GAO

June 1994

RENTAL HOUSING

Use of Smaller Market Areas to Set Rent Subsidy Levels Has Drawbacks

GAO United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-246564

June 24, 1994

Congressional Recipients

This report, mandated by the Cranston-Gonzalez National Affordable Housing Act of 1990, examines (1) the effects of basing housing subsidy payments under the Department of Housing and Urban Development's (HUD) Section 8 program on smaller market areas, including any impacts that doing so would have on recipient households' access to education and employment, and (2) the extent to which payments made under the current program have an inflationary effect on rental rates in surrounding areas. As required by the act, the report also provides information on, among other things, where Section 8 households live and their proximity to key services and businesses.

We are sending copies of this report to congressional committees and subcommittees interested in housing; the Secretary of Housing and Urban Development; the Director, Office of Management and Budget; and other interested parties. We will also make copies available to others on request.

This work was performed under the direction of Judy A. England-Joseph, Director of Housing and Community Development Issues, who can be reached at (202) 512-7631, if you or your staff have any questions. Major contributors to this report are listed in appendix III.

Keith O. Fultz
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B-246564

List of Recipients

The Honorable Paul S. Sarbanes
Chairman
The Honorable Christopher S. Bond
Ranking Minority Member
Subcommittee on Housing and
    Urban Affairs
Committee on Banking, Housing,
    and Urban Affairs
United States Senate

The Honorable Henry B. Gonzalez
Chairman
The Honorable Marge Roukema
Ranking Minority Member
Subcommittee on Housing and
    Community Development
Committee on Banking, Finance,
    and Urban Affairs
House of Representatives

Executive Summary

Purpose

A major component of our national housing policy is providing needy households with rental assistance payments to help ensure that they are able to live in adequate housing. To do this, the Department of Housing and Urban Development (HUD) provides rent subsidies to low- and very-low-income households. This program, commonly known as the Section 8 program in reference to its legislative authorization in section 8 of the U.S. Housing Act (42 U.S.C. 1437f), served over 1 million households at a cost of about $7 billion in 1992. The amount of rental assistance that an individual household receives varies with the market area in which the household is located. The size and nature of a market area can vary greatly: Entire states, large metropolitan areas, and medium-sized cities can all be considered market areas.

Because of concerns that these market areas are too broadly defined to permit rental assistance payments that reflect the true market rents, the Congress mandated, in the Cranston-Gonzalez National Affordable Housing Act of 1990 (P.L. 101-625), that GAO determine (1) the effects of basing rent subsidy payments on smaller market areas, including any impacts that doing so would have on recipient households' access to education and employment, and (2) the extent to which payments made under the current program have an inflationary effect on the rental rates in surrounding areas. Under the mandate, GAO was also asked to provide information on, among other things, where Section 8 recipients were living and their proximity to key services and businesses. This information is included as appendix I. GAO was asked to base its analysis on four market areas—Oklahoma City, Oklahoma; Seattle, Washington; Washington, D.C.; and Wilmington, Delaware.

Background

The Section 8 program provides rental subsidies to qualified households by paying a monthly stipend to private landlords. Under the current program, the amount of rental assistance given to individual households is limited by ceiling rents. HUD establishes these ceiling rents—called fair market rents—for over 2,700 market areas. Of the more than 2,700 market areas, over 300 are in major metropolitan areas. Most Section 8 recipients reside in metropolitan areas.

HUD sets the fair market rent at the 45th percentile of a market area's rental housing; that is, the level at which about 45 percent of an area's rental housing can be obtained. In general, the fair market rent for an area is the amount needed to pay the gross rent (shelter plus utilities) for modest, decent, safe, and sanitary housing. The level at which these rents

is set is critical because it determines the range of housing choices available to recipients. HUD tries to set fair market rents that strike a balance between permitting the assisted households a wide selection of units and neighborhoods and serving as many households as possible.

Results in Brief

GAO's review indicates that fair market rents established on the basis of smaller market areas would more closely reflect the 45th percentile of rents within those areas and result in rent subsidies that could provide the assisted households with a wider choice of housing. However, such a change may not be advantageous for the following reasons:

- The cost of collecting the additional data needed to accurately and reliably determine and update fair market rents could be substantial—ranging from $5 million to as much as $750 million annually.
- The costs per assisted household could increase and result in a smaller number of households being served by the Section 8 program unless the program's total funding were increased, which is unlikely. Program costs could increase if the assisted households moved from market areas where the fair market rent was reduced to market areas where it was increased. In addition, costs could rise if fair market rents were allowed to increase but not decrease from the current levels.
- The fair market rent could decrease in some areas, thereby restricting housing choices for the assisted households seeking units in those areas.
- Because public transportation is available in many places, using smaller market areas to set fair market rents may have little, if any, effect on access to employment or educational opportunities. However, this report does not examine the quality of the employment or education available.

GAO found little evidence to support the concern that the fair market rent levels established for the Section 8 program have an inflationary effect on marketwide rental rates. The findings of a case-study analysis that GAO did for this review were consistent with those of a landmark social science research project—a major study of the marketwide effects of a tenant-based housing subsidy program—conducted in the 1970s, which showed no indication that the presence of a housing subsidy increased rents for the market as a whole.

Principal Findings

Using Smaller Market Areas to Set Fair Market Rents Has Drawbacks

In general, fair market rents based on smaller geographic areas would better reflect the rent levels typically prevailing within those smaller areas. However, significant differences can exist among market areas, and the rental characteristics in a given market area may not warrant a change to smaller market areas. For example, the Washington, D.C., market area is made up of the District of Columbia and 10 surrounding counties. In all 11 jurisdictions, the assisted households received a rental housing subsidy based on the 45th-percentile rent of $679 a month.[1] This rent level was intended to provide the households with access to similar, modest housing at the prescribed 45th percentile of the market. However, to give the assisted households access to 45 percent of the housing units in their county, one county needed a rent level of $779 a month, while another needed only $478—a difference of $301 a month. As a result, the assisted households choosing to live in the county for which the 45th-percentile rent was $779 a month had access to only about 23 percent of the housing in that county, while the assisted households choosing to live in the county for which the 45th-percentile rent was $478 a month had access to over 73 percent of the available housing.

For a large, multijurisdictional metropolitan statistical area (MSA) like Washington, D.C., fair market rents calculated for individual counties would provide the assisted households with access to the same percentage of the available housing units in each jurisdiction. In some areas, access to housing would expand; in others, it would be restricted. Thus, if the fair market rents were calculated for smaller areas, the assisted households choosing to live in some areas could gain access to higher-quality housing units than the assisted households choosing to live in other areas within the broader metropolitan area.

In Seattle, Washington, the variation in the 45th-percentile rents between the major jurisdictions is not nearly as significant as it is in the Washington, D.C., area. Only two counties make up the Seattle MSA, and the 45th-percentile rent levels vary by only $19 a month between these counties. The impact that using smaller market areas to set fair market rents would have on households' access to housing is not significant, and it is not clear that doing so would give the assisted households access to a wider choice of housing in the area.

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[1] HUD computed this rent level in 1993 on the basis of data on two-bedroom housing units from the 1990 decennial census.

Furthermore, while rents based on smaller market areas would more closely reflect the 45th-percentile rents of local market areas, this approach would increase program costs and do little to improve the availability of public transportation, which allows the assisted households access to employment and education. Additional data would be required to establish and update the fair market rents to fit the newly defined market areas. Acquiring the new data would cost money. The cost would depend on how the new smaller market areas were defined, but basically, the cost would increase as the size of the market area decreased. GAO's analysis showed that this additional cost could range from $5 million to $750 million annually.

Using smaller market areas to calculate and update fair market rents could cause them to rise in some areas and decrease in others. Program costs could be affected if households chose to move to areas where the fair market rent increased as a result. Furthermore, HUD officials are concerned that the Congress may permit fair market rents to increase but not decrease. The Congress has used such a "hold-harmless" approach in the past. If fair market rents were not allowed to decrease, the program's cost per assisted household would increase considerably. As a result, fewer households could be assisted if the program's total funding remained at the same level. Under current budgetary constraints, it is unlikely that HUD would be able to increase the funding for the program.

The effect on access to employment and education of basing fair market rents on smaller market areas is unclear. Assisted households' access to employment and education depends largely on the availability of public transportation. GAO found no clear pattern suggesting that such access would increase or decrease if the market areas were smaller. In the areas included in GAO's review, public transportation was generally available.

Increases in Fair Market Rents Do Not Appear to Raise Areawide Rents

GAO found little evidence that increases in fair market rents cause increases in marketwide rent levels. Housing officials GAO spoke with generally believed that such inflationary effects were not a problem. Furthermore, in one city where the Section 8 program was alleged to have had inflationary effects on rental rates, GAO found no evidence to support the claim. While rental rates in the area as a whole did increase, factors other than the level of the fair market rent were the likely cause. Moreover, a comprehensive experimental study of the marketwide effects of a tenant-based housing subsidy program found that, in general, the

presence of these kinds of housing subsidies had little or no effect on areawide rent levels.

Recommendations

This report contains no recommendations.

Agency Comments

GAO discussed the contents of this report with HUD's Deputy Assistant Secretary and Director, Division of Economic and Market Analysis, in the Office of Policy Development and Research, and Director, Branch Operations, in the Office of Assisted Housing. These officials generally concurred with our findings and conclusions. We have incorporated their comments where appropriate. However, as requested, GAO did not obtain written agency comments on a draft of this report.

Many of HUD's comments provided updated information on processes and procedures that HUD has instituted to increase the accuracy of fair market rent calculations and improve the agency's process for setting the levels. For example, HUD now uses census data at the local level to set fair market rents for units with any number of bedrooms. HUD previously based its calculation on two-bedroom units. In addition, HUD is planning to submit to the Congress legislation outlining a new system for setting the fee it pays to public housing agencies for administering the Section 8 program.

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Abbreviations

AHS	Annual Housing Survey
CD-ROM	compact disk-read only memory
CPI	consumer price index
DMIS	Donnelly Marketing Information Services
EHAP	Experimental Housing Allowance Program
FMR	fair market rent
GAO	General Accounting Office
GIS	geographic information system
HH	households
HUD	Department of Housing and Urban Development
MCD	minor civil division
MSA	metropolitan statistical area
PHA	public housing agency
PMSA	primary metropolitan statistical area
RDD	random digit dialing

Introduction

The federal government, through the Department of Housing and Urban Development (HUD), provides rent subsidies to low- and very-low-income households through its Section 8 housing assistance program.[1] For purposes of this program, "lower-income" families are generally defined as those earning 80 percent or less of the median income for the area in which they live, while "very-low-income" families are defined as those earning 50 percent or less of their area's median income, adjusted for family size. The program provides subsidies to tenants by paying a monthly stipend to a private landlord on their behalf. Assisted households generally pay 30 percent of their income for rent, while the government pays the landlord the difference between the tenant's payment and an approved monthly rent. In 1992, over 1 million households nationwide were assisted under this program, at a cost approaching $7 billion.

Under Section 8, rental assistance payments are limited by fair market rents (FMR), established for different housing market areas. In general, the FMR for an area is the amount that would be needed to pay the gross rent (shelter plus utilities) of privately owned, decent, safe, and sanitary rental housing of a modest (nonluxury) nature. Specifically, the FMR is set at the 45th percentile of an area's rental housing; that is, the level at which about 45 percent of a market area's rental housing can be obtained. HUD establishes FMRs annually for 2,709 market areas—354 metropolitan areas and 2,355 nonmetropolitan counties.

FMRs are ceiling rents used in calculating the amount of the federal housing subsidy provided to Section 8 recipients. The levels at which FMRs are set determine the range of choices and the quality of housing available to Section 8 recipients. HUD sets FMRs to ensure that a sufficient supply of rental housing is available to program participants. To accomplish this objective, HUD tries to set FMRs high enough to provide recipients with a wide selection of units and neighborhoods but still low enough to serve a maximum number of very-low-income families.

Because of concerns that the current market areas are too large—sometimes including jurisdictions in three states and more than 10 counties—for one FMR to accurately represent rents for modest housing throughout the market, the Congress directed us to determine the feasibility and effects of establishing FMRs for areas that are geographically smaller than the current market areas.

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[1]The program was authorized in section 8 of the United States Housing Act of 1937 (42 U.S.C. 1437f).

How the Section 8 Program Works

Through its Section 8 program, HUD provides rental housing assistance to families in two different ways, known as the certificate program and the voucher program. The goal of both programs is to provide subsidies that enable low-income families to live in private rental housing that is decent, safe, and affordable. Both programs, which are administered by local public housing agencies (PHA), subsidize rental expenses by paying a portion of a recipient household's rent. However, the two programs differ in (1) the way in which the federal subsidy is calculated and (2) the extent to which the assistance is portable—that is, whether the households can use the assistance outside of the PHA's jurisdiction.

Voucher and Certificate Rental Assistance Is Computed Differently

A primary distinction between the certificate and voucher programs is the way in which the federal subsidy is calculated. Federal subsidies under the certificate program are based on the local FMR set by HUD and the actual rent paid to a private landlord. Rents generally must be less than or equal to the local FMR. The assisted family pays 30 percent of its monthly adjusted income for rent, while the government pays the landlord the difference between the tenant's payment and an approved monthly rent.

Federal subsidies under the voucher program are computed on the basis of a locally determined payment standard, an amount that may not be less than 80 percent of the published FMR. The PHA generally subtracts 30 percent of the family's monthly adjusted income from this standard to arrive at the monthly housing subsidy, which is paid to the landlord on the family's behalf. Voucher holders may choose to contribute more than 30 percent of their income for rent and lease a unit that rents for more than the applicable payment standard. Alternatively, voucher holders may spend less than 30 percent of their income for rent by leasing a unit that rents for less than the applicable payment standard. As a result, voucher holders have greater flexibility in deciding whether to purchase more housing or use their income for other purposes. This feature is not present in the certificate program.

Portability of Certificate and Voucher Assistance Differs

The portability of rental assistance—the ability to use certificates or vouchers outside the local PHA's jurisdiction—increases housing choice for assisted households and includes the ability to move to other areas of the country where, for example, employment opportunities might be better. The Congress has enacted portability provisions for both programs.

Under housing statutes enacted in 1988 and 1990, the Congress gave certificate and voucher holders the right to use their housing assistance in geographic areas other than those served by the issuing PHAs. The Congress also gave HUD the discretion to expand the portability opportunities from those stated in law. Households assisted through certificates may use their certificates in "the same state or the same or a contiguous Metropolitan Statistical Area" as that served by the issuing PHA. For the voucher program, HUD's rules have allowed vouchers issued by one PHA to be used to find assisted housing in the jurisdiction of any PHA administering the voucher program.[2] The rules also give a PHA the discretion to limit portability to 15 percent of the households in its voucher program.

In 1992, the Congress restricted portability somewhat by requiring that households that did not live within the jurisdiction of the issuing PHA be required to use their voucher or certificate in the jurisdiction of the issuing PHA for 12 months before they could move to another PHA's jurisdiction and continue to receive housing assistance. This change limits "waiting list shopping," in which Section 8 applicants shop for the PHA with the shortest waiting list by applying at numerous housing agencies, with no intention of moving to the jurisdiction of the PHA that issues the certificate or voucher.

Under current HUD rules, the "receiving" PHA has the option of (1) absorbing a household that transfers to its jurisdiction by issuing one of its certificates or vouchers to the household or (2) billing the issuing PHA for a portion of the cost of the subsidy and the administrative fee that HUD pays the PHA.

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[2]In February 1993, HUD issued proposed rules that, if put into effect, would generally require nationwide portability for both certificates and vouchers. However, to date the rules have not been finalized.

Market Areas for Determining FMRs Are Defined According to Standard Criteria

FMR calculations are based on defined housing market areas. HUD has adopted the metropolitan-area geographic unit established by the Office of Management and Budget (OMB) as the housing market area on which to base FMRs. These housing market areas are recognized as metropolitan statistical areas (MSA) and primary metropolitan statistical areas (PMSA). To establish MSAs, OMB applies a standard set of criteria to population and commuting data from the decennial census.[3] HUD uses MSAs as the basis for FMR areas because of the close correspondence that typically exists between these areas and housing market areas. FMRs are intended to be marketwide estimates of rents that provide housing opportunities throughout the geographic area in which rental housing units are in direct competition. MSAs generally consist of one or more counties, except in New England where MSAs are made up of cities and towns.

One drawback to the use of OMB's MSAs is that the number and size of these areas may change with each decennial census. For example, new information in the 1990 census resulted in an increase in the number of MSAs, from 341 to 354, and in the geographic size of some MSAs. These larger MSAs, according to a HUD economist, may not necessarily reflect true market relationships and, as a result, do not always represent HUD's definition of housing market areas.

For instance, after reviewing OMB's 1992 revised definitions of metropolitan areas, HUD deviated from those changes for a number of large metropolitan areas for the proposed fiscal year 1994 FMR estimates. A HUD economist stated that in some cases, the new definitions covered a geographic area too large to be considered a housing market. For example, contrary to OMB's new definition, HUD modified the Washington DC-MD-VA MSA by deleting counties that OMB added to the metropolitan area. OMB's new definition—the Washington DC-MD-VA-WV PMSA—added 7 counties and 2 cities to the 10 counties, the District of Columbia, and 5 cities that already constituted the MSA. HUD deviated from OMB's revised market areas by deleting six counties. All of the analysis performed in this report is based on the MSA definitions that were in effect before the changes that took place in December 1992.

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[3]The Bureau of the Census uses "MSA" as a generic term for metropolitan statistical areas, primary metropolitan statistical areas, and/or consolidated metropolitan statistical areas. An MSA is a geographic area consisting of a large population nucleus and the adjacent communities that have a high degree of economic and social integration with that nucleus. If an area has a population of more than 1 million and meets certain specified requirements, it is termed a consolidated MSA (CMSA). If the CMSA is divided into two or more major components, each component is recognized as a primary MSA (PMSA).

For the 2,355 nonmetropolitan areas, HUD has defined FMR areas by counties and, in the New England states, parts of counties, because these areas also represent housing markets. Unless these counties become part of a metropolitan area, HUD has continued to use the counties as its FMR areas.

HUD Uses Four Data Sources to Set FMRs

HUD uses four data sources in establishing and updating FMRs. Three of these sources are used to make "base-year" estimates of the FMR. They are the (1) decennial census, (2) American Housing Survey (AHS), and (3) random digit dialing (RDD) telephone surveys. Base-year FMRs are then updated and projected forward using data from the consumer price index (CPI) for rents and utilities or the regional updating factors that HUD develops from RDD surveys.

HUD sets FMRs to reflect the cost of two-bedroom units at the 45th percentile.[4] The 45th-percentile rent estimates represent a level at which roughly 45 percent of a market area's rental housing can be obtained.

HUD makes adjustments to this baseline for units of other sizes and quality using data from the AHS. The AHS, which is conducted by the Bureau of the Census for HUD, collects data on the structural characteristics of housing (e.g., the number of bedrooms and the availability of plumbing) and gross rents (i.e., the cost of shelter and utilities). The AHS includes both a national sample conducted every 2 years and a sample of 44 MSAs covering 72 FMR areas and the four census regions. The sample is taken during a 3-to 4-year period; approximately 11 areas are surveyed annually. According to HUD officials, these 44 metropolitan areas include about 50 percent of the total renter population nationwide. In the Federal Register, HUD states that it uses AHS data to calculate the 45th-percentile rent from the distribution of two-bedroom units occupied by people who have recently moved. Public housing units that would tend to have lower-than-market rents, newly constructed units that tend to have higher rents, and units that fail a housing quality test—for example, units lacking adequate heating or plumbing—are excluded from the distribution before the calculation is made. The resulting estimate becomes the base-year rent for the area.

In addition, because HUD recognized that there were weaknesses in the data it used for updating FMRs, it sought to improve its FMR estimates by funding additional rent surveys. HUD began using the telephone survey

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[4]Since the time we collected information for this report, HUD has changed the method it uses to compute FMRs at the 45th percentile. HUD now uses census data at the local level to set FMRs for units of all sizes (that is, any number of bedrooms).

technique called RDD—a sampling procedure in which computers are used to select statistically random samples of rental housing, dial, complete a survey, keep track of telephone numbers, and tabulate responses. HUD annually conducts two types of surveys: the regional RDD survey used to update FMR estimates and 60 area-specific surveys. The regional RDD survey is actually 20 surveys, one each for the metropolitan and nonmetropolitan parts of each of the 10 HUD regions. The area-specific surveys target individual metropolitan and nonmetropolitan FMR areas within the regions. These surveys are designed to reliably estimate the rents being paid for two-bedroom units. The resulting estimates are used in setting and updating base-year FMRs for specific areas.

To annually adjust the base-year FMRs for inflation, HUD uses both the 28 local CPI surveys and the 20 regional RDD surveys. The Department of Labor conducts CPI surveys each month in 85 metropolitan areas, publishing data on 28 individual metropolitan areas separately and using all 85 metropolitan areas to develop estimates for the four census regions.[5] In addition, Labor publishes estimates for four classes of cities within each region, based on population size. HUD applies inflation factors to the 103 FMR areas encompassed by the 28 metropolitan areas using local CPI surveys. For the remaining metropolitan and nonmetropolitan market areas, HUD uses factors that affect changes in rents within regions developed from data collected through its 20 regional RDD telephone surveys. HUD officials stated that these annual regional RDD surveys represent significant advances in the procedures for estimating FMRs, especially for nonmetropolitan areas, because both the metropolitan and nonmetropolitan areas covered by these surveys are much smaller and more homogenous than the census region areas used for the CPI surveys. Table 1.1 summarizes the data sources that HUD uses to set and adjust FMRs.

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[5]A census region is a large grouping of states for the presentation of census data. The four census regions are the Northeast, Midwest, South, and West.

Table 1.1: Data Sources Used to Calculate FMRs

Data source	Frequency	Scope of data	Purpose
Decennial census	Every 10 years	National sample of rental units	Establish base-year FMRs
American Housing Survey (AHS)	Every 2 years	National sample	Adjust base-year rents for units of other sizes and housing quality
	Annually	11 of 44 metropolitan areas on a rotating basis and four census regions	Set base-year rents
Random digit dialing (RDD)	Annually	10 HUD regions (metropolitan and nonmetropolitan)	Develop rent-change factors to update FMRs for a region
		60 FMR areas	Set and update base-year rents for specific FMR areas
Consumer price index (CPI)	Monthly	28 metropolitan areas, four census regions, and three to four city-sized classifications	Develop inflation factors to update FMRs for 103 FMR areas

Current Process for Setting FMRs May Not Accurately Capture Rental Costs

Under the current annual process for setting FMRs, the accuracy of the data influences whether or not the FMR is set at a level that provides assisted households with access to 45 percent of the rental housing in a market area.[6] If the housing allowance is too low, an assisted household's access to modest housing at the 45th percentile may be limited. That is, less than 45 percent of the housing in the area may be available to that household. If the housing allowance is too high, more than 45 percent of an area's housing stock will be available to that household.

HUD relies on national data to provide a consistent and efficient method for establishing FMRs nationwide. However, because of data limitations, the FMR may not always accurately capture rental costs in a particular rental market. That is, because the data used in establishing FMRs can be up to 10 years old when the FMR takes effect, the FMR does not always reflect current rents. In addition, because some data used in adjusting FMRs are collected for very large geographic areas (e.g., through a national sample,

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[6]A HUD official stated that the FMR standard is set at the 45th percentile of housing for the recent distribution of people who move, excluding substandard and public housing. Therefore, the amount of housing available is generally more than 45 percent of the rental housing in the market area.

or for a census region) the data may not accurately represent trends within smaller individual markets. HUD's use of RDD surveys is an effort to improve the data used to compute FMRs. RDD surveys are used to update virtually all FMRs, except in the 103 areas for which CPI data are used. While these surveys have helped address the problems of timeliness and geographic specificity inherent in the traditional data sources, their use to date has been limited to a few market areas.

