to be only eight regions, the ratio must be five black to three white, even though it cheats the black child. Also, since it is classic tyranny (and might well be illegal) to have students attending a school over which their parents have no authority, existing high school boundaries are used as voting districts. Given these two restraints (three to five power and existing boundaries), the computers were set in motion still another time to keep pace with the twists and turns of the rules of the games as the power structure changes them. Within these restraints, the computer searched for the most equal total population defined as the least difference between the largest and smallest districts. The plan below is the best one possible, within the state law, and without straining the law of reality.



We are convinced that this plan, with only a 10% average deviation in population, with the voters ungerrymandered and the children protected, is more legal than the governor's plan, under both rational and human law. We urge that this opinion be tested in court by our fellow professionals in the bar association.

As scientists, we are confident that the school regions must follow the pattern presented in this report or face serious conflict as an everyday occurrence. People will never cease to struggle for power over a matter so vital to them as the education of their young until they have won it.

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN MUR. WRIGHT WESTERN	COOLEY CENTRAL	KETTERING NORTHERN NO. EASTERN	MACKENZIE CHADSEY SO. WESTERN	MUMFORD PERSHING	KING FINNEY SO. EASTERN	DENBY OSBORN	FORD REDFORD CODY
BLACK	+28296	+24673	+36426	+26793	+19655	+30808	+4331	+3028
WHITE	+7104	+7254	+3563	+11175	+6620	+11245	+18724	+36580
POLITICAL CONTROL	BLACK	BLACK	BLACK	BLACK	BLACK	WHITE	WHITE	WHITE
POPULATION	+186500	+180000	+196900	+181800	+149000	+211900	+155800	+215300

RANGE OF DEVIATION IS 35.9

MAJORITY ENROLLMENT	POLITICAL CONTROL	NUMBER OF DISTRICTS
BLACK	BLACK	+5
WHITE	BLACK	0
WHITE	WHITE	+2
BLACK	WHITE	+1

	NUMBER	PERCENTAGE
BLACK STUDENTS UNDER BLACK CONTROL	+135843	<del>65.1</del>
WHITE STUDENTS UNDER WHITE CONTROL	+66549	65.1
ALL STUDENTS UNDER BLACK CONTROL	+171559	62.1
ALL STUDENTS UNDER WHITE CONTROL	+104716	37.9
ALL STUDENTS UNDER HOMOGENEOUS CONTROL	+202392	73.3
ALL STUDENTS UNDER HETEROGENEOUS CONTROL	+73883	26.7

## ENROLLMENTS FOR THE NEW DISTRICTS

	NO. WESTERN WESTERN NORTHERN	COOLEY CENTRAL	KETTERING MUR. WRIGHT NO. EASTERN	MACKENZIE CHADSEY SO. WESTERN	MUMFORD PERSHING	KING FINNEY SO. EASTERN	DENBY OSBORN	FORD REDFORD CODY
BLACK	+31346	+24673	+33376	+26793	+19655	+30808	+4331	+3028
WHITE	+4814	+7254	+5853	+11175	+6620	+11245	+18724	+36580
POLITICAL CONTROL	BLACK	BLACK	BLACK	BLACK	BLACK	WHITE	WHITE	WHITE
POPULATION	+181100	+180000	+202300	+181800	+149000	+211900	+155800	+215300

RANGE OF DEVIATION IS 35.9

## MAJORITY ENROLLMENT

BLACK  
WHITE

## POLITICAL CONTROL

BLACK  
BLACK

## NUMBER OF DISTRICTS

+5  
0WHITE  
BLACKWHITE  
WHITE+2  
+1

BLACK STUDENTS UNDER BLACK CONTROL  
 WHITE STUDENTS UNDER WHITE CONTROL

NUMBER PERCENTAGE  
 +135843 ~~14~~  
 +66549 65.1

ALL STUDENTS UNDER BLACK CONTROL  
 ALL STUDENTS UNDER WHITE CONTROL

+171559 62.1  
 +104716 37.9

ALL STUDENTS UNDER HOMOGENEOUS CONTROL  
 ALL STUDENTS UNDER HETEROGENEOUS CONTROL

+202392 73.3  
 +73883 26.7

