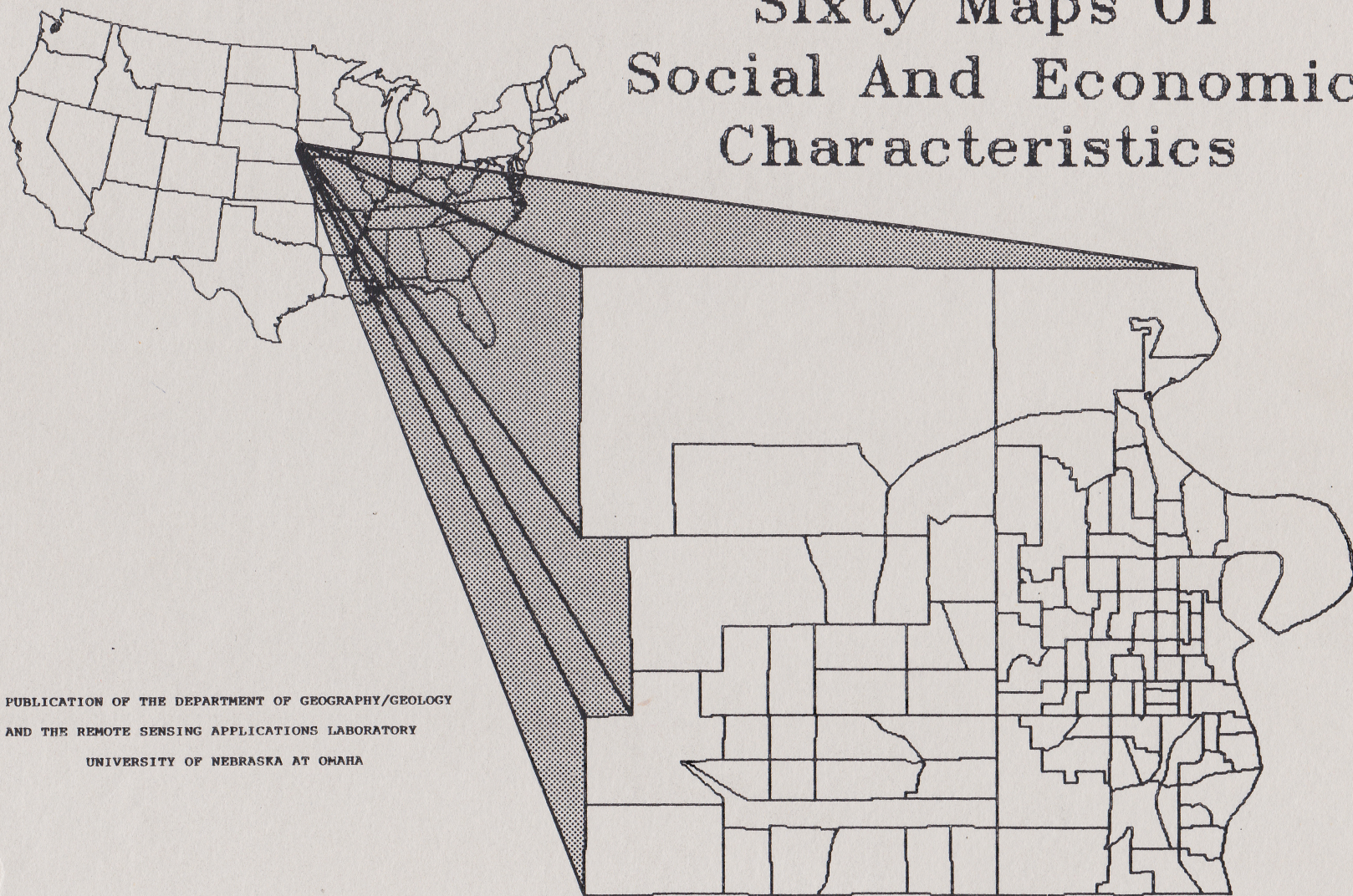


A COMPUTER ATLAS OF OMAHA:

Sixty Maps Of Social And Economic Characteristics



A PUBLICATION OF THE DEPARTMENT OF GEOGRAPHY/GEOLOGY
AND THE REMOTE SENSING APPLICATIONS LABORATORY
UNIVERSITY OF NEBRASKA AT OMAHA

COMPUTER ATLAS OF OMAHA: Sixty Maps of Social and Economic Characteristics

Edited by: Dr. Michael P. Peterson
Assistant Professor of Geography, and
Assistant Director, Remote Sensing Applications Laboratory
University of Nebraska at Omaha

and

Marvin Barton
Staff Cartographer
Department of Geography/Geology
University of Nebraska at Omaha

Copyright 1985, Department of Geography/Geology
and Remote Sensing Applications Laboratory
University of Nebraska at Omaha
Omaha, Nebraska 68182

TABLE OF CONTENTS

	Page
Foreword.....	5
Census Tracts with Street Names.....	7
 AGE GROUPS.....	 8
1-4 Years of Age.....	9
5-9 Years of Age.....	10
10-14 Years of Age.....	11
15-19 Years of Age.....	12
Under 18 Years of Age.....	13
20-24 Years of Age.....	14
25-44 Years of Age.....	15
45-64 Years of Age.....	16
Over 62 Years of Age.....	17
Over 75 Years of Age.....	18
Dependent Population.....	19
 EDUCATION, EMPLOYMENT AND ANCESTRY.....	 20
High School Graduates Over Age 25.....	21
Over Age 25 With 4 or More Years of College.....	22
Unskilled Workers.....	23
Professional Workers.....	24
Black Population.....	25
Irish Ancestry.....	26
Italian Ancestry.....	27
Polish Ancestry.....	28
Spanish Ancestry.....	29
 INCOME GROUPS.....	 30
Per capita Income.....	31
Mean Household Income.....	32
Household Income Less than \$5,000.....	33
Household Income \$5,000-\$9,999.....	34
Household Income \$10,000-\$14,999.....	35
Household Income \$15,000-\$19,999.....	36
Household Income \$20,000-\$24,999.....	37
Household Income \$25,000-\$34,999.....	38
Household Income \$35,000-\$49,999.....	39

Household Income More than \$50,000.....	40
Families Below the Poverty Level.....	41
Households Receiving Public Assistance.....	42
Households With Social Security Income.....	43
Single Income Families.....	44
Two Income Families.....	45
Mean Family Income: No Workers.....	46
Mean Family Income: One Worker.....	47
Mean Family Income: Two Workers.....	48
HOUSING CHARACTERISTICS.....	49
Housing Unit Density.....	50
Mean Household Size.....	51
Single-Family Dwelling Units.....	52
Multi-Family Dwelling Units.....	53
Median Housing Unit Value.....	54
Housing Valuation Less Than \$25,000.....	55
Housing Valuation \$25,000-\$39,999.....	56
Housing Valuation \$40,000-\$49,999.....	57
Housing Valuation \$50,000-\$79,999.....	58
Housing Valuation More Than \$80,000.....	59
Owner Occupied Housing Units.....	60
Renter Occupied Housing Units.....	61
Median Contract Rent.....	62
Vacant Housing Units.....	63
Residence Tenure 1-2 Years.....	64
Residence Tenure 3-5 Years.....	65
Residence Tenure 6-9 Years.....	66
Residence Tenure More Than 10 Years.....	67
Households With No Available Vehicle.....	68
Households With One Available Vehicle.....	69
Households With Two Available Vehicles.....	70
Householders Living Alone.....	71
The Making of This Atlas.....	72
Population Density Map	74
Census Tract Map	75
Source/Classification Table	76

FOREWORD

This atlas represents a collection of sixty maps of social and economic data for the city of Omaha and surrounding areas in Douglas County, Nebraska. Included are maps dealing with age of population, education, employment, race, ancestry, income and characteristics of housing. The atlas is designed for those interested in the city of Omaha and the various characteristics of its population.

The purpose of this atlas is to portray data for Omaha in map or graphic form. Maps, in addition to helping us find our way around, can also depict distributions. Comparisons of the distributions among the maps in this atlas can add a great deal to our knowledge of the city.

The maps in this atlas have been organized into four sections: 1) Age of Population; 2) Education, Employment, Race and Ancestry; 3) Income; and 4) Characteristics of Housing. Data are mapped by census tract units. Census tracts have been devised by the United States Bureau of the Census to collect and organize data within urban areas. A total of 103 census tracts are included on these maps. The data for two census tracts have not been mapped. These include the area encompassing Boys Town (74.05) and an elongated census tract adjoining Interstate 80 (74.10). A map of census tracts and associated street names follows the Table of Contents. A detailed description of how the maps were created is included at end of the atlas.

Acknowledgements

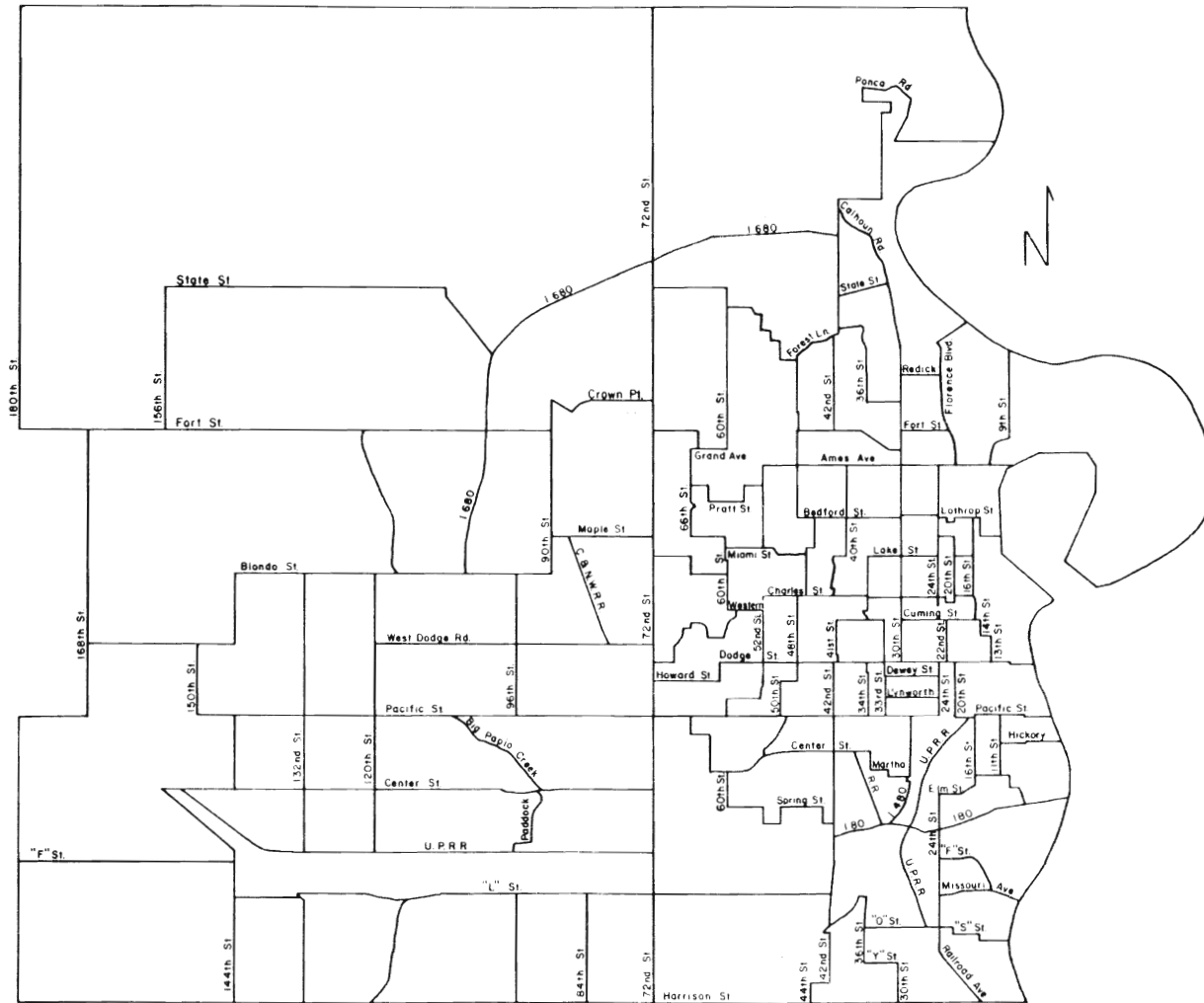
This atlas would not have been possible without the help of various individuals. The editors would especially like to thank: all of the students of Computer Mapping and Data Analysis for 1983 and 1984, in particular, Mike McIntyre and Barry Rue, for compiling many of the data sets; David Bankers, M. David Long, Kenneth Schmidt and Rick Trapp for their computer programming efforts; Dr. Charles Gildersleeve, Dr. Harold Retallick, Dr. Joseph Wood, Dr. Philip Vogel of UNO and John Zipay of MAPA

for using their expertise in the geography of Omaha to evaluate the maps; and, Mark Lastrup for performing various administrative functions.

The editors would also like to thank Digital Equipment Corporation for an equipment grant that included the graphics-printer used to produce these maps.

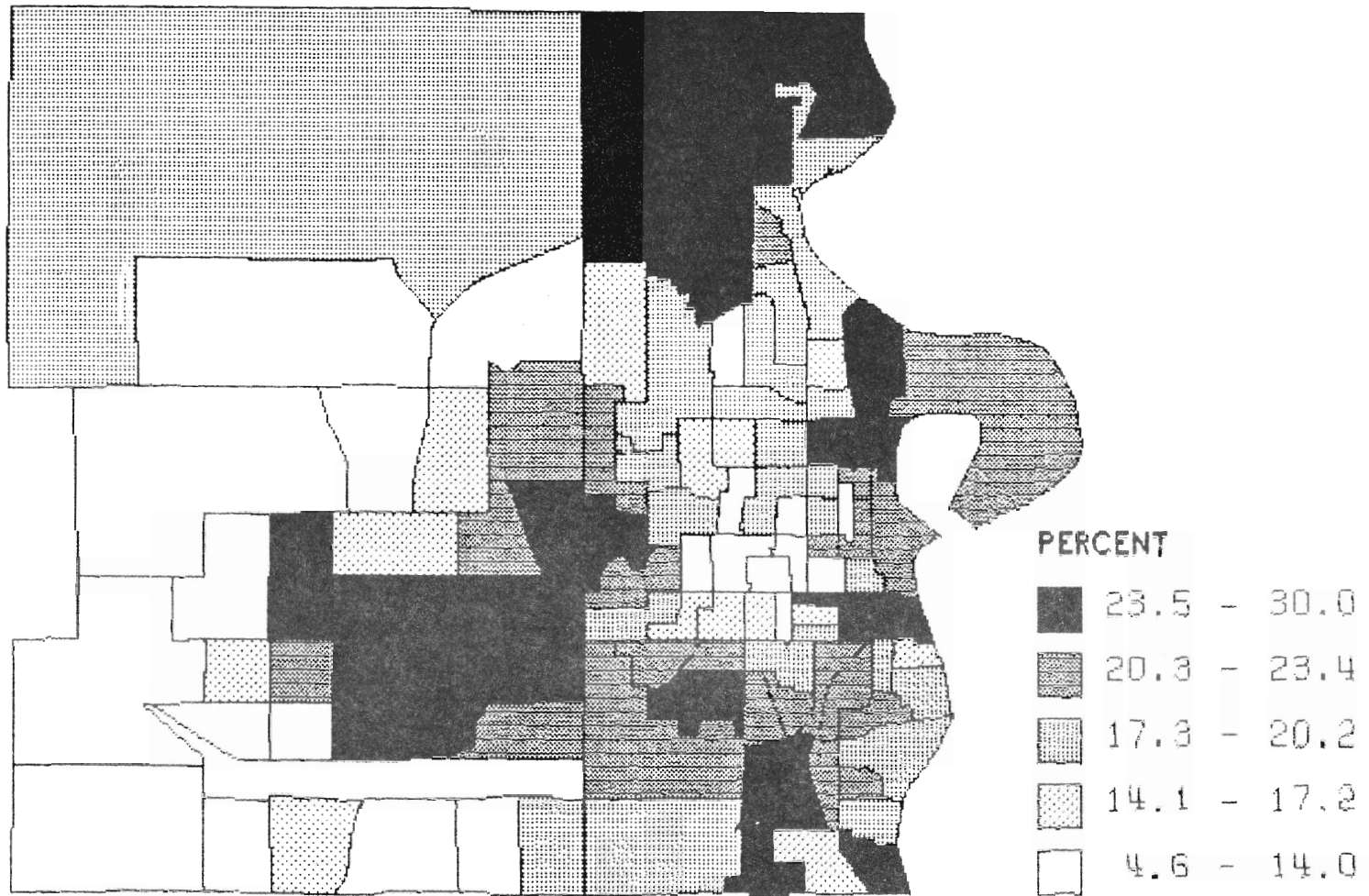
The University of Nebraska Foundation supplied funding for much of the remaining computer equipment.