HUD's Administrative Process Provides for Revisions to FMRs When Justified

Because HUD recognizes that FMRs are not always accurate for all market areas, it provides administrative channels for correcting FMRs. Specifically, HUD annually publishes its proposed FMRs in the Federal Register for public comment. During the public comment period, interested parties may appeal the proposed FMRs by submitting written evidence to HUD showing that actual rents in their community are different from the proposed FMR. To be considered, the comments must include statistically valid rental housing survey data justifying the recommended changes.

In addition, with some limitations, PHAs have the opportunity to request exceptions to the FMR. Exceptions are allowed to compensate for variations in rent levels and rental housing characteristics within individual housing markets—for both the unit and the geographic area. For example, increases in the FMR can be requested to (1) obtain units that are accessible to the handicapped, (2) operate the program in a high-cost suburban submarket of a MSA, or (3) make available a greater number of units of a specific size (e.g., larger units) or structural type (e.g., detached or townhouse construction).

Objectives, Scope, and Methodology

Section 558 of the Cranston-Gonzalez National Affordable Housing Act of 1990 (P.L. 101-625) directed GAO to report to the Congress on the feasibility and effects of establishing fair market rent areas that are geographically smaller than the current market areas. In response to the mandate and subsequent agreements with the offices of the congressional recipients, it was agreed that the objectives of our work would be the following:

- Determine whether the establishment of smaller market areas would (1) more accurately reflect rent variations within market areas, (2) improve housing opportunities for low-income families, and (3) provide low-income families with better access to opportunities for employment and education. (For purposes of this report, access to

employment and schools is determined by the availability of public transportation.)

- Determine whether, under the current system, fair market rents have an inflationary effect on overall rent levels within a market area.
- Provide information on where households receiving Section 8 assistance live and how the areas in which they live differ in terms of key neighborhood demographic characteristics; and proximity to services (health care, grocery stores, and schools), employment, and transportation.

In accordance with the mandate and subsequent discussions with the congressional committees, it was also agreed that our work would be limited to four market areas. These are the Washington, D.C., MSA; Wilmington, Delaware, PMSA; Oklahoma City, Oklahoma, MSA; and Seattle, Washington, PMSA. (See fig. 1.1.) Throughout this report, we use "MSA" as a generic term for both MSAS and PMSAS. While these four market areas are not representative of all MSAS, they represent different sizes, populations, and geographic locations of MSAS in the United States. As noted earlier, data in the 1990 census resulted in the redefinition of several metropolitan areas in December 1992. One of these areas was the Washington, D.C., MSA, to which OMB added seven counties and two cities. The new market area is known as the Washington DC-MD-VA-WV PMSA. For purposes of this report, we used the MSA definition in effect before this change took place.

Figure 1.1: MSAs Reviewed

Seattle, Washington, MSA

Washington, D.C., and Wilmington, Delaware, MSAs

Oklahoma City, Oklahoma, MSA
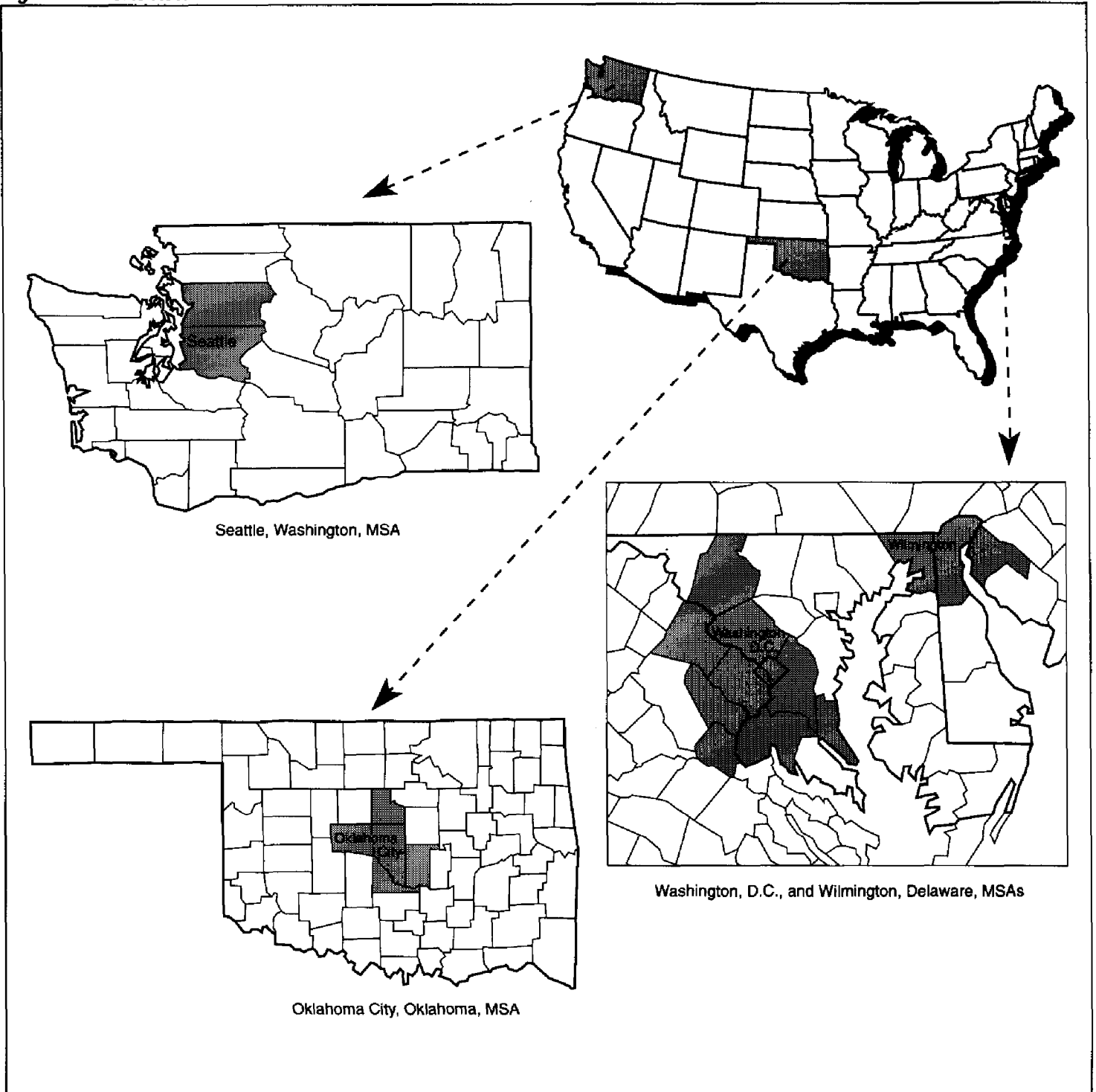
Information on the Section 8 Program

To develop basic information about the Section 8 program and how it worked in the four MSAs included in our review, we performed work at HUD headquarters' Economic Market Analysis Division (Office of Economic Affairs and Office of the Assistant Secretary for Policy Development and Research) and Rental Assistance Division (Office of Assisted Housing and Office of the Assistant Secretary for Public and Indian Housing). The Economic Division, which is responsible for setting and updating FMRs, provided us with technical information on the method used for calculating FMRs and the development of the FMR rent schedules for specific areas. The Rental Assistance Division, which administers the Section 8 program and the PHAs, provided us with information on the policies and procedures of the Section 8 certificate and voucher programs.

In addition, we did detailed audit work at four HUD regional offices and four HUD field offices. The following HUD regional and field offices had jurisdiction over the four MSAs included in our review:

- Region II (New York, New York), supervises and manages the Section 8 program in Salem County, New Jersey—one of the three counties that, during our review, made up the Wilmington, Delaware, MSA.[7] Its field office is located in Newark, New Jersey.
- Region III (Philadelphia, Pennsylvania), has jurisdiction over the other two counties that made up the Wilmington, Delaware, MSA—Cecil County, Maryland, and New Castle County, Delaware—and the Washington, D.C., MSA. The field offices that we visited are located in Philadelphia, Pennsylvania, and Washington, D.C., respectively.
- Region VI (Fort Worth, Texas), has jurisdiction over the Oklahoma City, Oklahoma, MSA. Its field office is located in Oklahoma City, Oklahoma.
- Region X (Seattle, Washington), covers the Seattle, Washington, MSA. This office is a co-located region/field office.

Smaller Market Areas' Impact on the Section 8 Program

The Congress is concerned that the boundaries of metropolitan statistical areas are too broadly defined to permit FMRs that reflect true market relationships. To determine whether smaller market areas would better reflect rents and improve access to housing and services, we discussed current program operations and HUD's process for calculating FMRs with program and economic staff in HUD's headquarters, regions, and field offices. We also interviewed officials from the 32 PHAs located in the four MSAs to learn how they administered the Section 8 program. In addition to

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[7]After OMB revised its definitions of metropolitan areas in December 1992, Salem County was no longer a part of the Wilmington, Delaware, MSA.

program and administration information, we sought HUD's and the PHAS'
views on the effectiveness of the current FMR process and the feasibility
and effects of establishing smaller market areas. Finally, we met with
representatives of various housing organizations to obtain their views on
the current FMR process and on the effect of using smaller market areas to
set FMRS.

In addition, we obtained and reviewed HUD's analysis of the rent
distributions in the 1990 decennial census. On the basis of the census's
distribution of two-bedroom housing units, HUD computed a
45th-percentile rent estimate for (1) the four MSAS under our review,
(2) each county that makes up the MSA, and (3) each minor civil division
(MCD)[8] within a county.[9] HUD also computed, for each of these areas, the
percentage of rental housing stock available at the 45th-percentile rent
ceiling. With these data, we compared the amount of rent variation and the
percentage of housing available to assisted households under the current
market area configuration and under an option in which smaller market
areas were used to set the FMR.

To assess whether families would have better access to employment and
education under a smaller market area, we first identified those MCDs that
experienced the greatest incremental change in housing availability as a
result of basing the 45th percentile on a smaller geographic area. For those
MCDS, we determined assisted households' access to major employers. In
addition, we assessed the availability of school buses or subsidized bus
fares to allow students to travel to the public elementary and secondary
schools. Finally, we determined what public transportation was available
in the market area and whether assisted households had access to it and to
employers.

We conducted our analysis of housing opportunities and access to services
at three geographic levels—MSAS, counties, and MCDS. The largest
geographic level that we use is the MSA, the unit HUD currently uses to
calculate FMRs. We also used the county level because it is a consistently

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[8]MCD is a geographic term used by the Bureau of the Census. In 28 states, it is the primary political
and administrative subdivision of a county. MCDs are identified by a variety of legal designations, such
as township, town, borough, magisterial district, or gore. In states where places are, or can be,
independent of any MCD, such places are recorded by the Census Bureau as "MCD equivalents" as well
as places.

[9]The 45th-percentile rent estimates provided in this report should not be confused with the
HUD-determined FMR. The 45th-percentile rent estimates represent a level at which roughly
45 percent of a market area's rental housing can be obtained. Although the FMR also reflects the 45th
percentile, it also includes HUD's required 2-percent housing quality adjustment and adjustments for
inflation.

used geographic unit in the United States and because we believe that any changes in housing opportunities or access to services that assisted households experience would not be evident if we used a larger geographic unit, like a state. The smallest geographic level that we use in this report, the MCD, is the smallest common and consistent geographic unit on which we could obtain data for our analysis.

FMRs' Impact on Rent Inflation

The Congress was concerned that defining FMR areas too broadly might result in a subsidy that is too high for prevailing rents in some submarkets and too low for others. This result would limit the utility of certificates and vouchers in the more expensive submarkets, while also causing rent inflation in neighborhoods where rents are low relative to the marketwide average. To respond to this concern, we interviewed HUD regional and field staff, PHA representatives, and housing experts on both sides of the issue to obtain their views on the inflationary effects of FMRs under existing laws. We also examined housing market conditions in Lynn, Massachusetts, because of reports that the city had experienced inflationary effects as a result of its Section 8 program. We interviewed officials at the Lynn Housing Authority and an official of the Lynn Office of Community Development. In addition, we reviewed a landmark social science research project, a major study of the marketwide effects of a tenant-based housing subsidy program, known as the Experimental Housing Allowance Program (EHAP). This study was undertaken by HUD in the 1970s. One component of this study focused on the general condition of housing in two small urban areas, the changes in housing quality and rents paid over time, and the effects of Section 8 housing assistance on the housing market.

Where Section 8 Recipients Live and Their Access to Services and Employers

The Congress was also concerned that assisted families are concentrated in areas at the lower end of the market—for example in the central cities and in distressed suburban areas. Such a result would be inconsistent with the program's statutory objectives of mobility and full access to the market. Thus, the Congress requested that we determine whether Section 8 recipients are geographically dispersed and have access to services. To respond to this objective, we requested the addresses of households receiving rental housing assistance from the 32 PHAs that administered the Section 8 certificates and/or vouchers in the four MSAs in our review. We analyzed 25,731 addresses to determine whether Section 8 recipients were dispersed or concentrated within their community.

To determine the assisted households' proximity to services, employment, and public transportation, we contracted with Donnelly Marketing Information Services (DMIS) to obtain the location of grocery stores, health care facilities, public schools, and businesses. This information was based on data from the 1990 decennial census, the latest data available, and on DMIS' own compilation of business information.[10] Also, as part of our contract, DMIS provided us with the software and hardware capability to map services, employers, and assisted households within each MSA. In addition, we met with state and local transportation providers to determine whether public transportation was available in each of the four MSAS and the extent to which this transportation could be used by the assisted households. Finally, we used 1990 census data provided by DMIS and interviewed the 32 PHAS that administered the Section 8 voucher and certificate programs in our four MSAS to obtain information on demographics and housing quality for the MSAS and their submarkets.

Our work was conducted between May 1991 and April 1994 in accordance with generally accepted government auditing standards. We provided a draft of this report to officials at HUD's headquarters responsible for managing the Section 8 program. They generally concurred with our findings and conclusions, and we have incorporated their comments where appropriate.

Chapter 2 of this report discusses the feasibility of using smaller market areas to set FMRS. Chapter 3 discusses whether the calculated level of the FMRS leads to higher rent levels. For each of the four MSAS we reviewed, appendix I provides information on where the assisted households live and whether they have access to essential services (grocery stores, health care facilities, public schools), employers, and public transportation.

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[10]DMIS researches and develops business data under the trademark Dun's BusinessLine industry data.

FMRs for Smaller Market Areas Would Better Reflect Rents, but Costs Could Increase and Benefits Are Unclear

Using smaller geographic areas to set FMRs would more closely reflect the 45th percentile of rents within those smaller areas. However, on balance such a move may not be advantageous because the additional costs of collecting data to support the change may be considerable and the benefits are unclear. Housing experts, PHA staff, and HUD officials have identified a number of options for defining smaller areas. However, most officials we spoke to agreed that only three types of smaller areas are practical and worthy of consideration for setting FMRs: (1) a group of counties within the current MSA configuration, (2) a single county, or (3) an individual PHA jurisdiction.

While using smaller geographic areas could result in FMRs that better reflect the rent levels more typically found within those smaller areas, additional data would be required to establish and update FMRs for these areas. Acquiring this additional data would cost money. Our analysis showed that the costs associated with collecting additional data would increase as the size of the market areas decreased and more specific data were needed. Under the option covering the smallest market area—establishing FMRs for individual PHA jurisdictions—these data costs are estimated at upwards of $750 million annually. Under the option covering the largest market area—establishing FMRs for groups of counties—the annual costs are estimated to be in the $5 million plus range.

In addition to imposing the costs of collecting more data, smaller market areas could also affect program costs and the total number of households that could be helped with Section 8 assistance. For those smaller areas where FMR levels increase as a result of the change, either program costs would rise or the number of assisted households served at current budget levels would diminish. Conversely, for those smaller areas where FMR levels decreased, program costs would decrease or, given a steady budget level, the number of households being served would rise. Overall, these cost increases and decreases could tend to net out and have little impact on the total amount of assistance payments. However, if a "hold-harmless" provision is instituted, meaning that FMRs in lower-rent areas would not be reduced even if warranted under their newly defined area, program costs per assisted household could rise considerably.

For assisted households, smaller market areas would have mixed results on housing choice.[1] For those households living in or willing to move to higher-cost areas within the MSA, the FMR would increase, thereby providing greater housing opportunities within those areas. Conversely, assisted households currently living in lower-cost areas would experience a decrease in their FMR, reducing the number and quality of rental housing units available to them in those areas. Furthermore, for a large, multijurisdictional MSA like Washington, D.C., FMRs calculated for individual counties would provide assisted households with access to the same percentage of each jurisdiction's housing units.

Finally, although smaller market areas may affect an assisted household's housing choice as a result of changes in the FMR, the effect on Section 8 recipients' access to employment depends on the availability of public transportation. Basing FMRs on smaller market areas may improve or not affect assisted households' access to employment if they live in or are willing to move to neighborhoods where public transportation is available. However, assisted households that reside in counties that lack or have limited public transportation would generally experience no change in access to employment. Regarding education, a majority of the counties that we reviewed provided transportation to public schools—either through locally funded buses or subsidized bus fares. Therefore, children of assisted households would have access to education regardless of the size of the market area. However, to the extent that assisted households change jurisdictions, they may gain access to schools that they perceive to be better.[2]

FMRs Calculated for Smaller Market Areas Would More Closely Reflect the 45th Percentile of Rents

In general, FMRs based on smaller geographic areas would better reflect the rent levels typically prevailing within those smaller areas. Within any housing market, rent levels will vary because units vary in age, the quality of construction and maintenance, the location within the area, and neighborhood or jurisdictional differences in amenities and the provision of local public services. One general pattern is that lower rent levels often prevail for units that are some distance from areas of concentrated economic activity. That is, a unit located close to an area of concentrated

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[1]To illustrate the impact that using smaller market areas would have on housing choice and access to employment and education, we based our analysis on the single-county option. We used this option because, of the three possible options, the single-county approach was the only one that could be applied to all MSAs and for which some data were already available.

[2]For purposes of this report, access to employment and schools is determined by the availability of public transportation. We did not address the issue of the quality of the employment or education available.

economic activity may be leased for a much higher rent level than a unit with similar physical characteristics farther away. Thus, the areawide FMR may not reflect rent levels that are more typical within smaller areas, perhaps even whole counties, within an MSA. Indeed, some small areas or jurisdictions may contain little modest housing, in which case units renting at the 45th percentile may represent something other than the kind of housing envisioned for public subsidy.

In short, if there are wide differences in the 45th-percentile rent among counties, assisted households receiving housing allowances based on smaller geographic areas may find the housing choices in the county in which they reside expanded or restricted. If 45th-percentile rents vary little among jurisdictions throughout an MSA, an FMR based on smaller areas would result in little change in the housing choices available to assisted households.

Market Areas Differ and Contain Areas in Which Rent Variations Affect Housing Choice

Market areas vary by population, size (in square miles), and the number of political jurisdictions within their boundaries. Based on the current market areas, of the 354 metropolitan areas nationwide, a MSA's
(1) population can range from less than 100,000 to over 1 million people;
(2) land area can range from 394 square miles to 27,270 square miles[3]; and
(3) boundaries will typically consist of one to three counties and/or "municipios,"[4] although a metropolitan area can contain as many as 24.

As table 2.1 shows, the four MSAs that we reviewed varied greatly. For example, the Washington, D.C., MSA had a population of about 4 million people residing in an area of about 4,000 square miles.[5] The MSA included 10 counties, the District of Columbia, and five Virginia cities. In contrast, the Wilmington, Delaware, MSA, with a population of less than 600,000, covered over 1,100 square miles and included three counties.

[3]A HUD official stated that the size of a market may not have an impact on the definition of the FMR area; i.e., whether it should be more than one FMR area. For example, while the Riverside-San Bernardino, California, MSA is 27,270 square miles, it includes the Mohave Desert. The large size of the MSA does not have an impact on the FMR since most of the market is uninhabitable.

[4]MSAs in Puerto Rico consist of "municipios."

[5]As noted, throughout the report we use the MSAs as defined before the December 1992 changes resulting from the 1990 census data.

Table 2.1: Characteristics of the Four MSAs in 1991

MSA	Population	Square miles	Counties
Washington, D.C.	3,923,574	3,967	District of Columbia
			Calvert County, Md.
			Charles County, Md.
			Frederick County, Md.
			Montgomery County, Md.
			Prince George's County, Md.
			Arlington County, Va.
			Fairfax County, Va.
			Loudoun County, Va.
			Prince William County, Va.
			Stafford County, Va.
			Alexandria City, Va.
			Fairfax City, Va.
			Falls Church City, Va.
			Manassas City, Va.
			Manassas Park City, Va.
Wilmington, Del.	578,587	1,112	New Castle County, Del.
			Salem County, N.J.
			Cecil County, Md.
Oklahoma City, Okla.	958,839	4,247	Canadian County, Okla.
			Cleveland County, Okla.
			Logan County, Okla.
			McClain County, Okla.
			Oklahoma County, Okla.
			Pottawatomie County, Okla.
Seattle, Wash.	1,972,961	4,216	King County, Wash.
			Snohomish County, Wash.

Source: Bureau of the Census.

In addition to the geographic and demographic differences between metropolitan areas, the cost and the amount of rental housing available at the 45th percentile varies in each of the counties that constitute an MSA. When there is substantial variation in 45th-percentile rents and the number of jurisdictions is large, as is the case in the Washington, D.C., MSA, the percentage of housing available at the 45th percentile varies greatly among the counties.

For example, as table 2.2 shows, the 45th percentile of countywide rents for two-bedroom units in the Washington, D.C., MSA varies by as much as $301. Within this MSA, the 45th-percentile rent of $679 allows assisted households access to only 23 percent of the available rental housing stock in Fairfax County, Virginia. In contrast, the $679 rent provides assisted households with access to 86 percent of the available rental housing in Frederick County, Maryland.

Table 2.2: Cost and Percentage of Available Rental Housing for Counties Within the Washington, D.C., MSA

| Jurisdiction | Rent variation | | Percentage of housing available |
	45th-percentile rent	Rent difference	
Washington, D.C., MSA	$679	a	45.00
Washington, D.C.	478	($201)	73.38
Calvert County, Md.	613	(66)	68.32
Charles County, Md.	553	(126)	65.39
Frederick County, Md.	535	(144)	85.57
Montgomery County, Md.	732	53	34.67
Prince George's County, Md.	655	(24)	63.42
Arlington County, Va.	773	94	28.35
Fairfax County, Va.	779	100	22.97
Loudoun County, Va.	720	41	41.06
Prince William County, Va.	665	(14)	53.57
Stafford County, Va.	487	(192)	81.40

Note: Rent amounts in parentheses represent negative numbers.

[a]Not applicable.

Source: HUD's analysis of data from the 1990 decennial census.

Conversely, when variation in the 45th-percentile rent level across counties in the market area is small, as it is in the Seattle, Washington, MSA—rents vary only by $19 between the two counties that constitute the MSA—the FMR generally provides assisted households with access to at least 45 percent of the rental housing stock within each county. As table 2.3 shows, the MSA's 45th-percentile rent level of $540 allows assisted households access to 54 percent of the housing stock in Snohomish County and 47 percent in King County.

Table 2.3: Cost and Percentage of Available Rental Housing for Counties Within the Seattle, Washington, MSA

Jurisdiction	Rent variation 45th-percentile rent	Rent difference	Percentage of housing available
Seattle, Washington, MSA	$540	a	45.00
King County	$545	$ 5	46.65
Snohomish County	$526	($14)	54.16

Note: Rent amount in parentheses represents a negative number.

[a]Not applicable.

Source: HUD's analysis of data from the 1990 decennial census.

Smaller Market Areas Would Better Capture Local Rental Market Rates

Within any market area, rents vary because the units vary in age, quality of construction and maintenance, location within the area, and neighborhood or jurisdictional differences in amenities. In addition, unless, and perhaps even if, an area were defined as a few square blocks, rent variations would remain and could be significant. However, within a smaller geographic portion of the market area, housing units and rent levels are more likely to be similar.

If FMRs were based on a smaller geographic area, assisted households would have access to more equal percentages of housing within each smaller area. Under the current system, the $679 FMR for two-bedroom units in the Washington, D.C., MSA, makes available to its assisted households on average 45 percent of the rental housing. However, the 45th-percentile rents in the 11 counties within the MSA vary by as much as $301 per month—from $478 to $779. As a result, assisted households may have access to much more or much less than 45 percent of some counties' rental housing stock.

Specifically, the 45th-percentile rent based solely on Montgomery County, Maryland, is $732 per month, or $53 per month more than the MSA-wide rent level. As a result of the difference between the current rent ceiling—$679 per month—and the prevailing 45th-percentile market rent—$732 per month—assisted households in the MSA have access to only 35 percent of Montgomery County's rental housing stock. If the FMR were based on the county alone, instead of the MSA as a whole, it would increase and more closely reflect local rental rates.

Similarly, the 45th-percentile rent for Stafford County, Virginia, is $487 per month, or $192 per month less than the marketwide 45th-percentile rent. As a result, assisted households have access to over 80 percent of the rental housing stock in Stafford County. If the FMR were based only on rental rates in Stafford County, it would be lower than the current MSA-based rate, reflecting the lower rental rates prevailing in the county.

In contrast, in the Seattle, Washington, MSA, the 45th-percentile rent based solely on King County, Washington, is only $5 per month more than the MSA-wide rent level of $540 a month. Similarly, the 45th-percentile rent for Snohomish County, Washington, is only $14 per month less than the MSA-wide rent. In this case, while there is variation in rent levels within each county, the 45th-percentile rent levels are fairly similar. As a result of the small differences between the current housing allowance and the prevailing county rents, assisted households have access to over 45 percent of the available rental housing stock in both counties.

Use of Smaller Areas Could Lead to Differences in the Quality of Housing Available

FMRS based on smaller market areas may result in tenants' being subsidized in housing of a better or lesser quality, depending on their location within the broader market area. The 45th-percentile rent level represents the housing market's valuation of the cost of modest quality housing meeting the program's standards. When an MSA is divided into smaller market areas, the 45th-percentile rent levels of these areas may vary considerably. That is, the market may value the housing units available to assisted households in some areas more highly than the units in other areas. Thus, assisted households choosing to live in some smaller areas could gain access to higher-quality housing units than assisted households choosing to live in other smaller areas within the broader metropolitan area.

Options Have Been Identified for Using Smaller Market Areas

HUD uses MSAs to define FMR areas because it believes that these areas represent housing markets. While no clear consensus exists on whether it would be better to use smaller geographic areas to define housing markets for the purpose of setting FMRS, some HUD officials, PHA representatives, and other housing experts we contacted expressed concerns about HUD's use of MSAs. First, under the current system, the FMR reflects the 45th-percentile rent level for the entire FMR area but is likely to be quite different from the 45th-percentile rent levels of specific areas within the overall FMR area. Second, there are concerns that more flexibility is needed in defining housing markets: Cities may be more representative in some markets, counties in others.

The housing officials and experts who expressed concern about the current MSA-based FMRs identified three alternative approaches for establishing FMRs in smaller market areas. These options are basing FMR calculations on (1) smaller groupings of counties within an MSA; (2) single counties; or (3) individual PHA jurisdictions, which are typically smaller than a county.

County Groupings

Under the county-grouping option, HUD would realign the counties that constitute some of the existing MSAs to form markets with more homogenous economies. Currently, according to a HUD economist, some MSAs are the appropriate size and include counties with similar market characteristics, while other, more expansive areas link counties with dissimilar market economies. The officials we contacted therefore suggest that HUD consider realigning counties on a case-by-case basis. For example, PHAs in the Washington, D.C., MSA, recommended regrouping its counties into two separate FMR areas with similar economic characteristics. They suggested that one market area include four of the more urbanized counties—Montgomery and Prince George's in Maryland and Arlington and Fairfax in Virginia; three Virginia cities—Alexandria, Fairfax, and Falls Church; and the District of Columbia. The other market area would include six of the less urbanized counties—Calvert, Charles, and Frederick in Maryland, and Loudoun, Prince William, and Stafford in Virginia; and two Virginia cities—Manassas and Manassas Park. In contrast, because the Seattle, Washington, MSA, consists of only two counties, this option would not be needed.

A group of less urbanized counties may share certain similarities in terms of housing characteristics and rent levels. However, it is unlikely that households currently residing in one outlying jurisdiction—for example, Prince William, Virginia—would view another outlying jurisdiction on the other side of the MSA, such as Charles County, Maryland, as a good substitute. It is likely that Prince William County has more economic linkages, including housing market linkages, to Fairfax County, Virginia.

Overall, it is not expected that a large number of MSAs would warrant a reconfiguration under this option. For example, before OMB redefined MSAs in December 1992, only 8 of the 341 MSAs had 10 or more jurisdictions within their defined boundaries.

Single Counties

Under the single-county option, HUD would set an FMR for each of the over 800 counties in the MSAs.[6] The rationale for county-based FMRs is that counties are (1) the primary subdivision in most states and (2) the building blocks of an MSA. Therefore, some data would already be available to calculate FMRs at this level. However, counties vary widely: County populations range from 9,000—in Sequatchie County, Tennessee—to 9 million—in Los Angeles County, California. Geographic sizes of counties are as small as 28 square miles—New York County, New York—or as large as 20,062 square miles—San Bernardino County, California. The geographic size of a county differs from locale to locale because there are no standard criteria for setting the boundaries of a county. Thus, the utility of using a county to define a housing market will vary.

PHA Jurisdictions

Under the PHA jurisdiction option, HUD would set an FMR for each of the approximately 2,500 PHAs that administer the Section 8 certificates and vouchers. There are no standard criteria for determining the boundaries of a PHA's jurisdiction—PHAS' jurisdictions can range in size from a city to an entire state. However, the jurisdiction of a PHA is generally less than that of a county. In addition, according to a HUD official, the use of PHA jurisdictions would cause boundary problems. Some counties have multiple PHAS, some of which have overlapping boundaries. It would be extremely difficult to set FMRs at the PHA level in Westchester County, New York, which has 17 active PHAS, including countywide and statewide agencies. Officials we talked with identified this option because a PHA's jurisdiction often reflects the area in which assisted households search for and obtain housing under the Section 8 program.

The idea of using PHA jurisdictions to set FMRS is not new. HUD already uses PHA boundaries to define the market areas and to set the rent ceiling for one aspect of the Section 8 program—voucher payments. Under the voucher program, HUD allows the PHA to determine whether the FMR is sufficient to allow voucher recipients to rent decent housing or, conversely, whether a subsidy payment that is less than the FMR would be adequate.

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[6]HUD already uses single counties as a basis for establishing FMRs for counties that do not fall within the boundaries of an MSA. Therefore, this option would only affect those counties now falling within the MSAs.

Current Data Problems and Data Acquisition Costs Could Increase Under Smaller Market Areas

Under the current system, the national data HUD uses provide a consistent and efficient method for establishing FMRs nationwide. However, because of some data limitations, FMRs may not always capture rental costs or changes in the rental market. If HUD were to use these same data sources to set FMRs for smaller market areas under any of the options identified, its current difficulties with collecting standard, reliable data that are timely and specific to the geographic area would be exacerbated.

As noted in chapter 1, HUD now uses four data sources to set FMR levels—the decennial census, the AHS, the CPI, and RDD. Two of these data sources, the CPI and RDD, cannot be used below the MSA level without extensive and costly alterations. The smallest geographic units for which these two sources collect data are the MSA or a census region for a specific geographic area. No statistically reliable data source exists to calculate an FMR at the level of the PHA's jurisdiction. To expand the data obtained from the CPI and RDD surveys to reliably compute FMRs for areas smaller than an MSA, HUD would have to increase the number of observations collected in each of the data sources' surveys. On the basis of our analysis, we estimate that the cost of adjusting these sources in order to get the data needed for market areas smaller than an MSA would range from $5 million to more than $750 million a year for the 354 MSAs, depending on the level of accuracy and reliability desired.

Data Used to Set FMRs Have Both Merits and Drawbacks

By using widely accepted national data bases, HUD ensures that FMRs are based on data that are objective and consistently collected and that it has an economical and efficient data collection method. HUD believes that it uses the most accurate data available. Based on our own attempts to identify alternative data sources, we agree that the sources HUD uses are the best available.[7] However, these data sources are often neither timely nor geographically specific, ensuring that at least some FMRs are inaccurate. Census data are compiled only every 10 years, and such data can be many years out of date before becoming available to HUD.[8] In addition, the nationwide AHS is conducted every 2 years, and individual

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[7]In an effort to determine alternative data that could be used to compute FMRs, we contacted national and local organizations that typically collect rental data. Specifically, we contacted six national housing, apartment, and realtor associations; four marketing organizations; and 20 local boards of realtor in the four MSAs we reviewed. We were unable to identify any organization that develops local rental market data in a statistically valid or reliable form that would comply with HUD's requirements for calculating FMRs.

[8]For the fiscal year 1994 FMRs, HUD used the full census for the first time. HUD officials stated that the use of the full census resulted in improved accuracy over FMRs previously developed using the 1980 census's public use sample. HUD also stated that the use of these data increased the number of observations by 300 percent and sped up the process of adjusting FMRs by 2 years.

surveys of 44 metropolitan areas are conducted once every 3 to 4 years. The time lag in the availability of both the census and AHS survey data makes it necessary for HUD to update the data with data on inflation from the CPI. However, the data provided by the CPI can be about a year old when HUD publishes its FMRs each year. For this reason, HUD uses an estimate to establish a trend FMR over 18 months. A trend of 18 months is needed to cover the period between the most current CPI data and the forecast date for the FMR estimate. As a result, for many metropolitan areas, the age of the data prevents FMRs from reflecting current rent levels.

National data also lack geographic specificity. Both AHS and CPI area-specific data cover limited geographic areas. AHS data are available for 44 areas covering 72 FMR areas and the four census regions. Similarly, CPI data reflect changes in rent levels for 28 areas that HUD applies to 103 FMR areas. For the remainder of the country, HUD uses data collected from the 20 regional RDD surveys to update FMRs.

HUD's use of RDD surveys of FMR market areas, begun in the fall of 1991, is an effort to overcome the problems of timeliness and geographic specificity inherent in the other three data sources. HUD plans to have these surveys conducted annually to more quickly reflect changes in local markets, thereby improving the FMR estimates.

Before issuing the proposed fiscal year 1993 FMRs, HUD conducted 20 regional RDD surveys from October through December 1991 and 37 MSA-specific RDD surveys from December 1991 through March 1992. The results of the regional surveys were used to update FMRs in areas not covered by CPI data. These regional surveys will be repeated each year to determine the annual rent change factors.

The results of the MSA-specific surveys were used to revise FMRs for the 37 areas surveyed. In the 37 areas, reductions in FMRs were subsequently proposed for 29 areas, and increases in FMRs were proposed for 8 areas. According to HUD officials, 60 additional area-specific surveys will be conducted through 1994.

HUD officials also said that in fiscal year 1992, RDD added slightly less than $718,000 to the cost of calculating FMRs. This included the costs of the 20 regional surveys, the costs of the 37 MSA-specific surveys, and some start-up costs for the fiscal year 1993 regional surveys.[9] Although adding to

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[9]A HUD official stated that as a general rule, area-specific surveys cost about $12,000 each and regional surveys cost under $20,000 each.

the cost of calculating FMRs, RDD reduced the time lag and provided more
geographic coverage, thereby improving the FMR estimates. For example,
HUD incorporated the area-specific RDD surveys conducted between
December 1991 and March 1992 into the proposed FMRs published in
April 1992; these FMRs became effective October 1, 1992. In contrast, under
the previous system, a 2- to 3-year time lag occurred between the
collection of raw data and the effective date of the FMRs based on these
data. In addition, the local RDD survey data provided more accurate
area-specific FMRs. For example, as a result of HUD's use of data from the
local RDD survey, the FMR for the Abilene, Texas, MSA, was reduced from
$448 in fiscal year 1992 to $365 in fiscal year 1993.

Using Smaller Market Areas Could Substantially Increase Data Acquisition Costs

If the current process for setting FMRs were revised to use smaller market
areas, the cost of collecting the data could be substantial. The cost of
expanding the current methodology to acquire the additional data could
range from a low of $5 million annually for the county-grouping option to a
high of $750 million annually for the PHA-based option.

County-grouping and single-county options. The issues of data collection
for the county-grouping and single-county options are similar. Of the four
data sources HUD uses to calculate FMRs, the census and the AHS are the
only two that currently collect data at a level detailed enough for use in
calculating baseline FMRs for a group of counties or for a single county.[10] A
Census Bureau official stated that AHS aggregates its metropolitan survey
data at the MSA level for publication but that rental cost data for single
counties are available to HUD from the metropolitan surveys if (1) the
county has a population of 100,000 or more and/or (2) one of HUD's
employees is authorized by the Bureau to access the data on counties with
populations of less than 100,000. The Census official estimated a cost to
HUD of $10,000 to $25,000 for the use of the Bureau's computer to calculate
FMR estimates at the single-county level. This official stated that with some
changes in HUD's administrative process, HUD could therefore obtain data
for single counties with a small increase in costs. However, a HUD official
stated that the AHS's data for individual counties cannot be used to set FMRs
because most counties do not have a sufficient number of sample cases of
households that have recently moved to allow a statistically acceptable
FMR to be estimated.

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[10]Except for the New England states, where MSAs are composed of cities and towns rather than
counties.

HUD could not simply use the 10-year-old census data to set FMRs. It would still need other data to adjust the FMR for inflation and other local impacts. If census data are to be used successfully, the other two data sources would need to be adjusted to obtain county-level information. The CPI and RDD surveys currently collect data at the level of census regions and/or MSAs, but these data do not contain enough observations of county rental housing costs to be useful. While these sources could be modified, doing so would be costly.

According to an Assistant Commissioner at the Department of Labor, although it is technically possible to use data from the CPI surveys at the county level, getting reliable data would require collecting additional observations of rental costs. He stated that the CPI surveys currently conducted on 28 of the largest MSAs and the four census regions cost Labor approximately $35 million a year. About one-half of this amount—$17.5 million a year or about $200,000 to $300,000 per area—is spent for data collection, review, and processing. The Assistant Commissioner estimated the cost of collecting the additional data at over $160 million per year for conducting surveys at all of the more than 800 counties in all MSAs.[11]

To the extent that the county-grouping option would be used as a basis for setting FMRs, it would only be used on a case-by-case basis for those large MSAs with many jurisdictions, like the Washington, D.C., MSA. Under this option, the cost of collecting additional data would be less than the cost of acquiring data under the single-county option since fewer surveys would have to be conducted. For example, under the single-county option, Labor would have to conduct 11 separate surveys for the Washington, D.C., MSA, which would cost about $2,200,000 to $3,300,000. However, since the 11 jurisdictions are grouped into only two market areas under this option, the total cost of the surveys would be about $400,000 to $600,000 annually. Since only a relatively small number of MSAs would have as many jurisdictions as the Washington, D.C., MSA, thus warranting the use of this option, the additional CPI data acquisition costs would only be a portion of the more than $160 million annual costs of the single-county option. For example, before OMB redefined MSAs in December 1992, there were only eight other MSAs of a size and complexity comparable to the Washington, D.C., MSA, in terms of the population, area in square miles, and number of

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[11]This figure represents the ongoing data collection costs for the CPI surveys. Excluded from this figure are Labor's start-up costs, which could be about $70,000 per area. This estimate includes the cost of conducting CPI surveys in areas that Labor does not normally survey. In addition, the Assistant Commissioner stated that he would need funds to hire two employees for each area surveyed to conduct the CPI data collection effort.

jurisdictions. If HUD determined that each of these MSAs needed to be realigned into two county groupings, the costs of the surveys would be about $3,200,000 to $4,800,000 annually.

Regarding RDD, the Director of HUD's Economic and Market Analysis Division, which calculates FMR estimates, stated that the RDD surveys for fiscal year 1992 cost $718,000. Changing to market areas based on county groupings or single counties would suggest a need to increase the number of RDD surveys now being performed. The total annual cost of performing the additional RDD surveys needed to support a change to either one of these smaller market area options would range from a low of $718,000—the amount now being spent—to $9.6 million annually. The $9.6 million is a high-end estimate based upon surveying all the counties in each of the 354 MSAs.

PHA Jurisdiction-Based Option

The estimated cost of acquiring the additional data needed to implement this option is about $750 million annually. Because there are currently no statistically reliable data sources that could be used to calculate FMRs at a PHA level, this option would be the most expensive to implement. While enough observations to compute an FMR are collected in the census, the Bureau's confidentiality requirement, as well as its other limitations—timeliness and the inability to use the data to update FMRs for inflation—would affect the accuracy of the decennial census data. In addition, Census Bureau officials stated that although the AHS data are currently collected at the level of the census tract,[12] these data would not be very reliable because only a few observations are collected per tract. Furthermore, the CPI and RDD surveys do not include enough observations to calculate an FMR at this level.

According to officials from both the Census Bureau and Labor, modifying the AHS and the CPI to provide data at the level of the PHA jurisdiction would require collecting additional observations. A Census Bureau official estimated the additional cost of collecting data at over $10 million. Our analysis of a Labor official's estimates shows costs somewhere in the range of $750 million a year to conduct the CPI surveys at the PHA level. This official stated that a good rule of thumb would be $200,000 to $300,000 for each of the 2,500 PHAs' jurisdictions.

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[12]Census tracts are small, locally delineated statistical areas within selected counties, generally having stable boundaries and designed to have relatively homogenous demographic characteristics. A census tract is generally smaller than a city but larger than a block or block group. The average tract contains about 4,000 persons.

For RDD, HUD estimated that the cost to increase the number of observations sufficiently to calculate a FMR at this level would be about $30 million per year. The cost could be higher if the market areas have few rental properties, thereby requiring the collection of more observations. Table 2.4 compares the cost of data collection under the current system and the three smaller market area options.

Table 2.4: Data Collection Costs

	Current system (MSA)	County grouping (16 areas)	Single county (800 counties)	PHA jurisdiction (2,500)
Decennial census and American Housing Survey				
HUD's computer cost	$500,000	$500,000	0	0
Census Bureau's computer cost	a	0	$10,000 to $25,000	$10,000 to $25,000
Data cost	0	0	a	$10 million
Consumer price index				
Data collection	0	$3.2 million to $4.8 million	$160 million to $240 million	$500 million to $750 million
Other[b]	0	$1.1 million	$56 million	$175 million
Random digit dialing				
37 FMR areas and 20 regions	$718,000[c]	a	a	a
All areas	a	$192,000	$9.6 million	$30 million

[a]Not applicable.

[b]Start-up cost of conducting CPI surveys in market areas that the Department of Labor currently does not survey. Labor estimated the cost at about $70,000 per area.

[c]Costs for RDD surveys conducted by HUD in fiscal year 1993.

Source: Bureau of the Census, Department of Labor, and HUD.

Using Smaller Market Areas Could Increase Program Costs and Reduce the Number of Assisted Households Being Served

In addition to the costs associated with collecting more data to calculate and update FMRS, two other significant cost factors need to be considered in using smaller market areas. First, Section 8 program costs per assisted household could increase, resulting in higher total program costs, a smaller number of households being served, or both. Per-household costs could increase if (1) assisted households moved from market areas where the FMR was reduced to market areas where the FMR was increased and/or (2) policymakers applied a "hold-harmless" provision, as they have in the past, under which FMRs could go up but not down from current levels. It is

unlikely in today's budget environment that program funding would increase. As a result, the number of households served by the program would have to be reduced.

Second, under the current system, to the extent that FMRs go up, administrative fees paid by HUD to PHAs can also increase. Before fiscal year 1994, the administrative fee, which was provided to each PHA for the day-to-day management of the Section 8 program, was primarily based on the FMR. As a result, to the extent that FMRs increased, the administrative fee paid to PHAs also increased. However, a HUD official stated that in the future, the administrative fees will no longer be linked to the FMRs. The Congress based the fees for fiscal year 1994 on the fiscal year 1993 level and is expecting HUD to submit legislation for a new system for fiscal year 1995 and beyond.

Smaller Market Areas May Result in Trade-Offs Between Program Costs and the Effect on Assisted Households

Using smaller market areas would raise FMRs in some market areas and lower FMRs in others. All other things being equal, the increases and decreases in the FMR among the smaller market areas would tend to net out on a national level. Table 2.5 shows that for the Washington, D.C., MSA, using a county-based approach would result in a decrease in total assistance payments of about $260,000 a month, or about 3.8 percent. Table 2.6 shows that for the Seattle, Washington, MSA, total assistance payments would increase by about $1,200 a month, or less than one-tenth of 1 percent.

Table 2.5: Monthly Rental Assistance Payments Under Both MSA-Based and County-Based Market Areas, Washington, D.C., MSA

Metropolitan area	MSA's 45th-percentile rent	County-level rent	Number of households	Monthly costs at the MSA level	Dollar change in rent level	Monthly costs at the county level
Washington, D.C., MSA	$679	a	10,132	$6,879,628	a	$6,620,914
District of Columbia		$478	2323	1,577,317	$(201)	1,110,394
Calvert County, Md.		$613	81	54,999	(66)	49,653
Charles County, Md.		$553	285	193,515	(126)	157,605
Frederick County, Md.		$535	378	256,662	(144)	202,230
Montgomery County, Md.		$732	2515	1,707,685	53	1,840,980
Prince George's County, Md.		$655	1843	1,251,397	(24)	1,207,165
Arlington County, Va.		$773	733	497,707	94	566,609
Fairfax County, Va.		$779	1501	1,019,179	100	1,169,279
Loudoun County, Va.		$720	132	89,628	41	95,040
Prince William County, Va.		$665	314	213,206	(14)	208,810
Stafford County, Va.		$487	27	18,333	(192)	13,149

Note: Dollar amounts in parentheses represent negative numbers.

[a]Not applicable.

Source: PHAs' and HUD's analysis of data from the 1990 decennial census.

Although higher FMRs for specific market areas would increase program costs, assisted households in these areas could have access to a wider range of locations and amenities in their rental units. However, given that significant increases in Section 8 budget authority are unlikely, increased FMRs could also result in a reduction in the number of households that can be served.

Conversely, while lowering FMRs in some markets would help reduce program costs, doing so could also reduce housing opportunities for new Section 8 recipients.[13] PHAS are concerned that new assisted households residing in areas where the FMRs were lowered would be forced either to move to less desirable locations in their present market or move to more rural areas to find affordable housing. In addition, these Section 8 recipients could also be encouraged to move to communities where the

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[13]Current program participants would not be affected by changes in the FMR level unless they moved. Changes in FMRs apply only to new units entering the program. For units already under Section 8 contracts, rents are adjusted using annual adjustment factors derived from the CPI data.

FMR was higher. Thus, program costs would increase because of the
number of households receiving higher allowances.