OMAHA CENSUS TRACT STREET BOUNDARIES

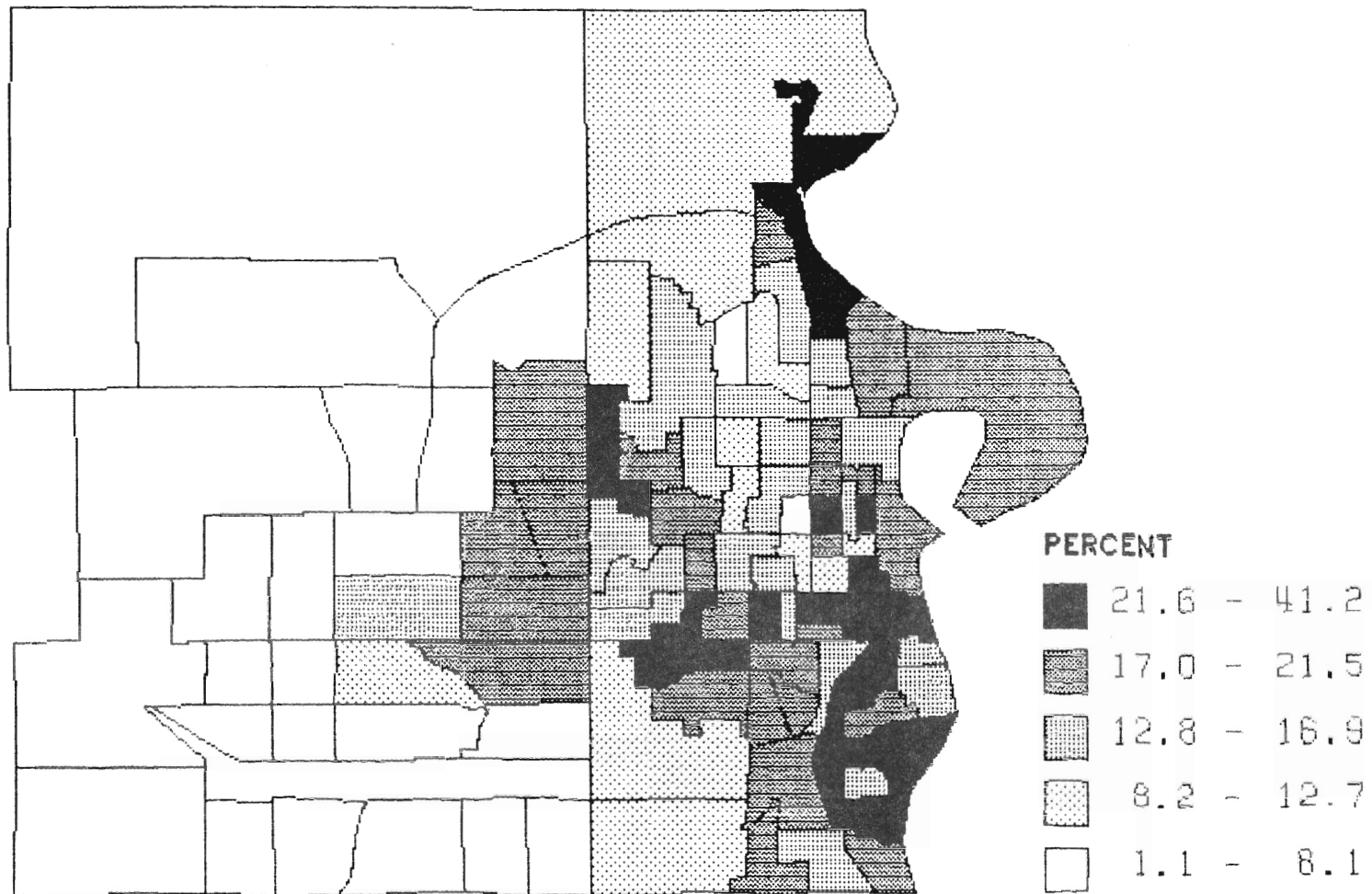


AGE OF POPULATION

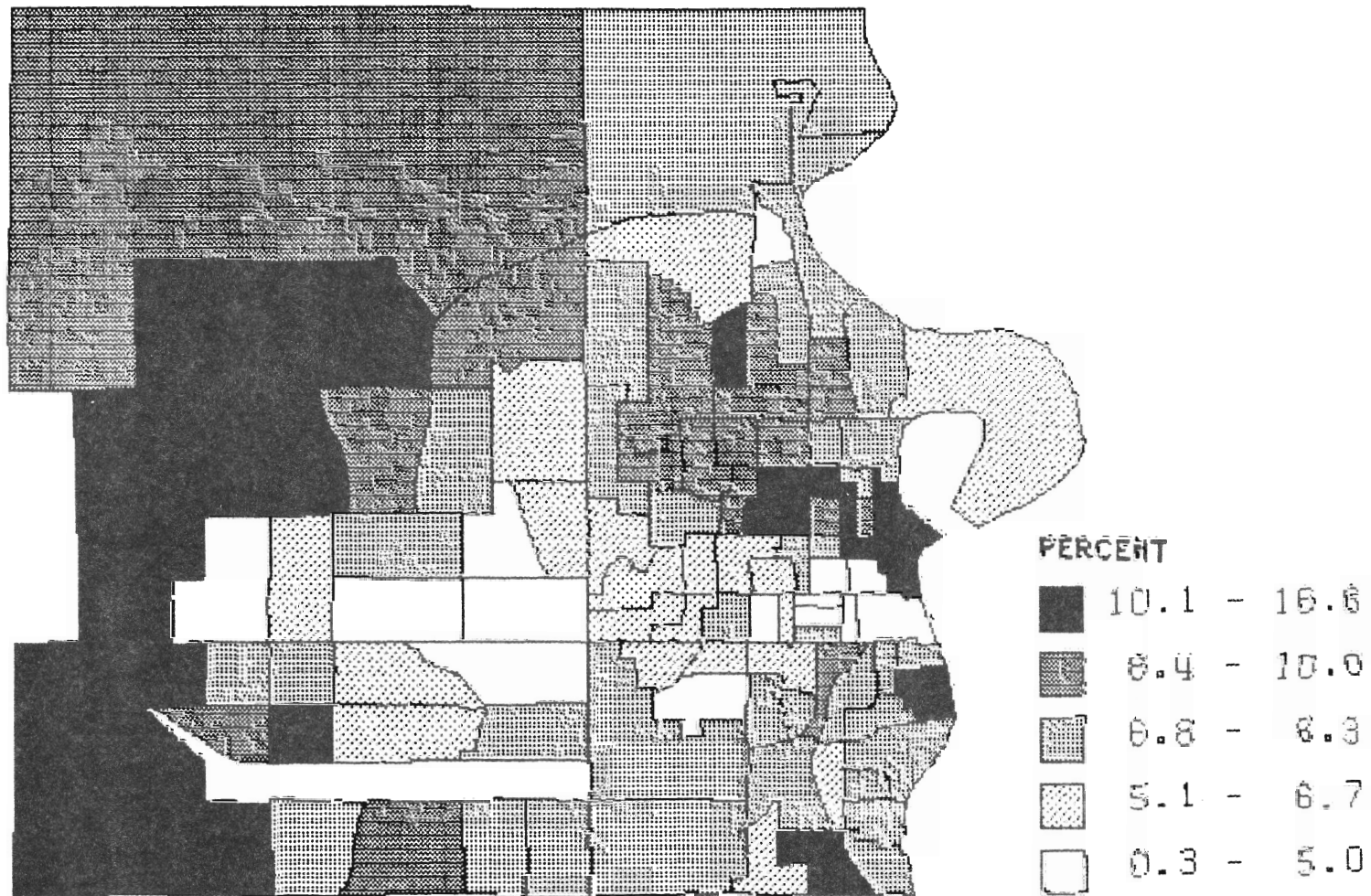
45-64 YEARS OF AGE



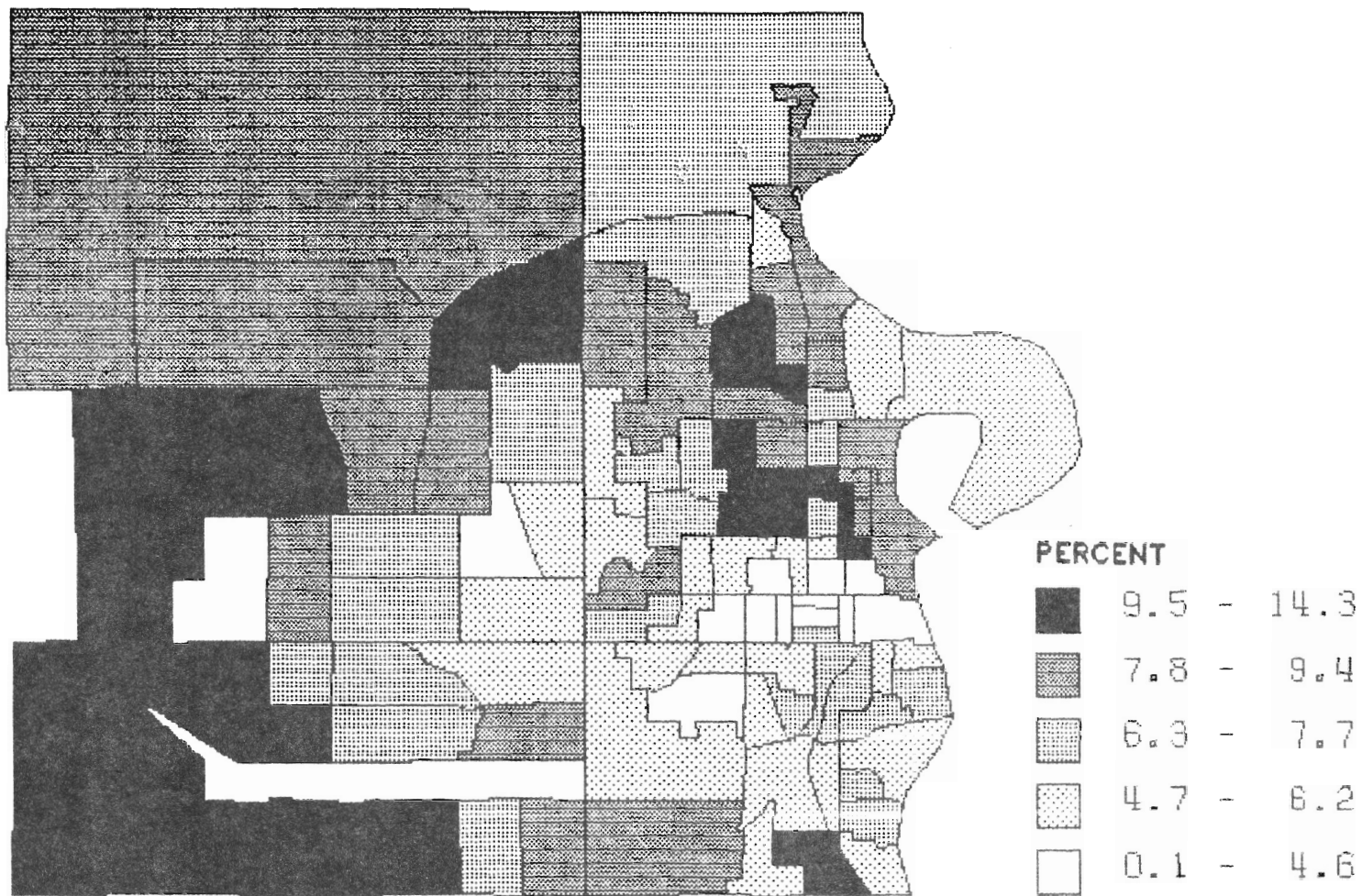
OVER 62 YEARS OF AGE



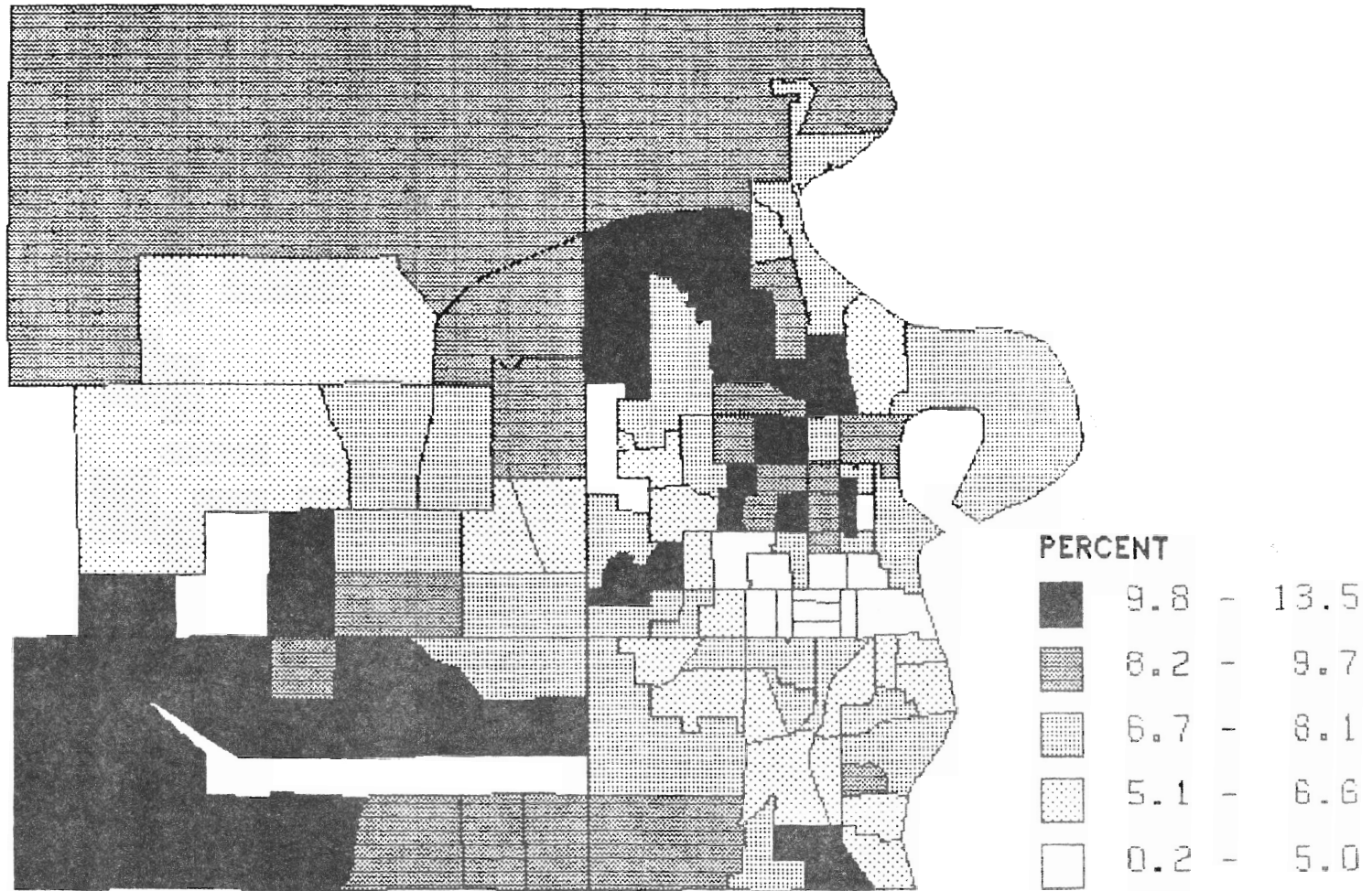
1-4 YEARS OF AGE



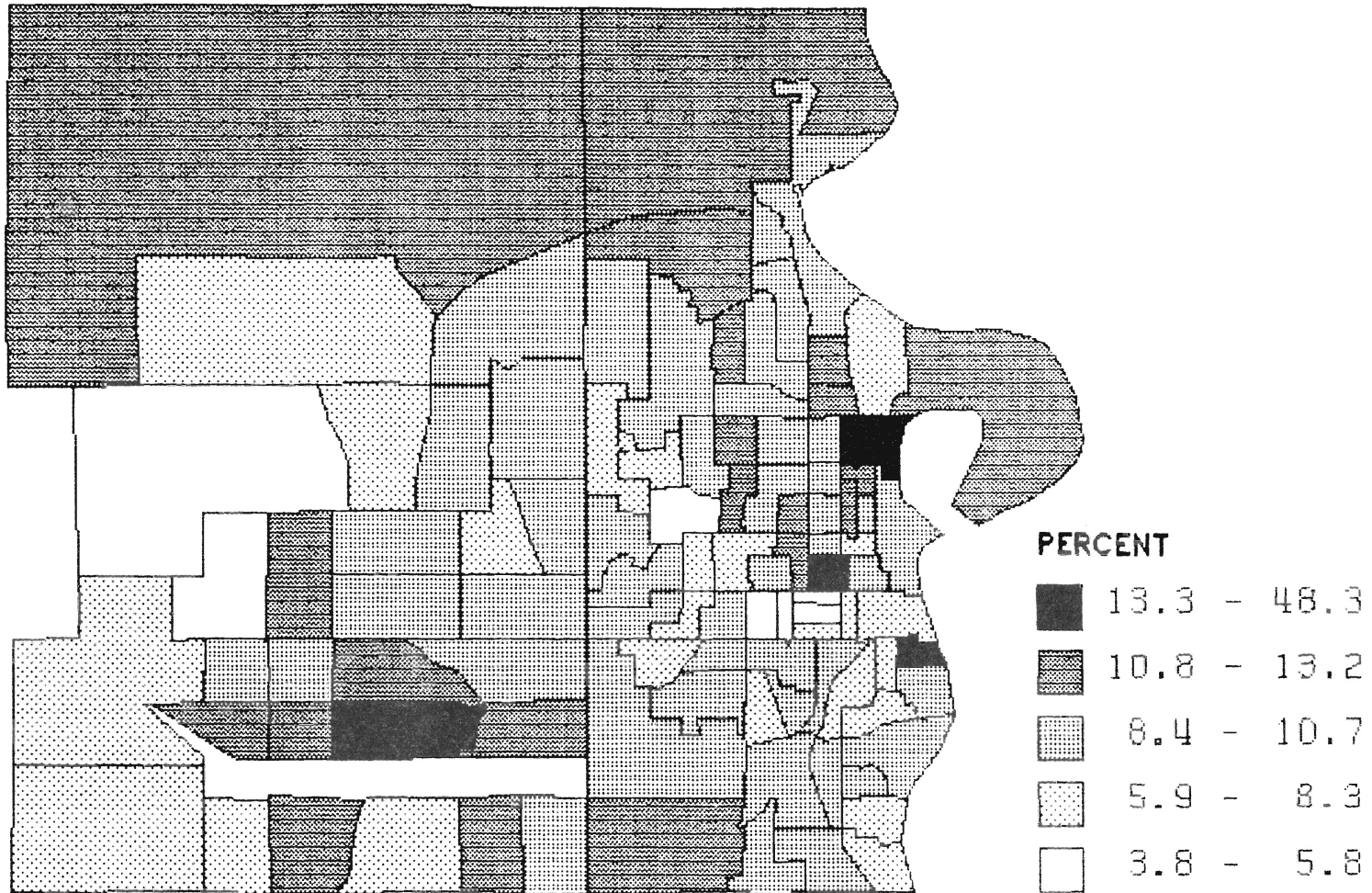
5-9 YEARS OF AGE



10-14 YEARS OF AGE



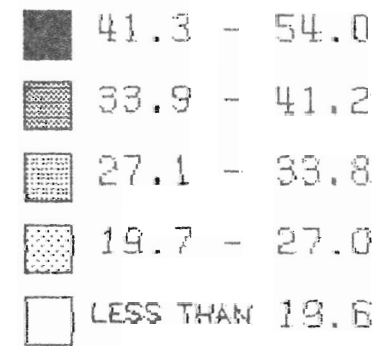
15-19 YEARS OF AGE



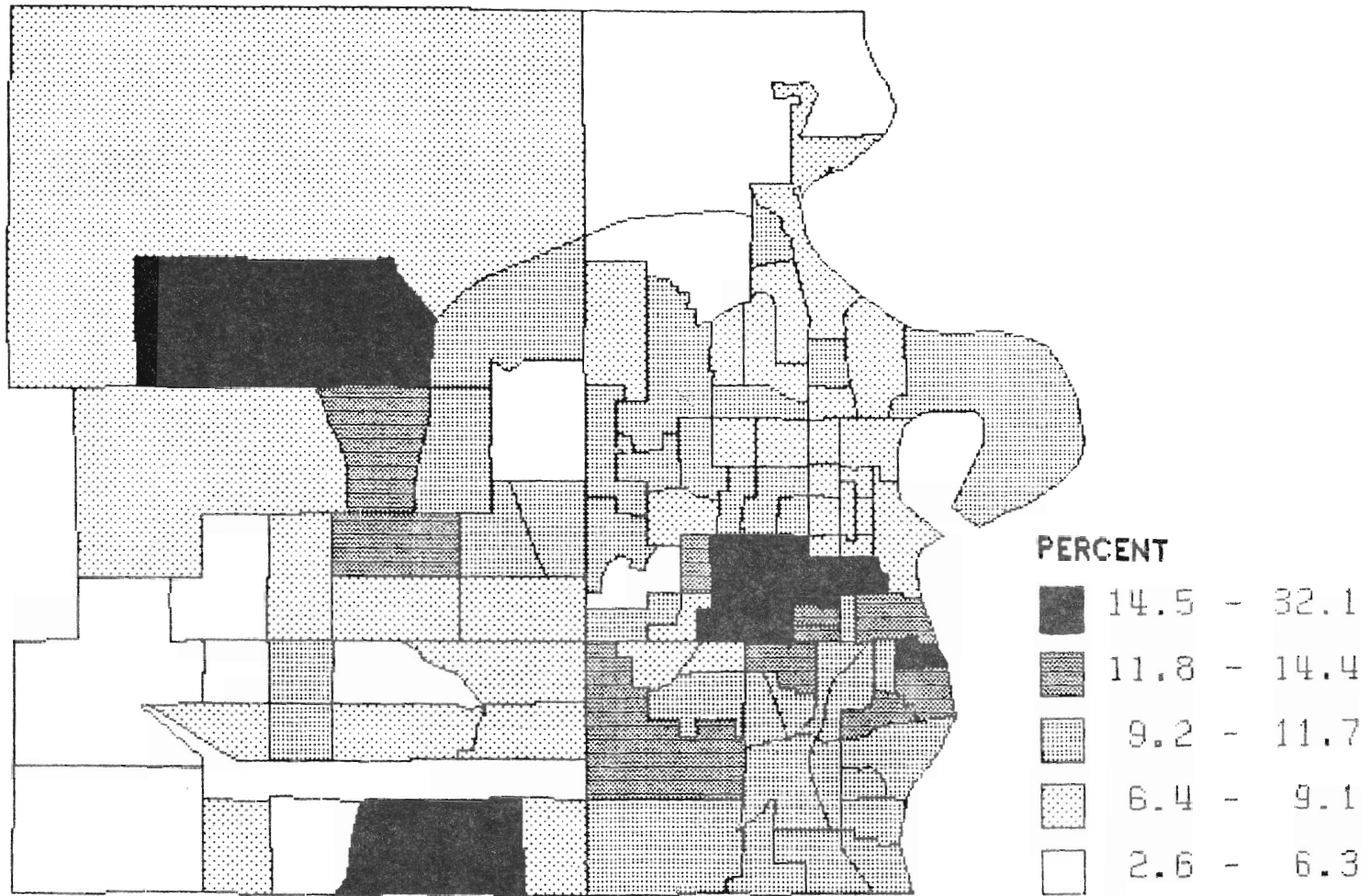
GE



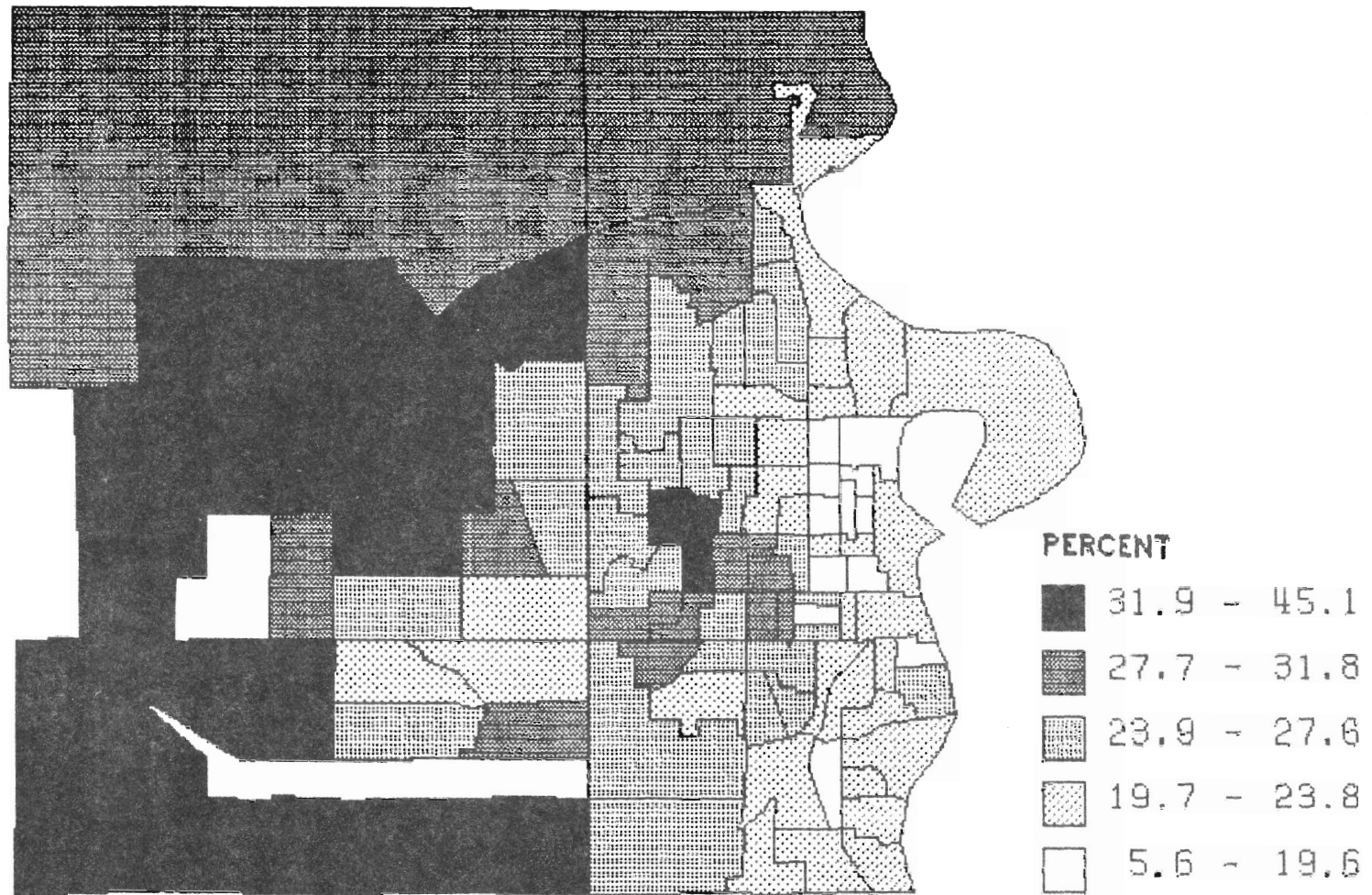
PERCENT



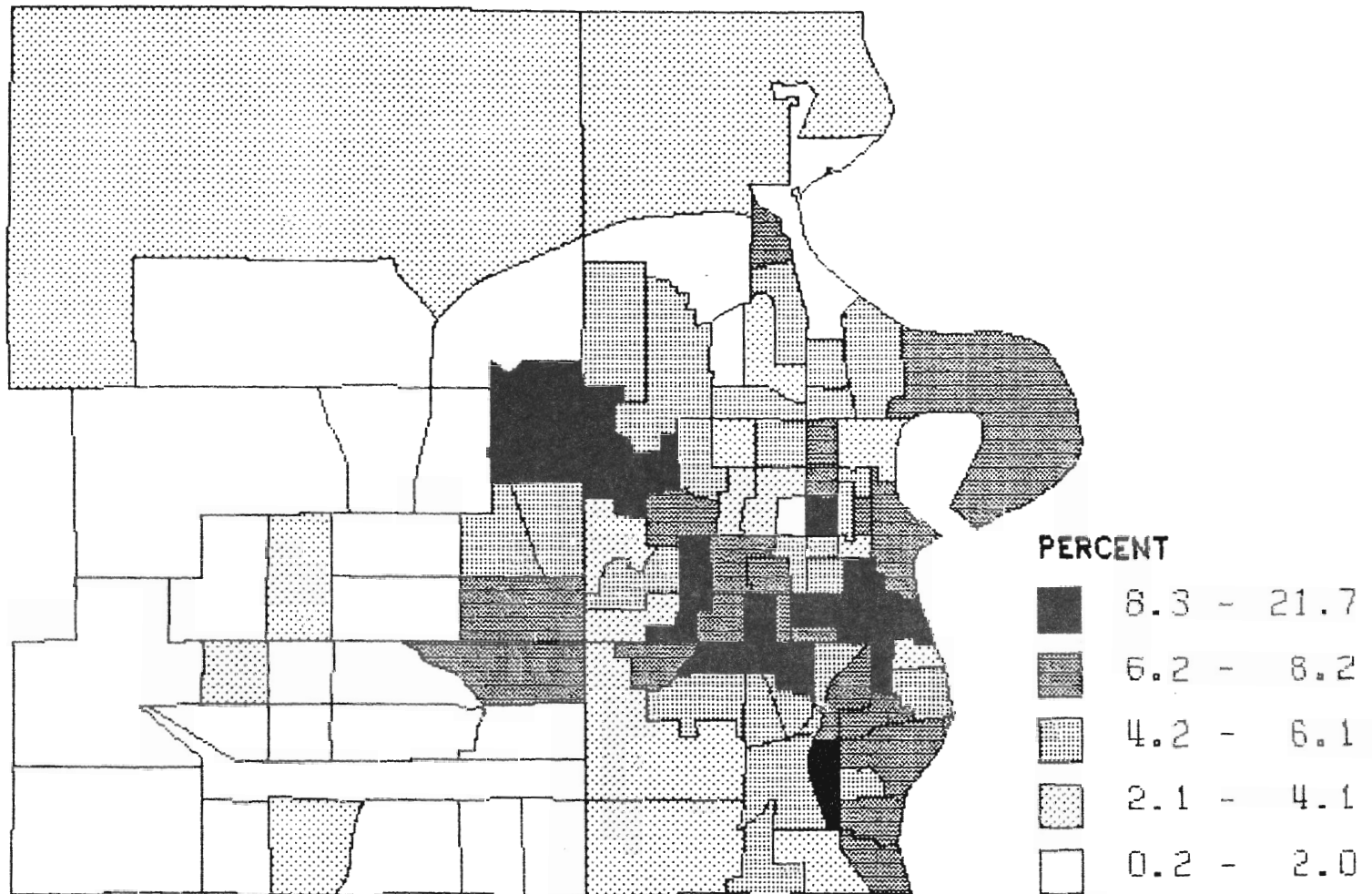
20-24 YEARS OF AGE



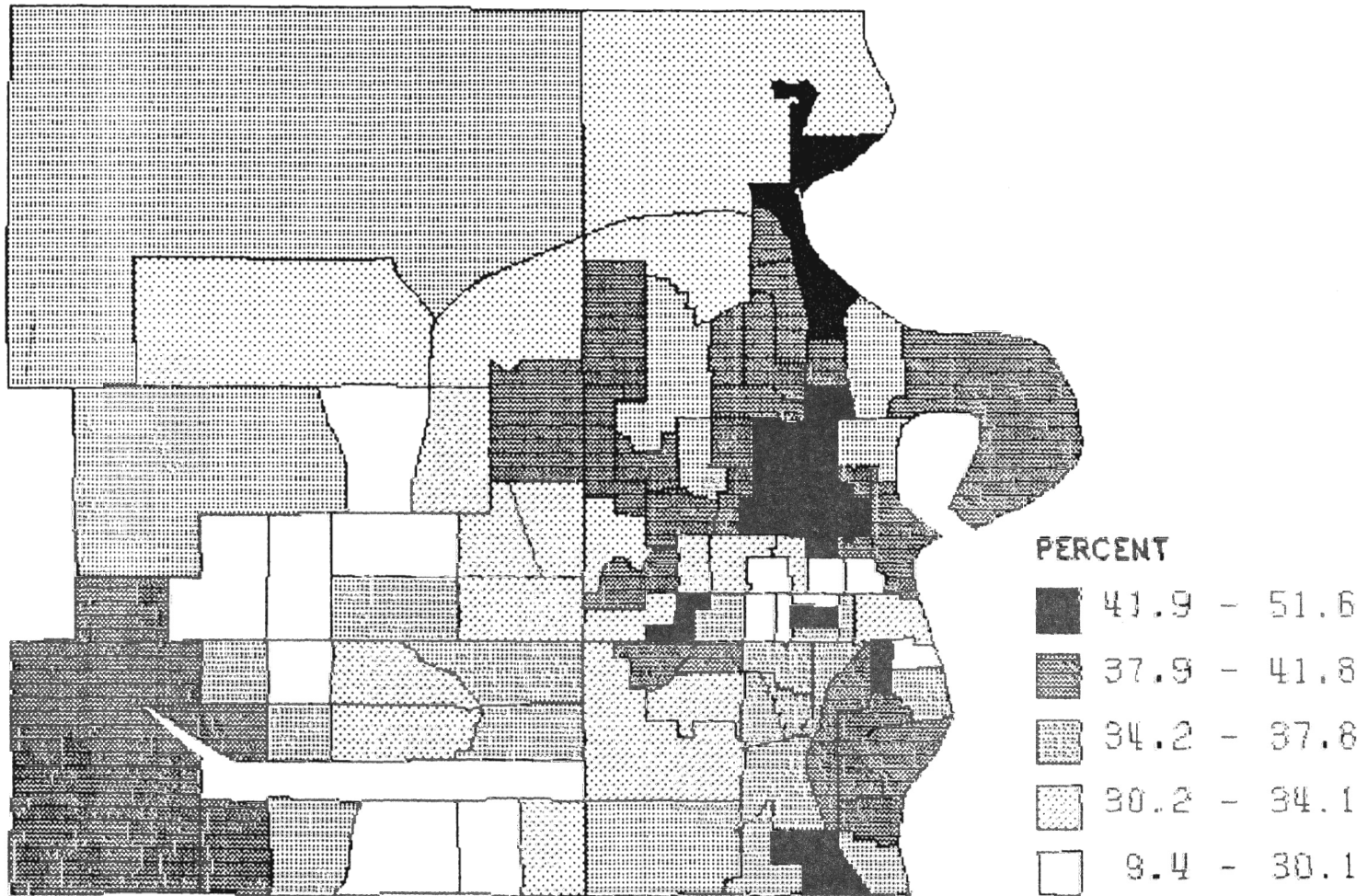
25-44 YEARS OF AGE



OVER 75 YEARS OF AGE

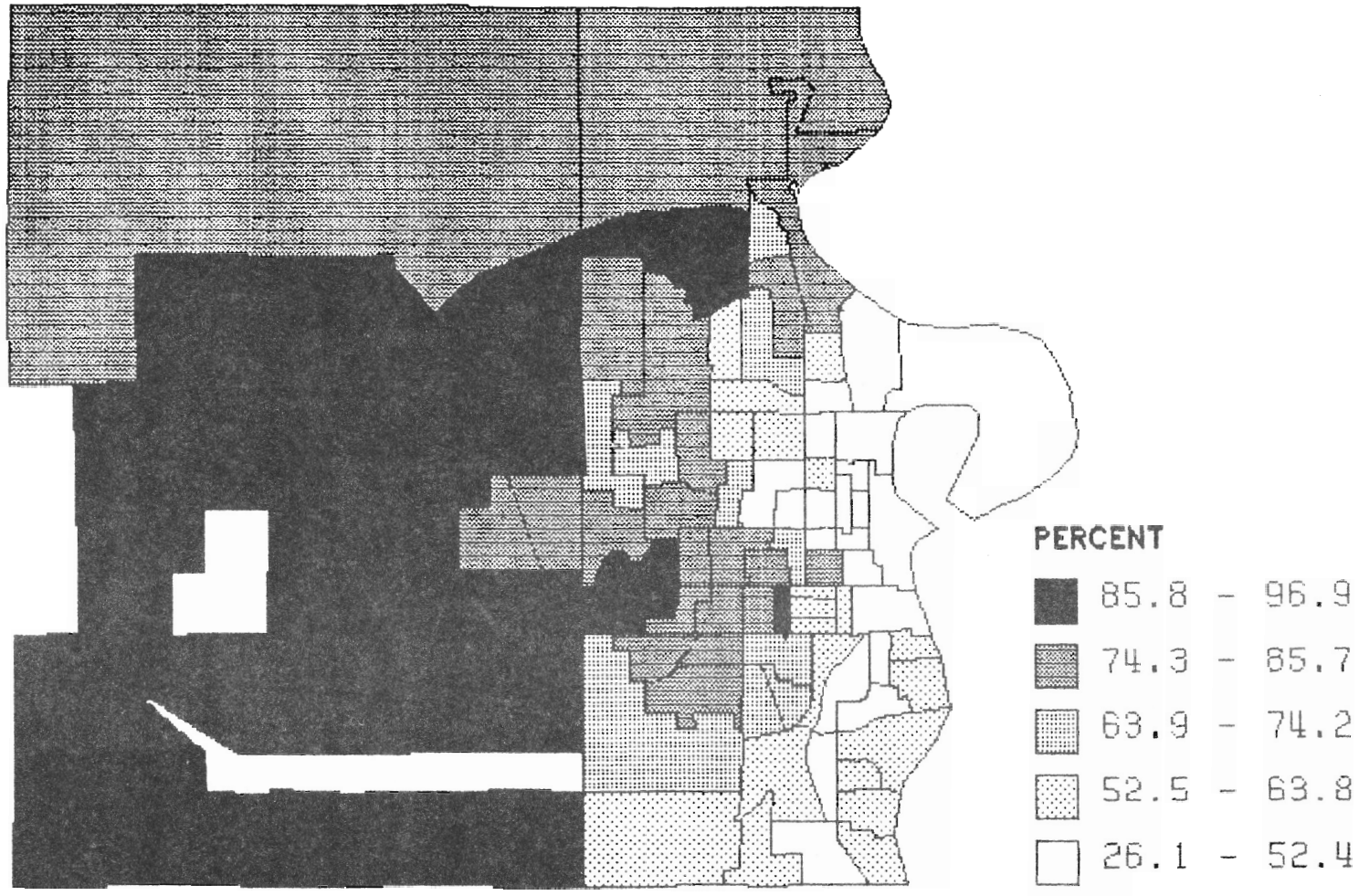


DEPENDENT POPULATION (UNDER 15 AND OVER 65)

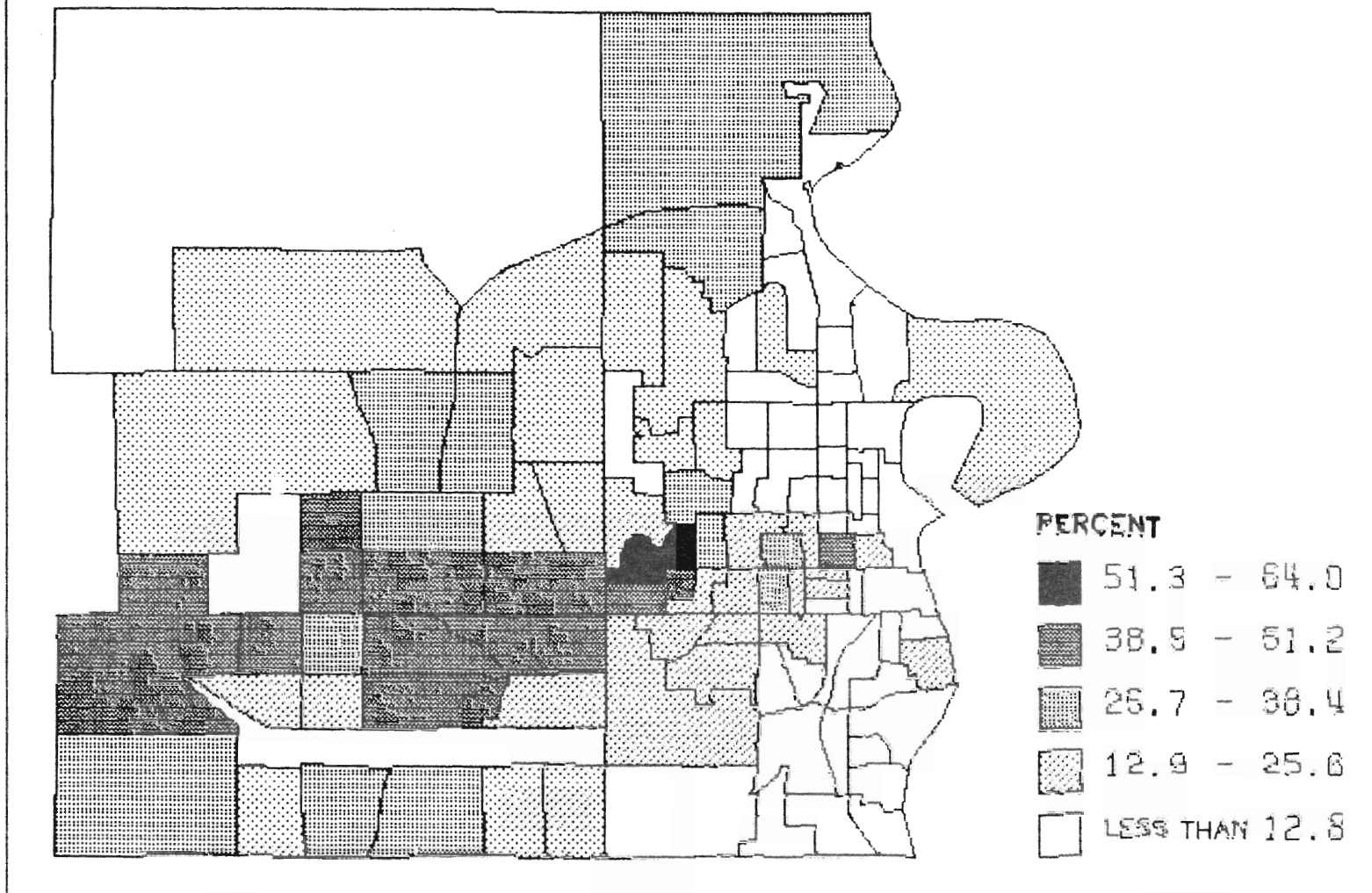


EDUCATION, EMPLOYMENT,
RACE and ANCESTRY

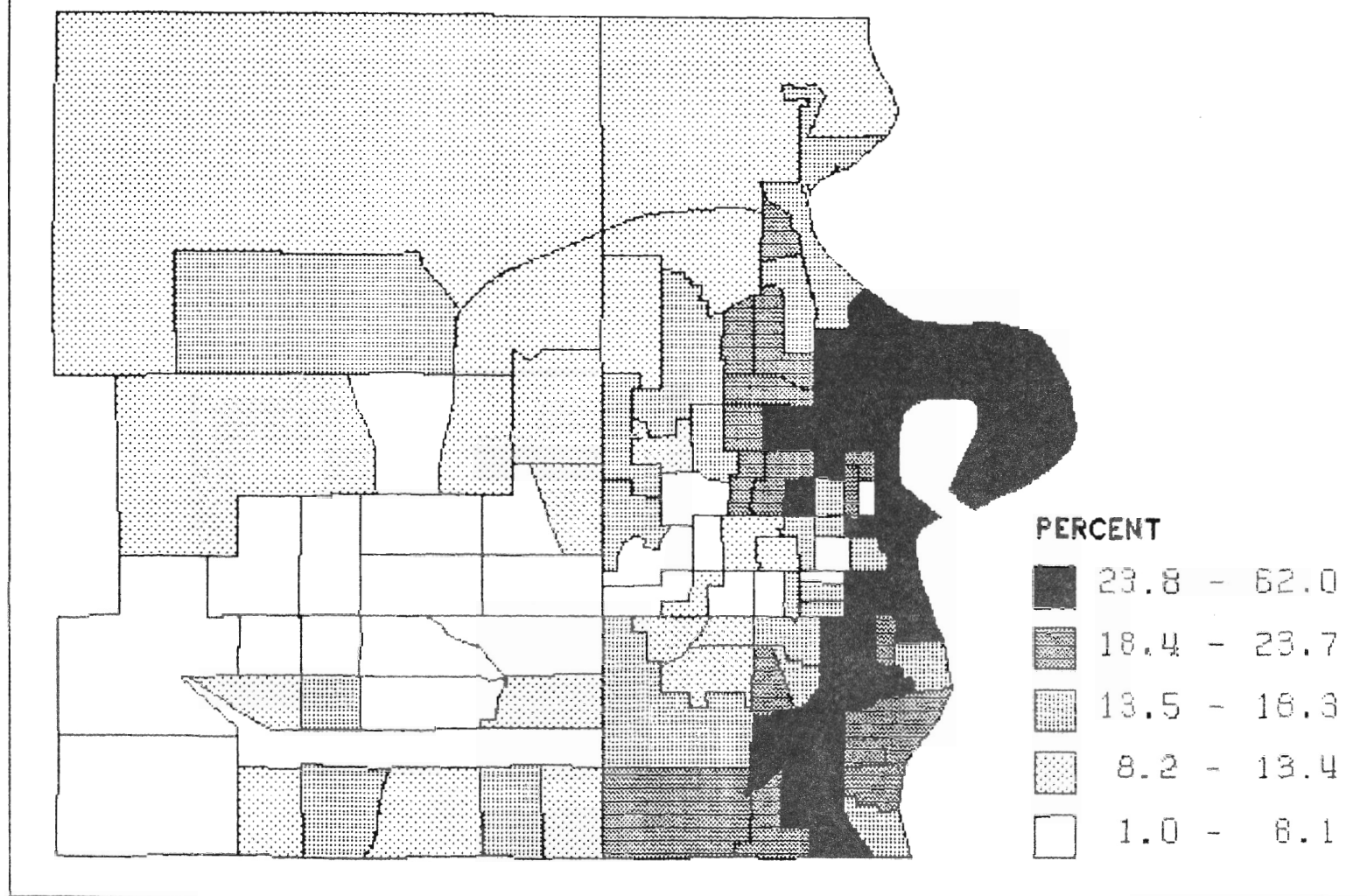
HIGH SCHOOL GRADUATES OVER AGE 25



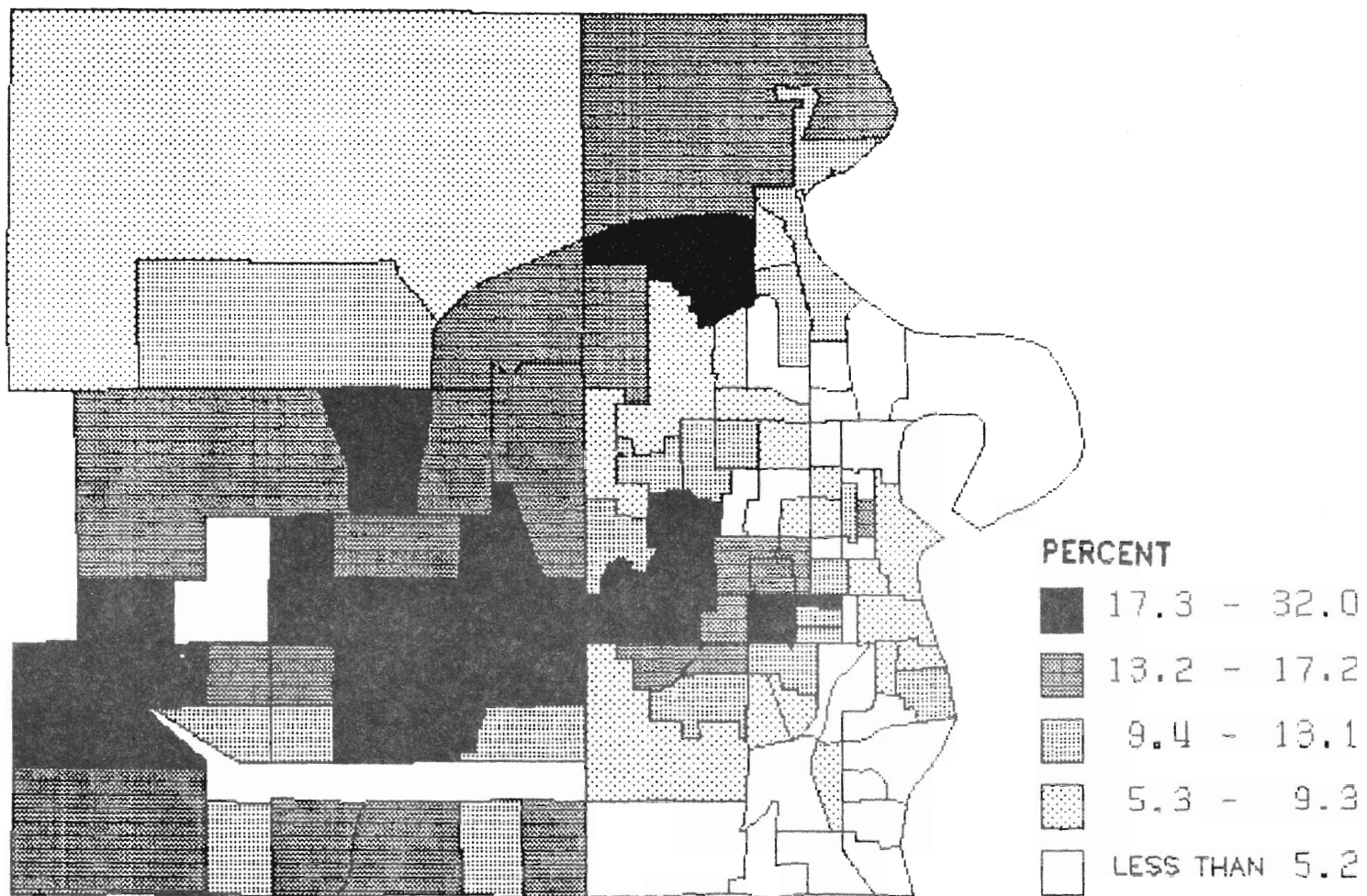
OVER AGE 25 WITH 4 OR MORE YEARS OF COLLEGE



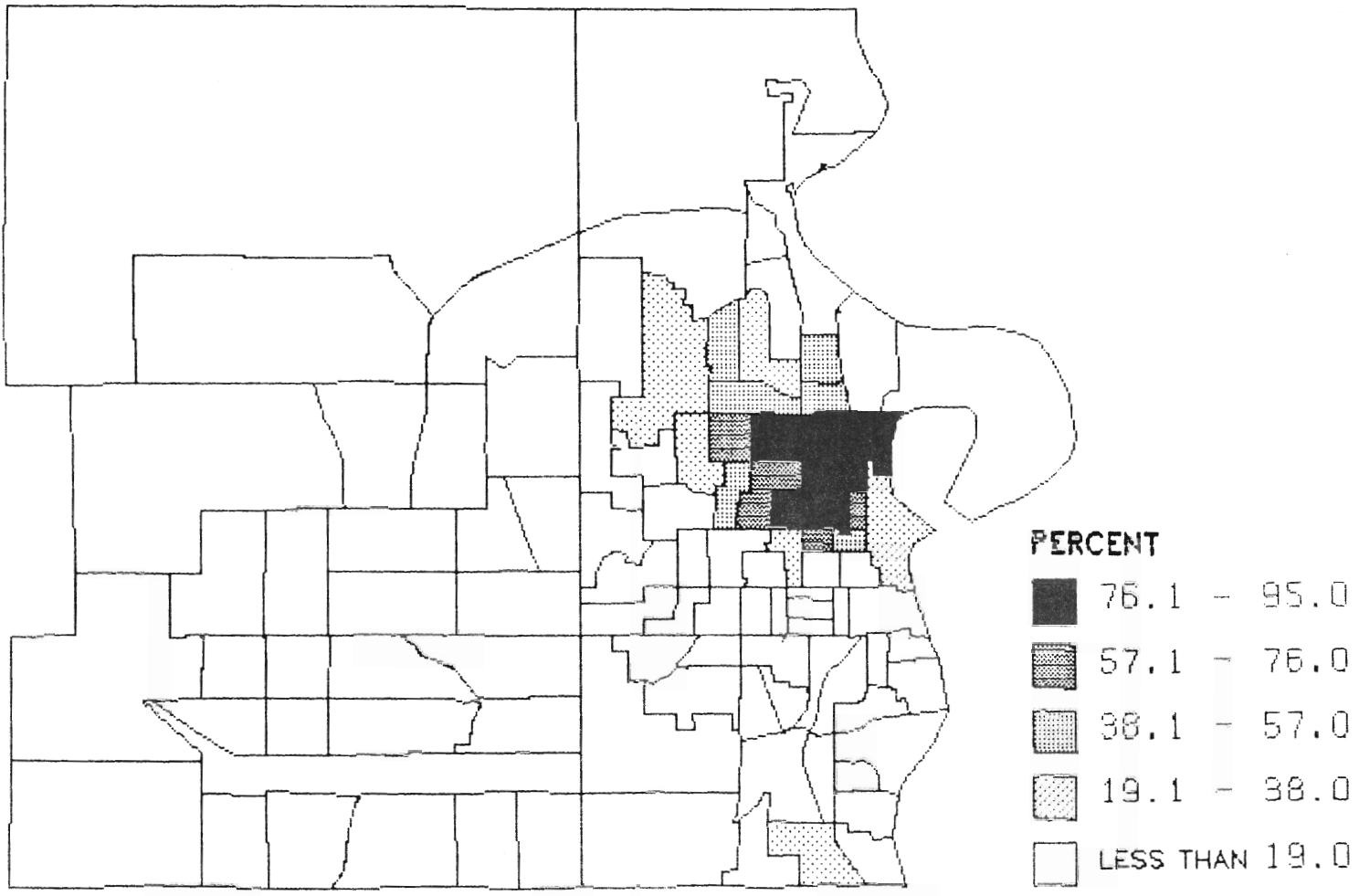
UNSKILLED WORKERS



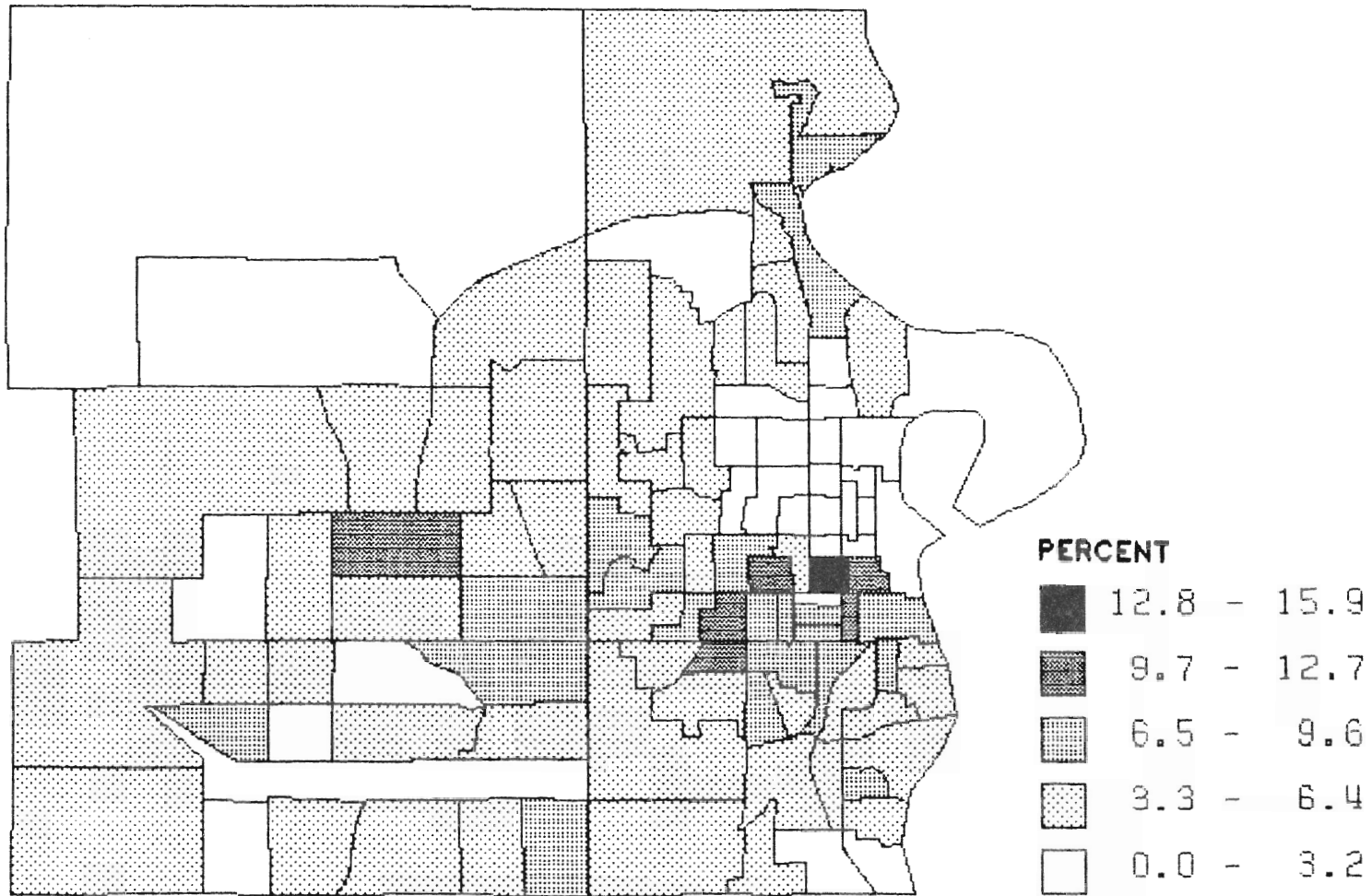
PROFESSIONAL WORKERS



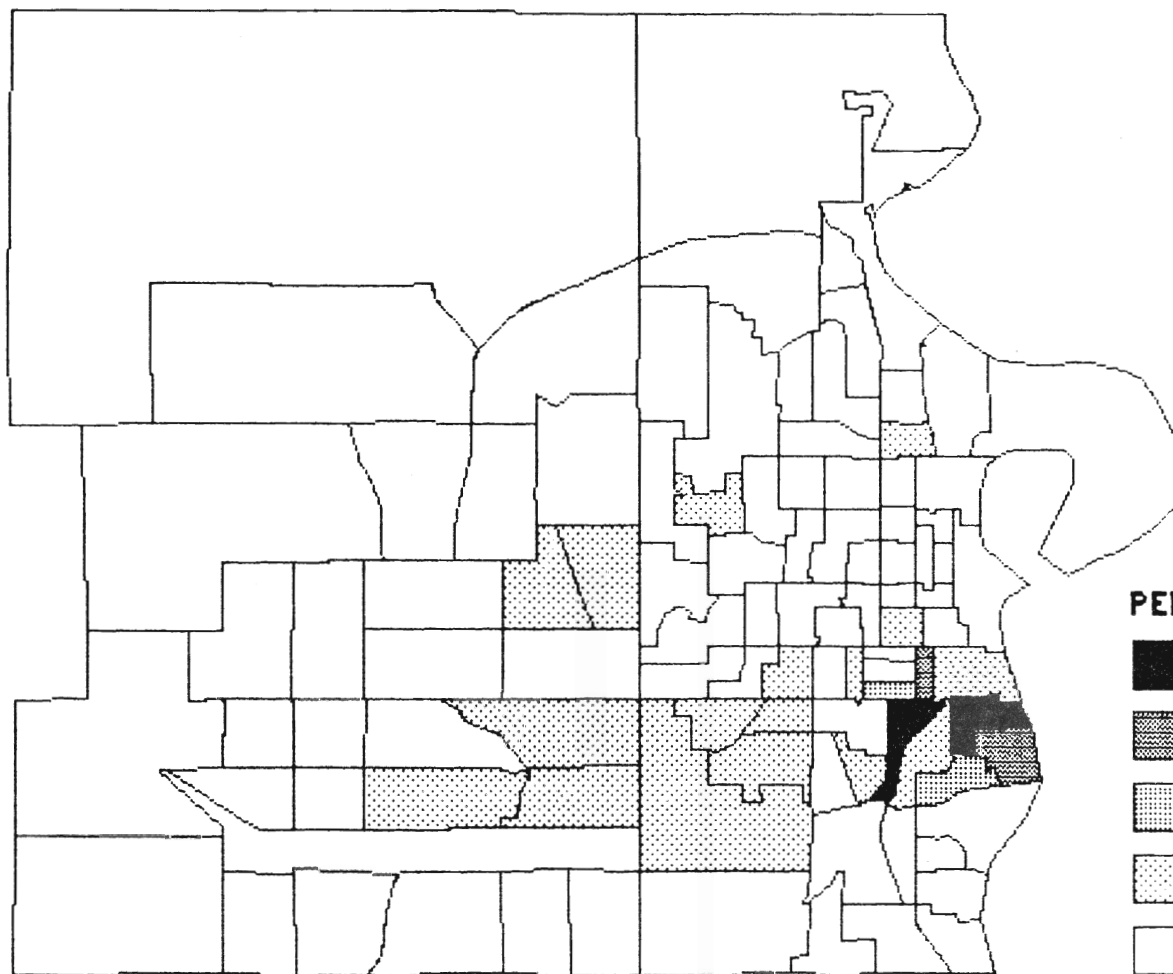
BLACK POPULATION



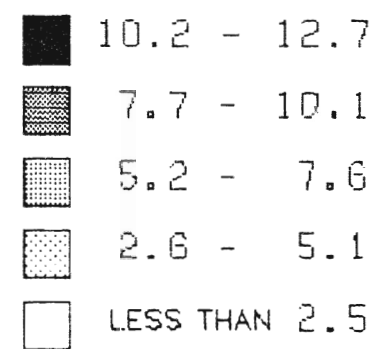
IRISH ANCESTRY



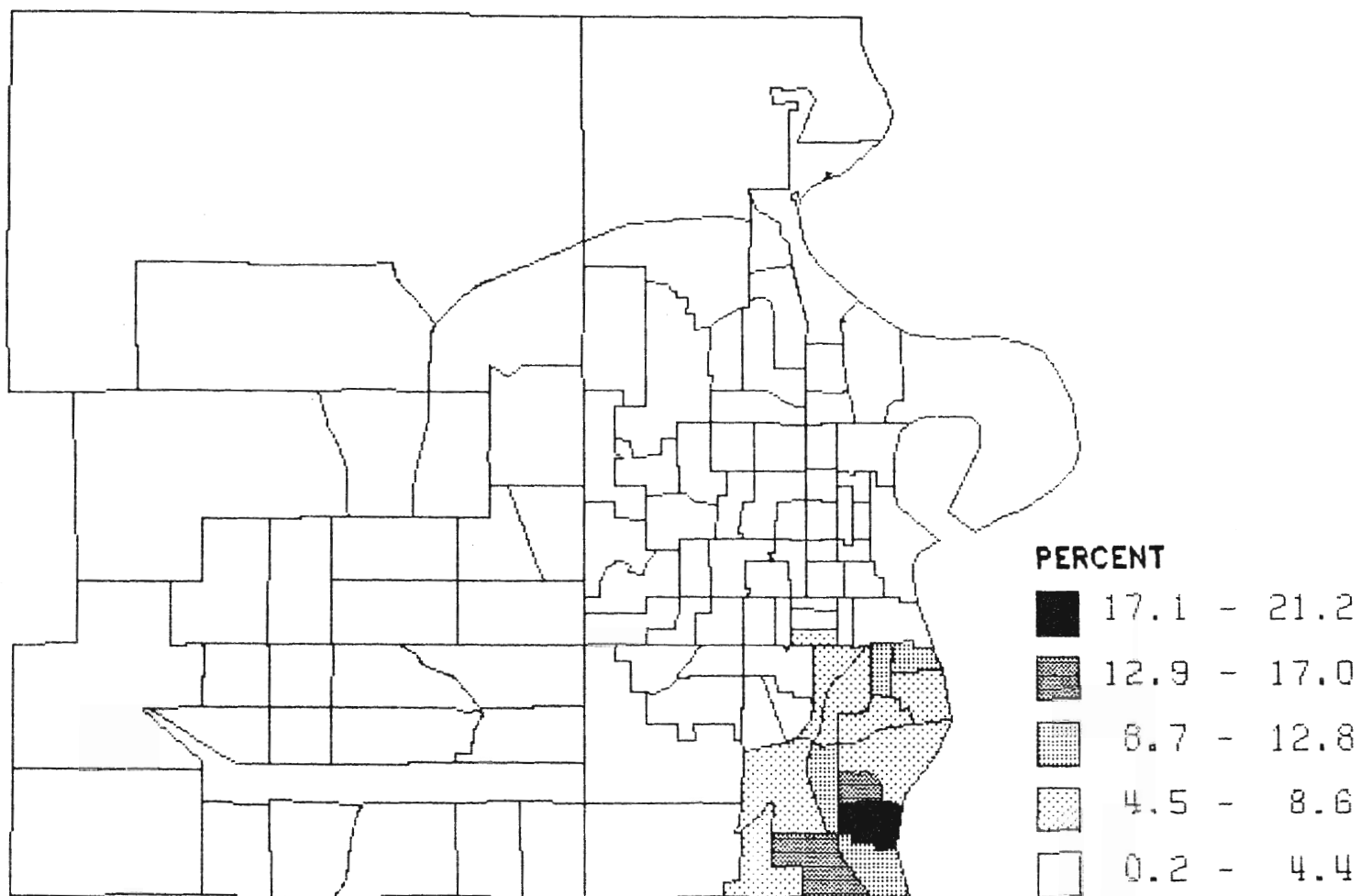
ITALIAN ANCESTRY



PERCENT

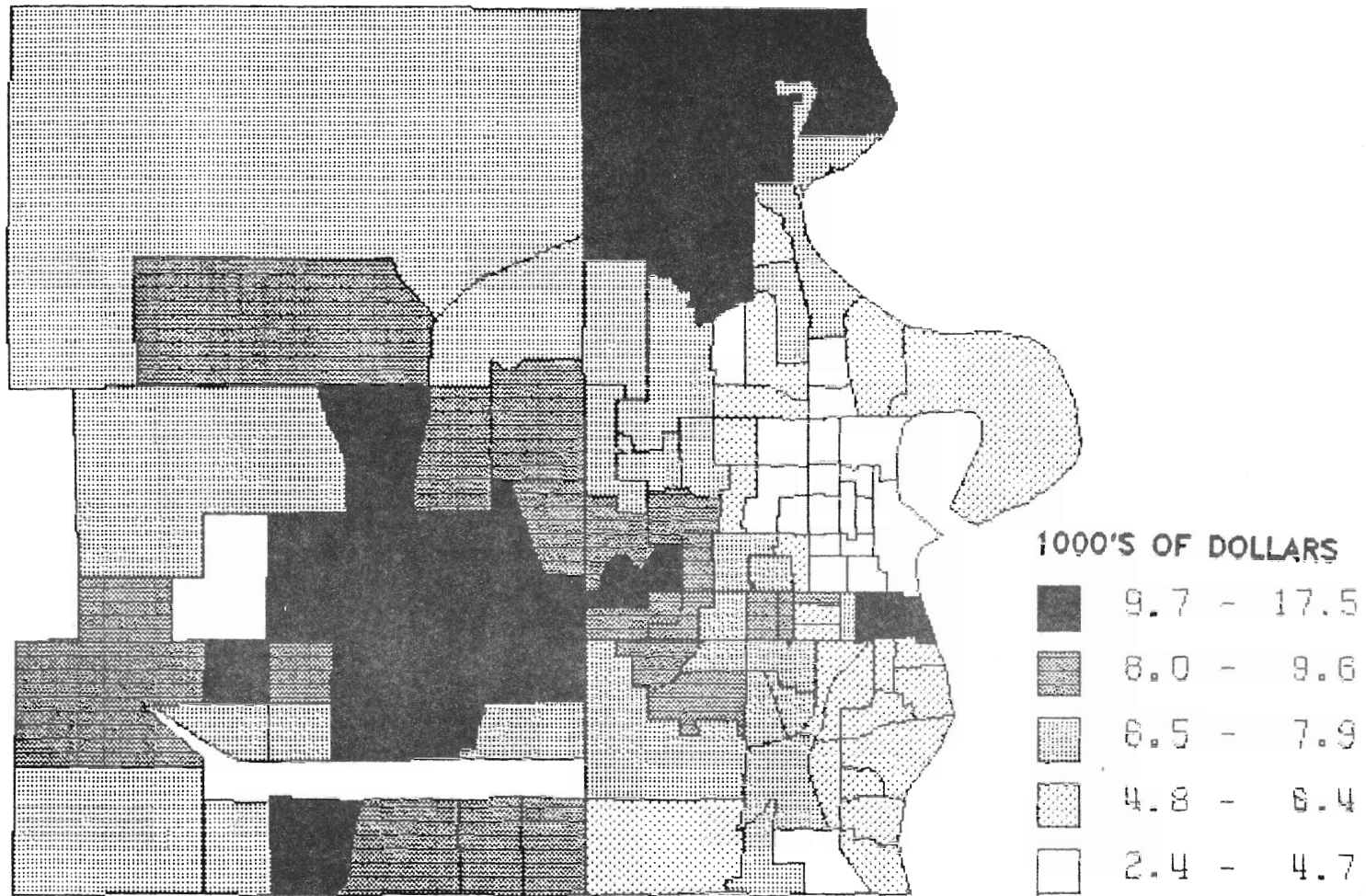


SPANISH ANCESTRY

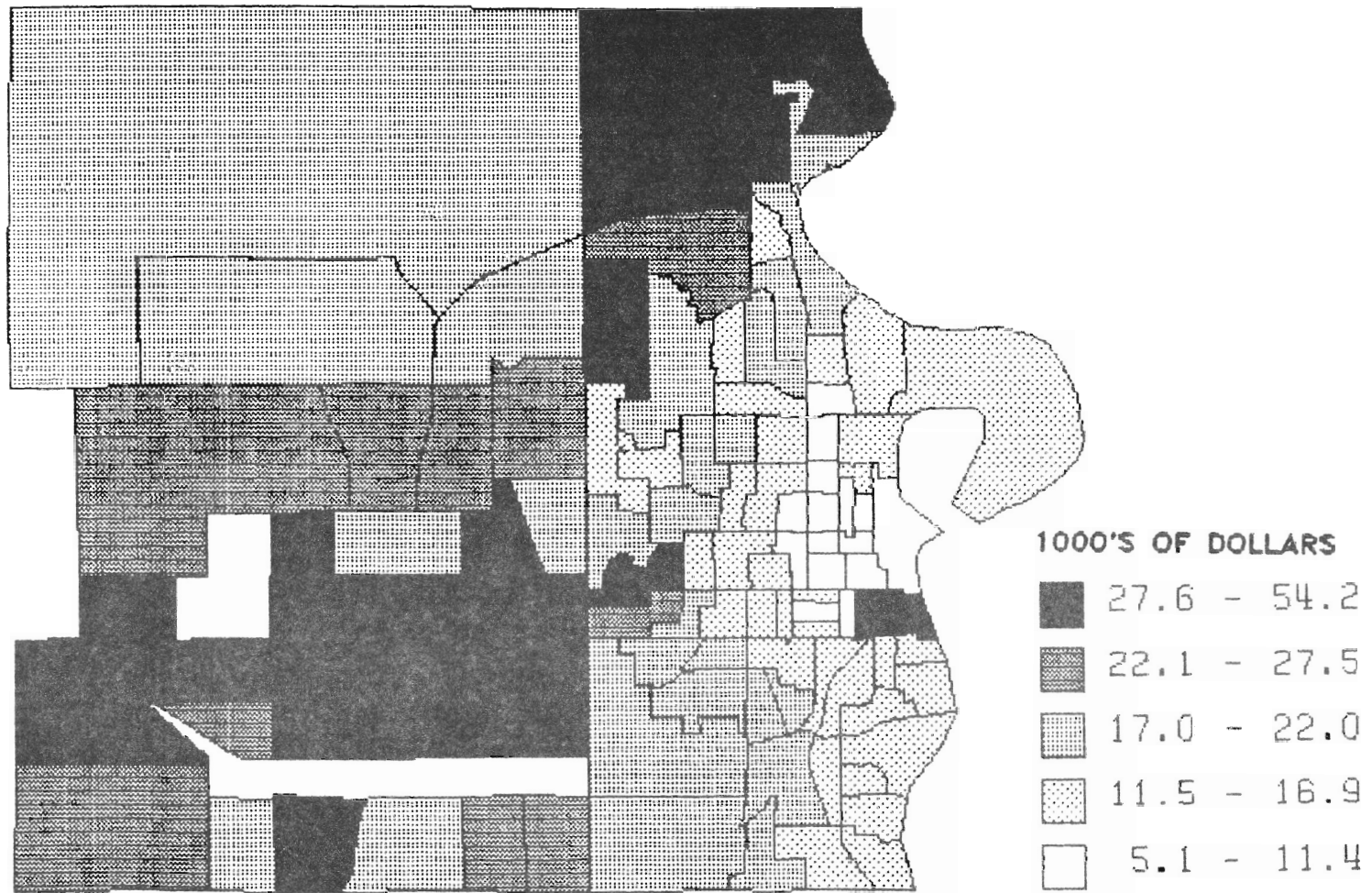


INCOME

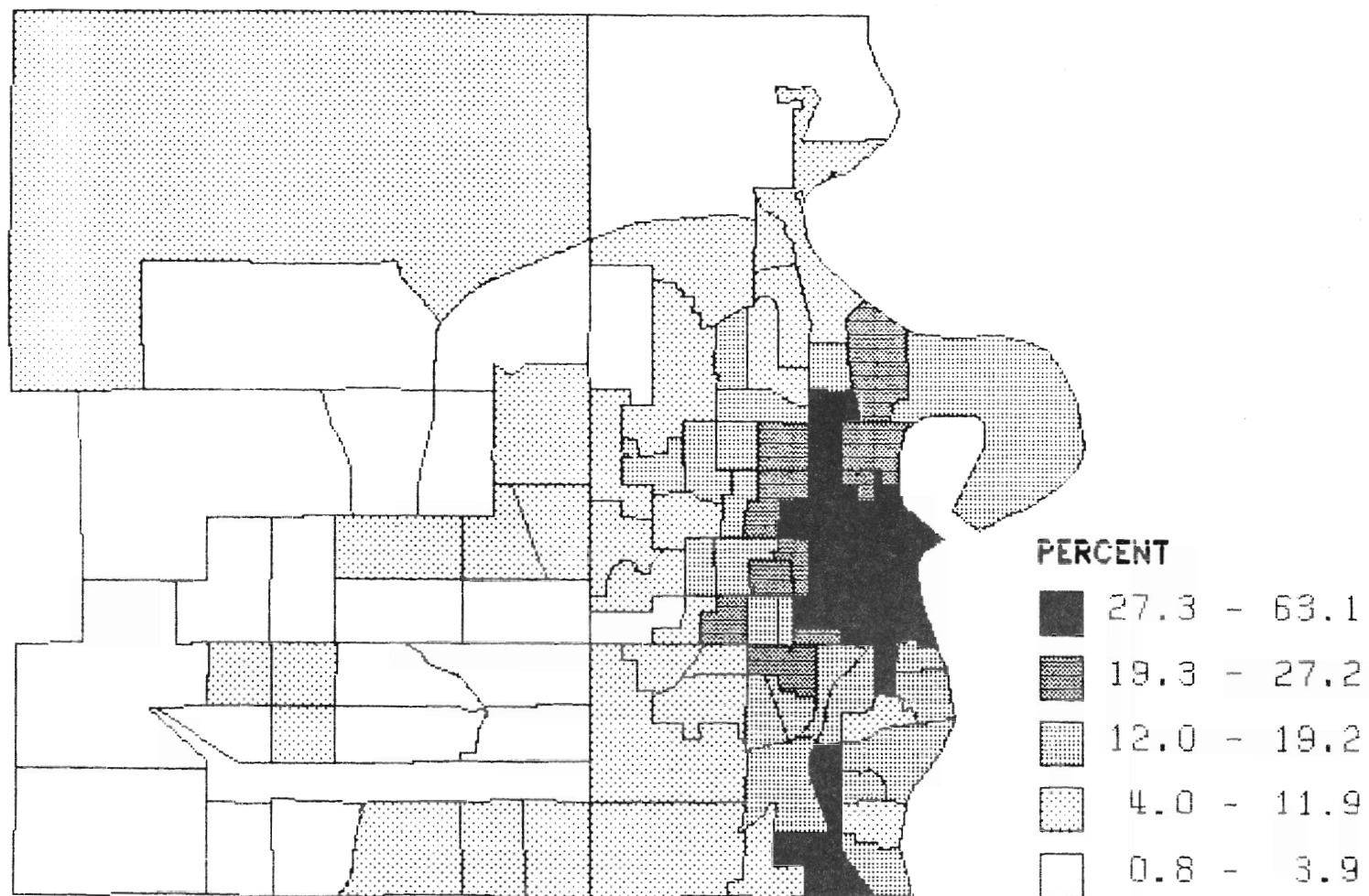
PER CAPITA INCOME



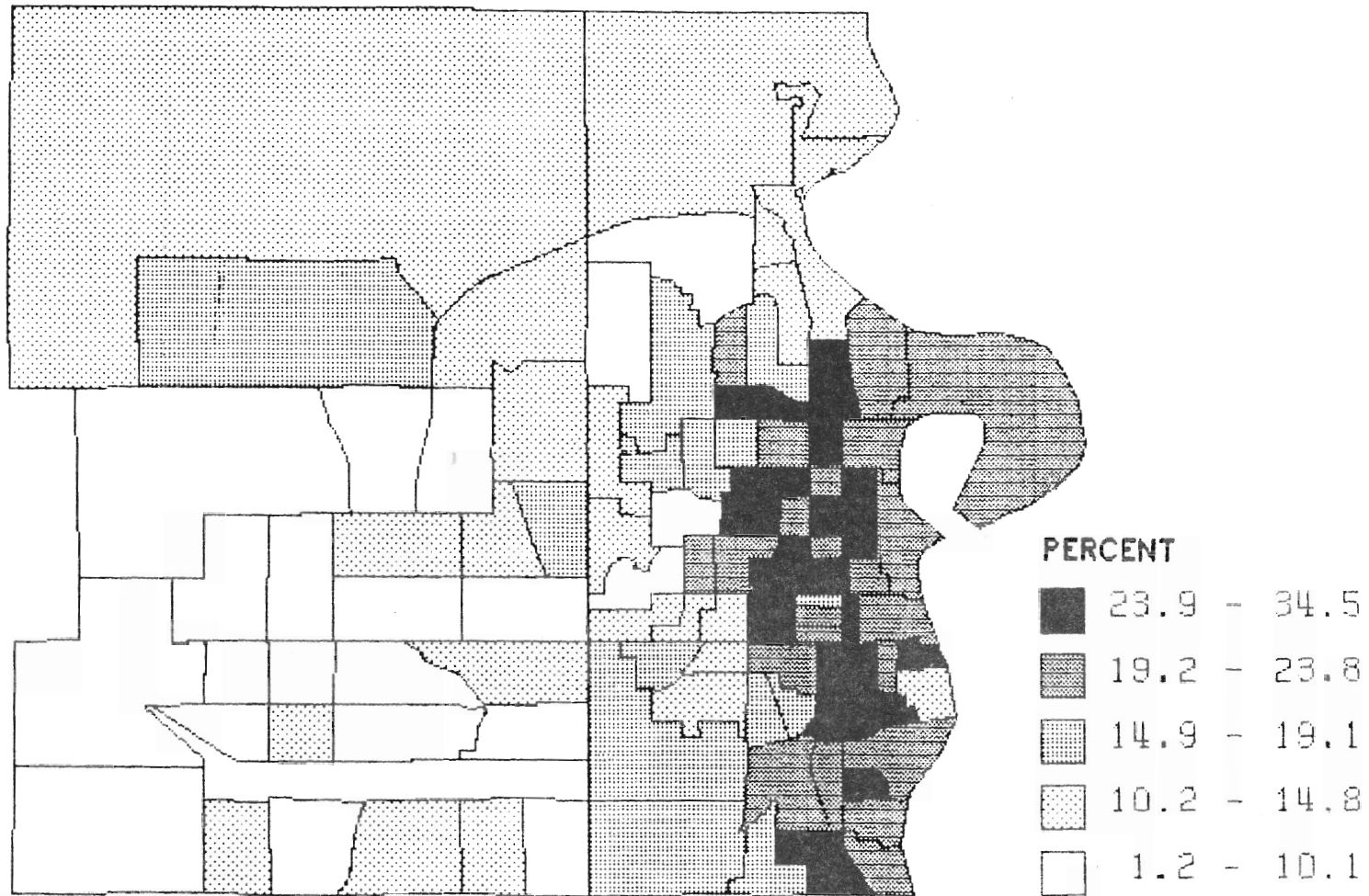
MEAN HOUSEHOLD INCOME



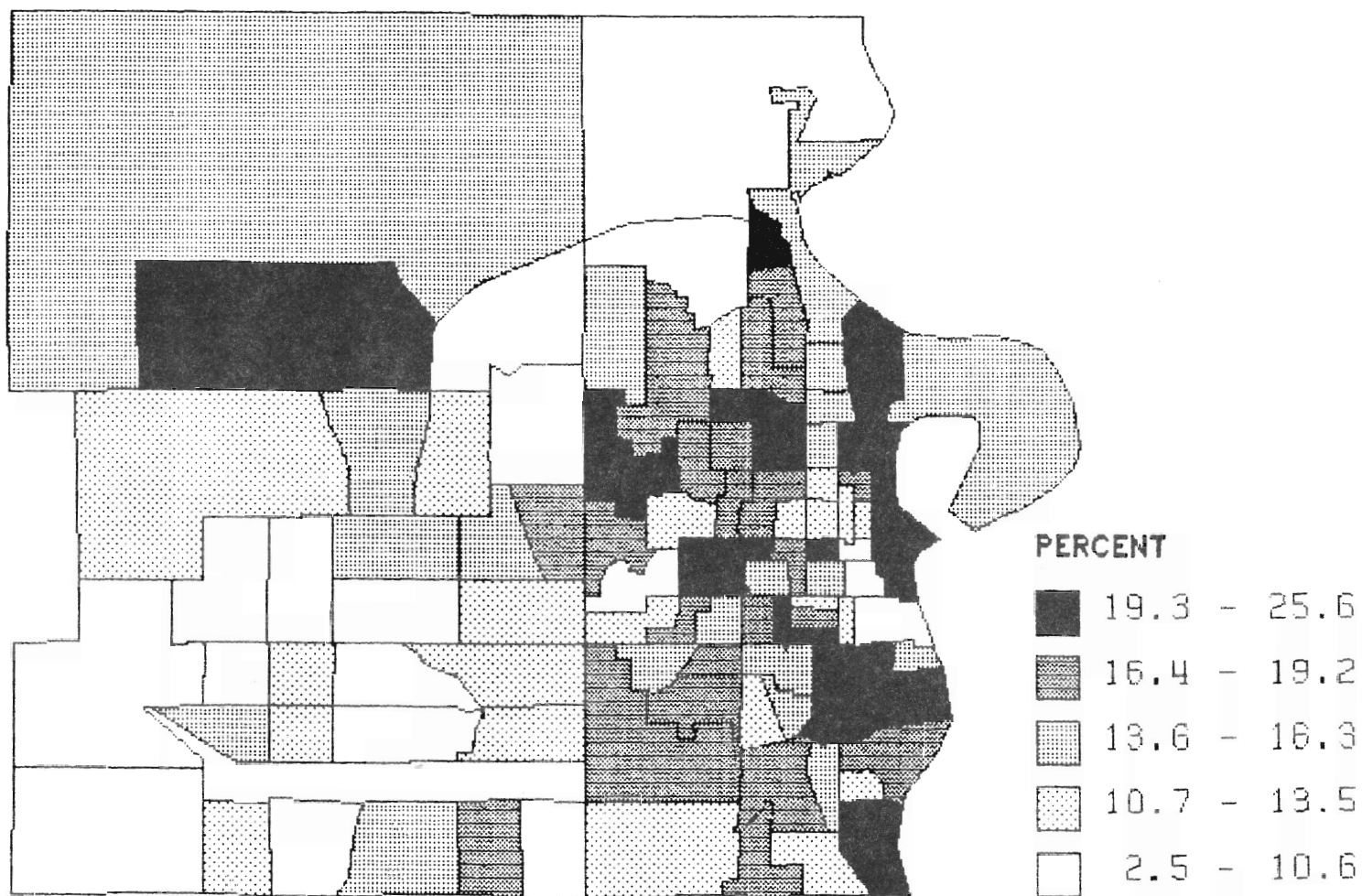
HOUSEHOLD INCOME LESS THAN \$5,000



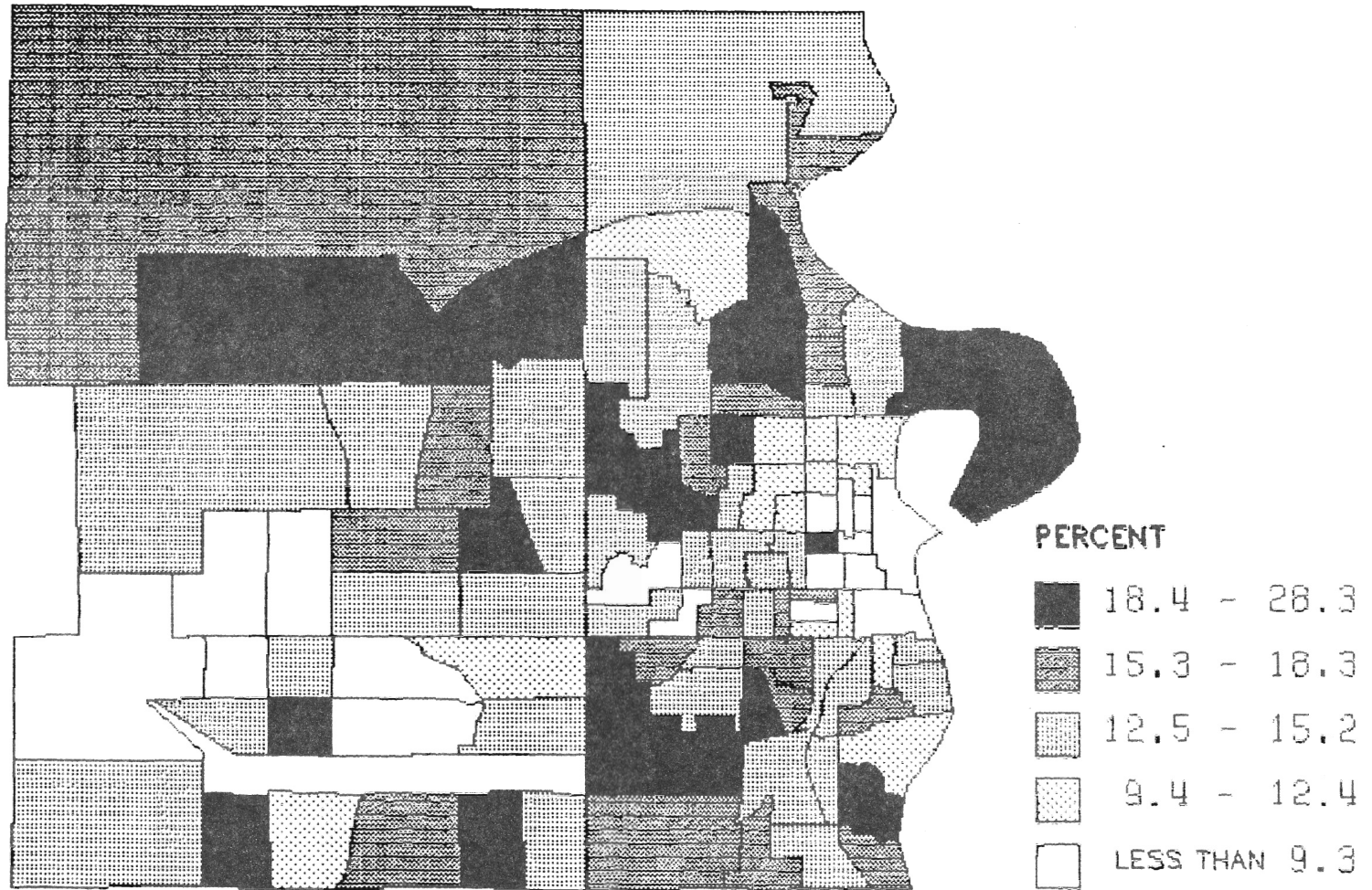
HOUSEHOLD INCOME \$5,000-\$9,999



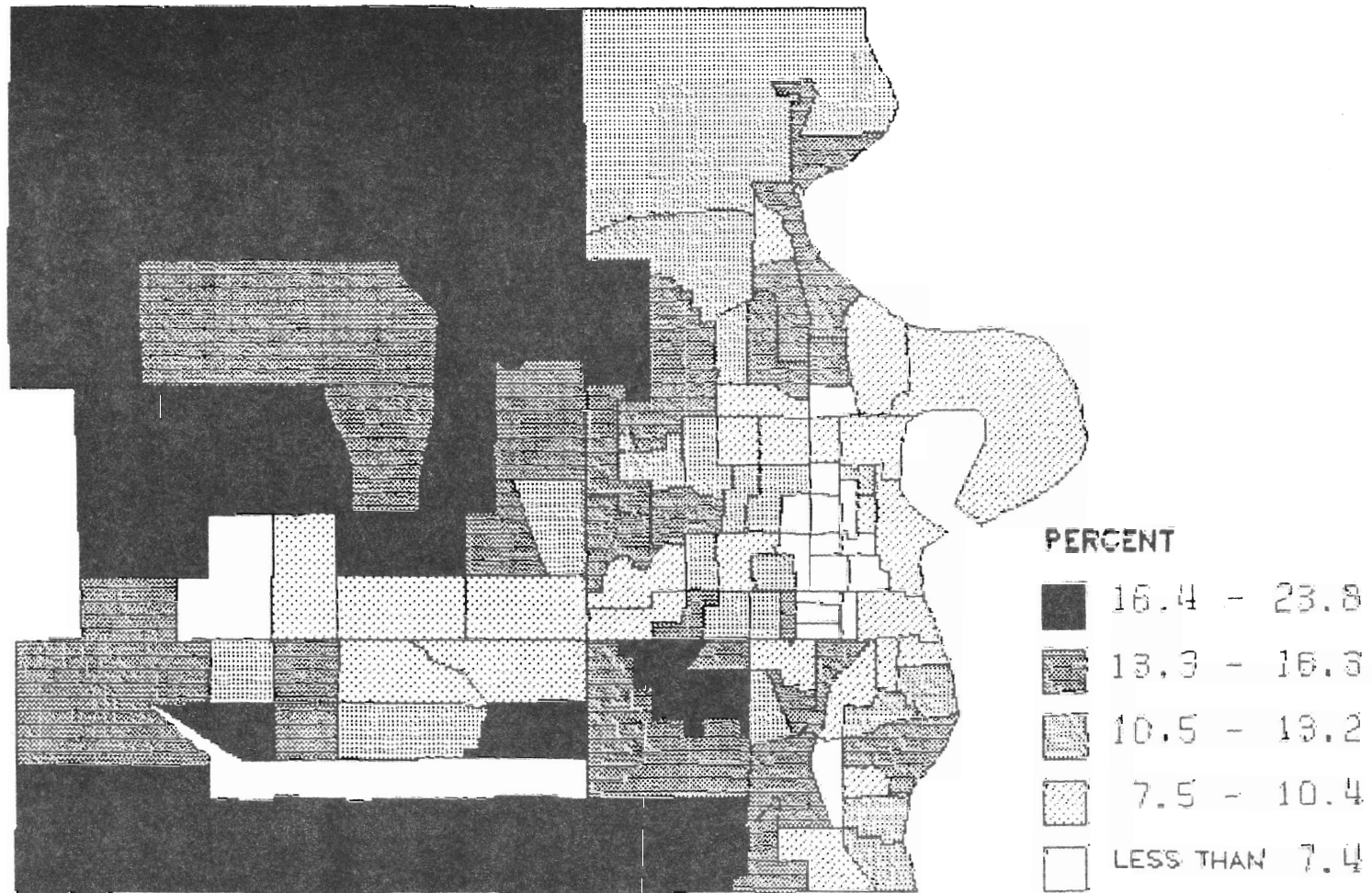
HOUSEHOLD INCOME \$10,000-\$14,999



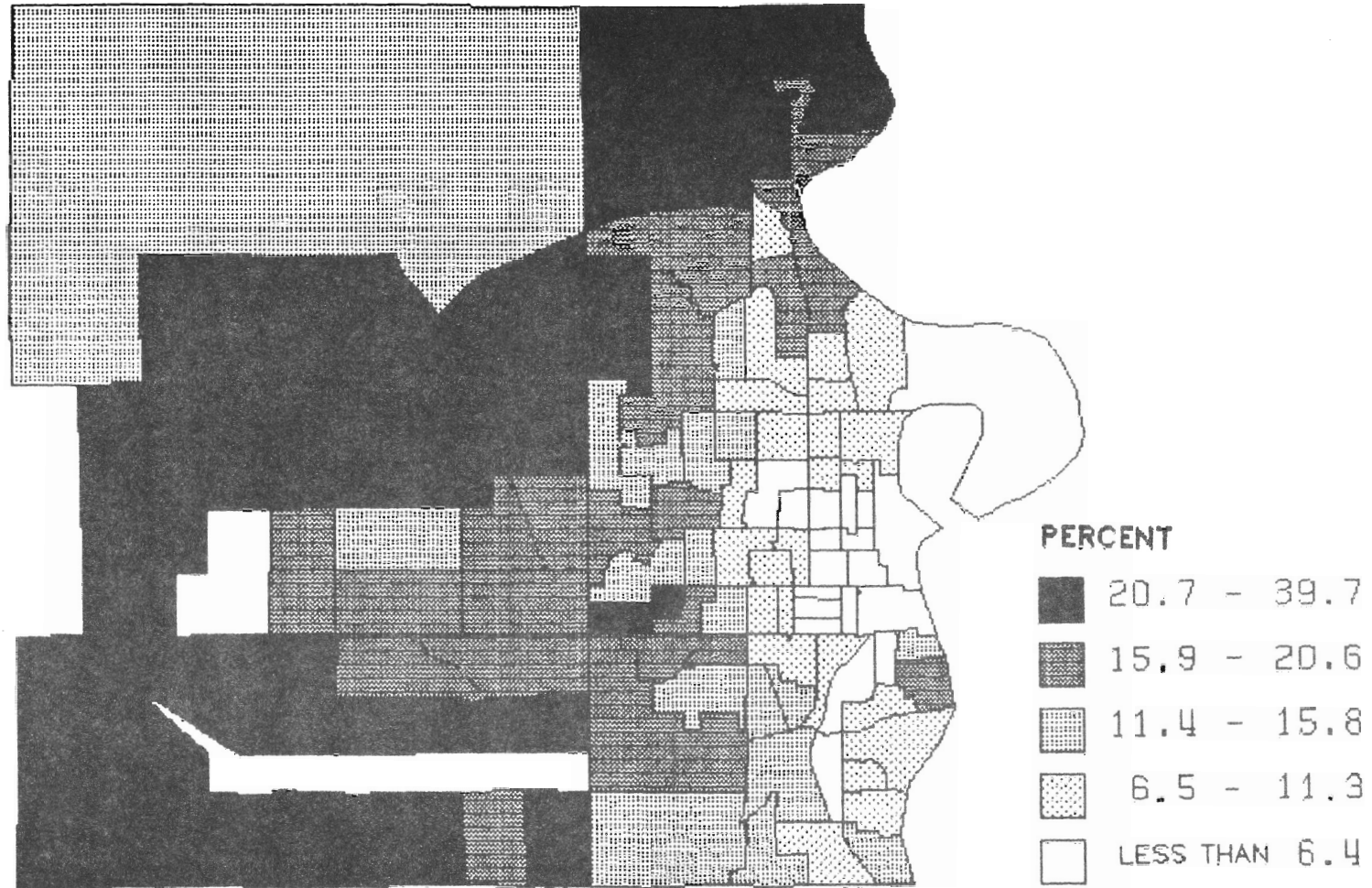
HOUSEHOLD INCOME \$15,000-\$19,999



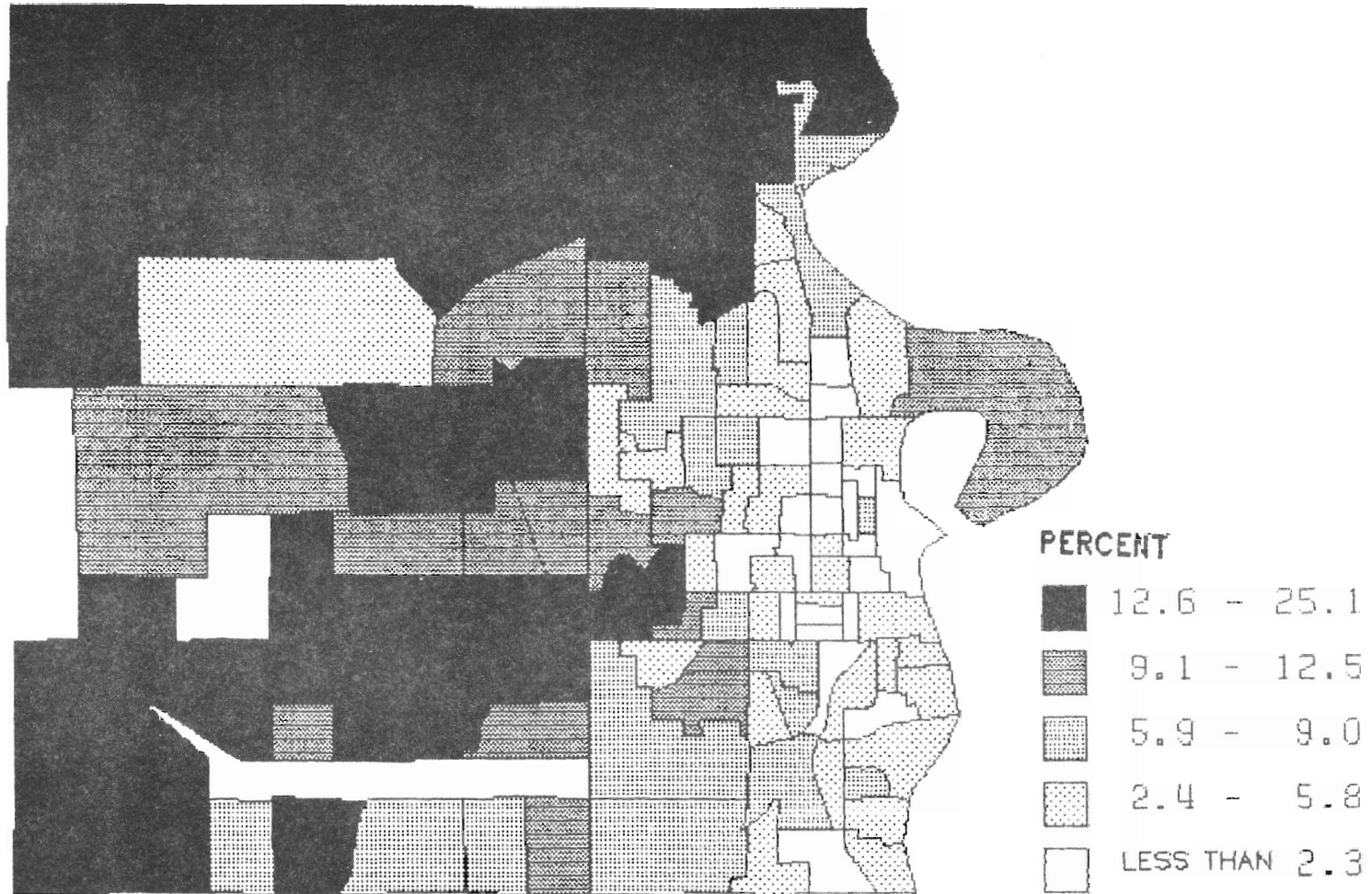
HOUSEHOLD INCOME \$20,000-\$24,999



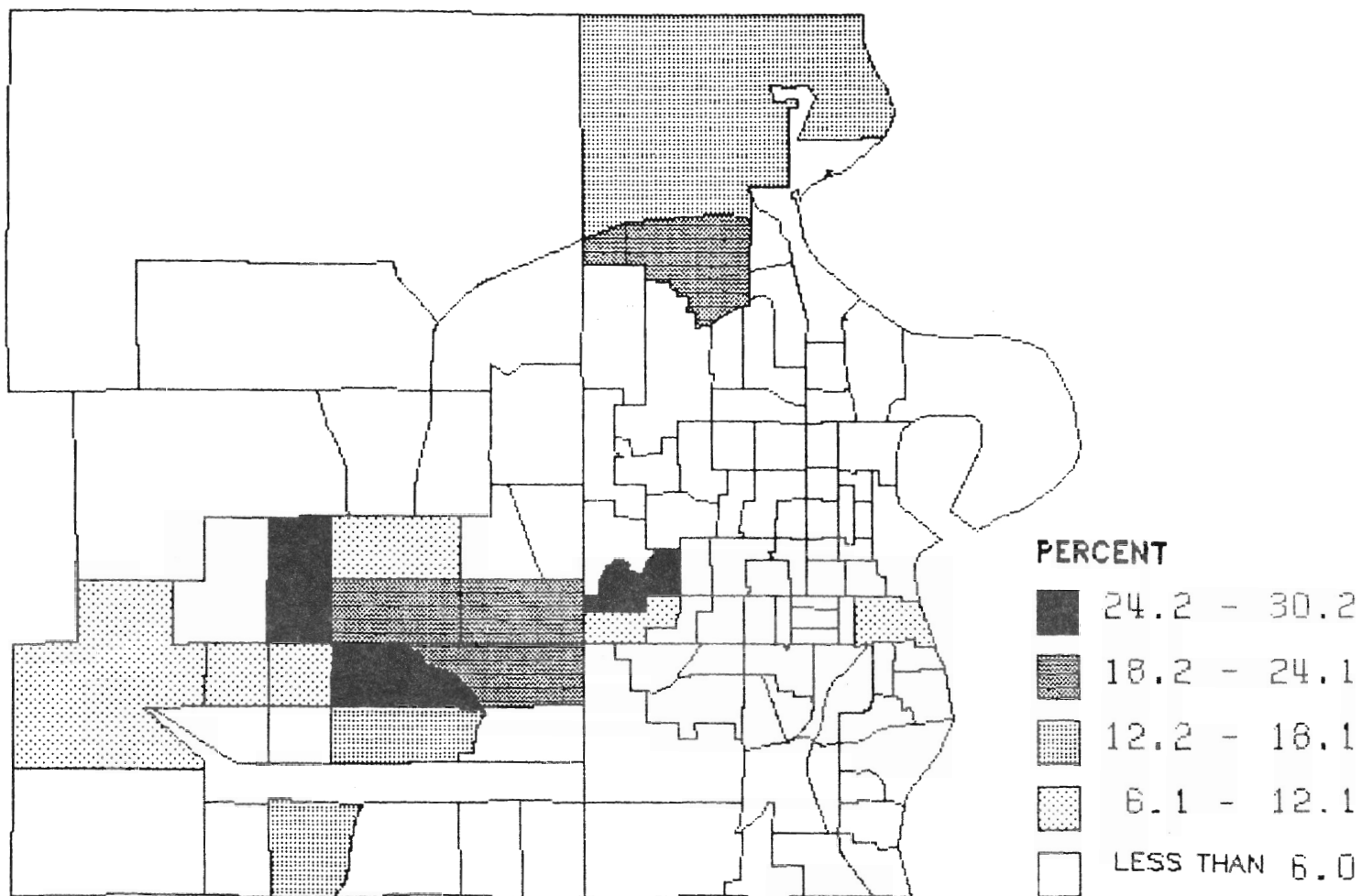
HOUSEHOLD INCOME \$25,000-\$34,999



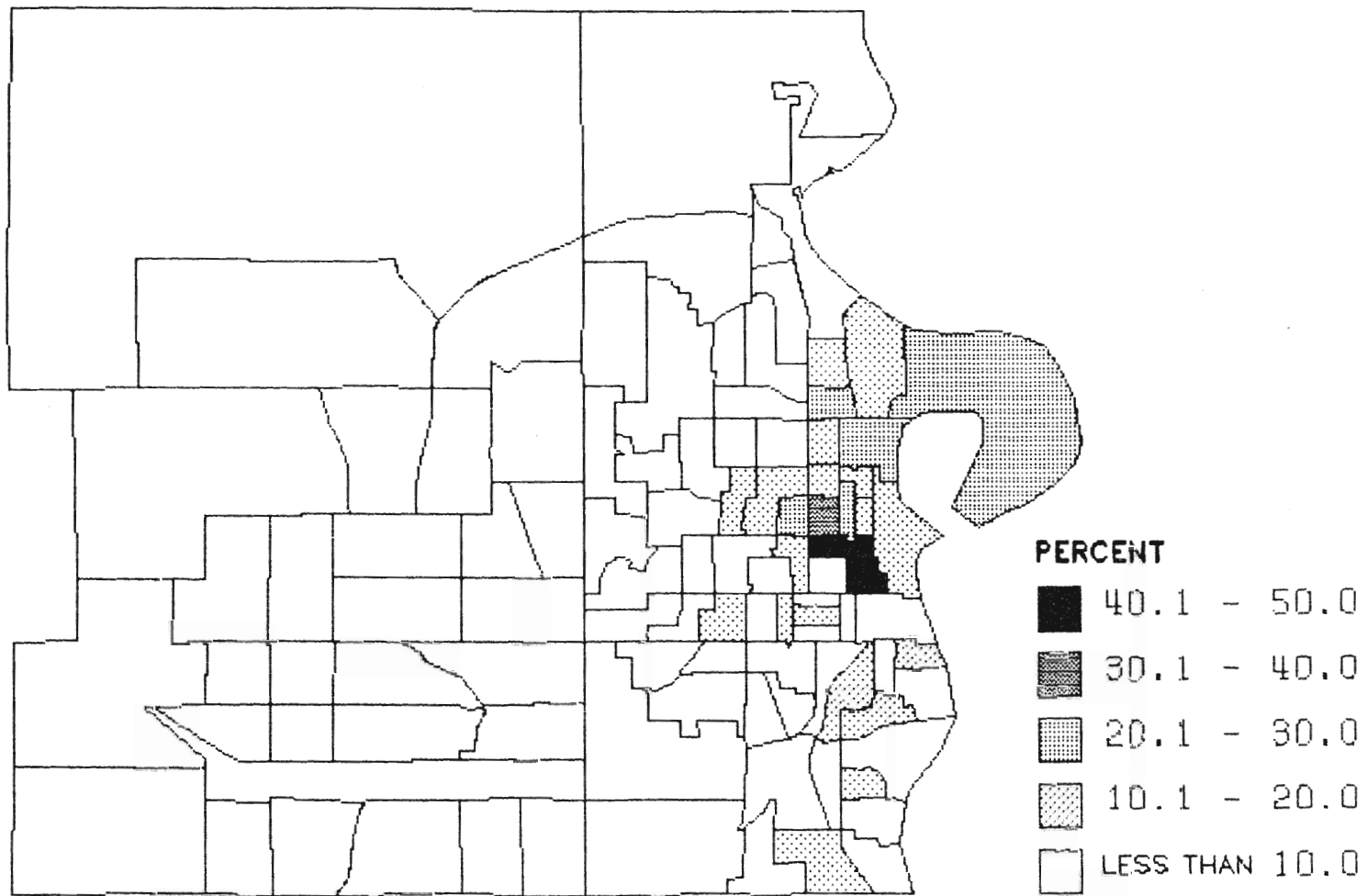
HOUSEHOLD INCOME \$35,000-\$49,999



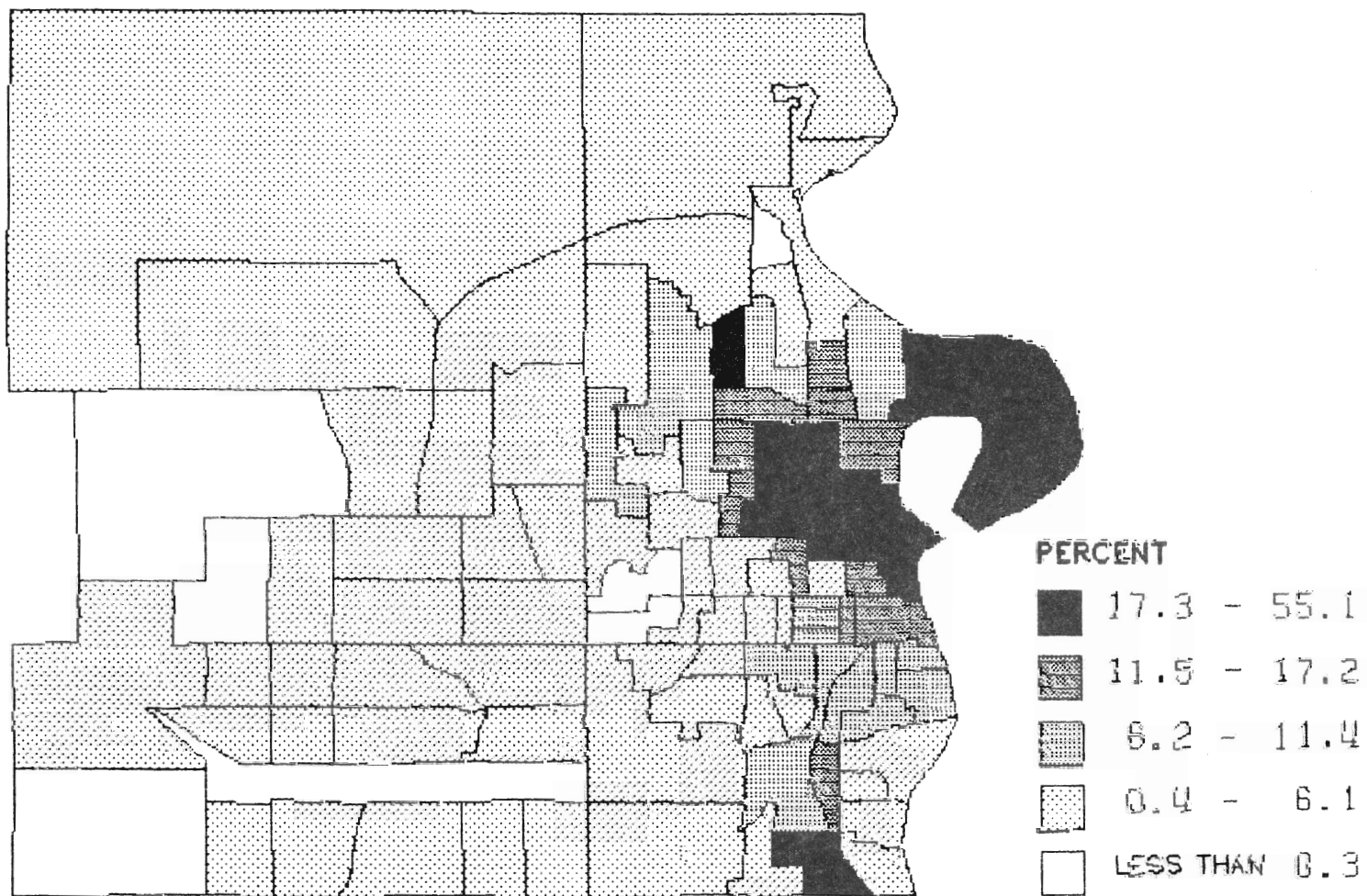
HOUSEHOLD INCOME MORE THAN \$50,000



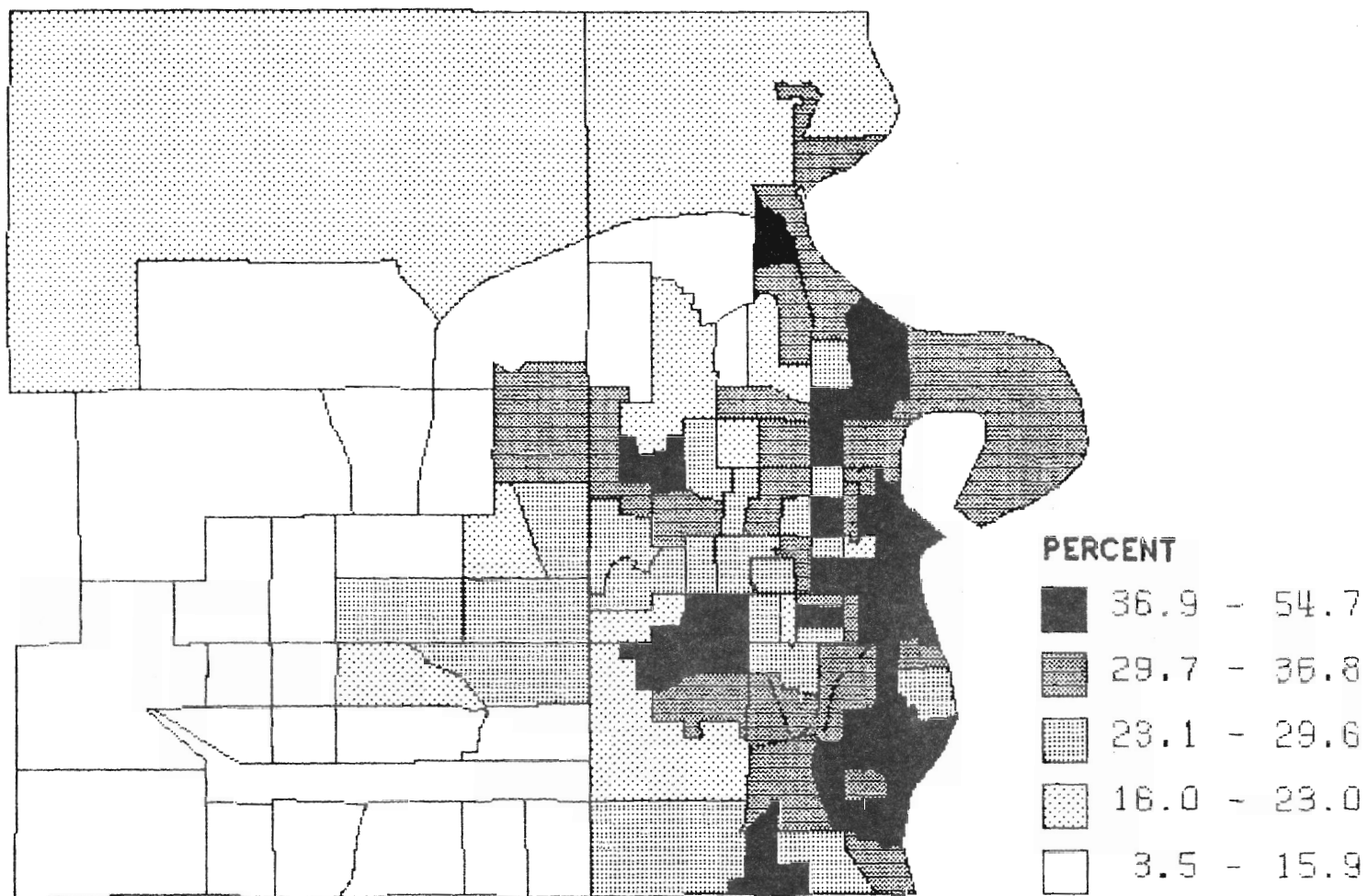
FAMILIES BELOW THE POVERTY LEVEL



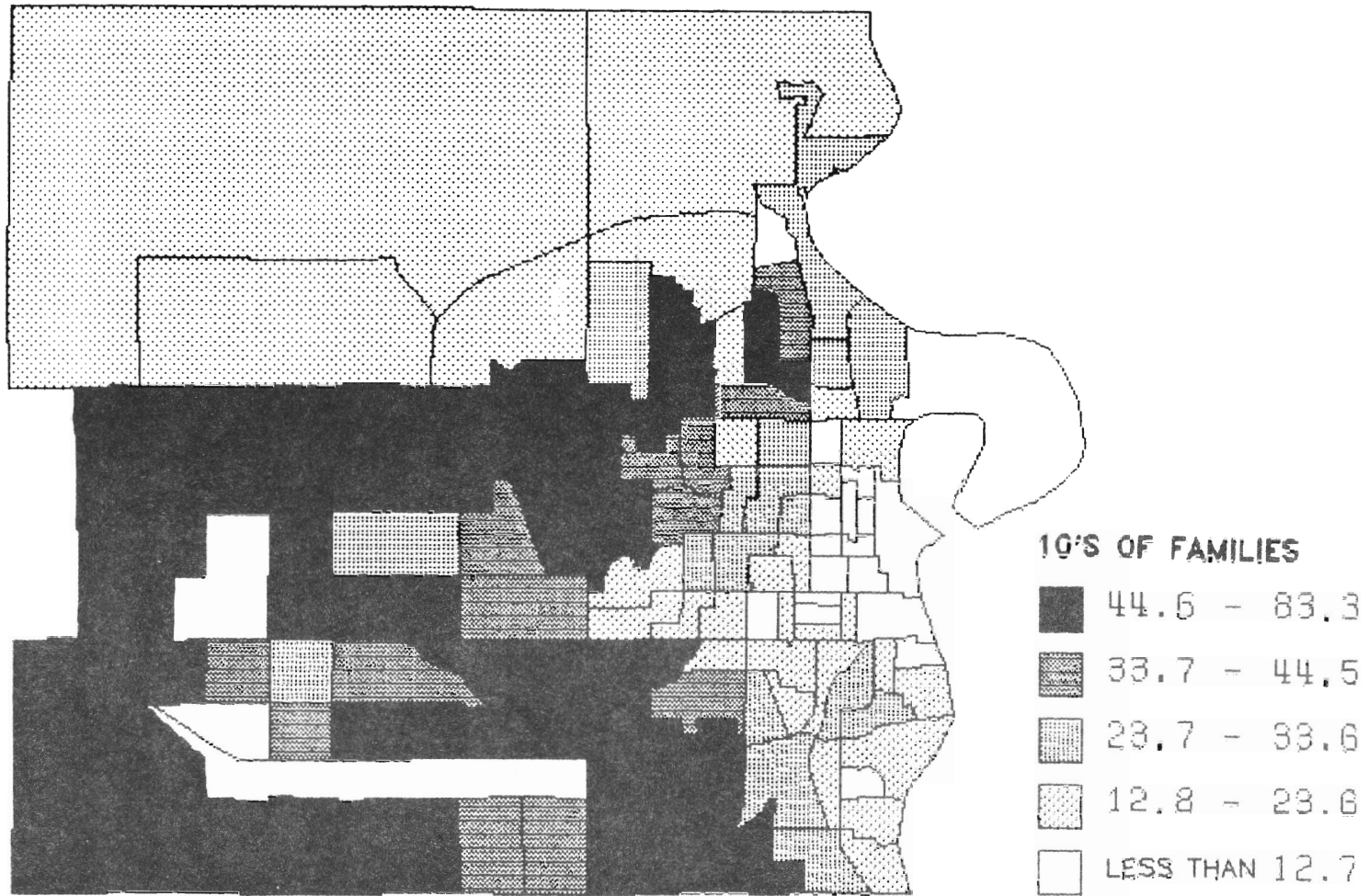
HOUSEHOLDS RECEIVING PUBLIC ASSISTANCE



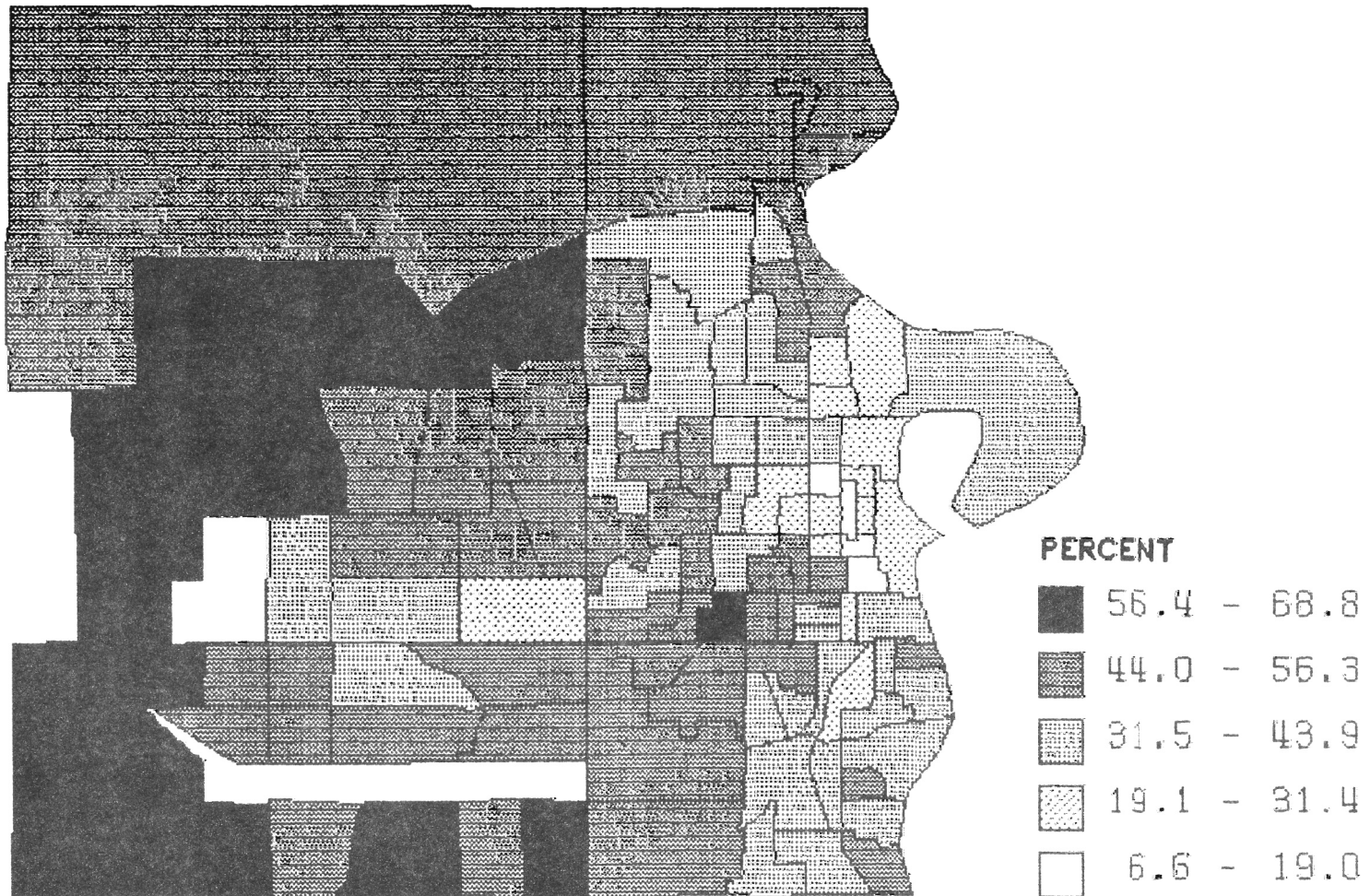
HOUSEHOLDS WITH SOCIAL SECURITY INCOME



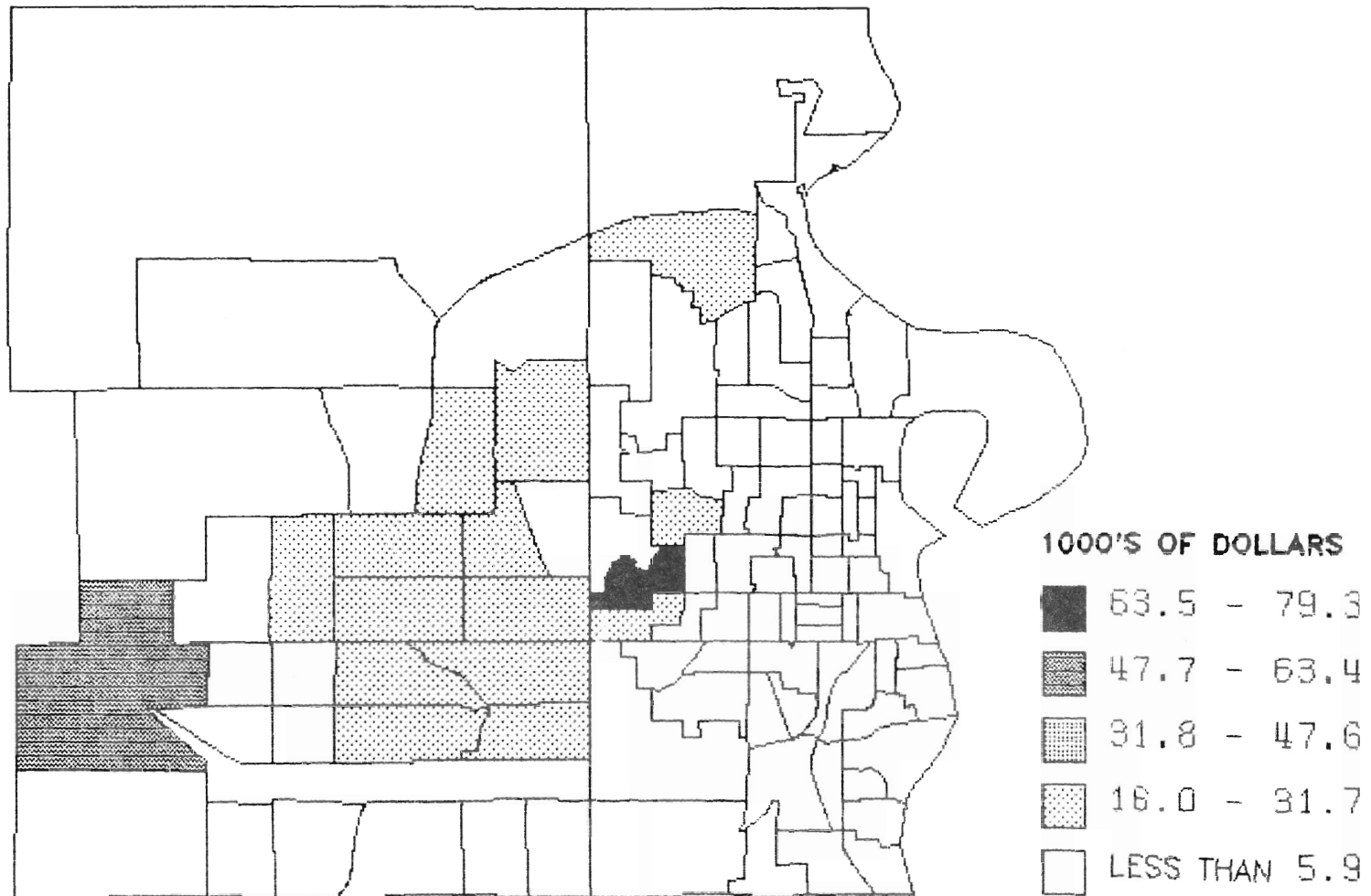
SINGLE INCOME FAMILIES



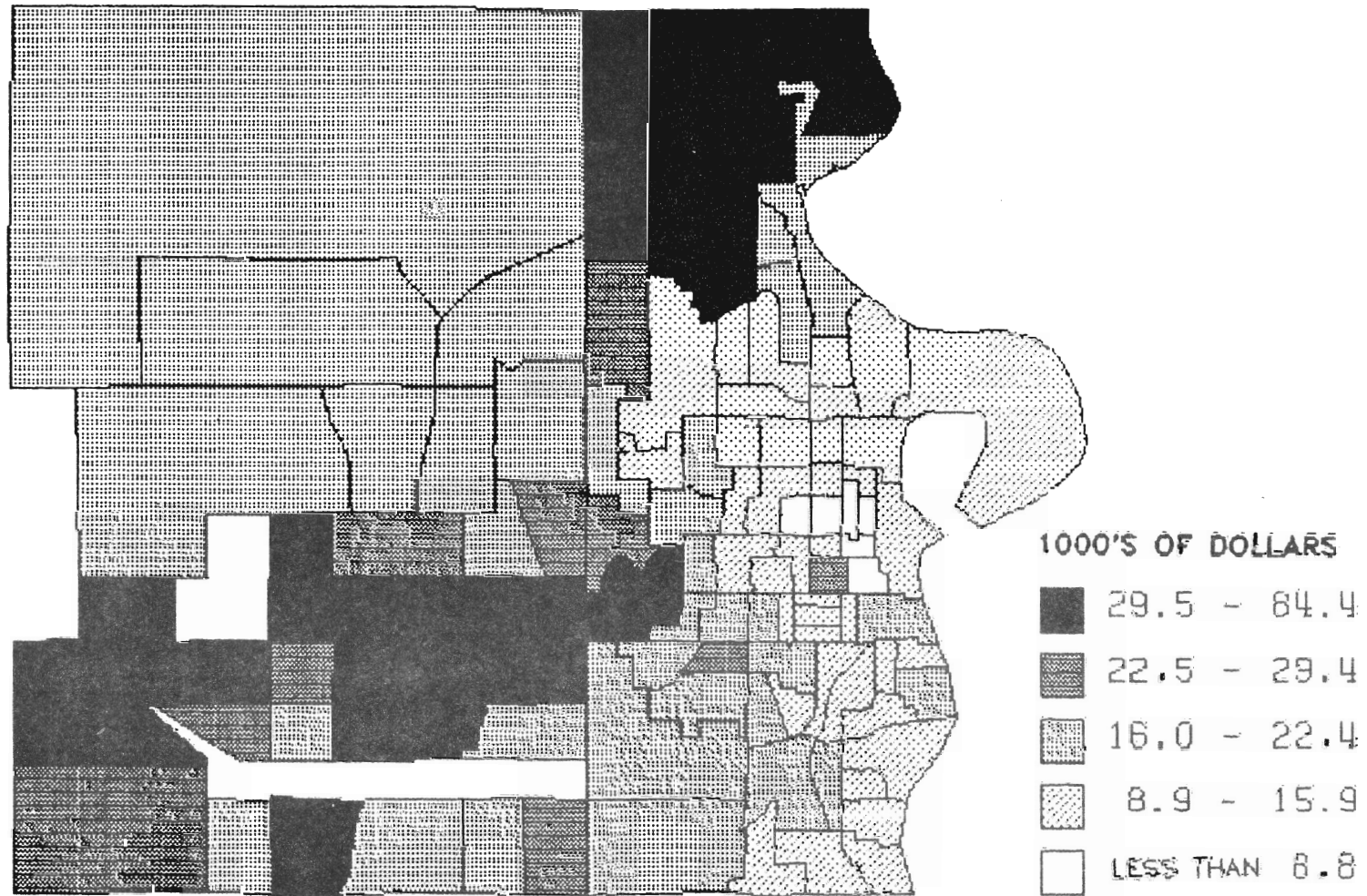