Table 2.6: Monthly Rental Assistance Payments Under Both MSA-Based and County-Based Market Areas, Seattle, Washington, MSA

Metropolitan area	MSA's 45th-percentile rent	County- level rent	Number of households	Monthly costs at the MSA level	Dollar change in rent level	Monthly costs at the county level
Seattle, Washington, MSA	$540	a	7,061	$3,812,940	a	$3,814,121
King County, Washington	a	$545	5,265	2,843,100	$5	2,869,425
Snohomish County, Washington	a	526	1,796	969,840	($14)	944,696

Note: Dollar amounts in parentheses represent negative numbers.

aNot applicable.

Source: PHAs' and HUD's analysis of data from the 1990 decennial census.

Because of past experience in the program, HUD officials and others voiced
concern that policymakers would not want to reduce FMRs in the
lower-rent areas but would instead institute a hold-harmless policy. A
hold-harmless provision would permit FMRs to increase in areas where the
increase was warranted, but would not permit FMRs to decrease. For
example, in 1986 when HUD proposed reductions in FMRs for 30 percent of
nonmetropolitan areas and 19 percent of metropolitan areas,
representatives from the Congress and from housing organizations
requested that HUD hold harmless those FMRs scheduled for reduction.[14] In
addition, in 1991 the Congress passed legislation establishing a separate
FMR for Monroe County, Pennsylvania, a suburban county in the
Scranton-Wilkes-Barre metropolitan area.[15] This legislation required HUD to
calculate the FMR for the remaining part of the metropolitan area as if it
still included Monroe County. HUD officials told us that this provision was
added to keep the FMR for Scranton-Wilkes-Barre from being lowered.

While for the nation as a whole, increases and decreases in FMRs could
tend to net out and have little or no effect on overall program costs, such
an effect would not be realized if a hold-harmless policy was implemented.
According to HUD, the increased cost associated with such a policy would

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[14]Hearing of the Subcommittee on Employment and Housing, House Committee on Government
Operations (Feb. 27, 1986).

[15]The Departments of Veterans Affairs, Housing and Urban Development, and Independent Agencies
Appropriations Act of 1992 (P.L. 102-139, Oct. 28, 1991).

raise the average cost per assisted household significantly. As a result, the number of families served at current budget levels would have to be reduced.

Changes in FMR Could Affect PHAs' Administrative Fees

Under the current system, local PHAs have received a fee from HUD for administering the Section 8 program. The amount of this fee was based on a percentage of the FMR multiplied by the number of units leased under the Section 8 program. To the extent that FMRs increased for individual PHAs, their respective administrative fee could also increase. Conversely, if the FMR decreased for a particular PHA, so too could its administrative fee. Since for the nation as a whole, increases and decreases in FMRs would tend to net out, the impact of moving to smaller market areas might have no overall impact on the amount of fees paid to PHAs under this system. However, if a hold-harmless policy were implemented, administrative fees paid to PHAs would increase. For fiscal year 1994, the Congress based the fees on the fiscal year 1993 levels and has asked HUD to draft legislation for a new system in which the administrative fee will no longer be linked to the FMR. The new legislation will be developed for fiscal year 1995 and beyond.

Using Smaller Market Areas Would Have Mixed Effects on Housing Choice

One concern about changing the basis for setting FMRs to smaller market areas is whether the assisted households' choice of housing would be improved. In the market areas that we reviewed, the percentage of rental housing units available at or below the 45th-percentile rent would vary if the housing allowance were based on a smaller geographic area. For a large, multijurisdictional MSA with dissimilar average rents among its counties, like Washington, D.C., using smaller areas to calculate FMRs would make the percentage of housing units available to assisted households in each county more similar. On the other hand, for an MSA like Seattle, Washington—a smaller area made up of only two counties with relatively similar average rents—moving to smaller market areas would not have much effect on access to housing.

To illustrate the impact that using smaller market areas would have on housing choice in the Washington, D.C., MSA and the Seattle, Washington, MSA, we based our analysis on the single-county option. We used this option because, of the three possible options, the single-county approach was the only one that could be applied to all MSAs and for which some data were already available.

Impact of Smaller Market Areas on Housing Choice for the Washington, D.C., MSA

In determining the impact of using county-based market areas to calculate FMRs for the Washington, D.C., MSA, we focused on three major jurisdictions. (Figure 2.1 shows the configuration of the Washington, D.C., MSA, including its overall boundaries, the major jurisdictions within the MSA, and the location of Section 8 households—HH). The jurisdictions chosen capture a range of different housing circumstances and include the largest and smallest number of Section 8 recipients in the MSA. These jurisdictions were (1) the District of Columbia because it is the core of the MSA and had the second largest number of Section 8 households; (2) Montgomery County, Maryland, because it is a relatively urbanized jurisdiction and had the highest number of Section 8 households; and (3) Stafford County, Virginia, because it is a relatively less-urbanized jurisdiction and had the smallest number of Section 8 households.

Figure 2.1: Location and Number of Assisted Households Within the Washington, D.C., MSA
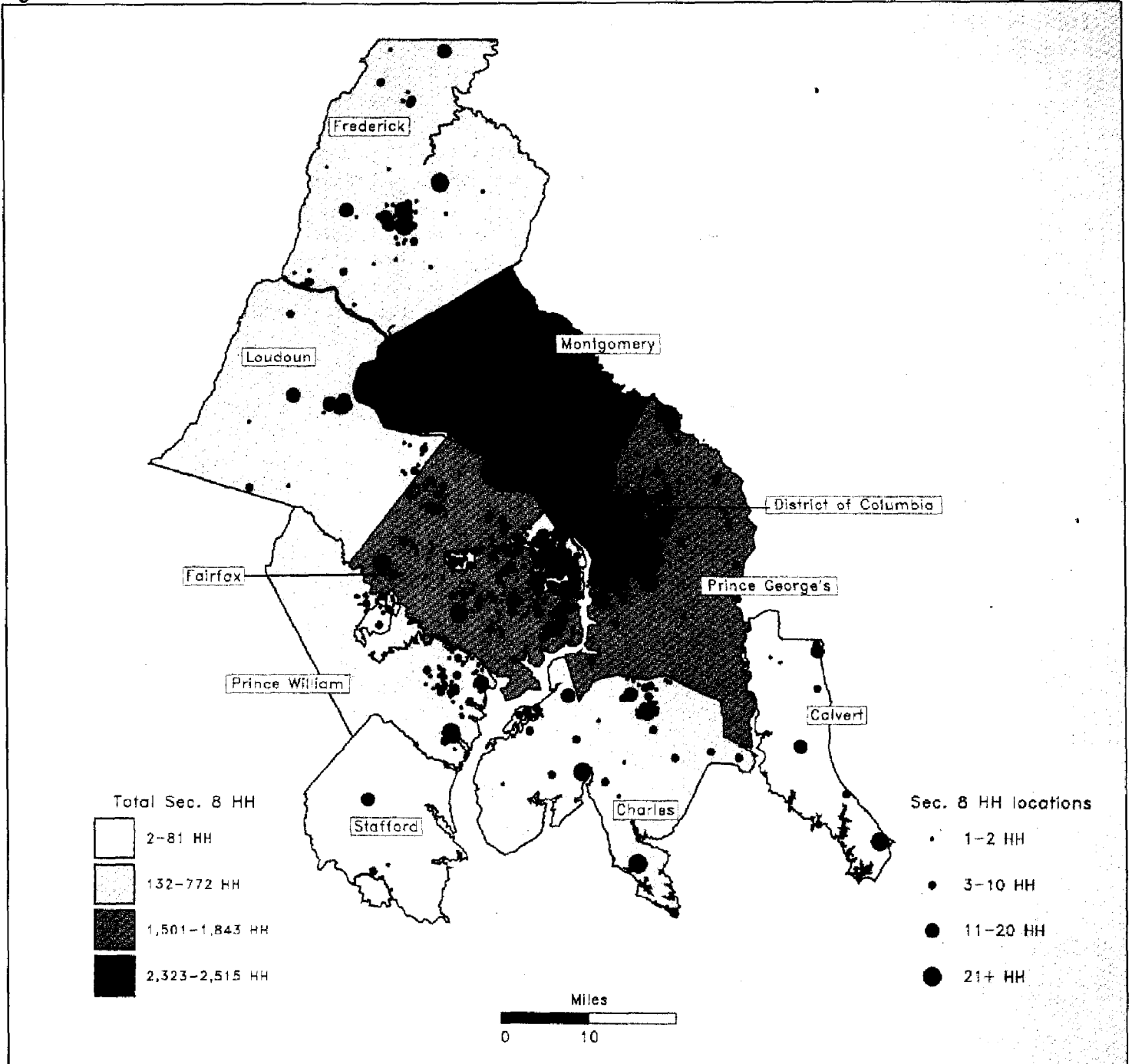
Source: Based on data from PHAs and Donnelly Marketing Information Services.

Our analysis shows that moving from an MSA-based FMR to a county-based FMR for the Washington, D.C., area would better equalize the share of housing units in each county across the MSA that are available to assisted households by better reflecting the prevailing local rental rates. For Montgomery County, Maryland, Section 8 households would have more housing choice under a county-based FMR because the amount of the housing allowance would increase. However, for Stafford County, Virginia, and the District of Columbia, the housing allowance for Section 8 households would decrease under this approach. As a result, the number of housing units available would decrease. In addition, higher-quality units would be available in Montgomery County, while assisted households choosing to live in the District of Columbia or Stafford County would have to accept lower-quality units than (1) those that were previously available and (2) those available in Montgomery County.

Under the county-based approach, Montgomery County's housing allowance would be $732 a month, or $53 a month more than the current MSA-wide housing allowance of $679 a month. Table 2.7 compares how the different allowances would affect housing choice in the county as a whole.

Table 2.7: Housing Availability in Montgomery County, Md.—County-Based vs. MSA-Based Market Areas

Market area	45th-percentile rent	Total rental units	Total units at or below 45th-percentile rent	Percentage of units available
MSA-based	$679	29,568	10,251	35
County-based	$732	29,568	13,306	45

Source: HUD's analysis of data from the 1990 decennial census.

As the table shows, the $53 rent increase opens up 3,055, or about 30 percent, more rental housing units countywide than are currently available. As a result, Section 8 recipients choosing to live in this county have more housing choice. Under the MSA-wide configuration, Section 8 residents only had choices to the 35th percentile of Montgomery's rental housing units.

Furthermore, while the county overall would be able to offer more and higher-quality housing choices to the area's Section 8 recipients by basing FMRs on this smaller market area, there would still be rent variations within the county. These variations would affect the range of housing choices in different ways throughout the county. Montgomery County, like most counties in the United States, is made up of smaller geographic areas

called minor civil divisions (MCD). Montgomery County has 13 MCDs. Under the county-based option, 10 of these 13 MCDs would experience an increase in the number of rental housing units available. The remaining three areas would see no change in the number of rental units available because all of their rental units already fell under the lower rent. Although access to rental units at or below the 45th percentile would increase under the single-county approach, four areas of the county would still be unable to provide 45 percent of their rental units for $732 a month. Figure 2.3 shows how the county-based FMR would affect housing choice within the county.

Figure 2.2: Percentage of Housing Available Under the Single-County Option Within Montgomery County
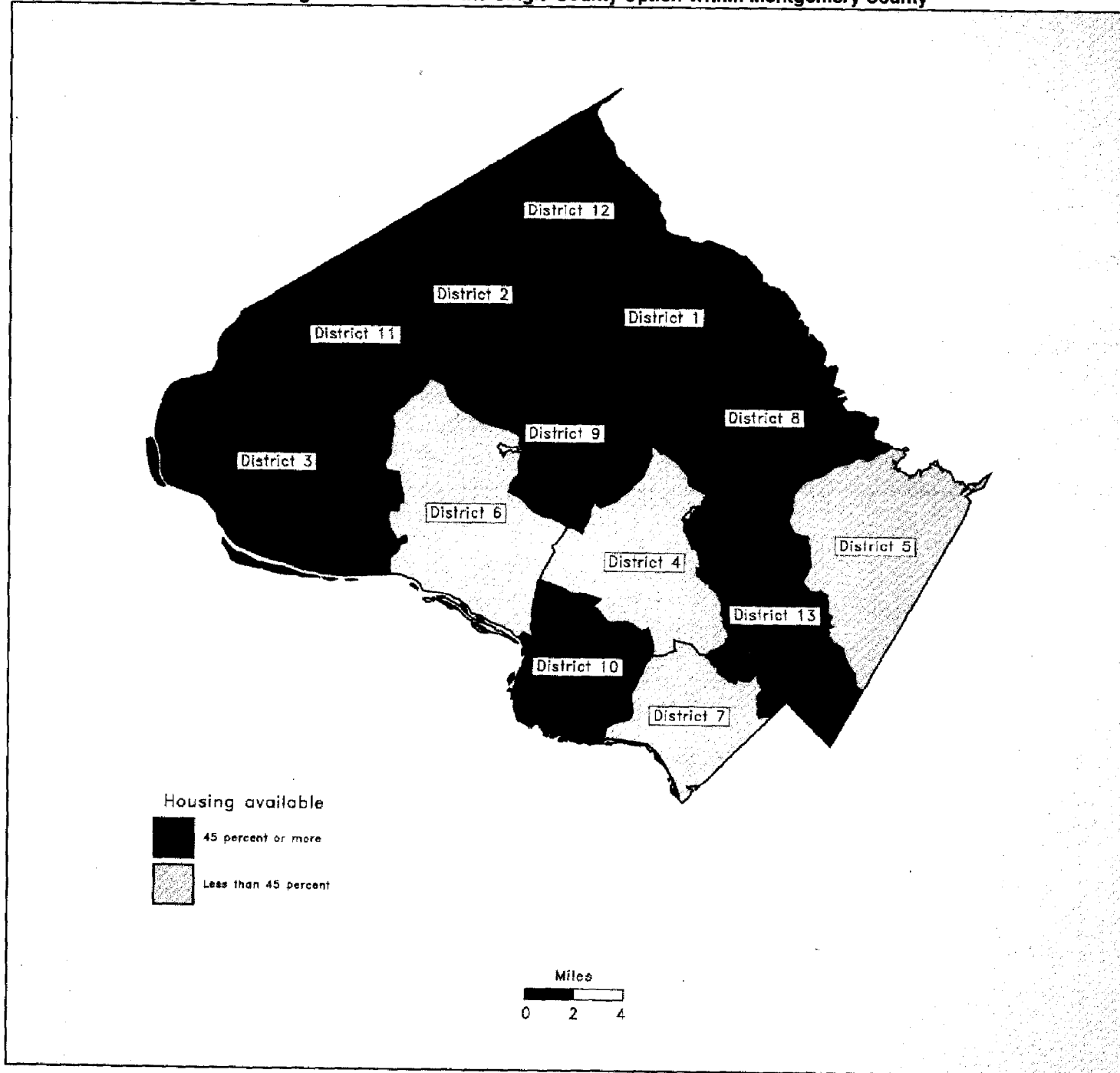
Housing available

■ 45 percent or more

▨ Less than 45 percent

Miles

0   2   4

Source: Based on HUD's analysis of two-bedroom units computed from 1990 decennial census data.

Unlike the case in Montgomery County, Maryland, the FMR for both the District of Columbia and Stafford County, Virginia, would decrease if the 45th-percentile rent were calculated at the county level. As a result, the number of rental housing units available to Section 8 households in both jurisdictions would decline. The average quality would be lower because the units that would no longer be available would tend to be the higher-quality ones.

For Stafford County, Virginia, using a county-based FMR would decrease the housing allowance for Section 8 households by $192 a month, from $679—the MSA-wide 45th percentile—to $487. Table 2.8 compares how the different rent levels would affect housing choice in the county as a whole.

Table 2.8: Housing Availability in Stafford County, Va.—County-Based vs. MSA-Based Market Areas

Market area	45th-percentile rent	Total rental units	Total units at or below 45th-percentile rent	Percentage of units available
MSA-based	$679	715	582	81
County-based	$487	715	322	45

Source: HUD's analysis of data from the 1990 decennial census.

As the table shows, the $192 rent decrease would reduce the number of rental housing units available at the 45th percentile by 260, or 45 percent, compared to what is currently available. As a result, if a county-based FMR were used, Section 8 households that now have access to 81 percent of the rental housing units in the county would have access to 45 percent—which would be comparable to other counties within the MSA.

Within Stafford County, all five MCDs would experience a decrease in the number of rental housing units available. In fact, as a result of the $192 decrease, each MCD would lose over 30 percent of its rental units. Nonetheless, three of the five MCDs would still be able to offer housing opportunities at the 45th percentile or above. Conversely, the remaining two MCDs would not be able to do so. Figure 2.4 shows how the county-based rent level would affect housing choice in the county.

Figure 2.3: Percentage of Housing Available Under the Single-County Option Within Stafford County, Virginia
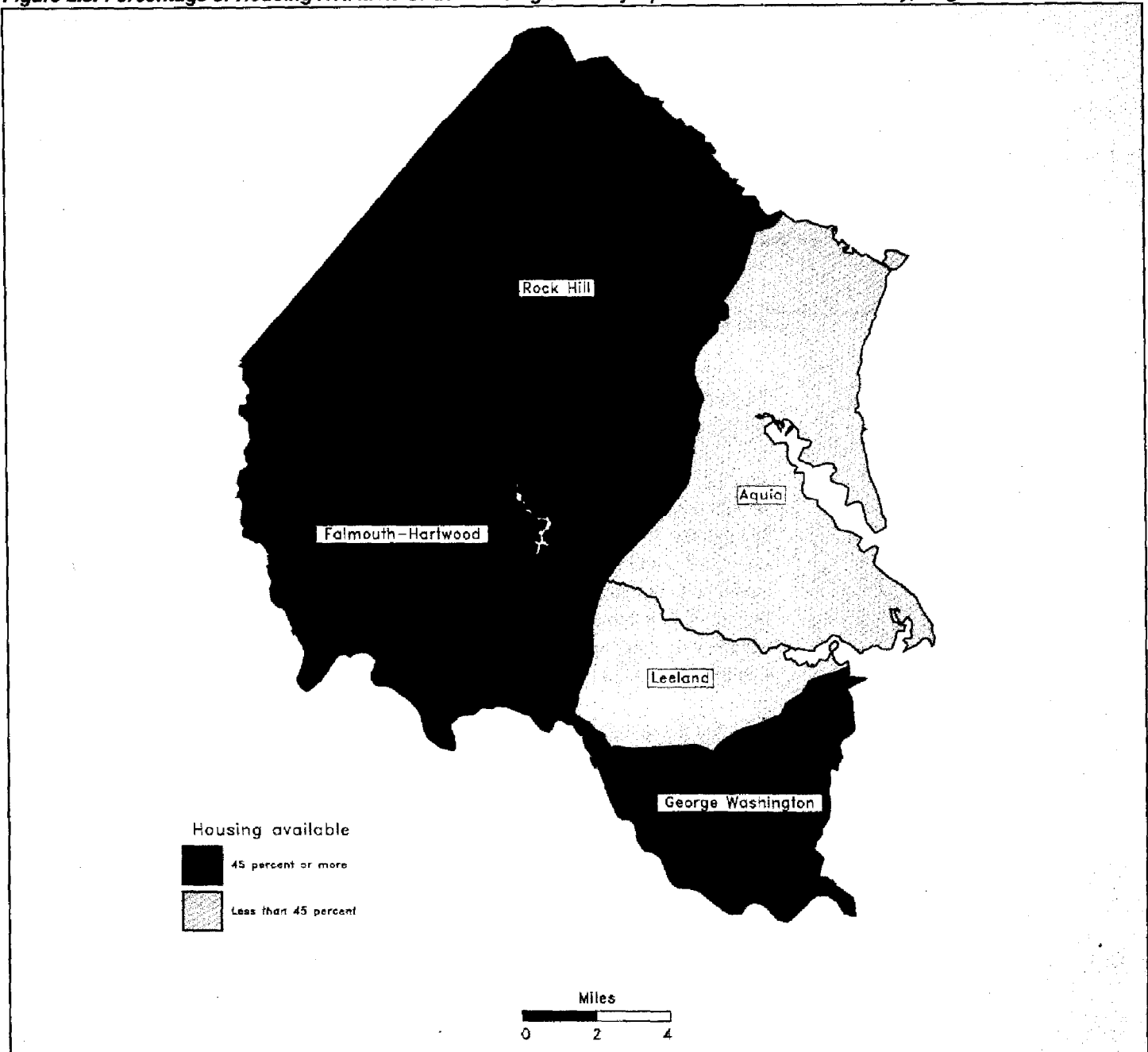
Source: Based on HUD's analysis of two-bedroom units computed from 1990 decennial census
data.

As is the case in Stafford County, the FMR for the District of Columbia would decrease if a county-based approach were used. The rate would go from the current $679 a month to $478 a month—a decrease of $201. Table 2.9 compares how the different housing allowances would affect housing choice.

Table 2.9: Housing Availability in Washington, D.C.—County-Based vs. MSA-Based Market Areas

Market area	45th-percentile rent	Total rental units	Total units at or below 45th-percentile rent	Percentage of units available
MSA-based	$679	35,696	26,195	73
County-based	$478	35,696	16,063	45

Source: HUD's analysis of data from the 1990 decennial census.

As the table shows, the $201 decrease would eliminate 10,131, or about 39 percent, of the rental housing units currently available to Section 8 households in the District of Columbia. As a result, these households would have less housing choice than they now have. Under the current MSA-based configuration, assisted households have access to 73 percent of the District's rental housing units, compared to 45 percent under the county-based approach. Nonetheless, the share of the District's housing units that would be available to Section 8 recipients would become similar to the share available in other jurisdictions within the MSA since under a smaller market area approach, each jurisdiction would move closer to having access to housing at the same 45th-percentile level.

Since data are not available for specific areas within the District of Columbia, we could not determine the impact of the $478 county-based rent level on smaller areas.

Impact of Smaller Market Areas on Housing Choice for the Seattle, Washington, MSA

To determine the impact of moving to smaller market areas for the Seattle, Washington, MSA, we analyzed how county-based 45th-percentile rents would affect housing choice in the two counties that make up the entire MSA—King County and Snohomish County. (Figure 2.2 shows the configuration of the Seattle, Washington, MSA, including its overall boundaries, the major jurisdictions in the MSA, and the location of Section 8 households—HH). Our analysis shows that neither county would experience a significant change in housing choices. This is not surprising, since this MSA has relatively few jurisdictions—two counties—and they

have similar average rents. The rents in the two counties in the MSA differ by only $19.