TWO INCOME FAMILIES



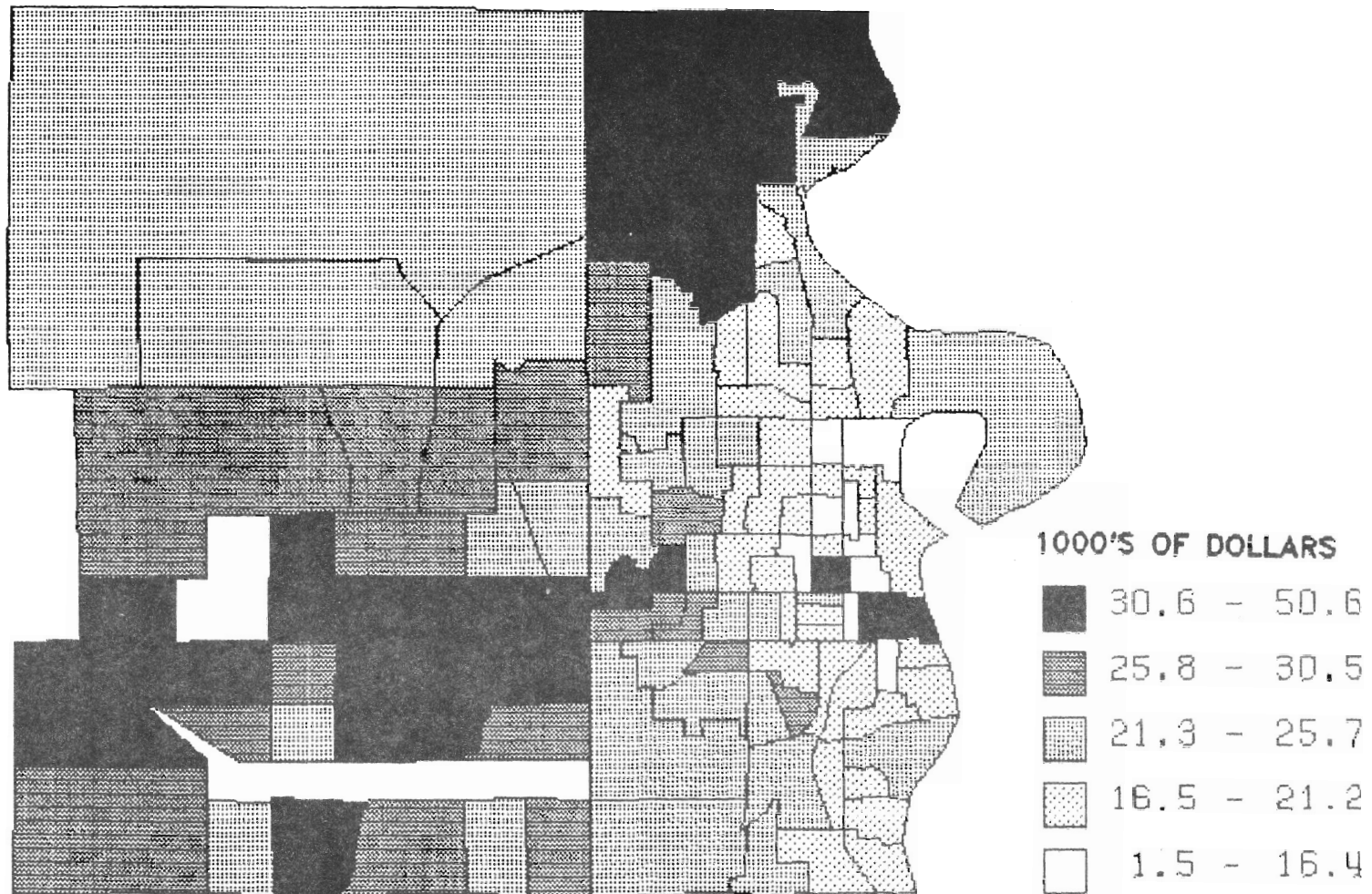
MEAN FAMILY INCOME: NO WORKERS



MEAN FAMILY INCOME: ONE WORKER

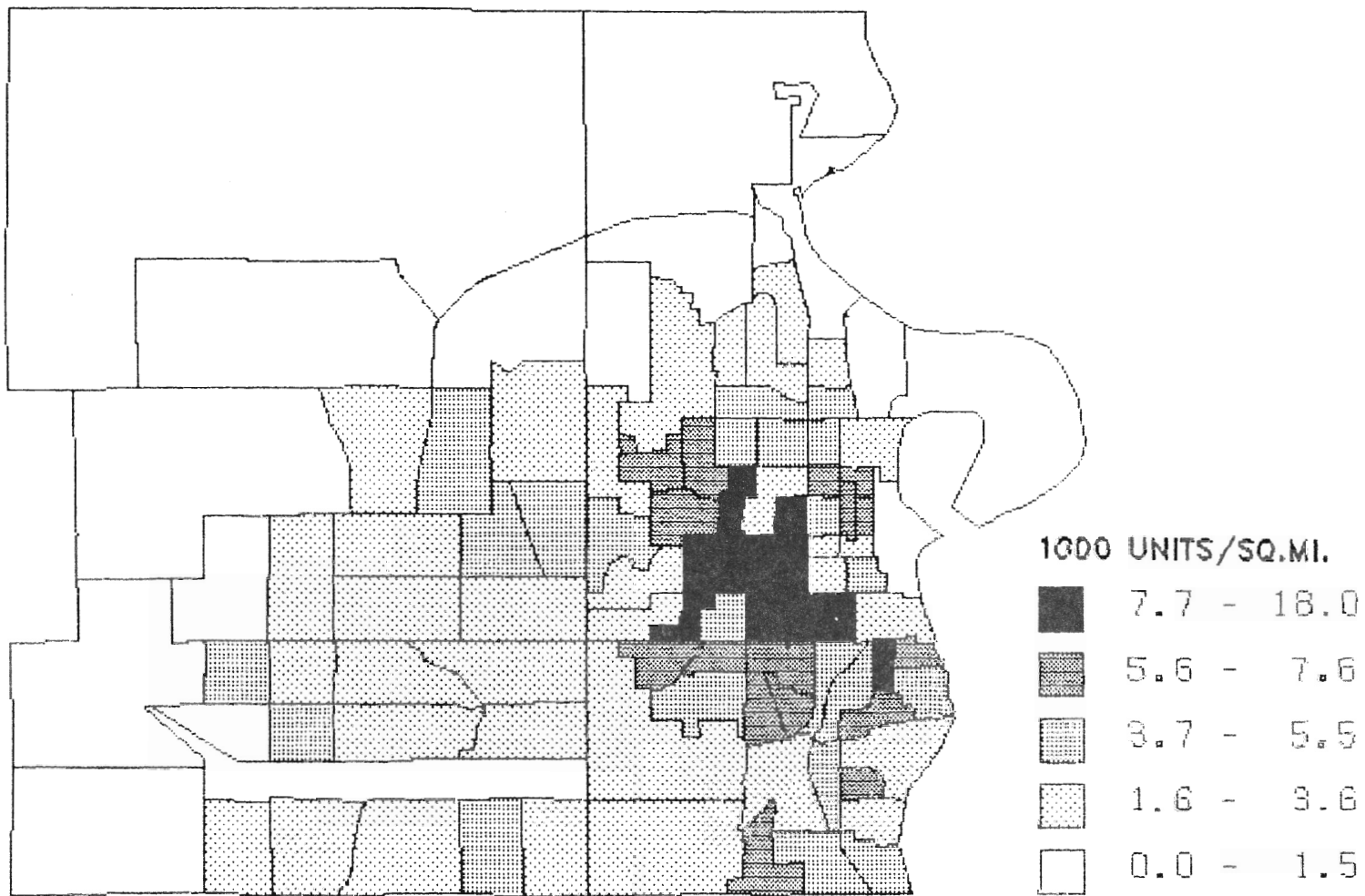


MEAN FAMILY INCOME: TWO WORKERS

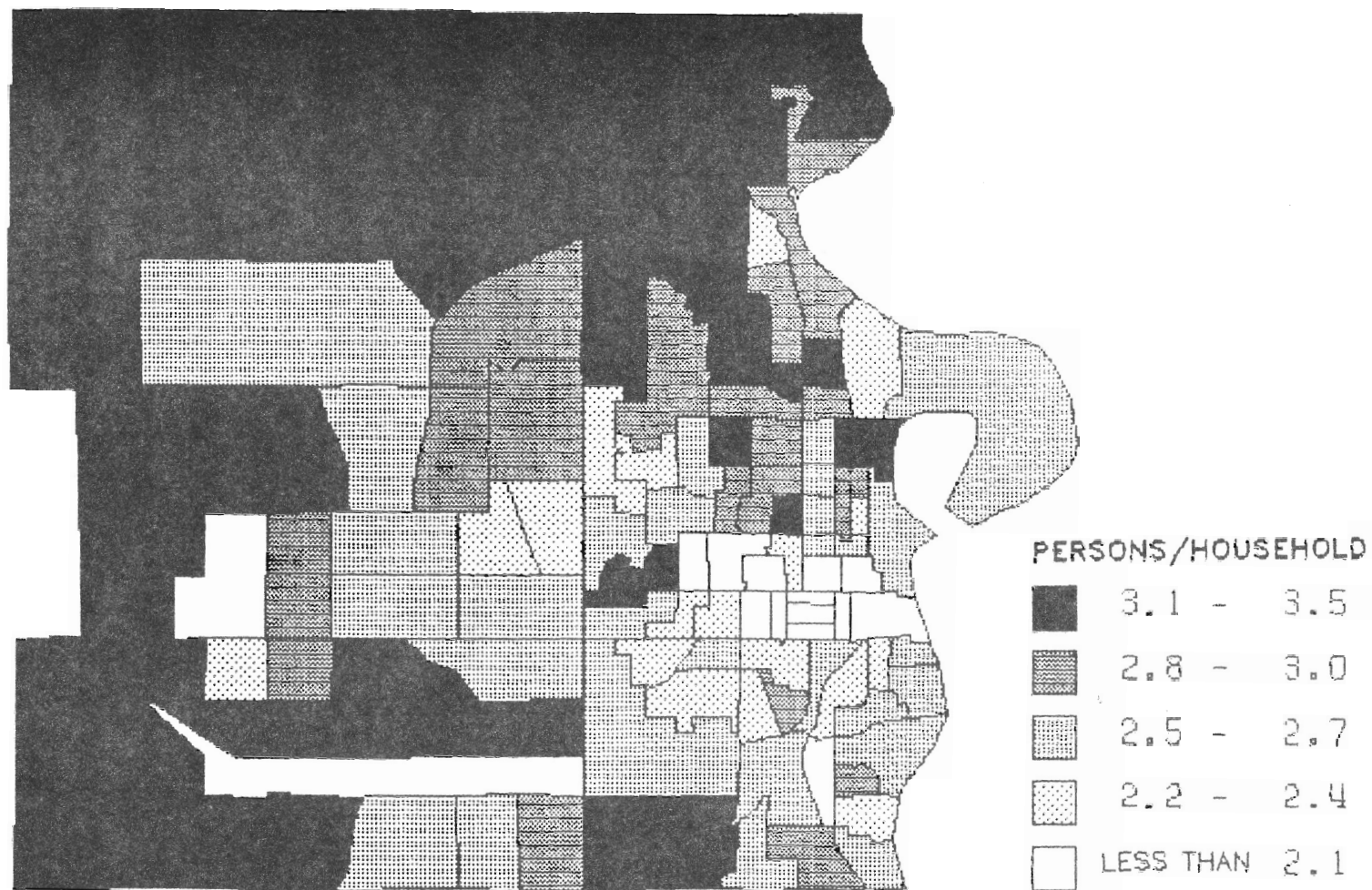


HOUSING CHARACTERISTICS

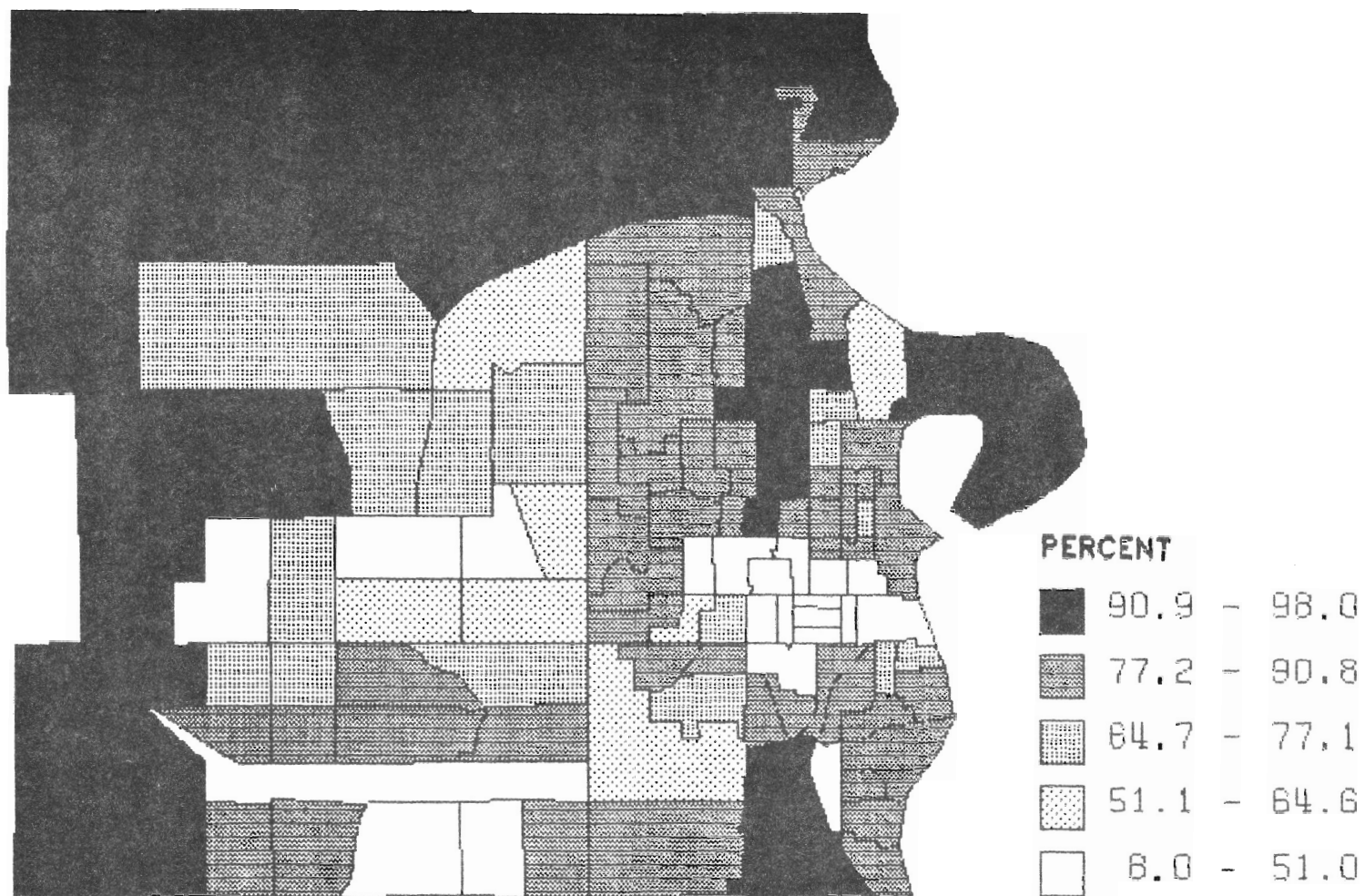
HOUSING UNIT DENSITY



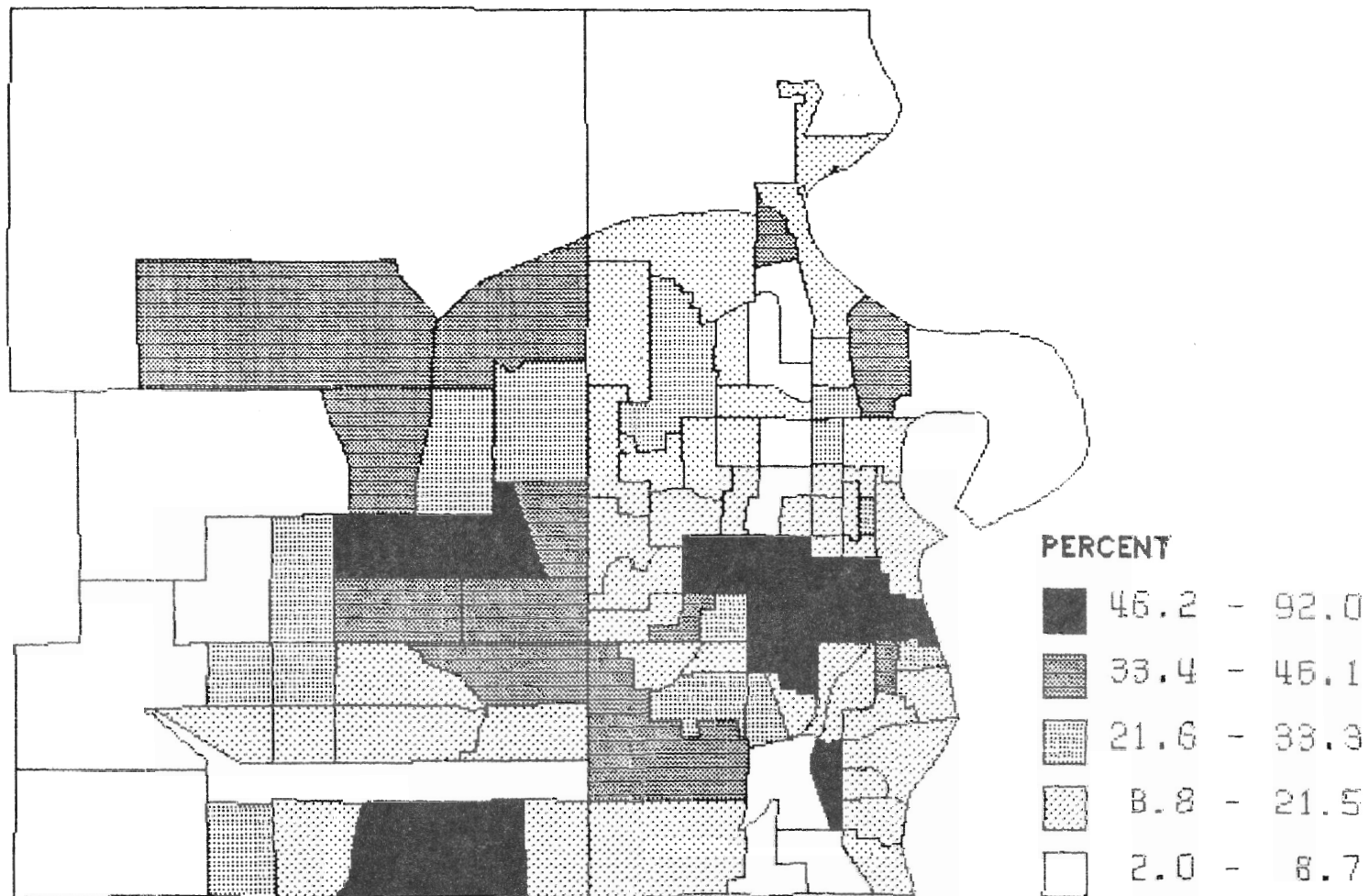
MEAN HOUSEHOLD SIZE



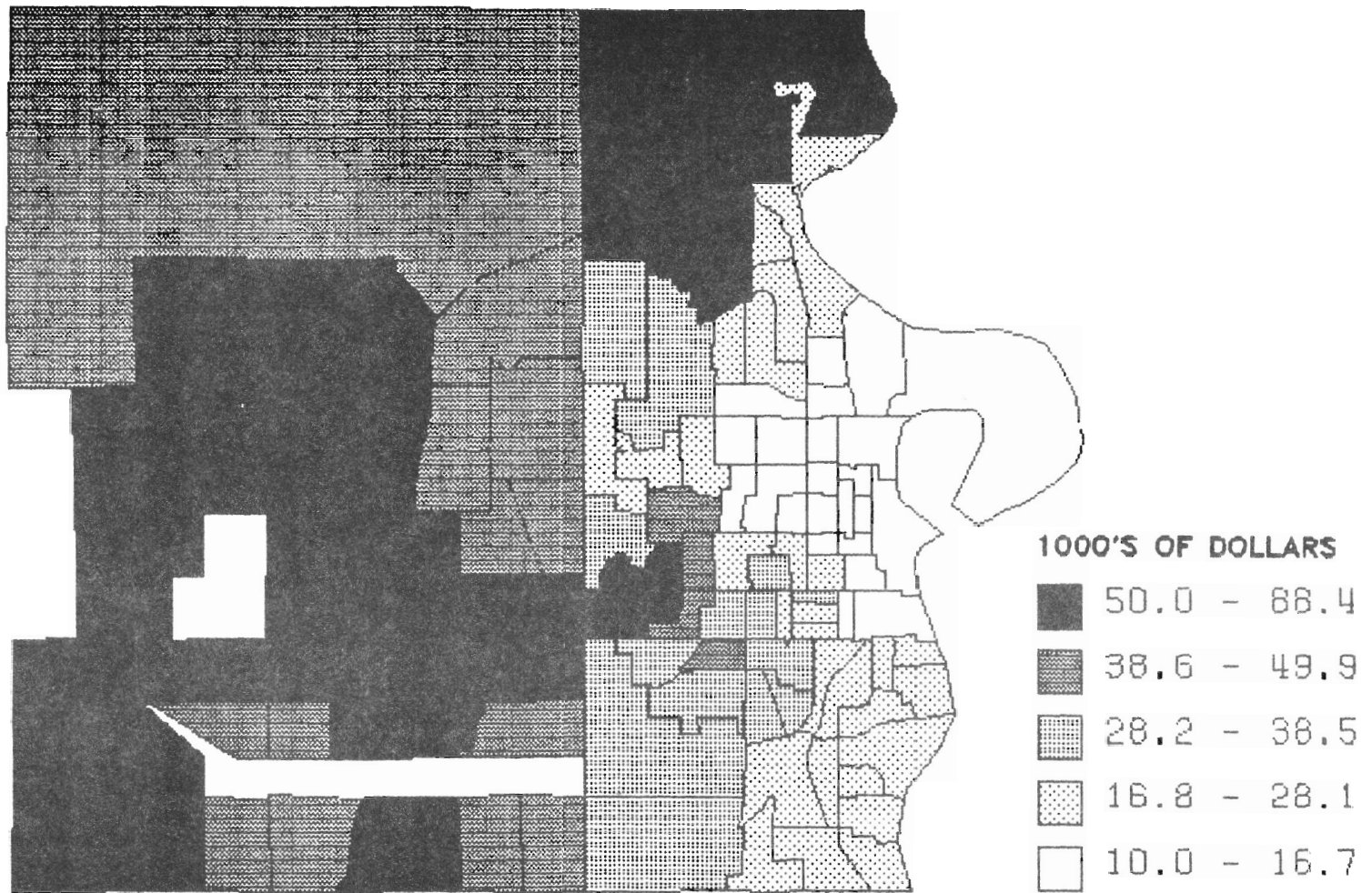
SINGLE-FAMILY DWELLING UNITS



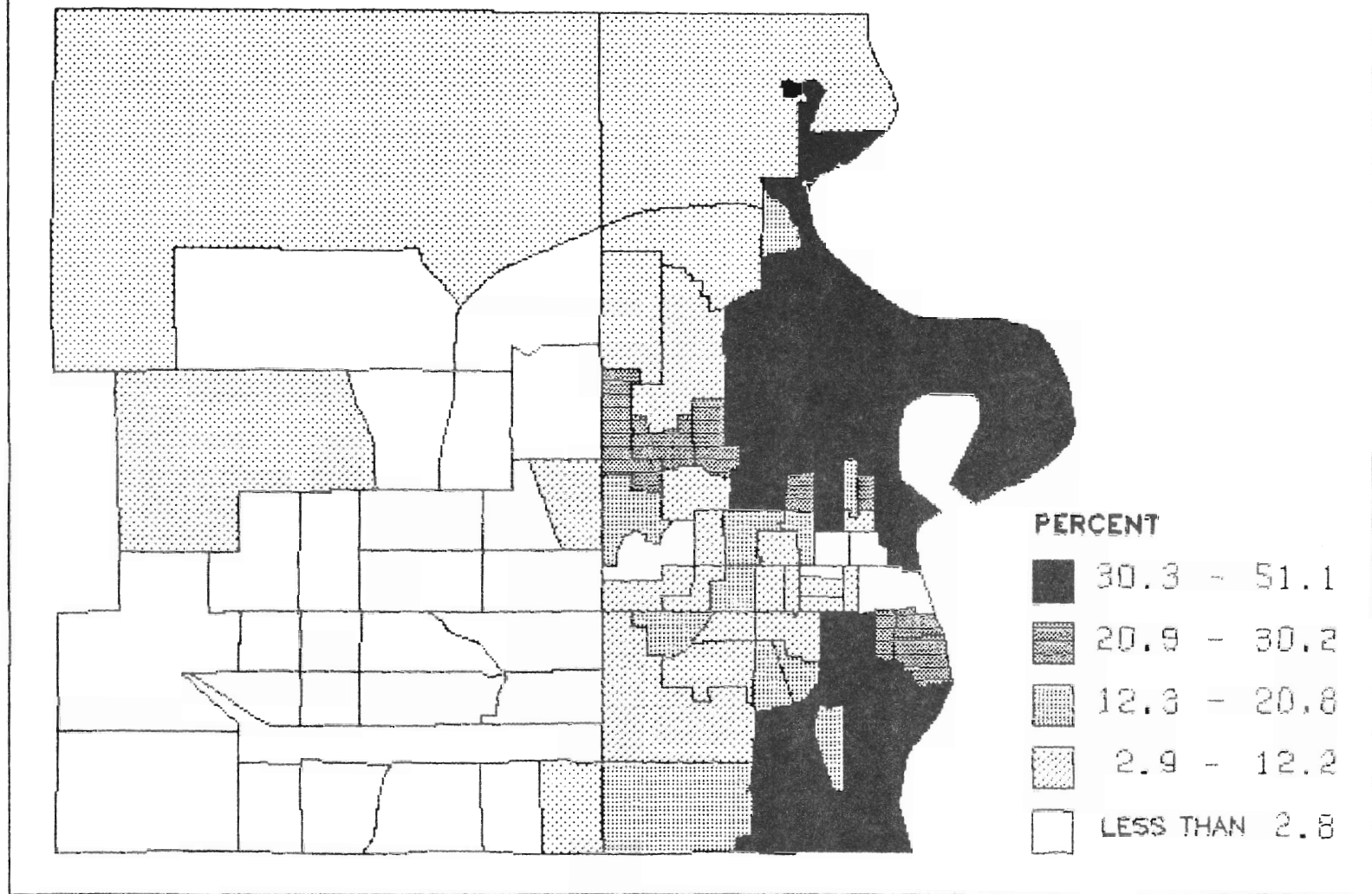
MULTI-FAMILY DWELLING UNITS



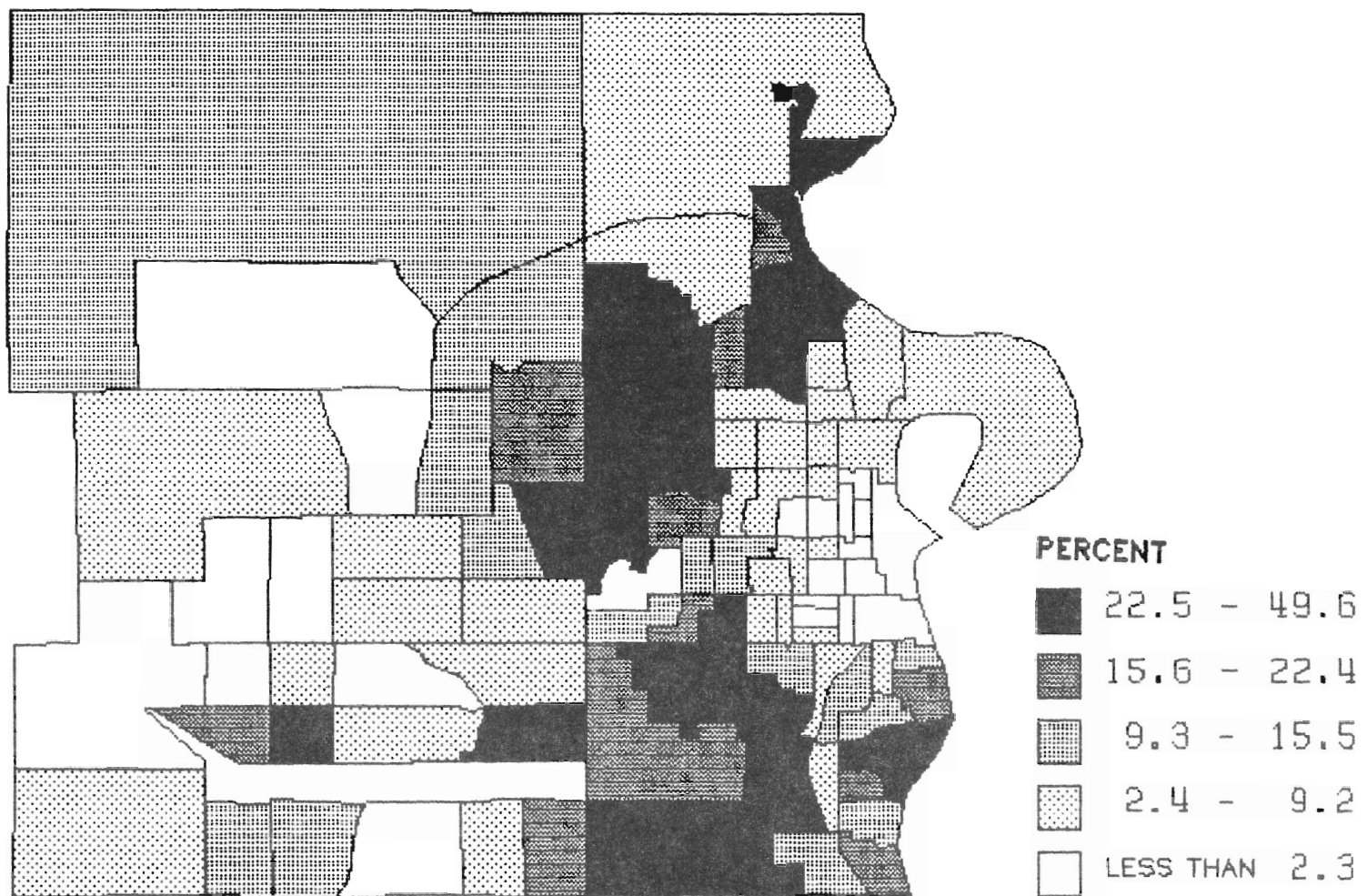
MEDIAN HOUSING UNIT VALUE



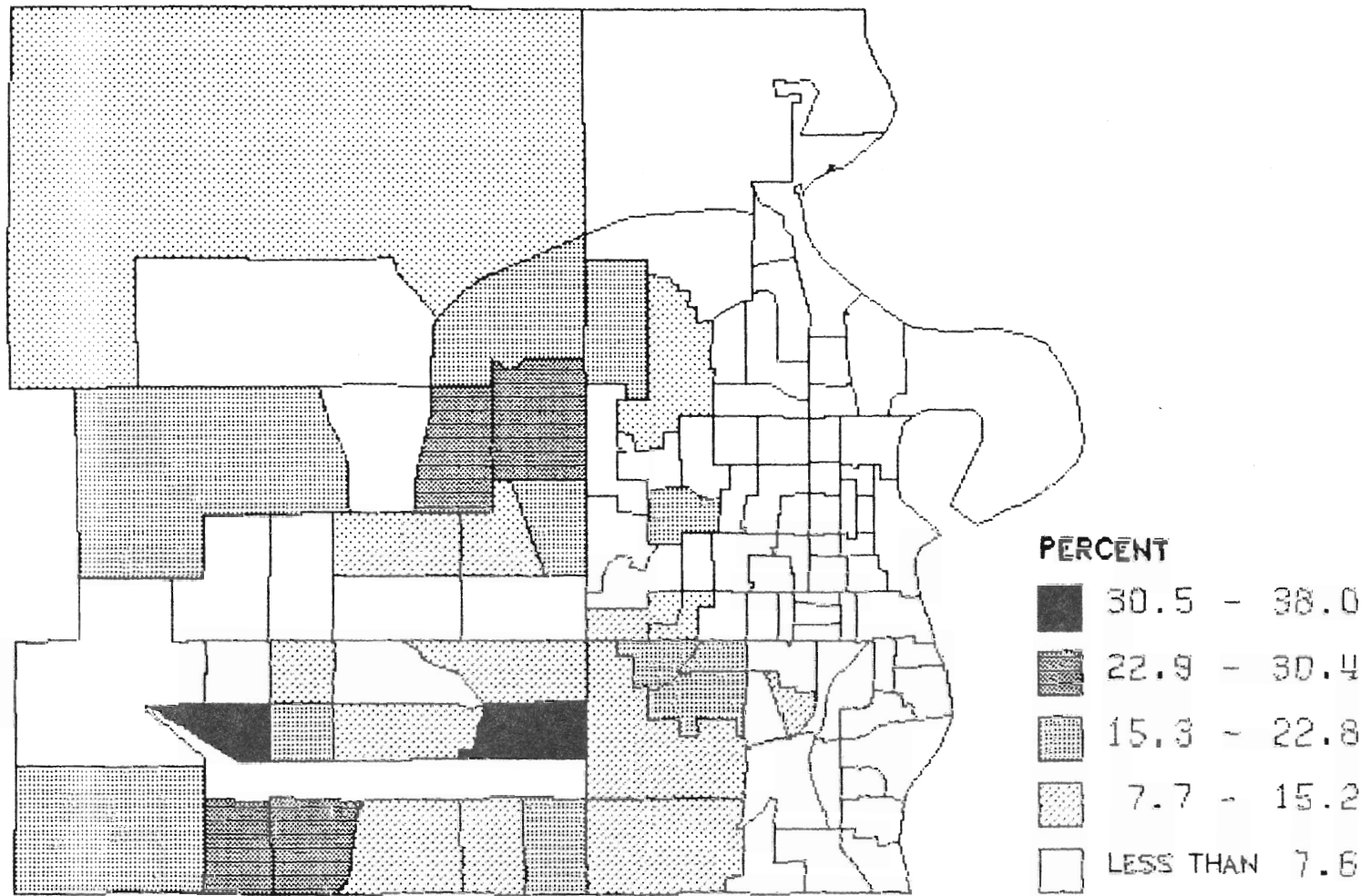
HOUSING VALUATION LESS THAN \$25,000



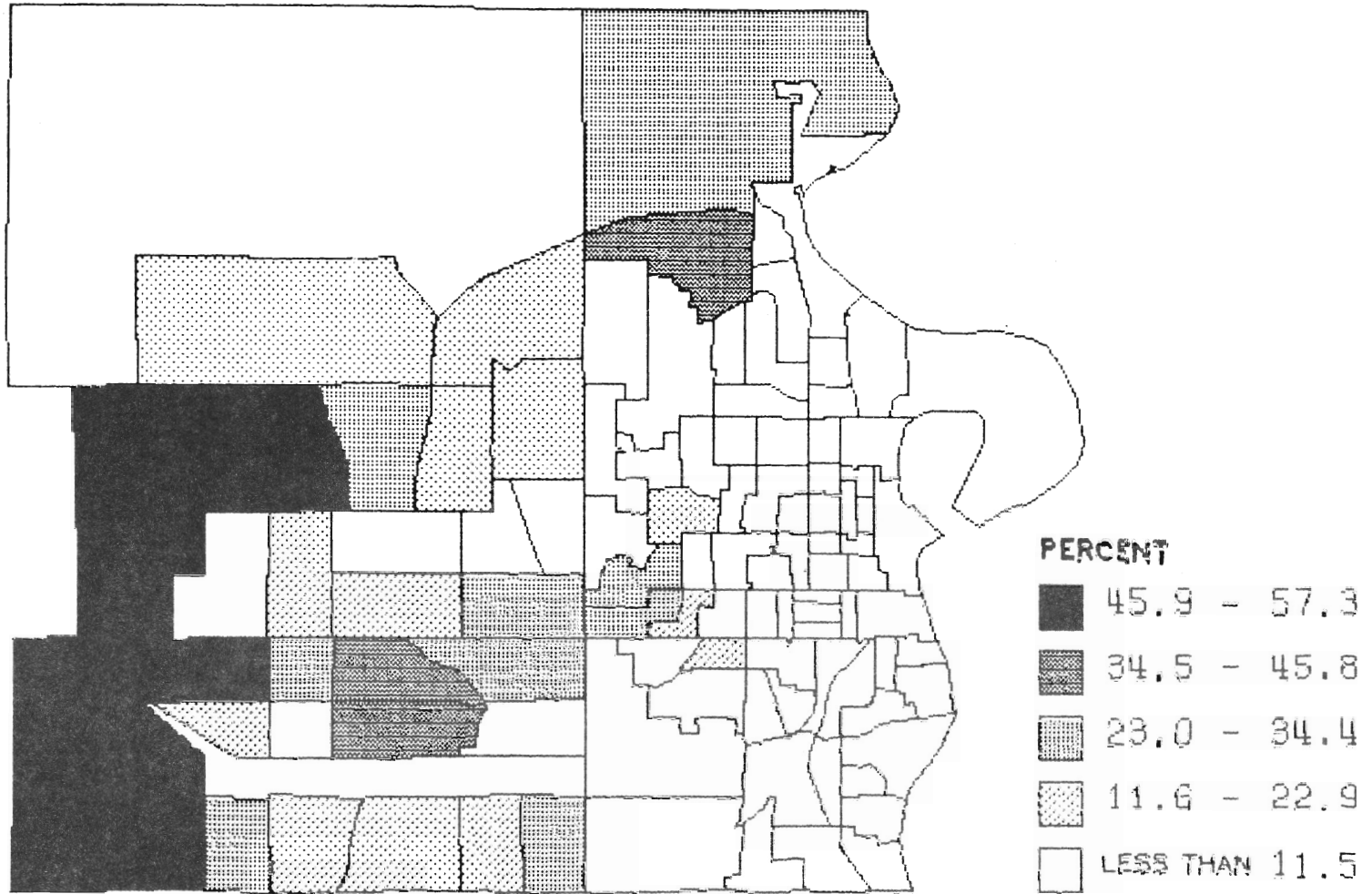
HOUSING VALUATION \$25,000-\$39,999



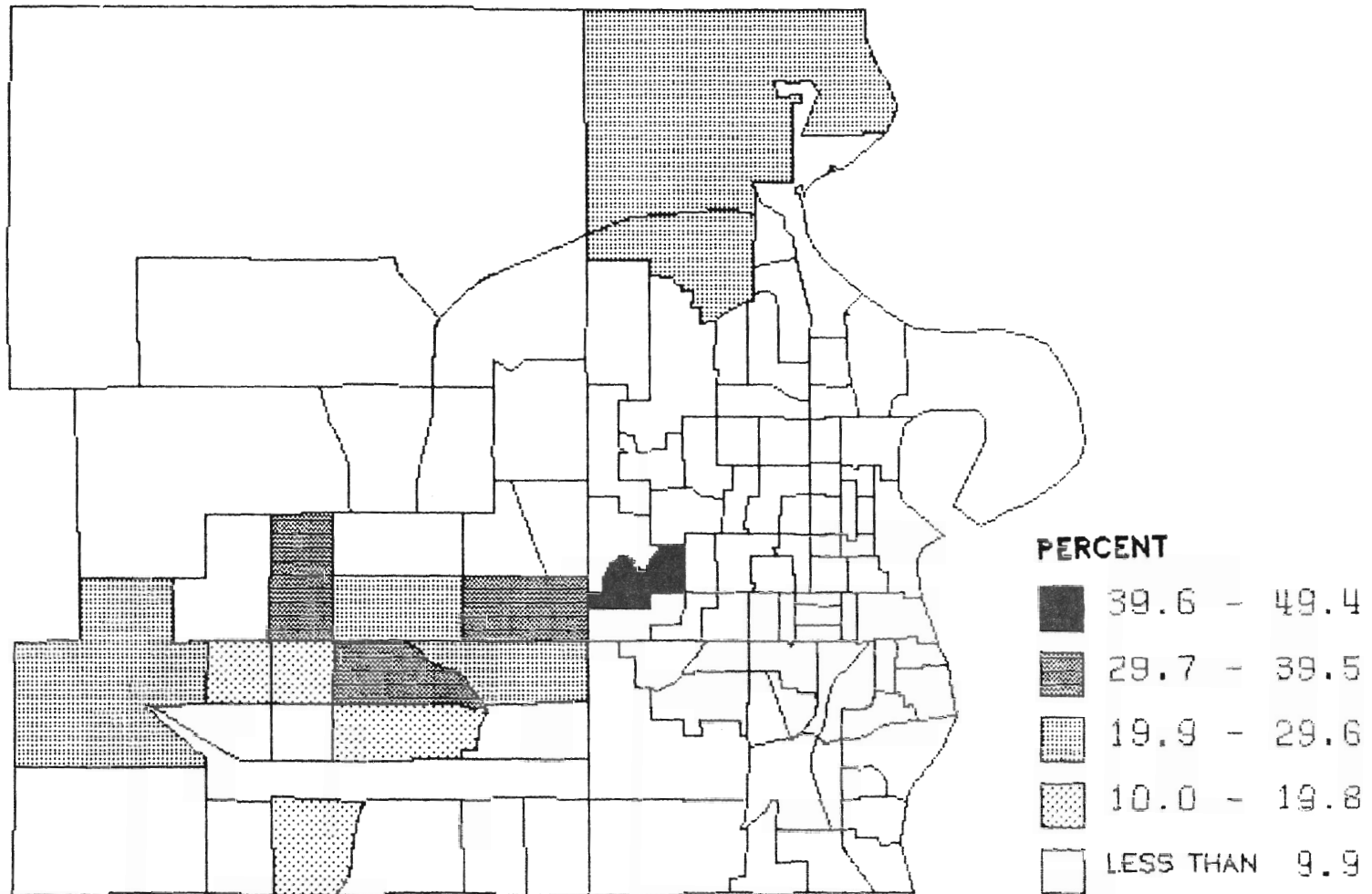
HOUSING VALUATION \$40,000-\$49,999



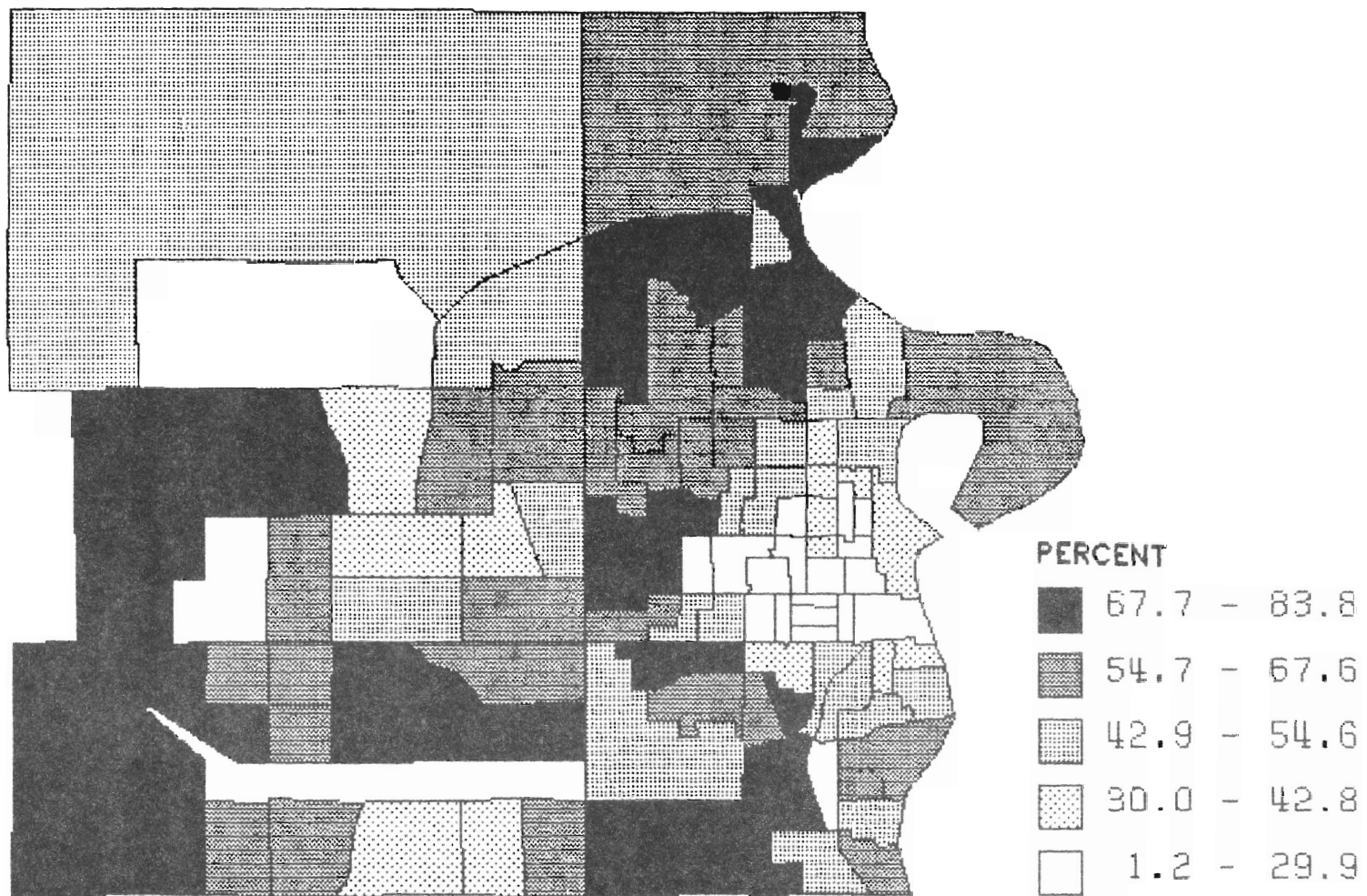
HOUSING VALUATION \$50,000-\$79,999



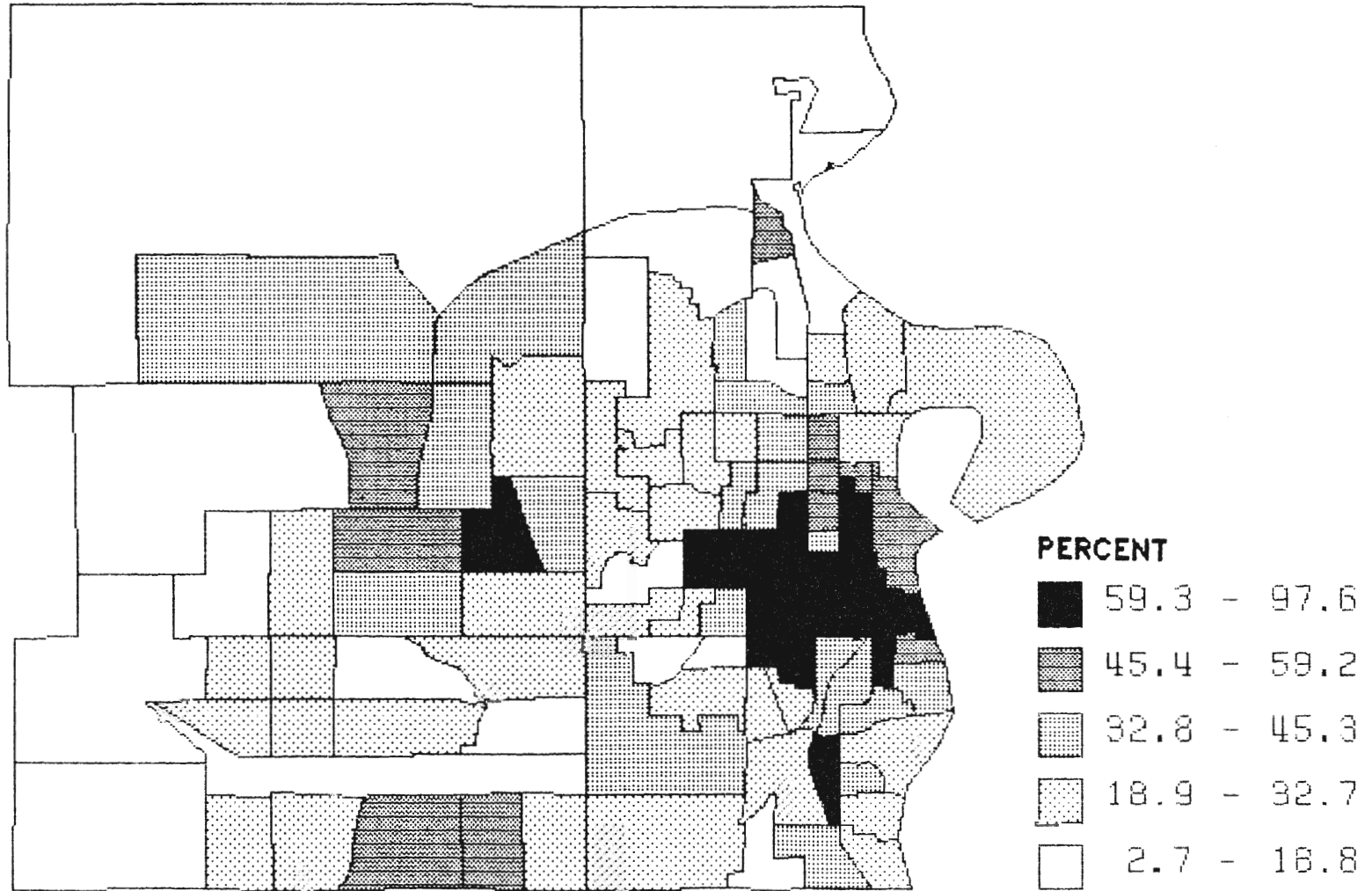
HOUSING VALUATION MORE THAN \$80,000



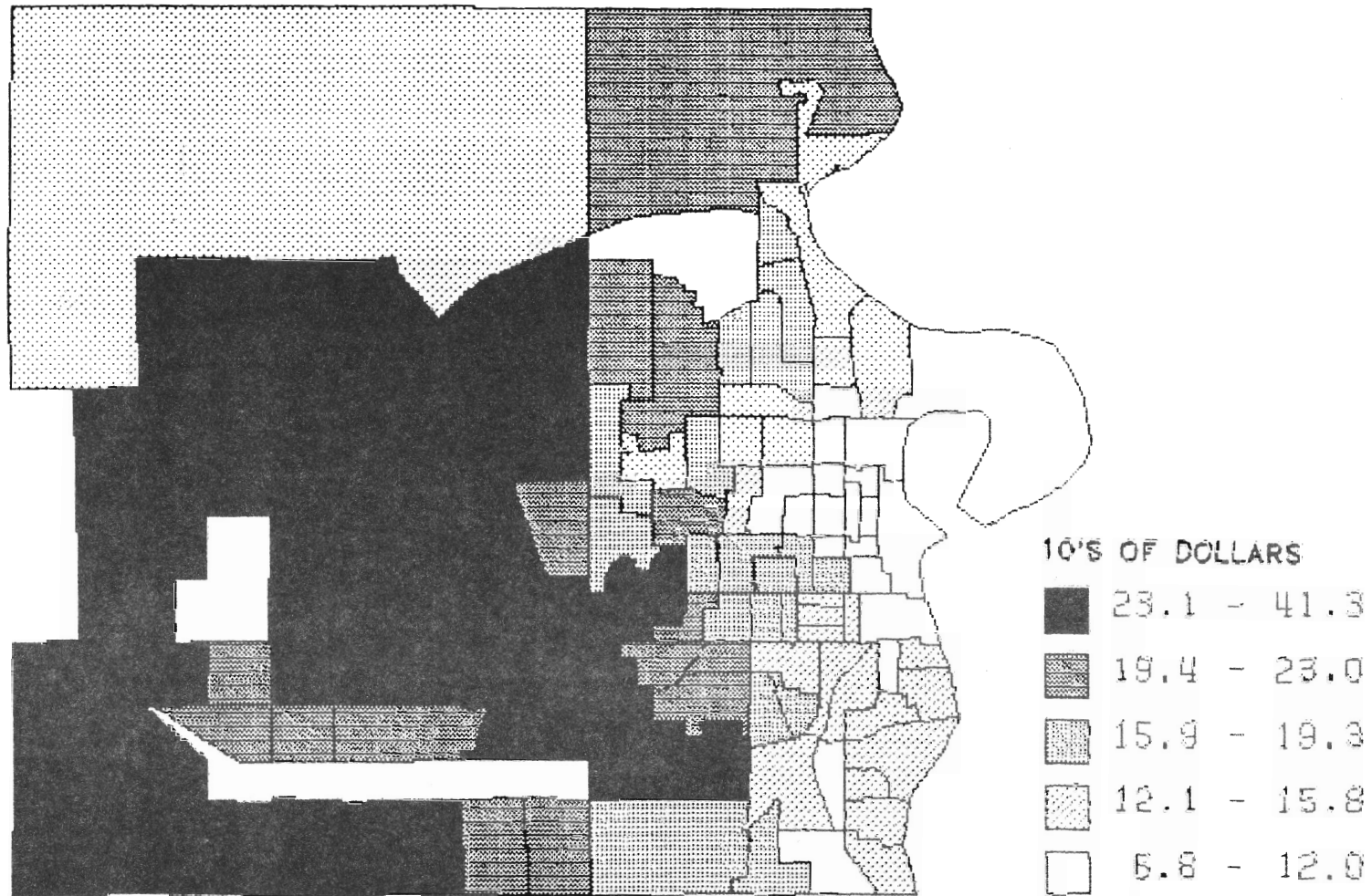
OWNER OCCUPIED HOUSING UNITS



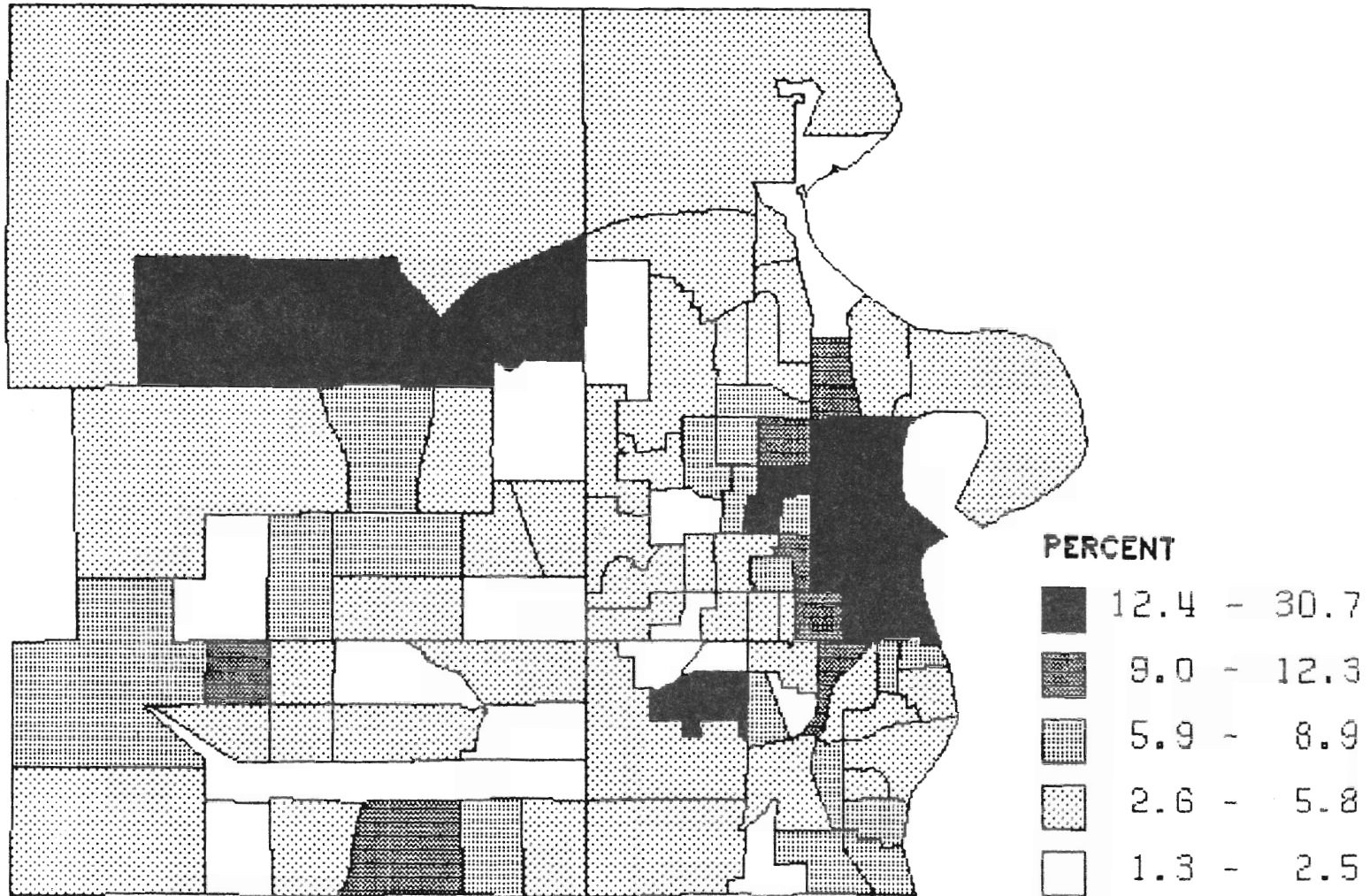
RENTER OCCUPIED HOUSING UNITS



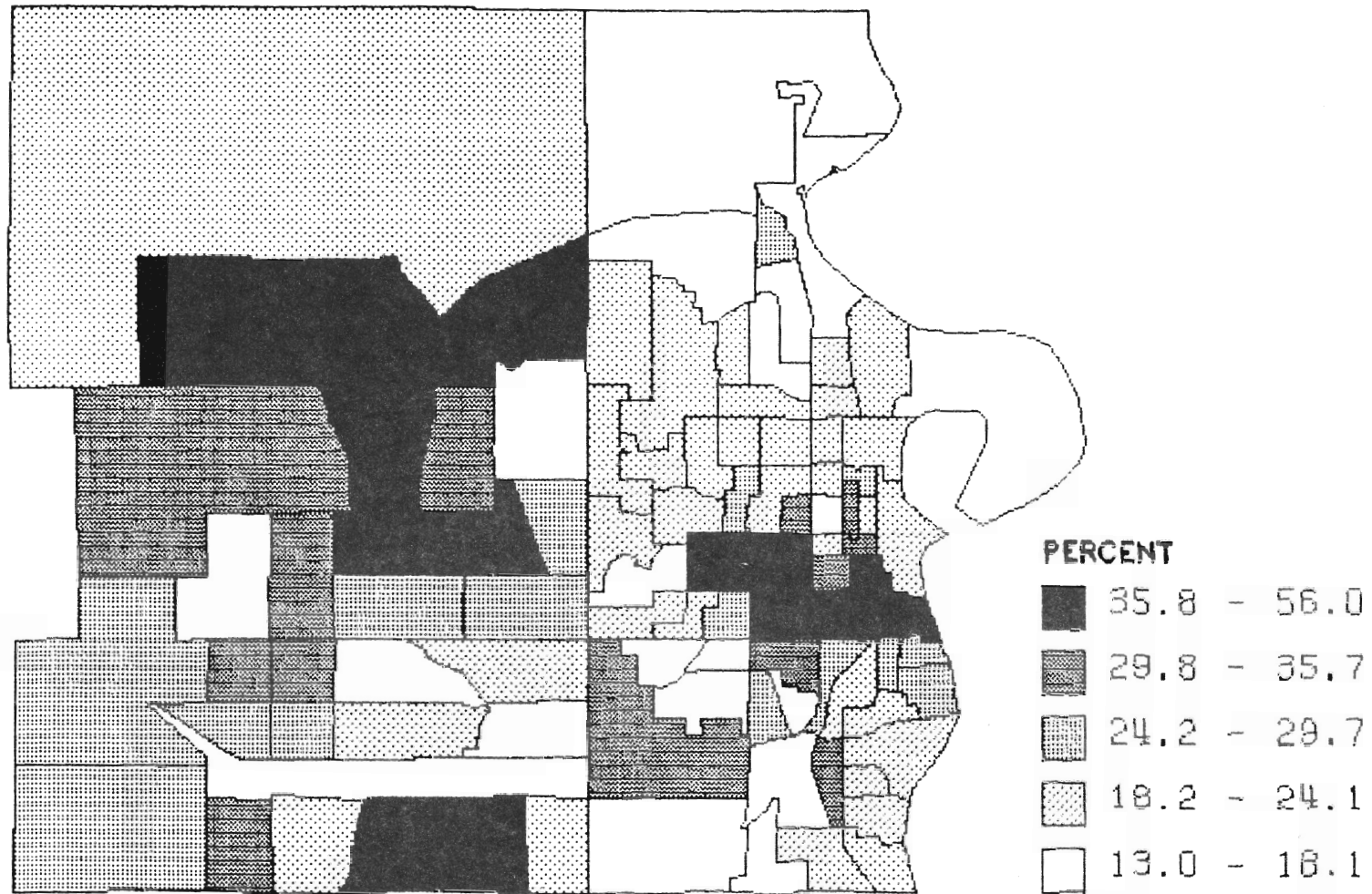
MEDIAN MONTHLY CONTRACT RENT



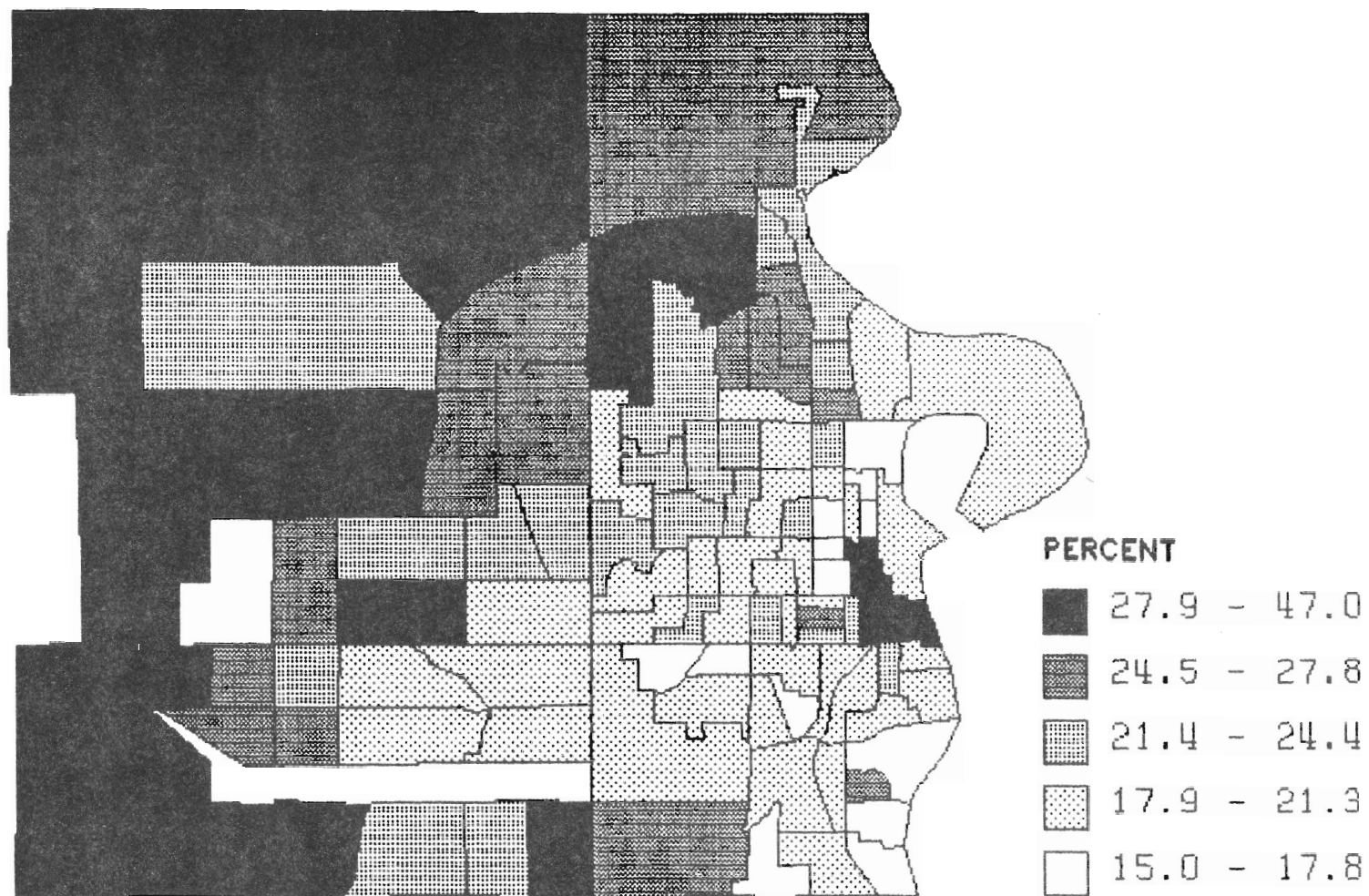
VACANT HOUSING UNITS



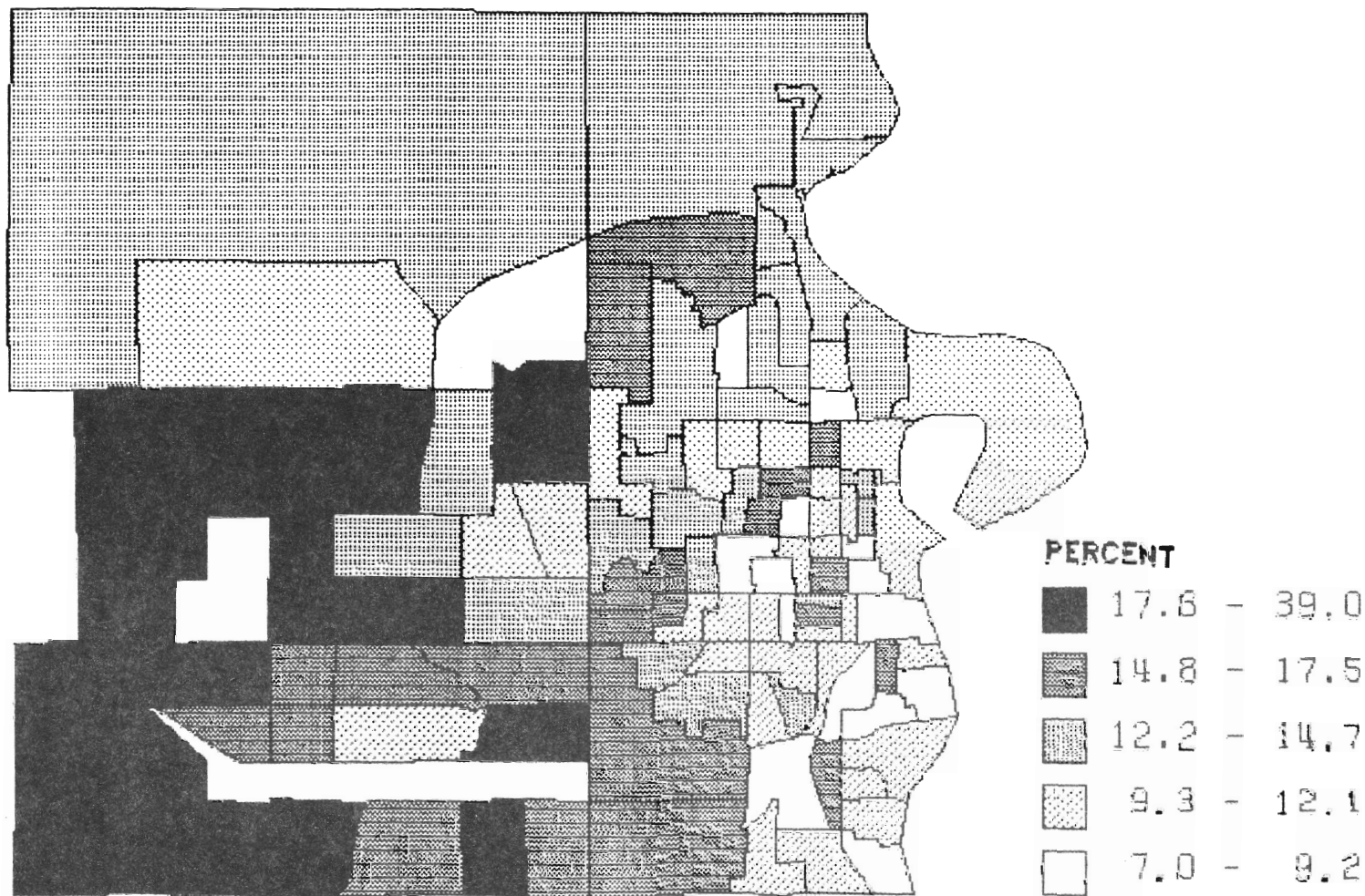
RESIDENCE TENURE 1-2 YEARS



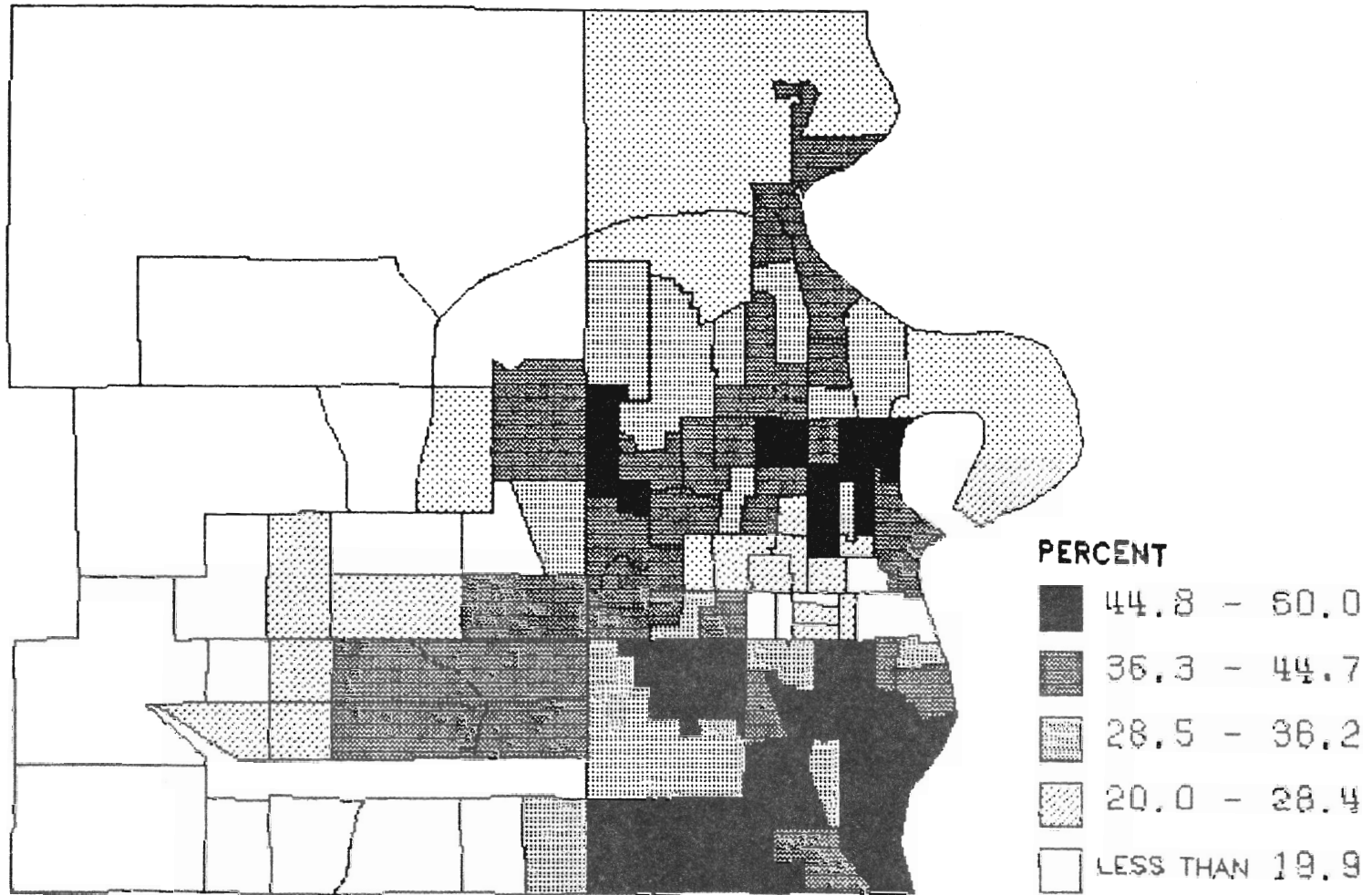
RESIDENCE TENURE 3-5 YEARS



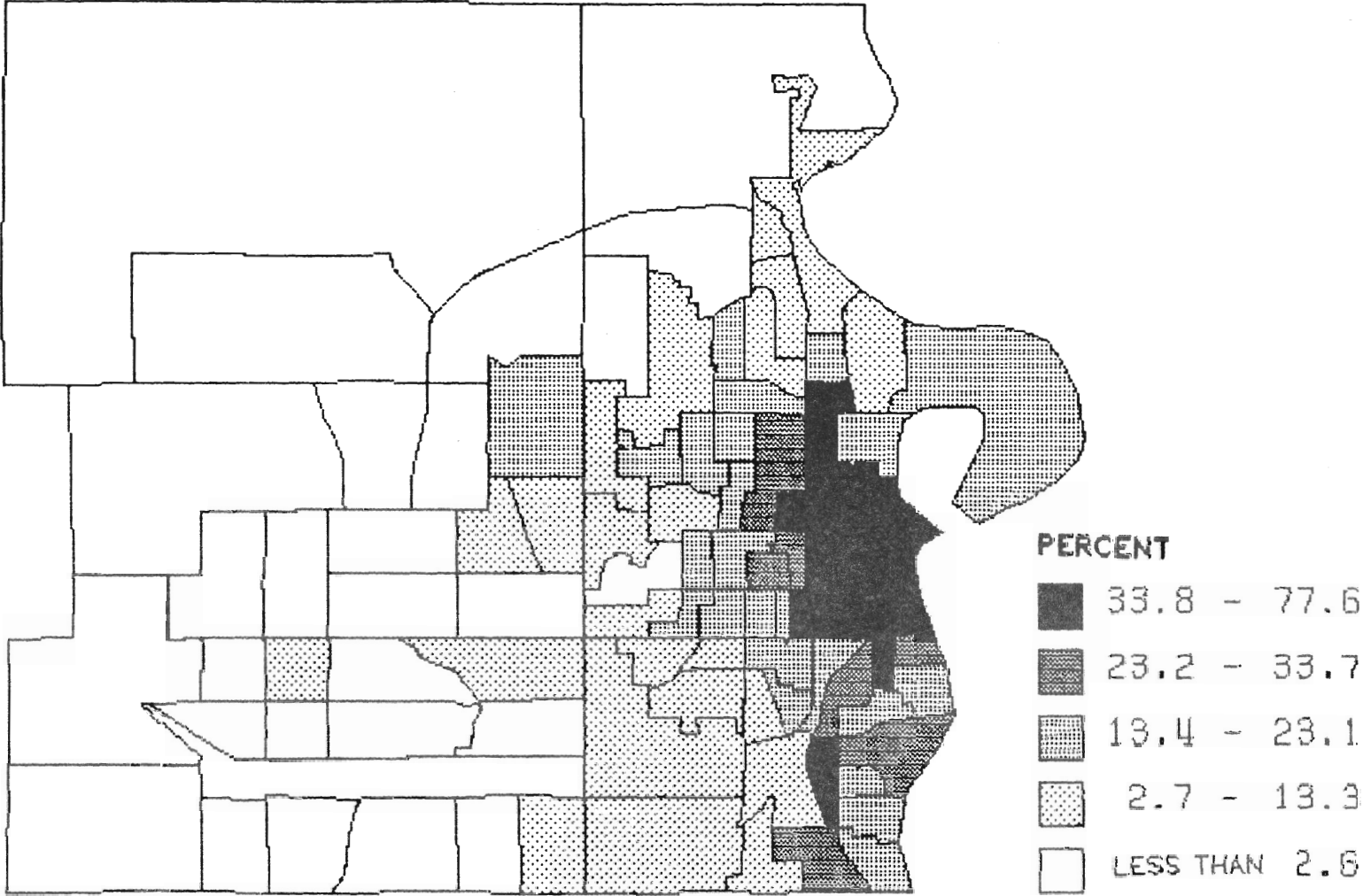
RESIDENCE TENURE 6-9 YEARS



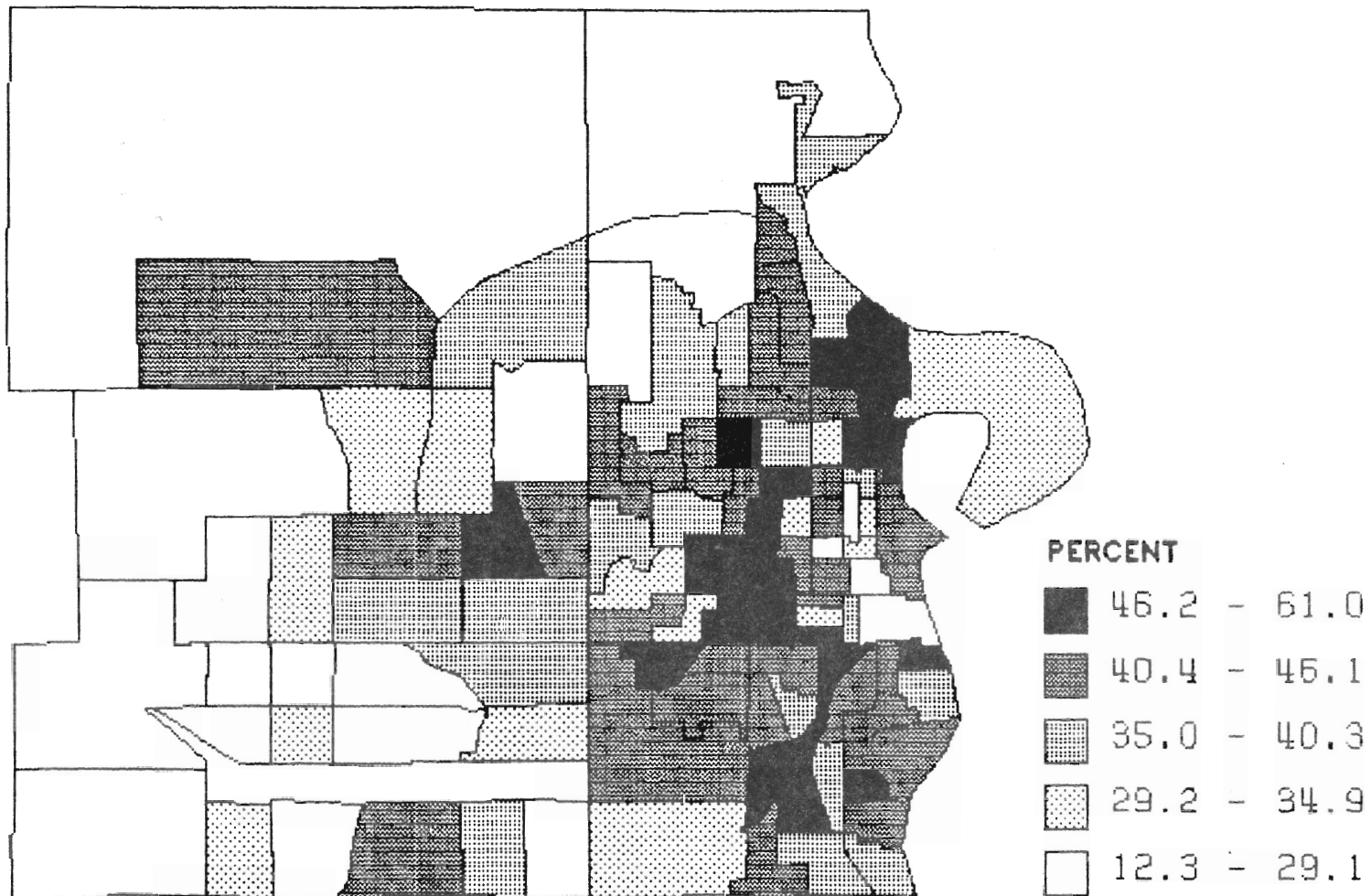
RESIDENCE TENURE MORE THAN 10 YEARS



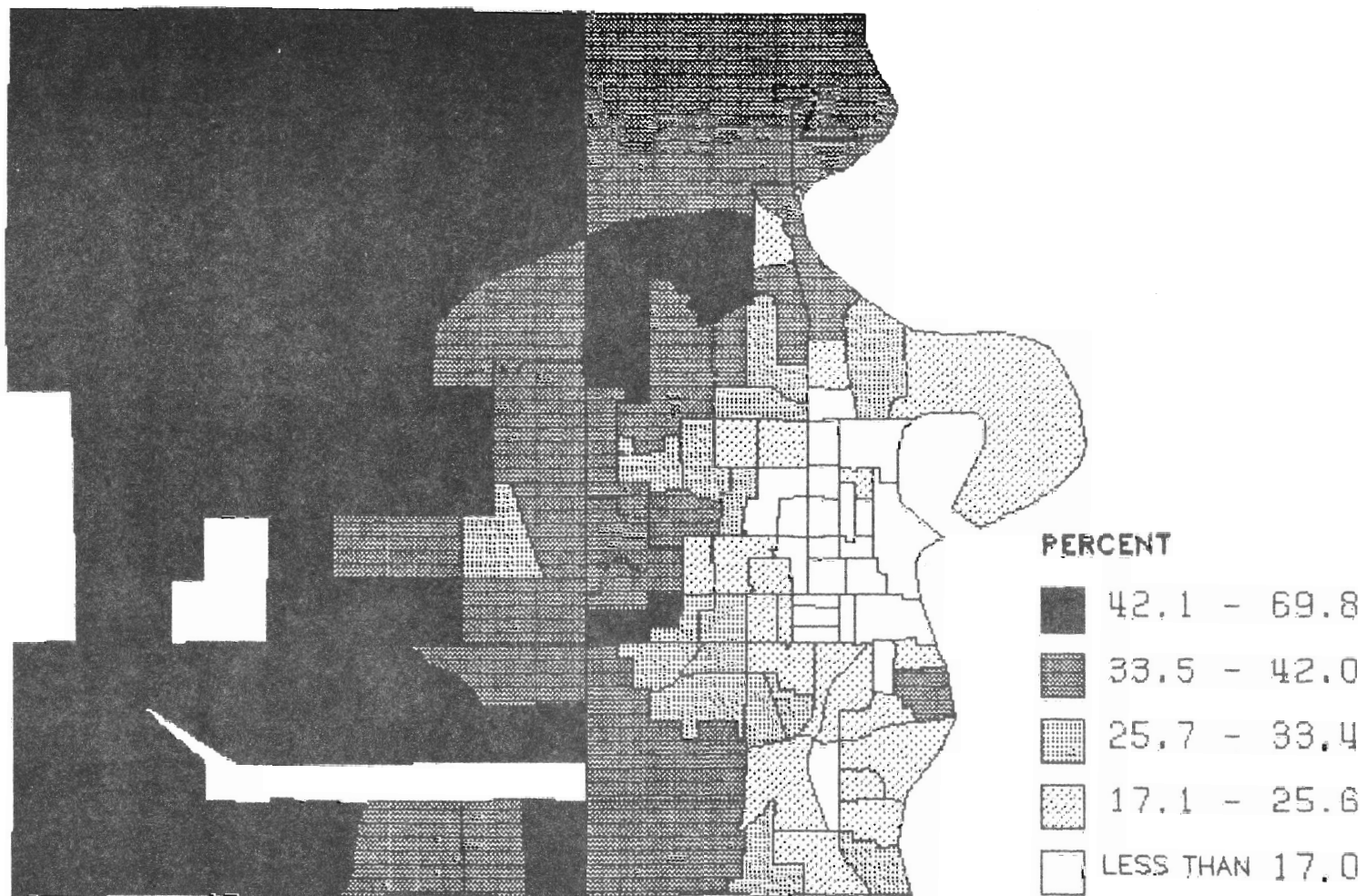
HOUSEHOLDS WITH NO VEHICLE



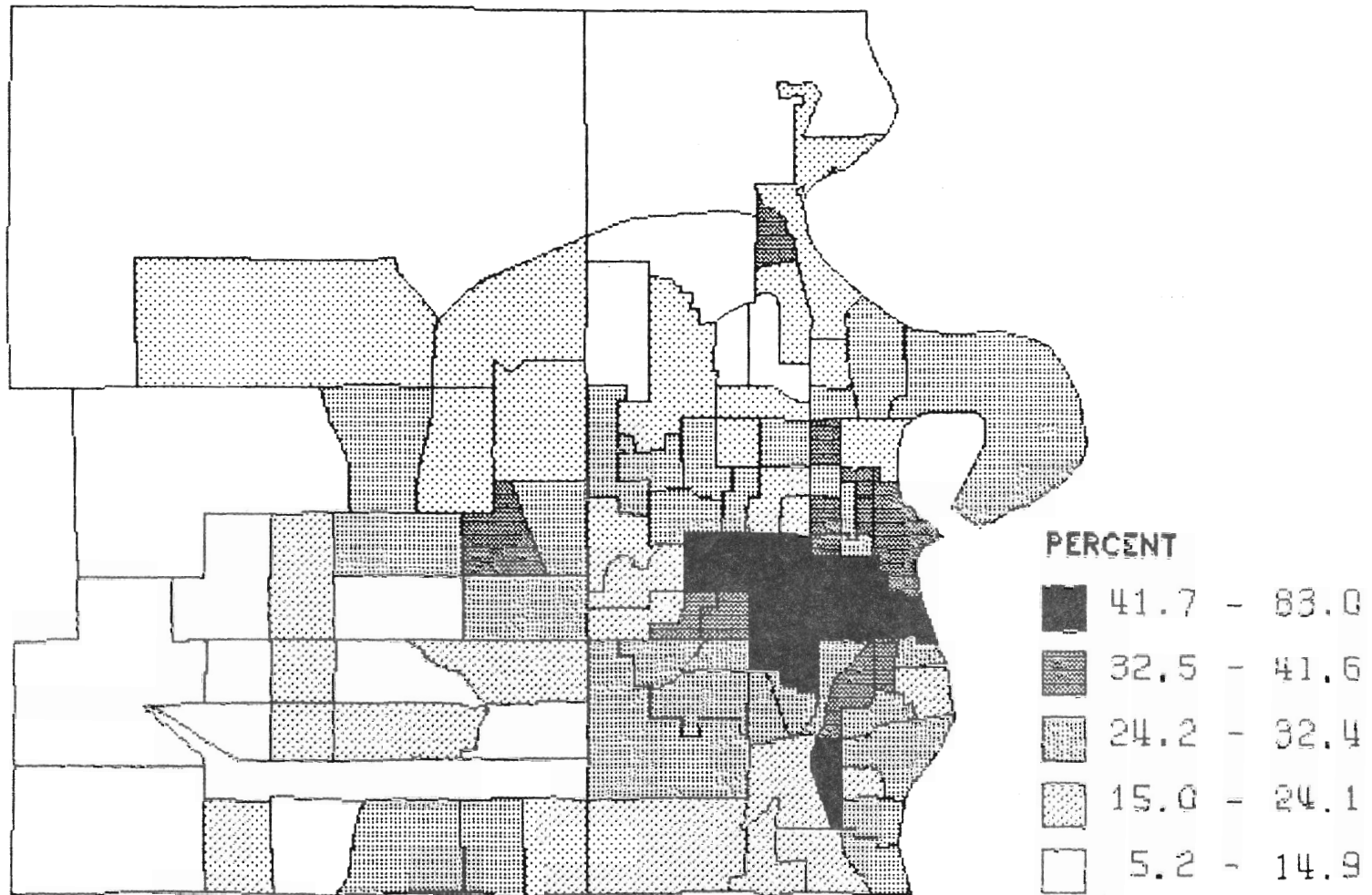
HOUSEHOLDS WITH ONE VEHICLE



HOUSEHOLDS WITH TWO VEHICLES