Figure 2.4: Location and Number of Assisted Households Within the Seattle, Washington, MSA
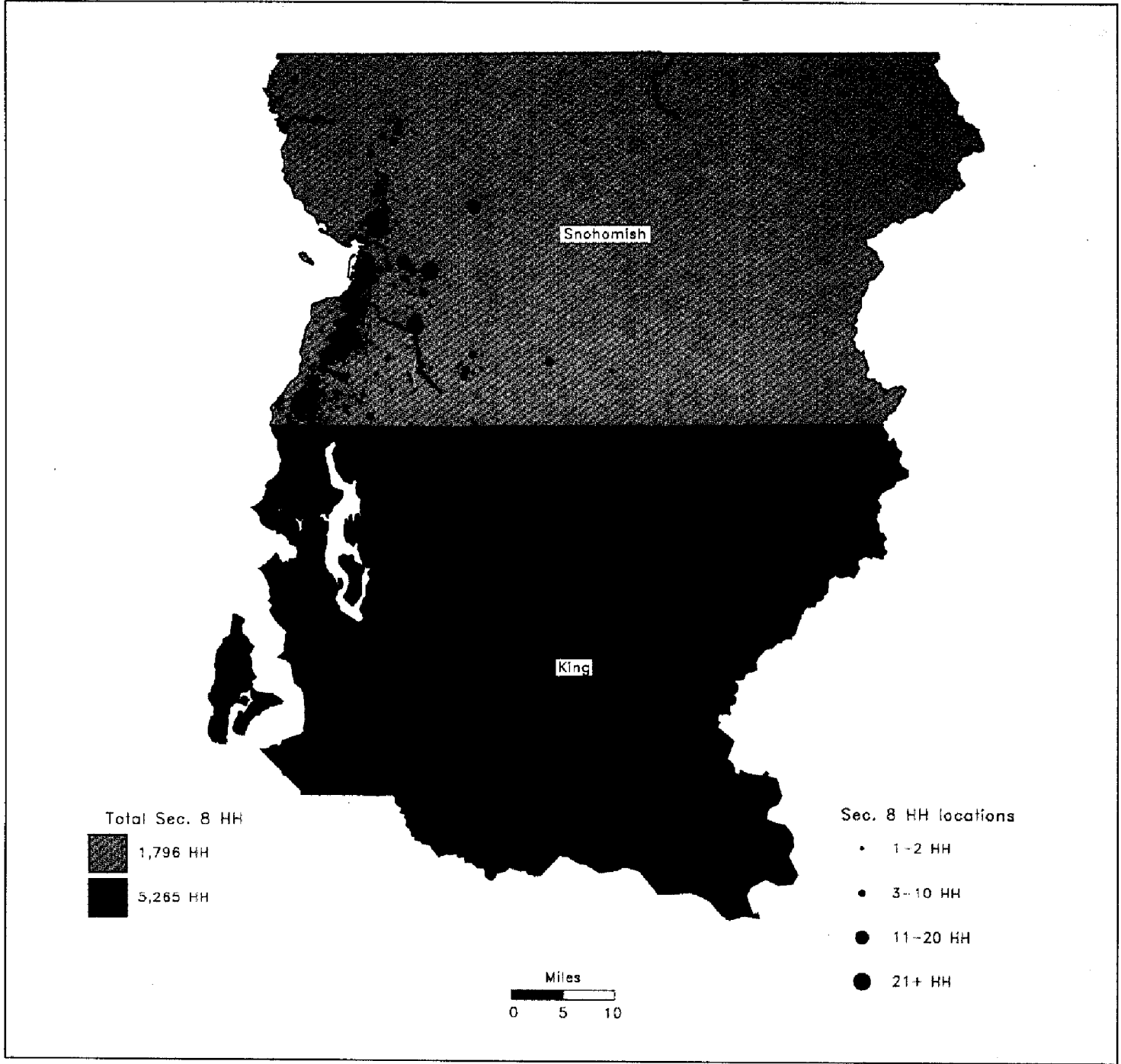
Source: Based on data from PHAs and Donnelly Marketing Information Services.

For King County, a county-based 45th-percentile rent level would be $545 a month—an increase of $5 a month above the $540 MSA-based housing allowance. This $5 increase would not change the amount of available rental housing stock for the county or within it. As table 2.10 shows, the housing choice of Section 8 recipients in the county would not be affected.

Table 2.10: Housing Availability in King County, Washington—County-Based vs. MSA-Based Market Areas

Market area	45th-percentile rent	Total rental units	Total units at or below 45th-percentile rent	Percentage of units available
MSA-based	$540	87,438	40,790	47
County-based	$545	87,438	40,790	47[a]

[a]When the Bureau of the Census collected its basic data, it categorized the number of housing units available into 49 rent ranges ($0 to $80, $80 to $99, $100 to $124, etc.). By definition, 45 percent of the available housings stock should be represented by the 45th percentile. However, for some metropolitan areas, the rent levels fell into a very wide range of rent categories and the countywide percentile estimate was not precise enough to allow an accurate estimate of the number of units available at the 45th percentile. As a result, we report a percentage of housing higher than 45 percent. For example, the 45th-percentile rent in King County is $540. Its applicable rent range is $525 to $549. HUD's analysis shows that within this range, 47 percent of the rental units are available. In short, while the dollar value is in the 45th percentile of rental costs, the number of rental units in the applicable rent range and below constitute more than 45 percent of the housing stock.

Source: HUD's analysis of data from the 1990 decennial census.

For Snohomish County, the 45th-percentile rent for the county would be $526 a month—$14 a month less than the MSA-based housing allowance of $540. The $14 decrease would reduce the number of available rental housing units at the 45th percentile by 2,307, or 17 percent, compared to what is currently available. As table 2.11 shows, if a county-based approach were used, Section 8 households that now have access to 54 percent of the rental housing units in the county would have access to only 45 percent of these units.

Table 2.11: Housing Availability in Snohomish County, Washington—County-Based vs. MSA-Based Market Areas

Market area	45th-percentile rent	Total rental units	Total units at or below 45th-percentile rent	Percentage of units available
MSA-based	$540	25,185	13,640	54
County-based	$526	25,185	11,333	45

Source: HUD's analysis of data from the 1990 decennial census.

Impact on Households' Access to Employment and Education Depends on Availability of Transportation

To determine the impact of using smaller market areas on access to employment and education, we again focused our analyses on the single-county approach. Our analysis shows that even when smaller market areas improve access to rental housing, they do not necessarily improve access to employment or education.[16] In general, improved access to employment depends heavily on the availability of public transportation, as well as on an assisted household's willingness to move into markets or areas with improved housing choice. With respect to education, almost all of the counties we reviewed provided transportation to public schools, either through publicly funded buses or subsided public transportation. Therefore, changes in the size of the market area would not appear to have much effect on access to education.

As previously noted, using smaller market areas would not have much impact on housing opportunities in the Seattle, Washington, MSA. Consequently, making such a change would not significantly improve or worsen access to employment or education at a smaller geographic level. However, because the Washington, D.C., MSA, would experience significant changes in housing opportunities if smaller market areas were used, the examples used in this section are all from the Washington, D.C., area—specifically, Montgomery County, Maryland; the District of Columbia; and Stafford County, Virginia.

Impact on Access to Employment

For the Washington, D.C., MSA, overall, assisted households that reside in 7 of the 11 counties or in the District of Columbia can reach major employers in their county because some public transportation is available in these counties. Montgomery County and the District of Columbia are examples of major jurisdictions where this is the case. In the other four counties, however, such as Stafford County, public transportation is not available to help provide access to employment. Therefore, depending on the availability of public transportation, assisted households' access to employment would improve or there would be no change if FMRs were based on the smaller market area.

Better access to employment could be achieved for those assisted households whose housing opportunities expanded into areas that provide more public transportation. For example, in one MCD in Montgomery County, Maryland, the number of rental units available would increase by 104 percent if FMRs were county-based. This is the highest percentage change of any area in the county. Under the current MSA-based

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[16]Our review did not examine the variance in the quality of employment opportunities and schools.

configuration, this MCD has 352 rental housing units, or 14 percent, available at or below the 45th percentile. However, under the single-county option, 366 more rental units would become available to assisted households, for a total of 718 units.

In addition to the improvements in housing choice, because the area has good public transportation—five or more fixed bus routes and a subway system—assisted households that choose to move into this MCD from less-well-served areas could have better access to the county's employers. The county has 26,029 businesses, 4,723 (18 percent) of which are located within this MCD. These businesses employ about 104,345 people. Furthermore, only about 1.3 percent of the county's Section 8 households currently live in this portion of the county.

In contrast, even when assisted households' housing opportunities decreased, access to employment would not necessarily decline if public transportation is available. For example, under the single-county option, the number of rental housing units available to assisted households in the District of Columbia would decrease by 10,131 units, or 39 percent. However, assisted households' access to the District's 26,830 employers would not change because public transportation is available throughout the area. In the District of Columbia, Section 8 recipients, like all residents, have access to a major bus and subway system that runs regularly throughout the area.

Finally, those assisted households living in locations that would experience a decrease in housing choice and that lack or have limited public transportation would see no degradation in access to employment. For example, under a single-county option, one MCD in Stafford County, Virginia, would have 45 fewer rental housing units than it now has at the MSA-based 45th percentile, a decrease of 56.2 percent of its available rental housing units. However, since no Section 8 recipients currently reside in the MCD's 80 rental units, there would be no impact on assisted households.

In addition, although no public transportation is available in either this MCD or the county as a whole, 27 businesses are located within the MCD's boundaries. As a result, because (1) public transportation is nonexistent and (2) no assisted households currently reside in the area, the large decrease in housing choice under the single-county option would have no impact on access to employers.

Impact on Access to Education

For the Washington, D.C., MSA, overall, each of the 11 counties and the District of Columbia provide publicly funded school buses or subsidized the cost of public transportation for eligible students in elementary through secondary school. Consequently, the housing opportunities that might open up as a result of using smaller market areas would not appear to have much impact on access to public education.

In Montgomery County, Maryland, the District of Columbia, and Stafford County, Virginia, the availability of publicly provided or subsidized transportation for eligible students reflects the situation for the MSA as a whole. To the extent that housing opportunities increased or decreased in these jurisdictions or in parts of them, there would be no significant change in Section 8 households' access to public schools in the area. On the other hand, if the use of smaller market areas made it easier for assisted households to change jurisdictions, assisted households might, by moving, gain access to schools that they perceive to be better.

Conclusions

Under the current system for administering the Section 8 program, assisted households do not always have access to equal shares of rental housing throughout an MSA. Within the MSA, the amount of rental housing available at the FMR can vary considerably among small areas. A large share of rental housing may be available in both the more remote portions of the MSA and some areas of the central city, while a smaller share may be available in some suburban areas. The amount of variability among MSAs in terms of the number of jurisdictions can also be considerable.

FMRs calculated for smaller geographic areas would more closely reflect the 45th-percentile rents within smaller portions of entire metropolitan areas. As a result, households would have access to rental housing at or nearer the 45th percentile of each small area. Any of the three options most often identified as feasible alternatives—county groupings, individual counties, or individual PHA jurisdictions—would therefore result in a program in which assisted households have greater housing opportunities in some areas and fewer opportunities in other areas compared to the situation under the current program.

However, adopting any one of these alternative methods of setting FMRs for smaller market areas has major ramifications that need to be considered. First, the cost of getting the additional data needed to accurately and reliably determine the FMRs could be substantial. Depending on which option was chosen and the level of accuracy and

reliability desired, the annual costs could range from over $5 million, under the county-grouping approach, to nearly $750 million, under either the single-county or PHA-based approach.

Second, the total amount of rental subsidy payments could increase considerably if the Congress required the implementation of a hold-harmless policy, in which FMRs could only increase but not decrease. The recent history of the program suggests that this is a real possibility, and HUD managers are concerned about the effects on total program costs. Furthermore, if, because of budget limitations, increases in rental payments could not be funded, the number of households receiving assistance would have to be reduced.

Third, on the basis of our analysis, it is not clear that altering the current process for setting FMRs would result in a net gain to those households in the program. Improved access to higher quality housing could occur in some areas, although some of these areas may contain little modest housing, raising issues of the degree and the role of public subsidy. On the other hand, a lower FMR in some areas, including most or all of the central city jurisdictions that we examined, means that recipients choosing to reside in these jurisdictions would have access, on average, to lower-quality housing.

Fourth, smaller market areas may improve or not affect assisted households' access to employment if they live in or are willing to move into neighborhoods where public transportation is available. Regarding education, our analysis showed that a majority of the counties that we reviewed provided transportation to public schools, thereby providing children of assisted households with access to education. However, to the extent that assisted households change jurisdictions, they may gain access to schools that they perceive to be better.

Fair Market Rent Levels Have Little or No Effect on Marketwide Rents

We found little evidence that an increase in the FMR causes rent levels to increase.[1] While many Section 8 recipients lease units renting at or near the FMR, this is in large part the result of incentives that certificate holders have when choosing housing and does not mean that rent levels of particular units tend to increase toward the calculated FMR. PHAS we talked with generally believed that inflationary effects were not a problem and cited the importance of requirements for reasonable rents in administering the certificate portion of the Section 8 program.[2] Our examination of housing market conditions in one city for which large inflationary effects were reported, Lynn, Massachusetts, found evidence that rent levels did increase toward the FMR for the metropolitan Boston market area, which includes Lynn. However, factors other than the level of the FMR likely contributed to this outcome. Furthermore, a comprehensive experimental study of the marketwide effects of a tenant-based housing subsidy program found that, in general, the presence of such subsidies had little or no effect on marketwide rent levels.

Little Evidence Exists of Inflationary Effects as a Result of Calculated Level of FMR

We found little support for the view that a change in the FMR causes dramatic increases in the general level of rents in a market area.[3] During the early years of the Section 8 certificate program, the rents paid by assisted households sometimes rose considerably, and currently many Section 8 recipients rent units at about the FMR. However, we believe these results generally have more to do with how the Section 8 subsidy program is designed than with inflationary effects associated with the calculated level of the FMR itself.

Assisted households rent housing in private housing markets. Market rents are determined by how much households are willing and able to pay and how little landlords are willing to accept for particular units. Marketwide variation in rents exists because units vary in age, the quality of construction and maintenance, the location within the area, and neighborhood or jurisdictional differences in amenities.[4] HUD calculates an

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[1]The mandate requires GAO to examine the "inflationary effects of fair market rentals under existing law."

[2]Voucher recipients are not subject to rent ceilings, and PHAs are not usually involved in determining whether the rents these households choose to pay are reasonable. In contrast, certificate recipients' rents must be considered "reasonable" by the relevant PHA.

[3]We focused on possible inflationary effects at the marketwide level, not at the neighborhood or housing unit level.

[4]As previously noted, rents also depend on a unit's size, such as the number of bedrooms. FMRs are calculated for different unit sizes on the basis of the number of bedrooms.

area's FMR to yield the 45th percentile of rent distribution. As noted in chapter 2, within any market, there may be areas, or submarkets, in which rents generally are much above the FMR, areas with many units renting for about the FMR, and areas with rents below the FMR. Furthermore, within an area, there may be particular units with rents above or below the FMR.

Early Section 8 Rent Increases and Current Rent Clustering Are Not the Results of FMR Levels

In 1978, HUD examined the early history of the Section 8 program and reported an average rent increase of 26 percent for units leased by assisted households whose existing units qualified for Section 8 without needing repairs.[5] Some analysts have argued that these rent increases occurred in part because the Section 8 program attracted only those landlords whose properties had rents below the FMR.[6] Thus, these rental units were priced disproportionately lower than the total stock of rental units housing low- and moderate-income tenants. These analysts argued that the observed rent increases were consistent with the notion that the rent ceiling aspect of the FMR served to remove many of the price discounts existing in the market.[7]

More recently, according to a HUD study, most rents in the Section 8 certificate program, and to a lesser extent in the voucher program, are very close to the FMR.[8] This report found that approximately 43 percent of all certificate recipients lease units with rents between 95 and 100 percent of the FMR. Of certificate holders who moved, almost half moved to units with rents between 95 and 100 percent of the FMR.

While these rent patterns—early rent increases and current "rent clustering" around the FMR—have been interpreted as evidence of inflationary effects, an alternative explanation suggests that these patterns result from incentives that the FMR provides to Section 8 certificate holders and landlords. Under the certificate program, the assisted household's out-of-pocket expenses do not vary with the amount of rent that the

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[5]Margaret Drury, Olsen Lee, Michael Springer, and Lorene Yap, Lower Income Housing Assistance Program (Section 8): National Evaluation of the Existing Housing Program, Department of Housing and Urban Development (Nov. 1978).

[6]The Section 8 rent ceiling would mean lower revenues to landlords whose units had rents above the FMR. Without any offsetting benefits, such as reduced tenant turnover, those landlords would be unwilling to participate in the program.

[7]See Edgar O. Olsen and William J. Reeder, "Does HUD Pay Too Much for Section 8 Existing Housing?," Land Economics, vol. 57, no. 2, May 1981, pp. 243-251.

[8]Mireille L. Leger and Stephen D. Kennedy, Final Comprehensive Report of the Freestanding Housing Voucher Demonstration, Volume 1, study for the U.S. Department of Housing and Urban Development (Cambridge, Mass: Abt Associates, Inc., May 1990).

landlord receives. In other words, because the household cannot receive any savings by leasing a unit renting for less than the FMR, the household has a strong incentive to lease a unit renting at or near the FMR since those units are likely to be of higher quality. For a certificate recipient whose unit already meets the Section 8 quality standards, there may be little incentive to resist a rent increase toward the FMR, particularly if (1) a higher rent increases the chances that the landlord will participate in the Section 8 program and (2) the household must bear the costs of searching for and moving to a preferred unit.[9]

Rent Reasonableness Tests Help Ensure That Section 8 Recipients Are Not Charged Excessive Rents

The possibility that the FMR itself can substantially affect the rent levels that particular units or neighborhoods can command in the market has concerned some observers. However, a majority of the PHAs we interviewed generally reported that they saw no indication that the FMR resulted in inflated rent levels in their market area. Many PHAs stated that this is due, in large part, to effective tests of rent reasonableness.

In the Section 8 certificate program, PHAs are supposed to examine units to see if the proposed rent is (1) reasonable in relation to the rents currently being charged for comparable units in the private, unassisted market and (2) not in excess of the rents that the owner is currently charging for comparable unassisted units. An effective rent reasonableness test helps ensure that landlords are not charging inflated rents to Section 8 tenants, which could result in unnecessary housing assistance payments.

In practice, rent reasonableness tests are likely to be less effective in ascertaining whether modest rent differences are reasonable than in identifying large disparities between the FMR and the market rents. For instance, if the FMR is $600, the PHA may find it difficult to distinguish a unit that might otherwise rent for $590 from one that might truly rent for $600 and may be less likely to reject the landlord's claim that $600 is a reasonable rent for the first unit. On the other hand, if the prevailing neighborhood rents are closer to $500, rent reasonableness tests should be more useful for rejecting a landlord's claim that a unit that might otherwise rent for $500 should rent for the FMR level of $600. Furthermore, HUD's Office of Inspector General has issued a series of reports that have

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[9]As previously noted, vouchers differ from certificates in several ways. Voucher recipients can spend more than the FMR on housing, but they must pay the difference between their rent and the FMR out of their own pocket. Voucher recipients can also save money if they rent units for less than the FMR. In principle, this shopping incentive should make voucher recipients more resistant than certificate recipients to rent increases. HUD's demonstration study analyzes the differences between the certificate and voucher programs in detail.

identified several problems in how some PHAS carry out their
responsibilities regarding rent reasonableness.

Given ineffectiveness or some imprecision in rent reasonableness tests,
increases in the FMR may place some upward pressure on rents paid by
assisted households in the Section 8 program. However, these increases
are not likely to directly affect the rents paid by the large number of
households receiving no housing assistance. Factors that determine the
demand for housing—especially income—have not changed for this group
as a result of the program. Furthermore, competition among landlords has
previously kept rents below the FMR level. If landlords are now able to
increase the rents paid by unassisted households, it is not clear why they
were either unable or unwilling to do so earlier.

Many Factors Contributed to Rent Increases in Lynn, Massachusetts

We examined in more detail the experiences of the Section 8 program in
Lynn, Massachusetts. For purposes of calculating FMRS, Lynn is part of the
Boston housing market. In general, the rent levels prevailing in Lynn are
much lower than those prevailing in Boston and some of its suburbs.
However, in the early- to mid-1980s, as general rent levels increased in
Lynn and much of the Boston area, rents for Section 8 units in Lynn
increased more rapidly. In some cases, the rents approached the FMR
ceiling set for the metropolitan Boston area.

However, our review found no evidence that the level of the FMR itself was
primarily responsible for these rent increases. The housing stock in Lynn
featured a greater number of multifamily units than did housing in many
other jurisdictions north of Boston, and, according to Lynn officials, the
area offered a wide variety of public services that made it more attractive
to low-income people. Furthermore, there were a large number of assisted
households in Lynn: approximately 20 to 25 percent of all Lynn renters.

The magnitude of housing assistance in Lynn suggests that rent
reasonableness tests would be important in ensuring that the rents were
appropriately set. However, one factor in the observed rent increases was
the inconsistent enforcement of the rent reasonableness tests. Throughout
this period, both the Lynn Housing Authority and MetHap, a nonprofit
agency working on behalf of the Commonwealth of Massachusetts, were
administering the Section 8 program.[10] These two organizations may have
performed rent reasonableness tests differently. The program
administered by MetHap had a component designed to assist homeless

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[10]A state housing assistance program was also in existence.

persons, and, according to the Director of the Lynn Housing Authority, placed less emphasis on the rent reasonableness tests. However, at the time of our review, the Lynn Housing Authority was responsible for conducting the tests of housing quality and rent reasonableness for the Section 8 program in the city of Lynn. As a result, according to the Lynn Housing Authority, Section 8 rent levels in Lynn were typically below the FMR.

Tenant-Based Subsidies Have Little Effect on Marketwide Rent Levels

An alternative interpretation of the mandate is to consider the possibility that tenant-based housing assistance leads to marketwide rent increases. As a component of a landmark social science research project, a major study of the marketwide effects of a tenant-based housing subsidy program found that, in general, the subsidies had little or no effect on a market's rent levels. While the Section 8 program differs in some ways from the housing allowance program examined, the number of households assisted through Section 8 is a relatively small proportion of the housing market. Thus, the current program likely creates only a small increase in housing demand, from which substantial marketwide rent increases are not likely.

Experimental Housing Allowance Program

Because of the importance of understanding the response of low- and moderate-income housing markets to tenant-based housing assistance, in the 1970s HUD undertook an extensive study known as the Experimental Housing Allowance Program (EHAP).[11] HUD designed the EHAP to determine whether and to what extent rent levels may increase with the introduction of a tenant-based subsidy.[12] These increases might result from changes in factors affecting the supply of and demand for rental housing, including the number of assisted households, the amount of housing assistance, and actions by landlords to change the supply of housing. Tenant-based subsidies are intended to help households have lower rent burdens,[13] better housing, or both. However, one possible undesirable outcome may be that low- and moderate-income households will pay more for housing if marketwide rents increase substantially as a result of the increase in

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[11]At that time, the traditional government approach to providing housing assistance was to increase the supply of low-income housing, either directly in the form of public housing or by providing subsidies to private developers. EHAP was envisioned as examining the feasibility of providing tenant-based housing assistance as an alternative to the traditional approach.

[12]HUD funded EHAP research, major portions of which were carried out by Abt Associates, Inc., the Rand Corporation, and the Urban Institute.

[13]Rent burden measures a household's expenditure on housing as a share of its income.

housing demand. Since Section 8 is not an entitlement program—that is, not all who qualify and apply for assistance receive it—marketwide rent increases will also affect low- and moderate-income households not receiving housing assistance.

One key component of EHAP was the Housing Assistance Supply Experiment, in which tenant-based subsidy programs were designed and implemented in two small urban areas: South Bend, Indiana, and Green Bay, Wisconsin.[14] In each area, the Supply Experiment focused on the general conditions of the entire area's housing, changes in housing quality and rents paid over time, and the effects of housing assistance on the housing market.[15] Beginning with extensive preprogram surveys of housing conditions, information was gathered on housing quality and rent levels throughout the market area, including units that were never enrolled in the program.

A key feature of the program's design was that eligible households would receive housing assistance over a long period of time. Specifically, households continuing to meet eligibility conditions would receive payments for 10 years. Program designers believed this was enough time for recipients to make long-term housing decisions and for landlords to perceive investments in housing improvements to be worthwhile.[16]

The Supply Experiment represents the most elaborate attempt that we know of to examine the overall responses of a housing market to a tenant-based form of housing assistance. Its general conclusions were strong:

- The housing subsidy did not contribute in any major way to the observed changes over time in marketwide gross rent levels.
- The housing subsidy may have resulted in very modest rent increases for assisted households, although experiences differed between the two experimental sites.
- For the most part, the housing subsidy had no discernable spillover effects on the general level of rents paid in low-income housing markets, except in a low-income, minority section of South Bend. At least initially, the

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[14]Specifically, the studies were conducted in St. Joseph County, Indiana, and Brown County, Wisconsin, of which South Bend and Green Bay are the central cities.

[15]Although low-income owners were also eligible for housing assistance under EHAP, unlike in the Section 8 program, many of the effects examined focused on changes in rental housing conditions.

[16]If participants know the duration of subsidy will be shortlived, they are much less likely to alter their behavior by, for instance, moving to a more expensive unit.

housing assistance program may have caused rents there to increase
somewhat faster than they did elsewhere in the county.

In the Supply Experiment, the housing subsidy resulted in a fairly modest
increase in the demand for housing. Although EHAP, unlike Section 8, was
an entitlement program, fewer than half of eligible households were
enrolled at any one time.[17] Moreover, most of the assisted households
chose to spend much of their housing allowance for items other than
housing, typically spending between 15 and 20 percent on increased
housing expenditures. While recipient households had to secure housing
that met the program's housing standards, many of those units not meeting
the standards initially were brought up to the standards at little expense.
Furthermore, previously vacant units were able to absorb some of the
increase in housing demand. The modestly increased housing demand,
when coupled with a fairly elastic supply response by landlords,[18] resulted
in no rent increases observed at the marketwide level that could be
attributed to the program. This general result held in both Green Bay,
which was described as a tight housing market because of low vacancy
rates and short vacancy durations, and in South Bend, which was
described as a loose housing market.

In terms of the effects on rents paid by assisted households, the results of
the Supply Experiment were mixed but suggested that any
program-induced rent increases were, at most, quite modest. In the case of
South Bend, estimates were that gross rent increases for assisted
households were in the range of 2 percent more per year than the increase
in gross rents generally, although some of the increase appeared to be the
result of improved housing quality. However, in Green Bay, the estimated
rent increases faced by the assisted households were less than the
marketwide rent increases.[19]

Some findings from the Supply Experiment focused on the program's
effects in Central South Bend, a lower-income area that contained
approximately 50 percent of the total assisted households in St. Joseph

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[17]At any given time, approximately 20 percent of households—28 percent of renters and 17 percent of
homeowners—were eligible for housing assistance, and about 7 percent of households were receiving
assistance.

[18]That is, the percentage increase in housing supply exceeded the percentage increase in rent level.

[19]In St. Joseph County, over the study period of November 1974 to July 1978, gross rents increased at
an annual rate of 5.7 percent. Approximately 70 percent of this increase was attributable to increases
in fuel prices. In Brown County, gross rents increased at an annual rate of 6.6 percent between 1974
and 1977. In both sites, there was considerable variation in gross rent changes across different types of
structures and locations within the area.

County and 85 percent of the county's minority population. This housing submarket was studied because of concerns about the performance of housing assistance programs in urban areas with concentrations of low-income and minority residents.

First, over the period studied, the average rent in Central South Bend increased at about the same rate as it did elsewhere in the county, with slightly larger rent increases for recipients there than was the case for recipients generally. Second, some spillover effects on the general level of the area's rents were observed, although the differences in rent increases were more prominent early in the program and diminished or even reversed for some dwelling types in later years. The spillover effects were relatively small, however, given the size of the program's intervention in the housing market in Central South Bend: At one time or another, about 25 percent of the area's housing units were occupied by assisted households. In fact, rent increases for many types of dwelling units were smaller in Central South Bend than in the rest of the county.

Post EHAP

EHAP was conducted, for the most part, during the 1970s. Some analysts have argued that conditions in the low- and moderate-income housing market have changed since that time. In particular, they state that low-income housing conditions are increasingly characterized by higher rent levels and a declining stock of low-income housing.[20] Some analysts doubt whether the EHAP results can be generalized to larger urban areas. Furthermore, estimates suggest that households assisted under Section 8 spend a greater portion of their rent subsidy on housing than was the case in the Supply Experiment. Rent increases may thus be larger than those observed in the Supply Experiment because the subsidy results in a larger increase in housing demand.[21] Some argue further that the housing market's responses to a permanent subsidy program may differ from responses to an experimental program like the Supply Experiment.

Nonetheless, we believe that the results of the Supply Experiment are instructive. Even if assisted households channel more of their subsidy into the housing market, the small size of the current Section 8 program relative to the rental housing market as a whole or even to the low-income

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[20]One analyst shows that a measure of the cost of standard housing relative to recipients' income has increased from roughly 40 percent during the Supply Experiment to about 80 percent under the Section 8 program: William C. Apgar, Jr, "Which Housing Policy Is Best,?" Housing Policy Debate, vol. 1, no. 1, 1990, pp. 1-32.

[21]It is estimated that approximately 50 percent of the Section 8 subsidy is used on housing expenditures, compared with around 15 percent in the Supply Experiment.

housing component suggests a fairly small intervention in or effect on the housing market. Many of the PHAs we talked with indicated that the number of assisted households in their jurisdictions was too small for the Section 8 program to have an impact on marketwide rent levels. Of course, changes in supply by landlords and tenants' mobility considerations are important.

In its nationwide study of similarities and differences between the voucher and certificate programs, HUD presented findings about the rent increases faced by assisted households at the time their eligibility for the program was recertified.[22] One result was that for the voucher recipients who became recertified in the same unit, annual gross rent increases averaged about 4 percent, an amount similar to the increase in the housing component of the consumer price index. Since voucher holders have some incentive to search for "bargain-priced" units, and given that many recipients are able to move in order to qualify or in search of preferred units, this provides some evidence that inflationary effects are still likely to be small.

Conclusions

We found little evidence to support the concern that rent levels established for the Section 8 program have an inflationary effect on marketwide rental rates. While many Section 8 recipients lease units renting at or near the FMR, this is due in large part to the incentives that certificate holders have to choose higher-quality housing and does not mean that the rent levels for particular units tend to increase toward the FMR. Findings of a case-study analysis that we did for this review were consistent with those of a landmark social science research project—a major study of the marketwide effects of a tenant-based housing subsidy program—conducted in 1978, which showed no indication that FMR levels caused increased rents for the market as a whole.

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[22]Final Comprehensive Report of the Freestanding Housing Voucher Demonstration.

Information on Housing and Services for Section 8 Households in Four Locations

In response to the mandate and subsequent discussions with congressional recipients' offices, we agreed to provide information on specific issues on four metropolitan statistical areas (MSA). These issues are the location of Section 8 households and their access to services, employment, and transportation. Specifically, for each MSA this appendix provides information on (1) the location of Section 8 households; (2) key demographic characteristics—median income levels, population density, racial composition, unemployment rates, and the amount of housing stock available—for the areas where the Section 8 households are located; and (3) the services available to the Section 8 households, including health care, food stores, public schools, major employers, and transportation.

The four MSAS on which we collected information were Wilmington, Delaware; Washington, D.C.; Oklahoma City, Oklahoma; and Seattle, Washington. In summary, we found the following:

Location of Section 8 Households

- In the four market areas we reviewed, Section 8 households were dispersed throughout the entire area. For example, at least one Section 8 recipient lived in each of the 22 counties and in 156, or 86 percent, of the 181 minor civil divisions (MCD) that made up the four MSAS.

Demographic Characteristics

- The majority of assisted households, about 17,000 households, or 79 percent, resided in their MSA's urban areas, where the largest amount of the rental housing stock was located. Although these urban areas tend to provide a large number of rental units, the MSA-wide fair market rent (FMR) for the area generally provided less than 45 percent of the county's available rental housing stock to the assisted households living in these areas.
- These urban-area assisted households were generally located in those areas that had among the highest population density and minority population. However, we saw no clear pattern in median household income and the unemployment rate.
- The remaining Section 8 recipients were dispersed throughout the market in the less urbanized counties. These areas generally had both a lower percentage of available rental housing stock and lower rent levels. As a result, although the number of rental units available was limited, the housing subsidy provided to the assisted households generally enabled them to rent units priced above the 45th-percentile rent for their market area.

• Those Section 8 households that chose to make their home in the less urban portion of their market areas generally lived in less congested areas that had smaller minority populations and among the lowest unemployment rates. Moreover, the median household income for these areas was generally average to high when compared with incomes in other areas in the MSA.

| Availability of Services, Employment, and Transportation | • The majority of the assisted households resided in their MSA's more urbanized counties. These areas also had the most services—health care, food stores, and public schools—and businesses within close proximity to the assisted households. |

• The majority of the assisted households resided in their MSA's more urbanized counties. These areas also had the most services—health care, food stores, and public schools—and businesses within close proximity to the assisted households.
• In addition to having access to many nearby services and businesses, these assisted households had access to public transportation—buses and/or subways. The availability of public transportation enabled the assisted households to reach services and employers within their county.

The following sections present detailed data for each MSA we reviewed.

Section 8 Households in the Wilmington, Delaware, MSA

The Wilmington, Delaware, MSA, has a total population of 578,587 and is about 1,112 square miles in size. It is made up of three counties—New Castle County, Delaware, which includes the city of Wilmington; Cecil County, Maryland; and Salem County, New Jersey.

Location of Section 8 Households

This MSA had 2,701 Section 8 households (HH). They were located in each of the three counties that make up the MSA. (See fig. I.1.) The majority of assisted households, over 2,000 households, or 76 percent, resided in New Castle County, Delaware. The remaining households were dispersed throughout the market areas.

Figure I.1: Location and Number of Assisted Households Within the Wilmington, Delaware, MSA

Total Sec. 8 HH

- 305 HH
- 341 HH
- 2,055 HH

Sec. 8 HH locations

- 1-2 HH
- 3-10 HH
- 11-20 HH
- 21+ HH

Miles
0   5   10

Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

Key Demographic Data for Areas Where Section 8 Households Live

For each of the three counties in the MSA, we collected key demographic data to show the characteristics of the different areas. Table I.1 provides these comparative data.

Table I.1: Comparison of Counties Within the Wilmington, Delaware, MSA

County	MSA's total rental stock (%)	Two-bedroom rental units at or below MSA's 45th percentile[a] (%)	Total Section 8 households (%)	Population per square mile	Median household income[b]	Percent minority population	Unemployment rate
New Castle	21,149 (83)	8,671 (41)	2,055 (76)	1,036.7	38,617	17	2.6
Cecil	1,946 (8)	1,294 (66)	341 (13)	204.9	36,018	4	3.1
Salem	2,398 (9)	1,506 (63)	305 (11)	193.3	33,152	15	3.1
Total	**25,493 (100)**	**11,471 (45)**	**2,701 (100)**	520.2 (average)	37,553 (median)	15.5 (average)	2.8 (average)

[a]This number represents two-bedroom units. HUD sets FMRs to reflect the cost of two-bedroom units at the 45th percentile because this size unit predominates in the census data. HUD makes adjustments for other size units.

[b]The income figure shown in the chart cannot be used to estimate Section 8 recipients' program eligibility. Program eligibility is based on the adjusted median household income for the entire MSA.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

As the table shows, the county with the most Section 8 households—New Castle—was also the area with the most rental housing stock and the largest number of two-bedroom rental units available at or below the MSA-wide 45th-percentile rent. However, it also had the lowest proportion of rental units available at or below the 45th-percentile rent (41 percent). That is, for New Castle County the MSA's FMR of $524 makes 41 percent of the rental units available to the assisted households. The Section 8 households that chose to live in the less urbanized portions of the area—Cecil and Salem for example—had less rental housing available, but the local FMR rate gave them access to housing at levels above the 45th percentile—66 and 63 percent, respectively. In addition, relative to other counties in the MSA, New Castle County had the highest population density, median household income, and minority population. It also had the lowest unemployment rate, 2.6 percent.

Within New Castle County, the majority of the Section 8 households, 780, or 38 percent, resided in the Wilmington Division—one of 11 MCDs within the county. Figure I.2 shows the number and location of the assisted households in New Castle County, Delaware.

Figure I.2: Number and Location of Assisted Households in New Castle County, Delaware
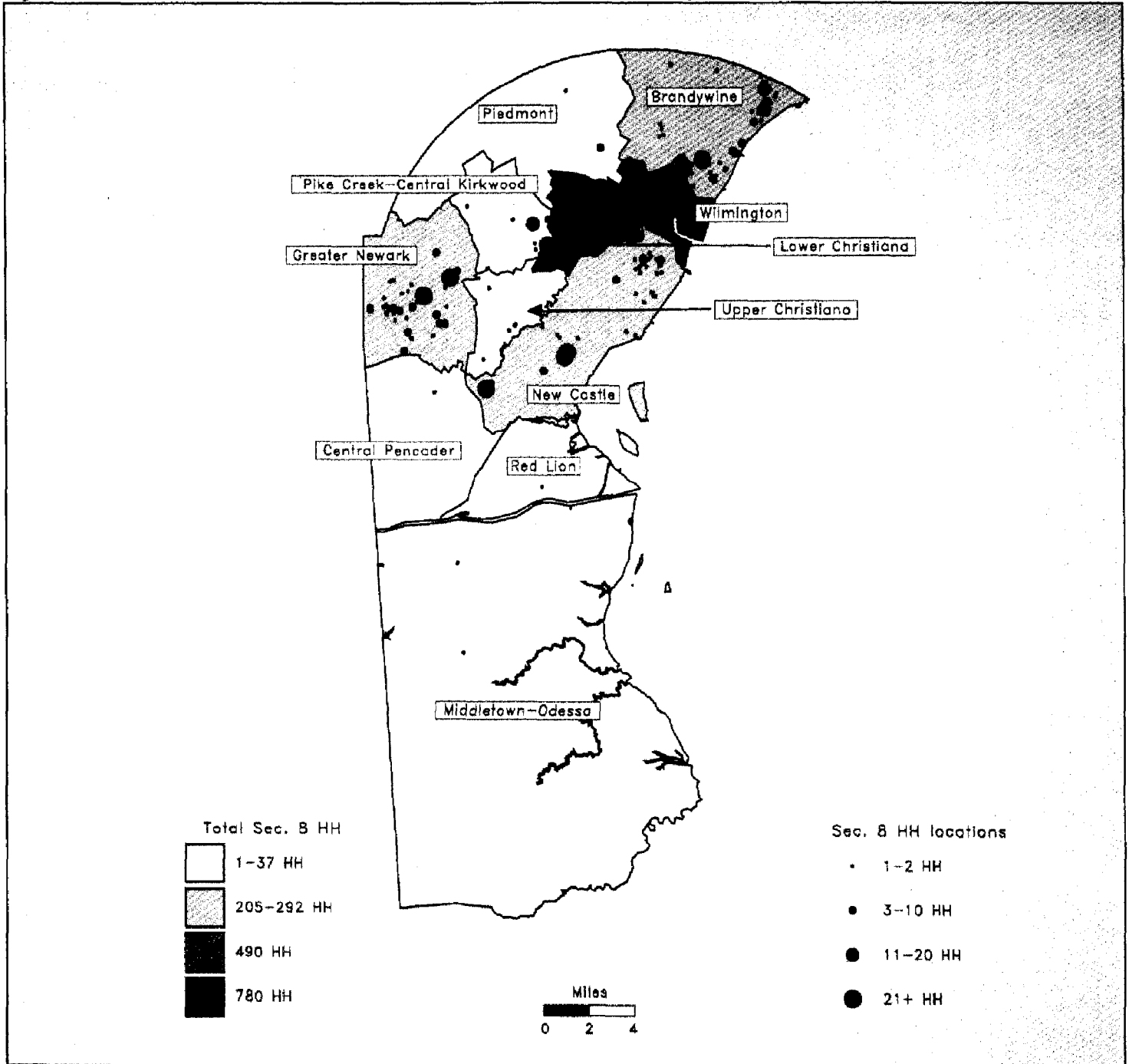
Total Sec. 8 HH

▫ 1-37 HH

▨ 205-292 HH

▦ 490 HH

■ 780 HH

Sec. 8 HH locations

· 1-2 HH

● 3-10 HH

● 11-20 HH

● 21+ HH

Miles
0   2   4

Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

As table I.2 shows, in comparison with the rest of the county, the Wilmington Division had the lowest median household income, had the highest unemployment rate, and was the most congested area in the county. As table I.3 shows, it also had the highest proportion of minority residents, 48 percent. As table I.4 shows, the Wilmington Division had the third highest total rental housing stock, 17 percent, and the highest proportion of two-bedroom rental units at or below the MSA-wide 45th-percentile rent in the county, 21 percent.

Table I.2: Demographic Characteristics—Income, Unemployment, and Population Per Square Mile—of New Castle County, Delaware

MCD division name	Median household income	Percent unemployment	Population per square mile
Brandywine	$44,127	2.1	2,576.4
Central Pencader	44,498	2.6	555.6
Greater Newark	39,748	2.1	2,032.1
Lower Christiana	32,874	2.5	3,140.2
Middletown-Odessa	39,119	2.6	99.2
New Castle	35,904	3.2	1,811.8
Piedmont	72,664	1.1	620.1
Pike Creek-Central Kirkwood	44,095	1.6	2,678.0
Red Lion	38,611	2.8	198.6
Upper Christiana	40,959	2.1	1,768.2
Wilmington	26,394	4.6	6,687.8
Overall for country	**38,617**	**2.6**	**1,036.7**

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.3: Demographic Characteristics—Race by Household and Percent Minority Population—of New Castle County, Delaware

MCD division name	Race by household			Percent minority population
	White	**Black**	**Other**[a]	
Brandywine	28,904	1,998	556	8.1
Central Pencader	5,532	503	129	10.2
Greater Newark	18,316	1,388	589	10.0
Lower Christiana	12,901	1,269	190	10.2
Middletown-Odessa	5,318	540	45	10.0
New Castle	19,633	4,591	427	20.3
Piedmont	7,945	133	267	4.8
Pike Creek-Central Kirkwood	14,414	477	350	5.4
Red Lion	1,234	83	4	6.6
Upper Christiana	6,744	830	297	14.3
Wilmington	14,789	12,709	1,056	48.2
Total	**135,730**	**24,521**	**3,910**	17.0 (average)

[a]"Other" includes American Indian, Asian, and other race categories.

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.4: Rental Housing Stock and Availability Within New Castle County, Delaware

MCD division name	Total rental housing stock	Percent rental stock	Two-bedroom rental units at or below the MSA's 45th percentile[a]	Percent rental units	Percent at the MSA 45th percentile
Brandywine	3,802	18	1,394	16	37
Central Pencader	698	3	264	3	38
Greater Newark	3,746	18	1,309	15	35
Lower Christiana	1,827	9	1,188	14	65
Middletown-Odessa	237	1	222	2	94
New Castle	3,510	16	1,403	16	40
Piedmont	435	2	70	1	16
Pike Creek- Central Kirkwood	1,379	6	342	4	25
Red Lion	78	0	75	1	96
Upper Christiana	1,921	9	555	6	29
Wilmington	3,516	17	1,875	21	53
Total	**21,149**	**100**	**8,697**	**100**	41 (average)

Note: Percentages may not add to 100 because of rounding.

[a]See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent housing stock at or below the 45th percentile.

Source: Based on data from Donnelly Marketing Information Service's census demographic files and HUD's analysis of data from the 1990 decennial census.

Information on Services and Businesses Available to Section 8 Households

In the Wilmington, Delaware, MSA, the majority of the Section 8 households lived in the most urbanized county—New Castle County, Delaware. This area also had the most services and businesses within close proximity to the Section 8 households. Table I.5 provides data on the services available in each of the area's three counties.

Table I.5: Services Within the Wilmington, Delaware, MSA

County	Total Section 8 households (%)	Health care (%)		Food stores (%)	Public schools (%)
		Hospitals	Doctors/ dentists		
New Castle	2,055 (76)	8 (61)	480 (81)	105 (69)	83 (56)
Cecil	341 (13)	3 (23)	59 (10)	20 (13)	30 (20)
Salem	305 (11)	2 (15)	54 (9)	26 (17)	34 (23)
Total	**2,701 (100)**	**13 (100)**	**593 (100)**	**151 (100)**	**147 (100)**

Note 1: The number of services listed may not be complete. We found that many of the data bases we used to gather the information on these services did not contain all the observations. For a full discussion of the data limitations, see appendix II.

Note 2: Percentages may not add to 100 because of rounding.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

Table I.6 provides data on the total number of businesses and employees within the Wilmington, Delaware, MSA, and for each of its counties.

Table I.6: Businesses Within the Wilmington, Delaware, MSA

County	Total Section 8 households (%)	Total businesses (%)	Total employees (%)
New Castle	2,055 (76)	12,472 (79)	202,668 (84)
Cecil	341 (13)	1,819 (12)	15,668 (6)
Salem	305 (11)	1,378 (9)	21,757 (9)
Total	**2,701 (100)**	**15,669 (100)**	**240,093 (100)**

Note: Percentages may not add to 100 because of rounding.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

In addition to many services and businesses, public transportation—buses—is available to about 90 percent of the assisted households. Public transportation allows these households to reach services and employers within New Castle County. (See fig. I.3.)

Figure I.3: Public Transportation and Location of Assisted Households in New Castle County, Delaware
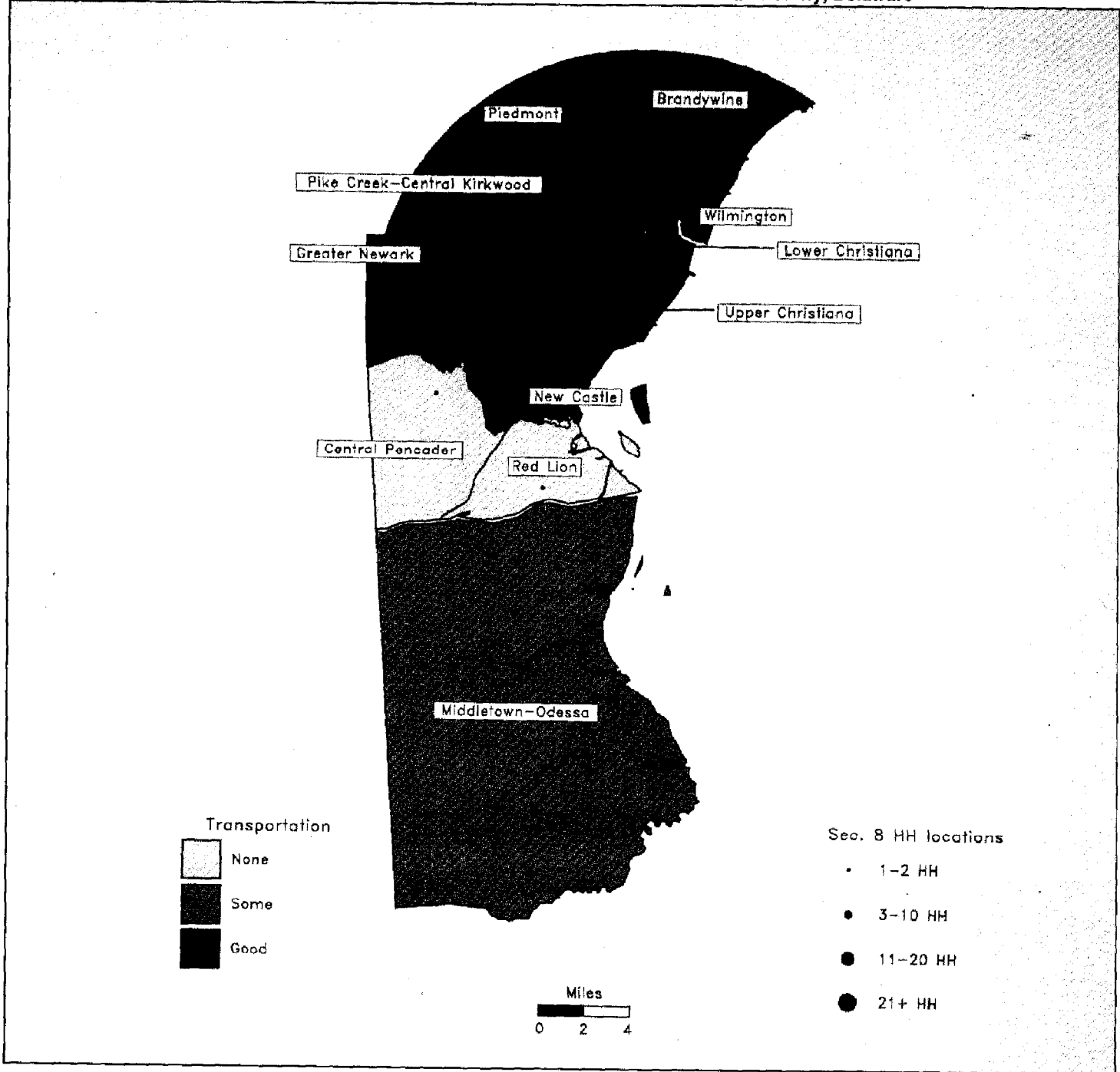
Source: Delaware County public transportation providers.