HOUSEHOLDERS LIVING ALONE



The Making of This Atlas

All of the maps in this atlas were created using computer equipment at the Remote Sensing Applications Laboratory at the University of Nebraska at Omaha. The laboratory houses a computer image-processor usually used in the analysis of satellite imagery. For this project, the image-processor was used to create the computer maps of Omaha. The process involved creating a rasterized base-map of Omaha, shading of census tracts to reflect value, and output to a dot-matrix printer. Approximately five minutes is required to print each map.

During the five minutes required to produce each map the computer standardizes and classifies the data-values. Standardization is performed by dividing the data-values by a reference value. For example, in the following map of population density, the population of each census tract has been divided by the amount of area in each census tract. This division standardizes the data-values. All of the maps in this atlas have gone through the process of standardization.

Each of the maps in this atlas has also been subjected to a classification, reducing the data to five categories. The classification procedure used on most of the maps was the standard deviation method. This technique assumes that the data values being mapped have a normal or bell-shaped distribution. The mean and standard deviation of each data set are computed. Class-breaks are then based on specific deviations from the mean to assure a relatively equal number of observations (census tracts) in each class (class-breaks at 0.26 and 0.84 of the standard deviation from the mean). This method of classification has its basis in statistics and, because it is based on deviations from the mean, it also facilitates the determination of relationship (correlation) between maps.