As stated above, the majority of the assisted households resided in the county's most urbanized area—Wilmington Division—which also had the largest number of services and businesses located within its boundaries. As table I.7 shows, the Wilmington Division had three hospitals, or 38 percent of the county's hospitals, and the largest number of doctors' and dentists' offices in the county, over 175, or 37 percent. As table I.8 shows, it also had the fourth highest number of food stores—three grocery stores, or 7 percent, and four convenience stores, or 6 percent—and the highest number of public schools—14 schools in the county, or 17 percent. As table I.9 shows, the Wilmington Division had the highest number of employers, 3,113 in the county, or 25 percent.

Table I.7: Health Care Services Available Within New Castle County, Delaware

| | | | Health care | |
MCD division name	Total households	Total assisted households	Hospitals	Doctors'/ Dentists' offices
Brandywine	31,458	205	0	114
Central Pencader	6,164	1	0	0
Greater Newark	20,293	231	0	53
Lower Christiana	14,360	490	0	11
Middletown-Odessa	5,903	3	0	8
New Castle	24,651	292	1	14
Piedmont	8,345	6	1	14
Pike Creek- Central Kirkwood	15,241	37	1	59
Red Lion	1,321	2	0	0
Upper Christiana	7,871	5	1	29
Wilmington	28,554	780	3	178
Unknown[a]	b	3	1	0
Total	**164,161**	**2,055**	**8**	**480**

Note: See table I.5, note 1, for an explanation of why the number of services listed may not be complete.

[a]The data base we used was unable to identify in which of the 11 MCDs these services were located.

[b]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Table I.8: Food Stores and Public Schools Within New Castle County, Delaware

MCD division name	Total households	Total assisted households	Food stores Grocery[a]	Food stores Convenience	Public schools
Brandywine	31,458	205	8	9	11
Central Pencader	6,164	1	1	2	3
Greater Newark	20,293	231	3	6	11
Lower Christiana	14,360	490	3	4	6
Middletown-Odessa	5,903	3	1	2	4
New Castle	24,651	292	3	6	11
Piedmont	8,345	6	1	0	2
Pike Creek- Central Kirkwood	15,241	37	0	3	8
Red Lion	1,321	2	0	0	0
Upper Christiana	7,871	5	1	3	1
Wilmington	28,554	780	3	4	14
Unknown[b]	[c]	3	17	25	12
Total	164,161	2,055	41	64	83

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

[a]"Grocery" stores also include supermarkets.

[b]The data base we used was unable to identify in which of the 11 MCDs these services were located.

[c]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Table I.9: Businesses Located Within New Castle County, Delaware

MCD division name	Total households	Total assisted households	Total businesses
Brandywine	31,458	205	2,436
Central Pencader	6,164	1	139
Greater Newark	20,293	231	1,407
Lower Christiana	14,360	490	1,156
Middletown-Odessa	5,903	3	424
New Castle	24,651	292	1,587
Piedmont	8,345	6	748
Pike Creek- Central Kirkwood	15,241	37	959
Red Lion	1,321	2	91
Upper Christiana	7,871	5	412
Wilmington	28,554	780	3,113
Unknown[a]	b	3	b
Total	**164,161**	**2,055**	**12,472**

[a]The data base we used was unable to identify in which of the 11 MCDs these households or services were located.
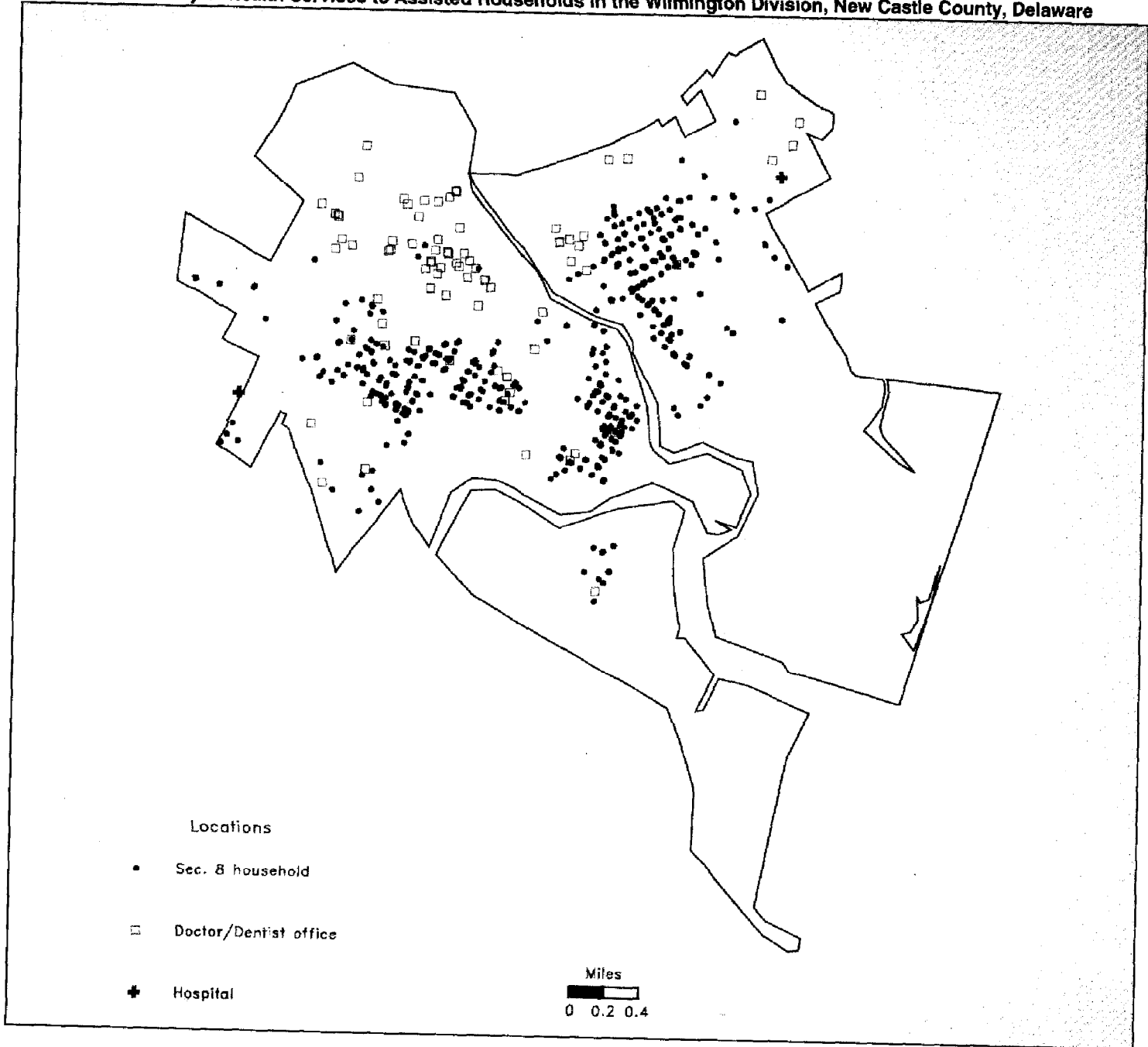
[b]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Furthermore, the assisted households in the Wilmington Division had access to public transportation—five or more fixed bus routes. School buses were also provided for elementary and secondary school students. Therefore, the schools' proximity to the assisted households had little impact on the students' access to schools. Figures I.4, I.5, and I.6 show the proximity of the assisted households' residences to services and to the Wilmington Division's top 10 employers in the area. Figure I.4 shows the proximity of health services; figure I.5, the proximity of food stores. Figure I.6 shows the proximity of public schools and the top 10 employers.

Figure I.4: Proximity of Health Services to Assisted Households in the Wilmington Division, New Castle County, Delaware

Locations

• Sec. 8 household

▢ Doctor/Dentist office

✚ Hospital

Miles
0   0.2   0.4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Figure I.5: Proximity of Food Stores to Assisted Households in the Wilmington Division, New Castle County, Delaware

Locations

• Sec. 8 household

○ Convenience store

★ Grocery store

Miles

0   0.2 0.4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.6: Proximity of Major Businesses and Public Schools to Assisted Households in the Wilmington Division, New Castle County, Delaware

Locations

•   Sec. 8 household

△   Public school
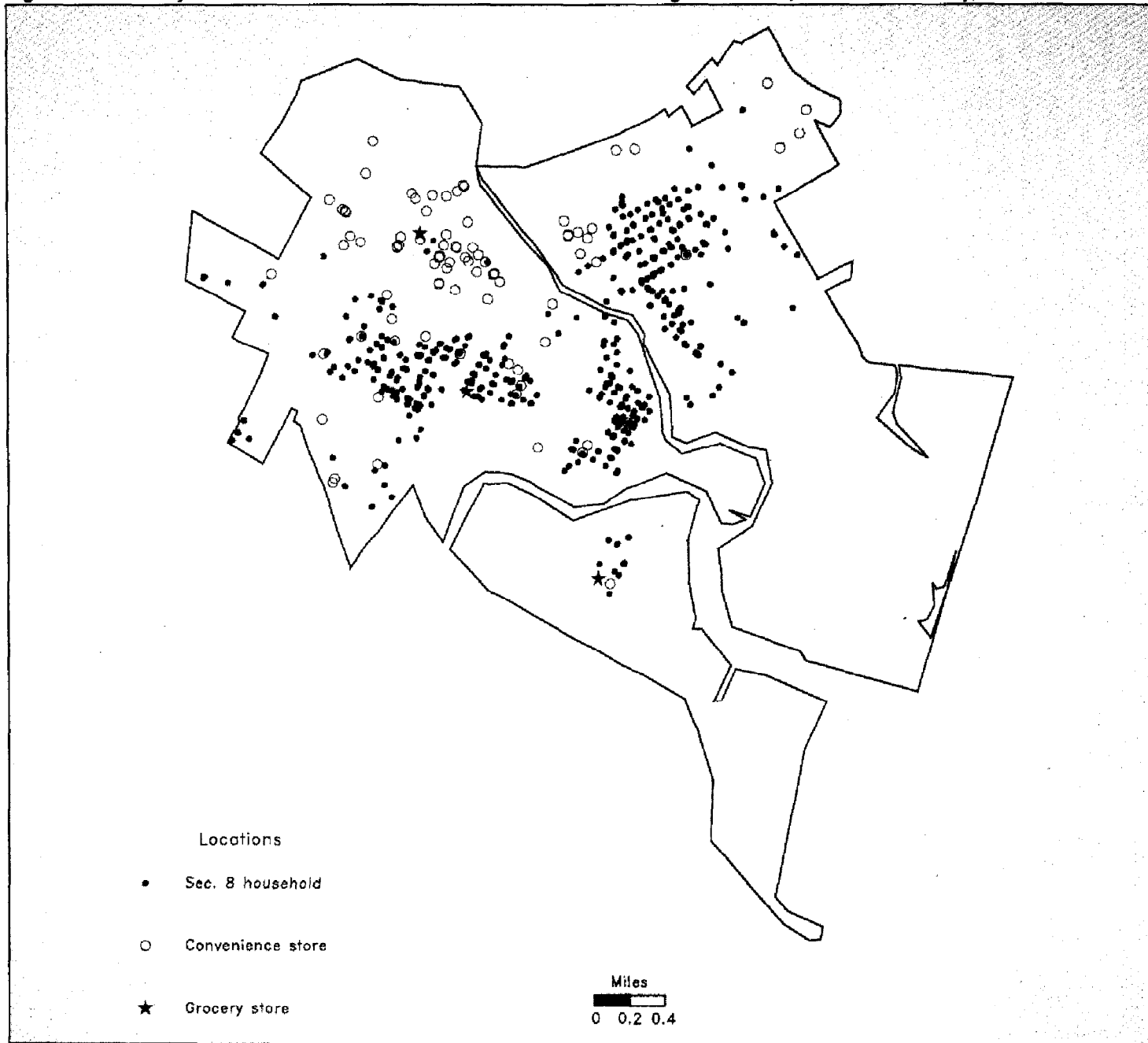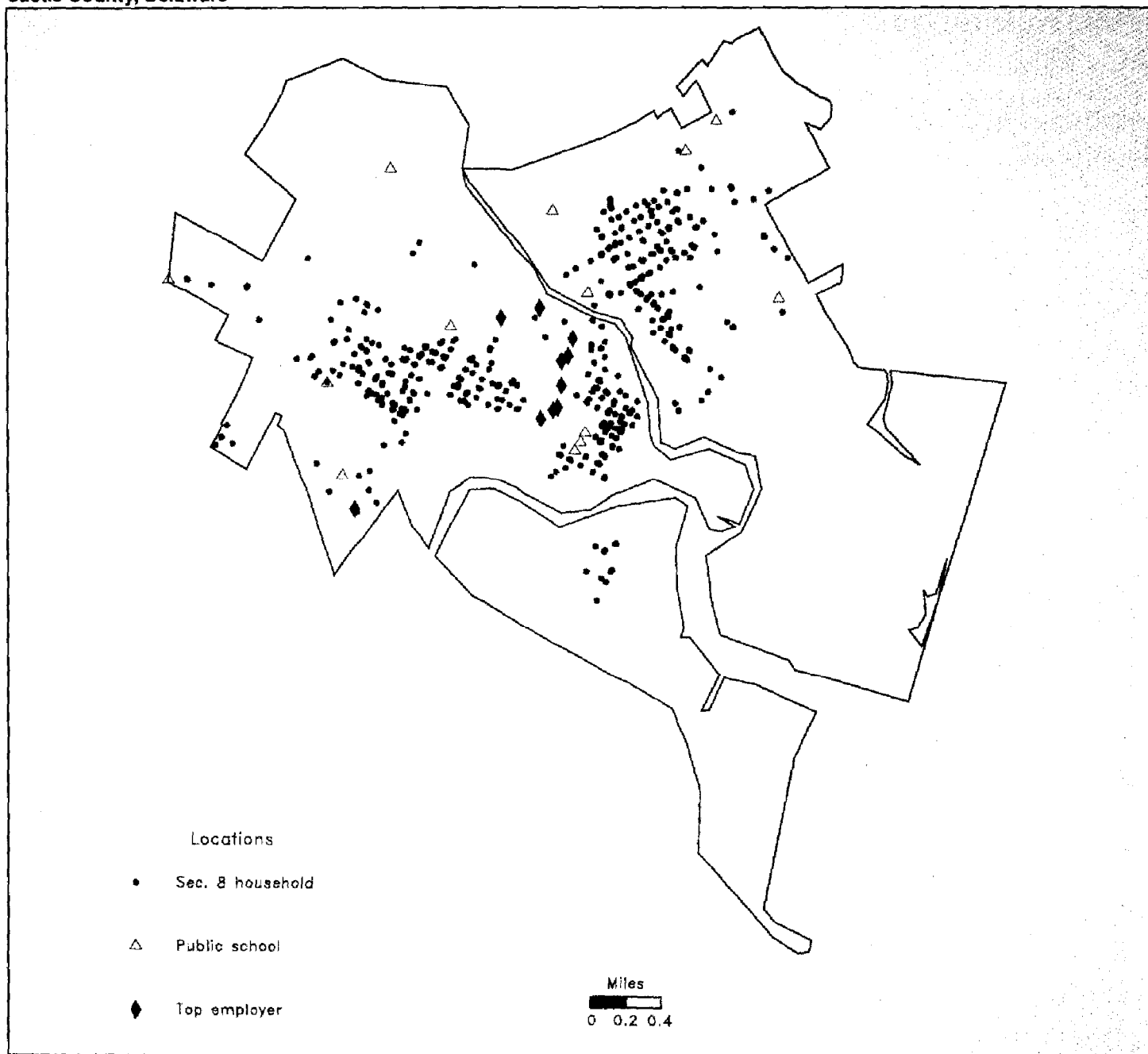
◆   Top employer

Miles

0   0.2   0.4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Section 8 Households in the Washington, D.C., MSA

The Washington, D.C., MSA, has a total population of 3,923,574 and is about 3,967 square miles in size. It is made up of 10 counties and the District of Columbia.

Location of Section 8 Households

The MSA had over 10,000 Section 8 households. They were located in each of the 11 jurisdictions that made up the MSA. (See fig. I.7.) The majority of the assisted households, over 4,800, or 48 percent, resided in Montgomery County, Maryland, and the District of Columbia. The remaining households were dispersed throughout the market area.

Figure I.7: Location and Number of Assisted Households Within the Washington, D.C., MSA
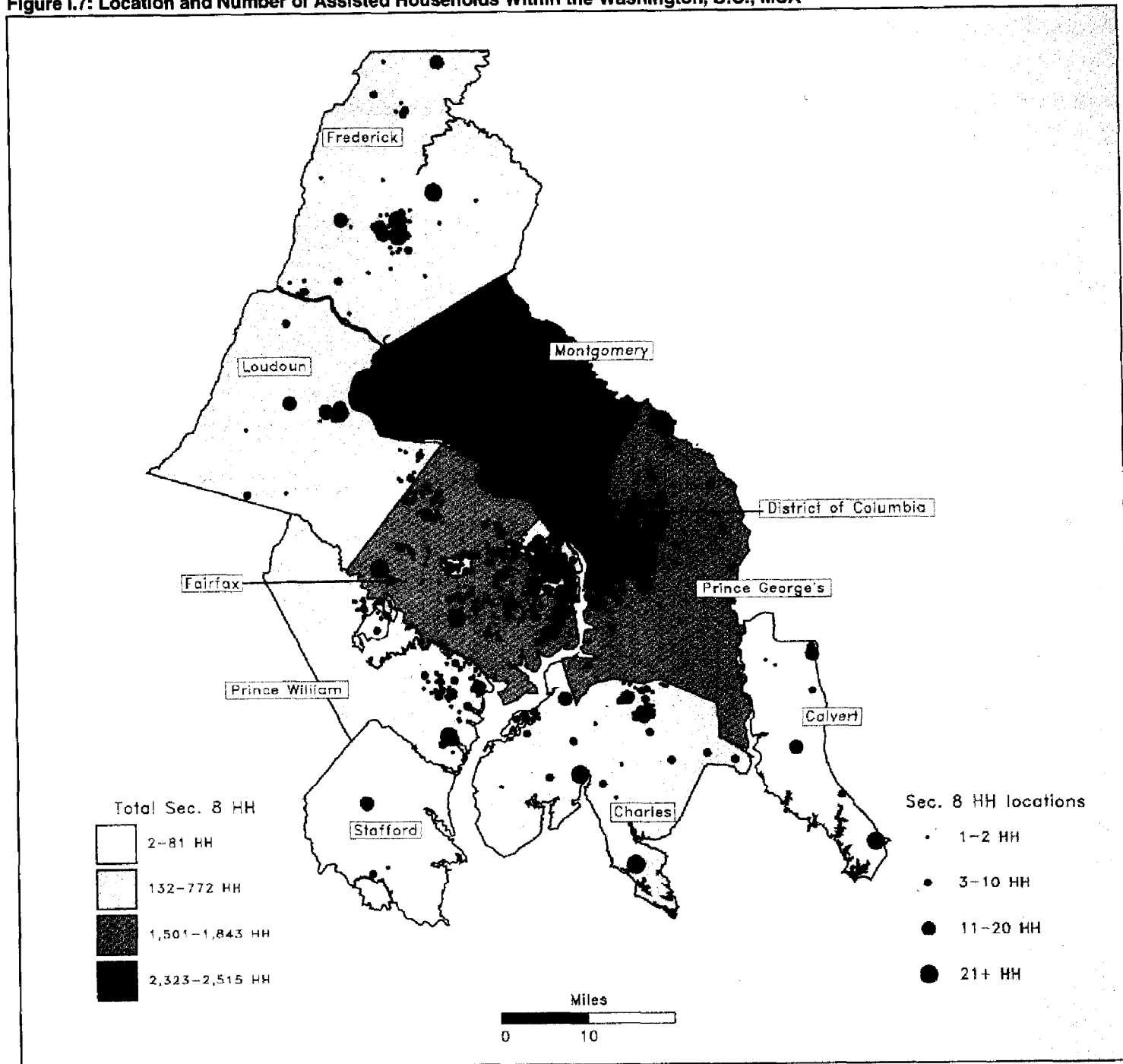
Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

Key Demographic Data for Areas Where Section 8 Households Live

For each of the 11 jurisdictions in the MSA, we collected key demographic data to show the characteristics of the different areas. Table I.10 provides these comparative data.

Table I.10: Comparison of Counties Within the Washington, D.C., MSA

County/jurisdiction	MSA's total rental stock (%)	Two-bedroom units at or below the MSA's 45th percentile[a] (%)	Total Section 8 households (%)	Population per square mile	Median household income[b]	Percent minority population	Unemployment rate
Washington, D.C.	35,696 (22)	26,194 (73.4)	2,323 (23)	9882.3	30,726	64.63	4.7
Calvert	565 (0.3)	386 (68.3)	81 (0.8)	238.7	47,606	14.00	2.5
Charles	2,745 (2)	1,795 (65.4)	285 (3)	219.4	46,413	18.58	2.3
Frederick	4,746 (3)	4,061 (85.6)	378 (4)	226.6	41,381	6.15	2.0
Montgomery	29,568 (19)	10,251 (34.7)	2,515 (25)	1530.7	54,165	19.72	2.0
Prince George's	39,265 (25)	24,902 (63.4)	1,843 (18)	1499.3	43,127	53.74	3.2
Arlington	12,257 (8)	3,475 (28.3)	733 (7)	6604.9	44,600	17.86	2.2
Fairfax	25,103 (16)	5,766 (23)	1,501 (15)	2069.4	59,341	14.42	1.9
Loudoun	2,316 (1)	951 (41.1)	132 (1)	165.7	52,210	8.91	1.7
Prince William	5,214 (3)	2,793 (53.5)	314 (3)	637.3	49,370	14.77	2.5
Stafford	715 (0.4)	582 (81.4)	27 (0.3)	226.8	44,659	7.75	2.1
Total	**158,190 (100)**	**81,156 (51)**	**10,132 (100)**	989.1 (average)	46,884 (median)	34.3 (average)	2.7[c] (average)

[a]See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent rental housing stock at or below the 45th percentile.

[b]The income figure shown in the chart cannot be used to estimate Section 8 recipients' program eligibility. Program eligibility is based on the adjusted median household income for the entire MSA.