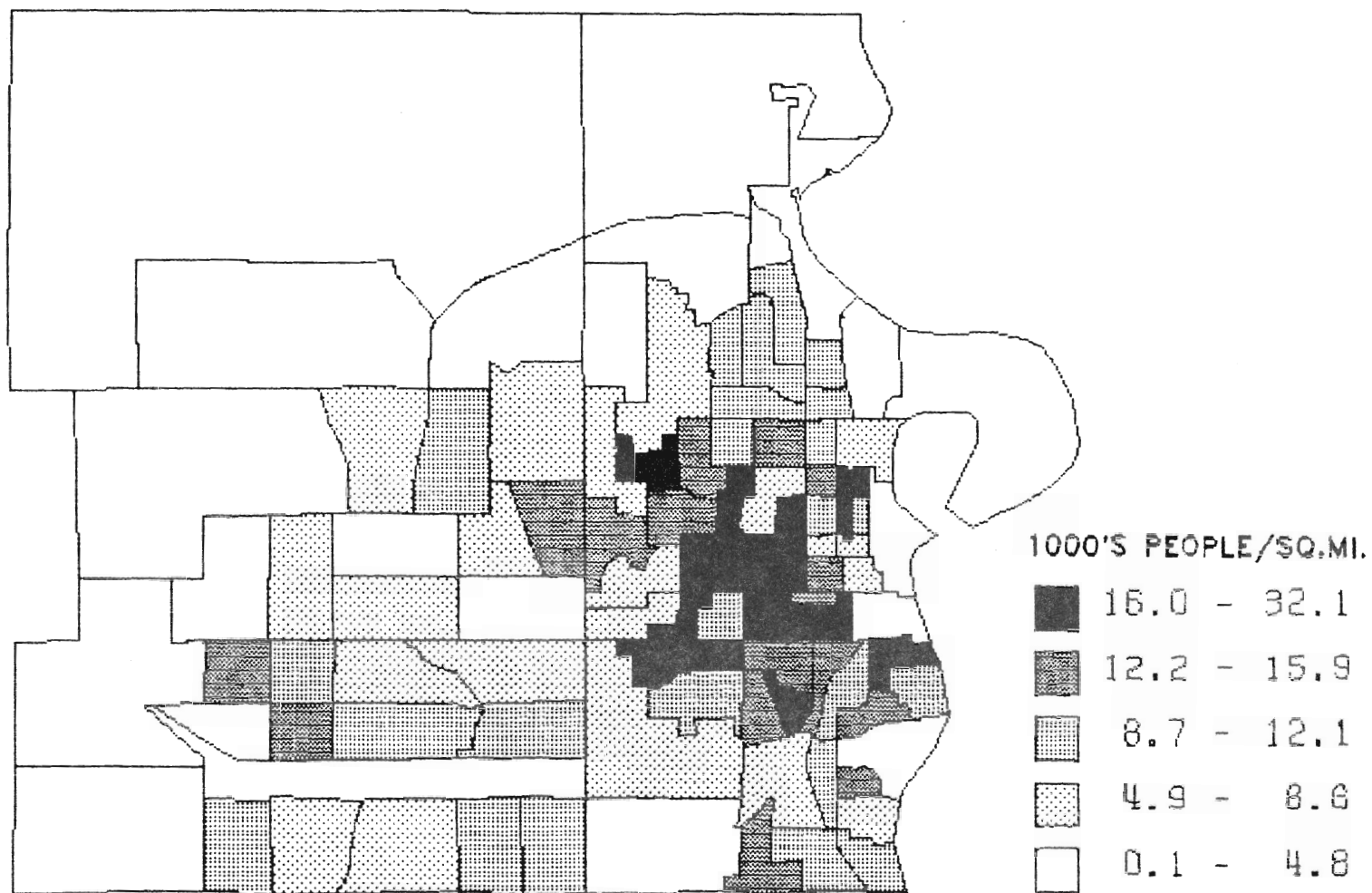
If a set of data cannot be characterized by a bell-shaped distribution but rather is skewed to one side of the range or the other, then the standard deviation classification is not appropriate. In these cases, the equal-interval classification was used. This technique divides the range between the lowest and highest data values by the number of classes (five in this case). This value is then used in determining the class breaks. Thirteen of the sixty maps used this classification technique (see pages 76 & 77).

Census tract 74.05, which corresponds to Boys Town, and census tract 74.10, which is an industrial zoned area adjoining Interstate 80 were not included in the classification process. Boys Town is an institution that is not representative of the city of Omaha as a whole. Census tract 74.10 has a population of only 46 people. Both census tracts have been left white on all of the maps.

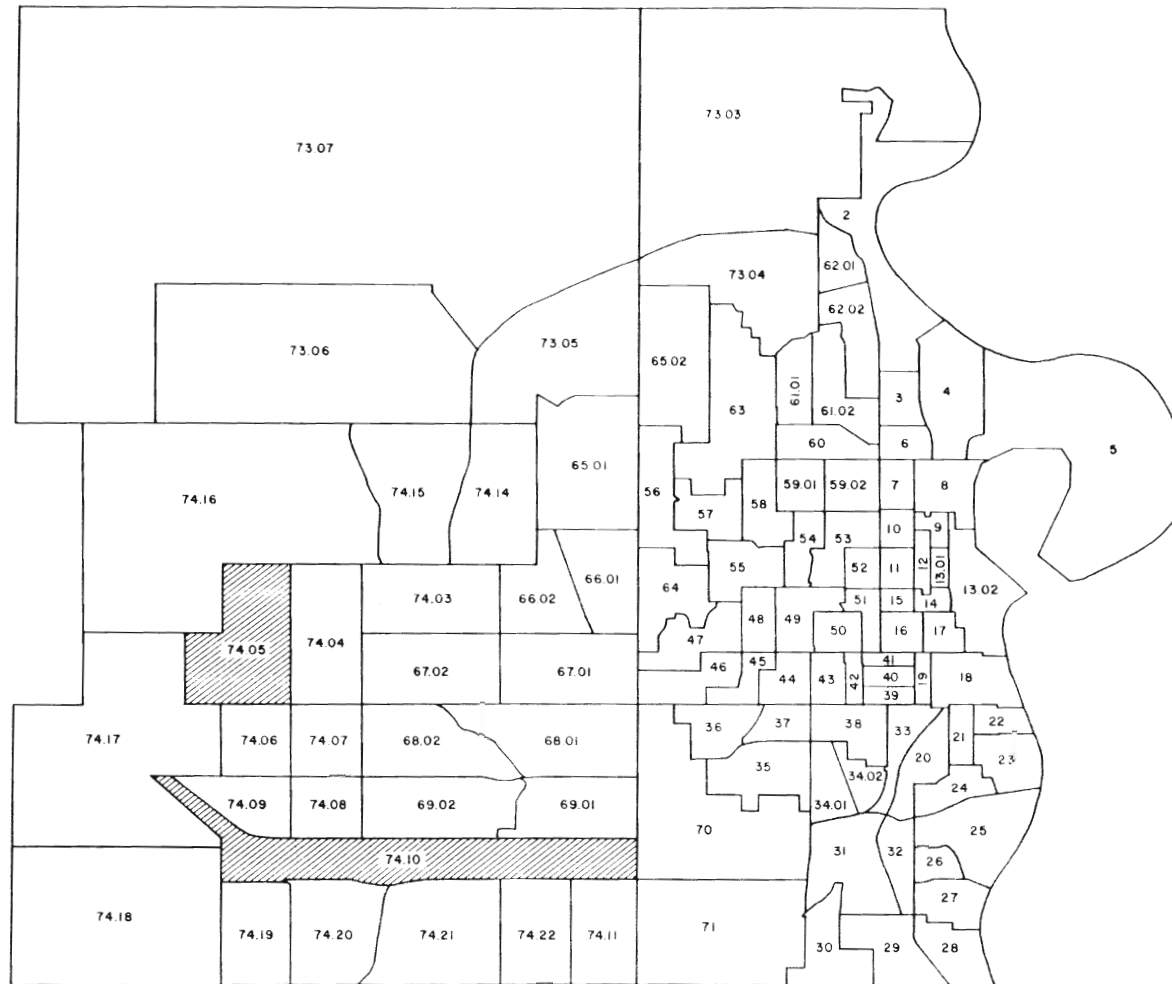
Availability of Maps

All maps in this atlas are available in color or black and white in the form of slides, photographic prints and overhead transparencies.

POPULATION DENSITY



OMAHA AREA CENSUS TRACTS



MAP TITLE	SOURCE/DATE	CLASSIFICATION
AGE GROUPS		
1-4 Years of Age.....	CPH, 1980	Standard Deviation
5-9 Years of Age.....	CPH, 1980	Standard Deviation
10-14 Years of Age.....	CPH, 1980	Standard Deviation
15-19 Years of Age.....	CPH, 1980	Standard Deviation
Under 18 Years of Age.....	CPH, 1980	Standard Deviation
20-24 Years of Age.....	CPH, 1980	Standard Deviation
25-44 Years of Age.....	CPH, 1980	Standard Deviation
45-64 Years of Age.....	CPH, 1980	Standard Deviation
Over 62 Years of Age.....	CPH, 1980	Standard Deviation
Over 75 Years of Age.....	CPH, 1980	Standard Deviation
Dependent Population.....	CPH, 1980	Standard Deviation
EDUCATION, EMPLOYMENT AND ANCESTRY		
High School Graduates Over Age 25.....	CPH, 1980	Standard Deviation
Over Age 25 With 4 or More Years of College...	CPH, 1980	Standard Deviation
Unskilled Workers.....	MPA, 1980	Standard Deviation
Professional Workers.....	MPA, 1980	Standard Deviation
Black Population.....	CPH, 1980	Equal Interval
Irish Ancestry.....	CPH, 1980	Equal Interval
Italian Ancestry.....	CPH, 1980	Equal Interval
Polish Ancestry.....	CPH, 1980	Equal Interval
Spanish Ancestry.....	CPH, 1980	Equal Interval
INCOME GROUPS		
Per capita Income.....	CPH, 1980	Standard Deviation
Mean Household Income.....	CPH, 1980	Standard Deviation
Household Income Less Than \$5,000.....	CPH, 1980	Standard Deviation
Household Income \$5,000-\$9,999.....	CPH, 1980	Standard Deviation
Household Income \$10,000-\$14,999.....	CPH, 1980	Standard Deviation
Household Income \$15,000-\$19,999.....	CPH, 1980	Standard Deviation
Household Income \$20,000-\$24,999.....	CPH, 1980	Standard Deviation
Household Income \$25,000-\$34,999.....	CPH, 1980	Standard Deviation
Household Income \$35,000-\$49,999.....	CPH, 1980	Standard Deviation
Household Income More than \$50,000.....	CPH, 1980	Equal Interval
Families Below the Poverty Level.....	CPH, 1980	Equal Interval

MAP TITLE	SOURCE/DATE	CLASSIFICATION
INCOME GROUPS		
Households Receiving Public Assistance.....	CPH,* 1980	Standard Deviation
Households With Social Security Income.....	CPH, 1980	Standard Deviation
Single Income Families.....	CPH, 1980	Standard Deviation
Two Income Families.....	CPH, 1980	Equal Interval
Mean Family Income: No Workers.....	CPH, 1980	Equal Interval
Mean Family Income: One Worker.....	CPH, 1980	Standard Deviation
Mean Family Income: Two Workers.....	CPH, 1980	Standard Deviation
HOUSING CHARACTERISTICS		
Housing Unit Density.....	CPH, 1980	Standard Deviation
Mean Household Size.....	CPH, 1980	Standard Deviation
Single-Family Dwelling Units.....	MPA,**1984	Standard Deviation
Multi-Family Dwelling Units.....	MPA, 1984	Standard Deviation
Median Housing Unit Value.....	CPH, 1980	Standard Deviation
Housing Valuation Less Than \$25,000.....	CPH, 1980	Standard Deviation
Housing Valuation \$25,000-\$39,999.....	CPH, 1980	Standard Deviation
Housing Valuation \$40,000-\$49,999.....	CPH, 1980	Equal Interval
Housing Valuation \$50,000-\$79,999.....	CPH, 1980	Equal Interval
Housing Valuation More Than \$80,000.....	CPH, 1980	Equal Interval
Owner Occupied Housing Units.....	CPH, 1980	Standard Deviation
Renter Occupied Housing Units.....	CPH, 1980	Standard Deviation
Median Contract Rent.....	CPH, 1980	Standard Deviation
Vacant Housing Units.....	CPH, 1980	Standard Deviation
Residence Tenure 1-2 Years.....	MPA, 1984	Standard Deviation
Residence Tenure 3-5 Years.....	MPA, 1984	Standard Deviation
Residence Tenure 6-9 Years.....	MPA, 1984	Standard Deviation
Residence Tenure More Than 10 Years.....	MPA, 1984	Standard Deviation
Households With No Available Vehicle.....	CPH, 1980	Standard Deviation
Households With One Available Vehicle.....	CPH, 1980	Standard Deviation
Households With Two Available Vehicles.....	CPH, 1980	Standard Deviation
Householders Living Alone.....	CPH, 1980	Standard Deviation

* U.S. Census, 1980: Census of Population and Housing. Washington: Government Printing Office, 1980.

** Market Profile Analysis NE-IA SMSA 1984. Data used with permission of Donnelley Marketing Information Services, Stamford, Connecticut, 1984