[c]The MSA's total unemployment rate includes the 10 counties, the District of Columbia, and five Virginia cities—Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

As the table shows, the jurisdictions with the highest number of Section 8 households—Montgomery County and the District of Columbia—were also among the areas with the most two-bedroom rental housing stock and the most rental units available at or below the MSA-wide 45th-percentile rent level. The Washington, D.C., area was also among the jurisdictions with the highest proportion, 73 percent, of rental units available at or below the 45th-percentile rent. However, Montgomery County had among the lowest proportion, 35 percent, of rental units available at the 45th-percentile rent. The Section 8 households that chose to live in the less urbanized portions of the MSA—Calvert County, Maryland and Stafford County, Virginia, for example—had less rental housing available, but the local FMR permitted them access to housing at levels above the 45th percentile—68 and 81 percent, respectively.

Montgomery County, Maryland

In addition, relative to the other jurisdictions in the MSA, Montgomery County had among the highest population density, median household income, and minority population. It also had one of the lowest unemployment rates, 2 percent. Within Montgomery County, the majority of the Section 8 households, 1,173 households, or 47 percent, resided in District 13—one of 13 MCDs within the county. Figure I.8 shows the number and location of the assisted households in Montgomery County, Maryland.

Figure I.8: Number and Location of Assisted Households in Montgomery County, Maryland
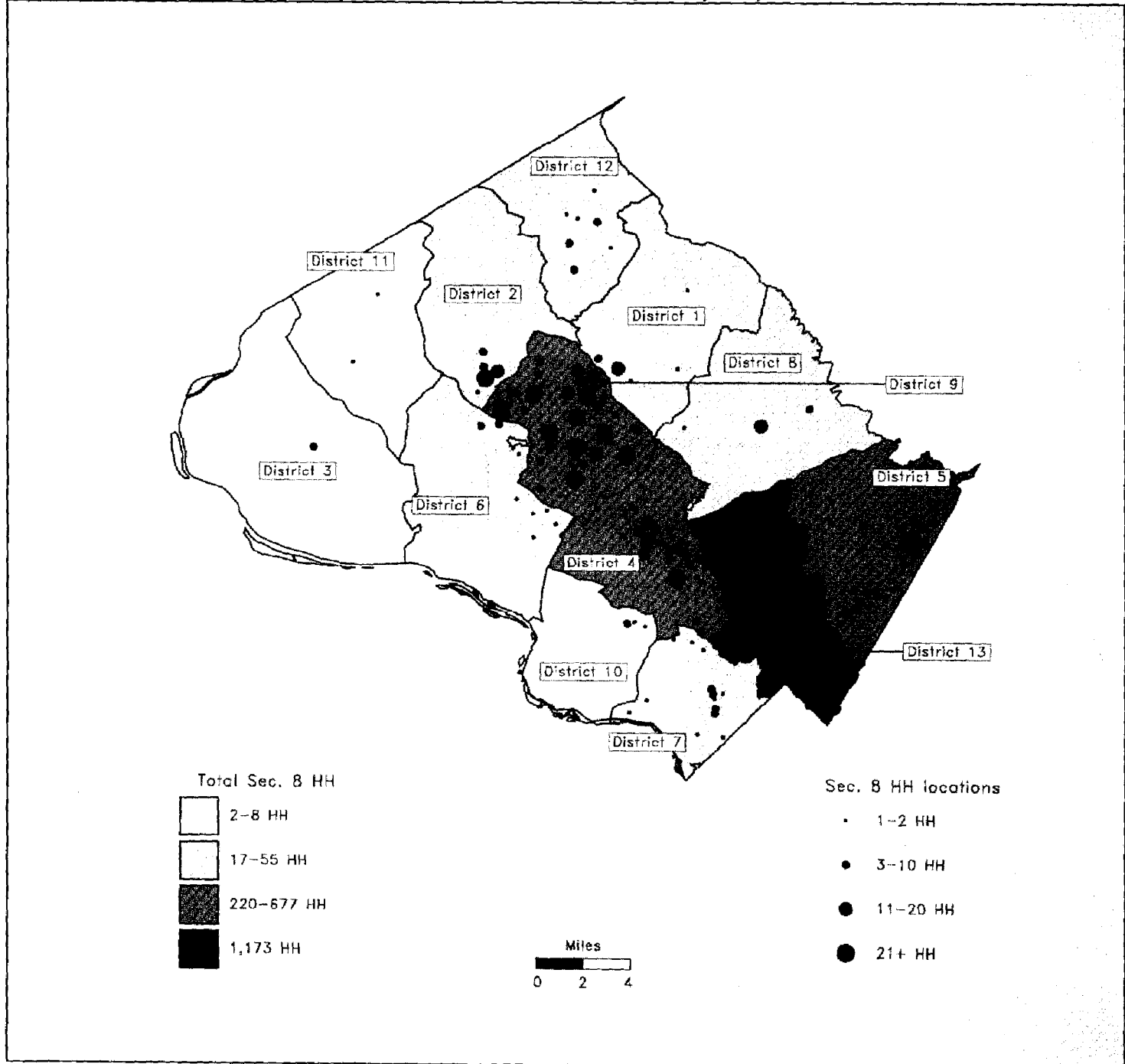
Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

As table I.11 shows, in comparison with the rest of the county, District 13 had the lowest median household income, had among the highest unemployment rates, and was among the most congested areas in the county. As shown in table I.12, it also had among the highest proportions of minority residents, 26.5 percent. As table I.13 shows, District 13 had the highest number of total rental housing units, 35 percent, and the highest proportion of two-bedroom rental units at or below the MSA-wide 45th-percentile rent in the county, about 40 percent.

Table I.11: Demographic Characteristics—Income, Unemployment, and Population Per Square Mile—of Montgomery County, Maryland

MCD name	Median household income	Percent unemployment	Population per square mile
District 1	$ 62,423	1.4	307.0
District 2	51,230	1.4	451.5
District 3	55,973	1.6	79.8
District 4	57,173	2.0	2803.7
District 5	54,591	2.4	2209.9
District 6	70,982	1.6	721.4
District 7	70,655	1.5	3902.3
District 8	70,096	1.4	809.5
District 9	46,700	2.3	3820.5
District 10	105,480	1.2	1323.6
District 11	51,474	1.2	55.4
District 12	56,379	1.7	508.4
District 13	45,885	2.4	5558.5
Overall for county	**$ 54,165**	**2.0**	**1530.7**

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.12: Demographic Characteristics—Race by Household and Percent Minority Population—of Montgomery County, Maryland

MCD name	Race by household			Percent minority population
	White	Black	Other[a]	
District 1	3,760	350	250	13.76
District 2	5,433	432	259	11.28
District 3	1,547	100	22	7.31
District 4	30,039	1,635	3,125	13.68
District 5	21,102	7,445	3,200	33.53
District 6	8,855	589	1,102	16.03
District 7	33,503	721	1,698	6.73
District 8	10,395	774	586	11.57
District 9	35,482	5,305	4,331	21.36
District 10	9,861	385	1,030	12.55
District 11	631	74	10	11.75
District 12	5,012	156	91	4.70
District 13	60,957	14,940	7,041	26.50
Total	**226,577**	**32,906**	**22,745**	20.00 (average)

[a]"Other" includes American Indian, Asian, and other race categories.

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.13: Rental Housing Stock and Availability Within Montgomery County, Maryland

MCD name	Total rental housing stock	Percent rental stock	Total two-bedroom units at or below MSA's 45th percentile[a]	Percent rental units	Percent at the MSA 45th percentile
District 1	67	0.2	33	0.32	49.2
District 2	628	2.1	205	2.00	32.6
District 3	33	0.1	17	0.16	51.5
District 4	3,495	12.0	656	6.40	18.8
District 5	4,609	16.0	1,147	11.20	24.9
District 6	316	1.1	49	0.48	15.5
District 7	2,514	8.5	352	3.40	14.0
District 8	219	0.7	91	0.89	41.5
District 9	6,753	23.0	3,328	32.50	49.3
District 10	319	1.1	138	1.30	43.3
District 11	6	0	0.6	0	100.0
District 12	176	0.6	101	0.98	57.4
District 13	10,433	35.0	4,128	40.30	39.6
Total	**29,568**	**100.0**	**10,251**	**100.00**	34.7 (average)

Note: Percents may not add to 100 because of rounding.

[a]See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent rental housing stock at or below the 45th percentile.
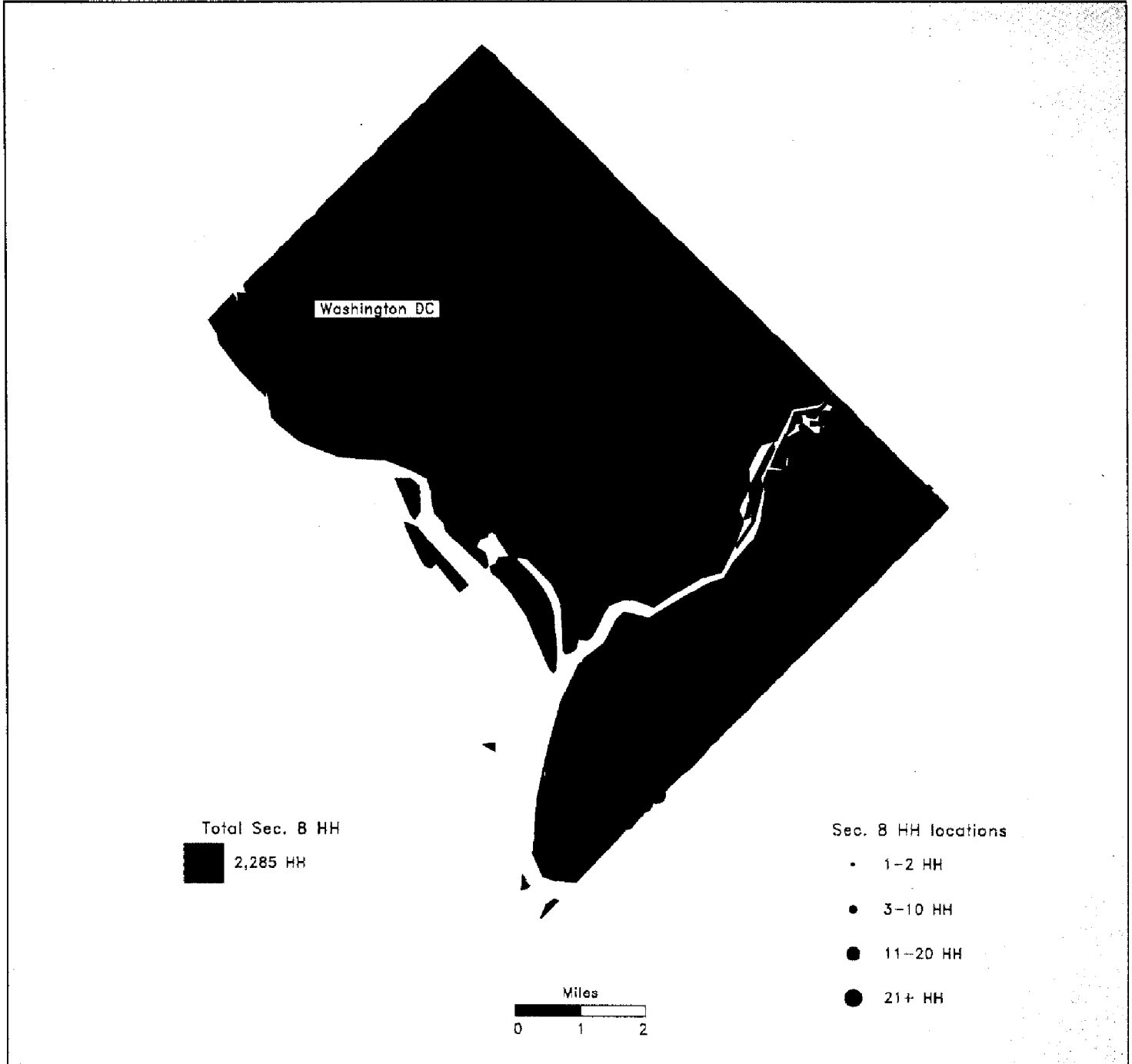
Source: Based on data from Donnelly Marketing Information Service's census demographic files and HUD's analysis of data from the 1990 decennial census.

The District of Columbia

Moreover, as table I.10 shows, the District of Columbia, which had the second highest number of Section 8 households, also had the highest population density and minority population. In addition, it had the lowest median household income and the highest unemployment rate, 4.7 percent. However, because the District is considered both a county equivalent and an MCD, we were unable to break the area down into smaller component parts. Therefore, we could not compare and contrast areas within the District. Figure I.9 shows the number and location of the assisted households in the District of Columbia.

Figure I.9: Number and Location of Assisted Households in the District of Columbia

Total Sec. 8 HH

2,285 HH

Sec. 8 HH locations

· 1-2 HH

● 3-10 HH

● 11-20 HH

● 21+ HH

Miles

0   1   2

Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

Services and Businesses Available to Section 8 Households

In the Washington, D.C., MSA, the majority of the Section 8 households lived in the two most urbanized jurisdictions—Montgomery County and the District of Columbia. These areas also had the most services and businesses within close proximity to the Section 8 households. Table I.14 provides data on the services available in each of the MSA's 10 counties and the District of Columbia.

Table I.14: Comparison of Counties and Services Within the Washington, D.C., MSA

Jurisdiction	Total Section 8 households (%)	Health care (%)		Food stores (%)	Public schools (%)
		Hospitals	Doctor/ Dentist		
Washington, D.C.	2,323 (23)	15 (33)	1,775 (26)	97 (11)	163 (21)
Calvert	81 (0.8)	1 (2)	73 (1)	13 (1)	11 (1)
Charles	285 (3)	1 (2)	81 (1)	35 (4)	32 (4)
Frederick	378 (4)	1 (2)	156 (2)	50 (6)	33 (4)
Montgomery	2,515 (25)	8 (17)	1,721 (26)	150 (17)	168 (21)
Prince George's	1,843 (18)	7 (15)	1,044 (16)	176 (20)	91 (12)
Arlington	733 (7)	3 (6)	292 (4)	46 (5)	27 (3)
Fairfax	1,501 (15)	6 (13)	1,214 (18)	181 (21)	177 (23)
Loudoun	132 (1)	1 (2)	111 (2)	26 (3)	28 (3)
Prince William	314 (3)	3 (6)	193 (3)	78 (9)	33 (4)
Stafford	27 (0.3)	0 (0)	20 (0)	22 (2)	18 (2)
Total	**10,132 (100)**	**46 (100)**	**6,680 (100)**	**874 (100)**	**781 (100)**

Note 1: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

Note 2: Percentages may not add to 100 because of rounding.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

Table I.15 provides data on the total number of businesses and employees within the Washington, D.C., MSA, and for each of its jurisdictions.

Table I.15: Comparison of Counties and Businesses Within the Washington, D.C., MSA

Jurisdiction	Total Section 8 households (%)	Total businesses (%)	Total employees (%)
Washington, D.C.	2,323 (23)	26,830 (23)	545,199 (30)
Calvert	81 (0.8)	1,509 (1)	12,833 (1)
Charles	285 (3)	2,363 (2)	21,825 (1)
Frederick	378 (4)	4,170 (4)	44,020 (2)
Montgomery	2,515 (25)	26,029 (22)	388,488 (22)
Prince George's	1,843 (18)	17,792 (15)	245,758 (14)
Arlington	733 (7)	5,665 (5)	90,321 (5)
Fairfax	1,501 (15)	24,320 (21)	363,388 (20)
Loudoun	132 (1)	3,005 (2)	26,953 (1)
Prince William	314 (3)	4,922 (4)	45,558 (2)
Stafford	27 (0.3)	1,146 (1)	8,326 (0)
Total	**10,132 (100)**	**117,751 (100)**	**1,792,669 (100)**

Source: Based on data from PHAs and Donnelly Marketing Information Services.

Montgomery County, Maryland

In addition to many services and businesses, public transportation—buses and a subway system—was available to about 98 percent of the Section 8 households in this jurisdiction. Public transportation allowed these households to reach services and employers within Montgomery County. Public transportation was available in the lower eastern portion of the county and its interior. Residents who lived in these sections of the county were served by two public bus systems and a major subway system. (Fig. I.10 shows the available public transportation throughout the county.) Residents in the county's upper northeast corridor and down to its southern west side had little or no available public transportation. These residents must travel into the county's interior to reach public

transportation.[1] About 85 percent of the Section 8 households living in the county had what is considered "good" access to public transportation; that is, access to five or more bus routes and/or a subway. Only 2 percent had no access to public transportation.

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[1]Residents in the northwest section of the county have access to a commuter train. This train begins its route in West Virginia, runs through the county, and ends in the District of Columbia. This mode of transportation is not included in our detailed analysis because access to the train is limited to a few locations throughout the county.

Figure I.10: Public Transportation and Location of Assisted Households in Montgomery County, Maryland
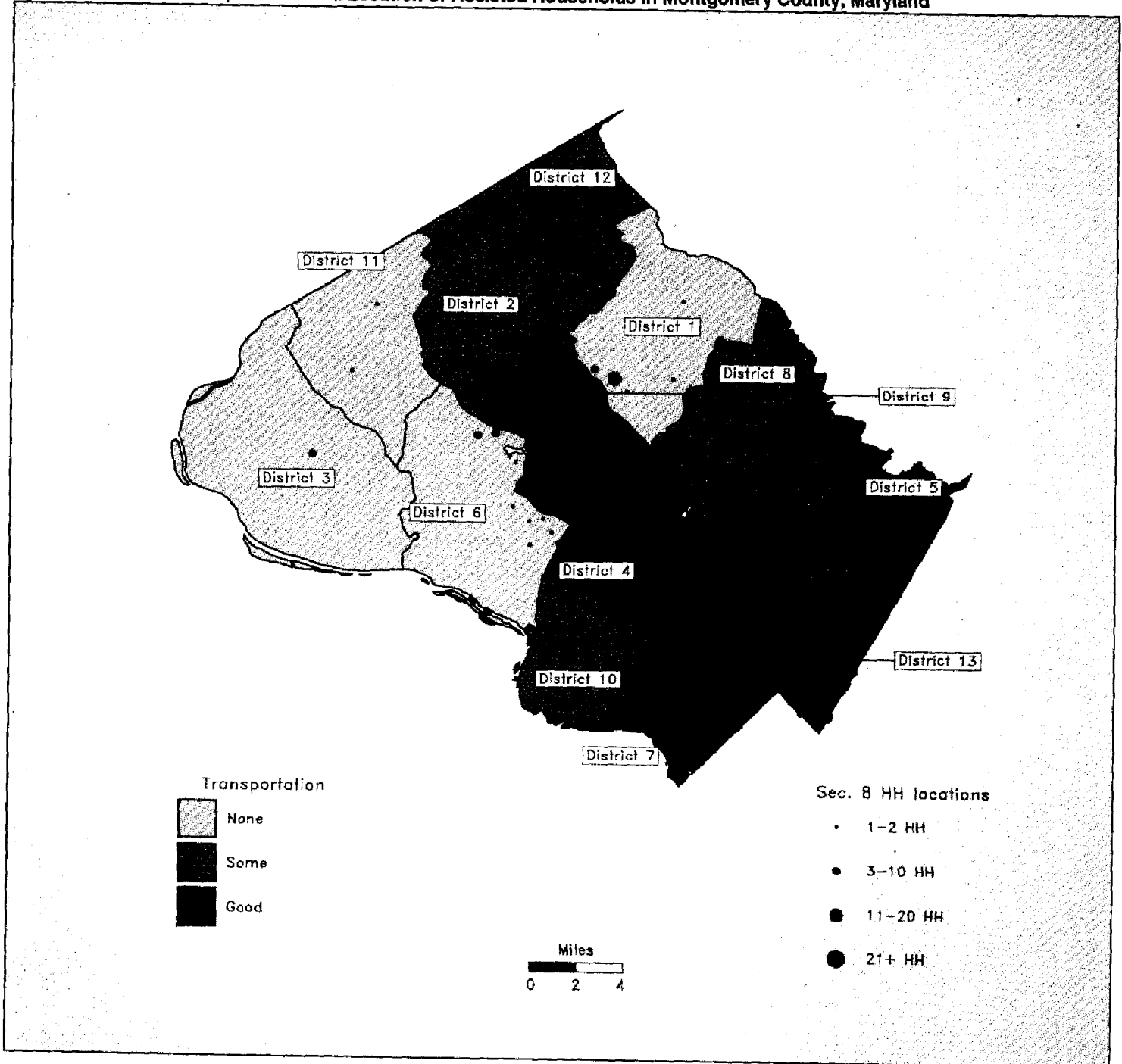
Source: State and county public transportation offices.

As stated previously, the majority of the assisted households resided in the county's most urbanized area—District 13—which also had the largest number of services and businesses located within its boundary. As table I.16 shows, District 13 is home to two hospitals, or 25 percent of the county's hospitals; and among the largest number of doctors' and dentists' offices in the county, over 450, or 29 percent. As table I.17 shows, it also had the highest number of food stores—17 grocery stores, or 23 percent, and 23 convenience stores, or 30 percent—and the largest number of public schools—38 schools in the county, or 23 percent. As table I.18 shows, District 13 had the largest number of employers, 6,459 in the county, or 25 percent.

Table I.16: Health Care Services Available Within Montgomery County, Maryland

MCD name	Total households	Total assisted households	Health care	
			Hospitals	Doctor/Dentist
District 1	4,360	25	0	5
District 2	6,124	55	0	13
District 3	1,669	8	0	3
District 4	34,799	256	1	294
District 5	31,747	220	0	103
District 6	10,546	19	0	18
District 7	35,922	32	2	496
District 8	11,755	20	1	12
District 9	45,118	677	2	206
District 10	11,276	8	0	93
District 11	715	2	0	0
District 12	5,259	17	0	11
District 13	82,938	1,173	2	467
Unknown[a]	b	3	0	b
Total	**282,228**	**2,515**	**8**	**1,721**

See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

[a]The data base we used was unable to identify in which of the 13 MCDs these services were located.

[b]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Table I.17: Food Stores and Public Schools Within Montgomery County, Maryland

MCD name	Total households	Total assisted households	Food stores Grocery[a]	Convenience	Public schools
District 1	4,360	25	0	2	2
District 2	6,124	55	2	1	5
District 3	1,669	8	1	0	1
District 4	34,799	256	10	18	20
District 5	31,747	220	6	5	17
District 6	10,546	19	0	5	8
District 7	35,922	32	5	5	14
District 8	11,755	20	3	4	12
District 9	45,118	677	11	5	22
District 10	11,276	8	2	0	5
District 11	715	2	0	0	1
District 12	5,259	17	1	1	5
District 13	82,938	1,173	17	23	38
Unknown[b]	c	3	15	8	18
Total	**282,228**	**2,515**	**73**	**77**	**168**

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

[a]"Grocery" stores also include supermarkets.

[b]The data base we used was unable to identify in which of the 13 MCDs these services were located.

[c]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Table I.18: Businesses Located Within Montgomery County, Maryland

MCD name	Total households	Total assisted households	Total businesses
District 1	4,360	25	610
District 2	6,124	55	472
District 3	1,669	8	152
District 4	34,799	256	5,827
District 5	31,747	220	2,064
District 6	10,546	19	502
District 7	35,922	32	4,723
District 8	11,755	20	547
District 9	45,118	677	3,093
District 10	11,276	8	1,145
District 11	715	2	88
District 12	5,259	17	347
District 13	82,938	1,173	6,459
Unknown[a]	b	3	b
Total	**282,228**	**2,515**	**26,029**

[a]The data base we used was unable to identify in which of the 13 MCDs these households or services were located.
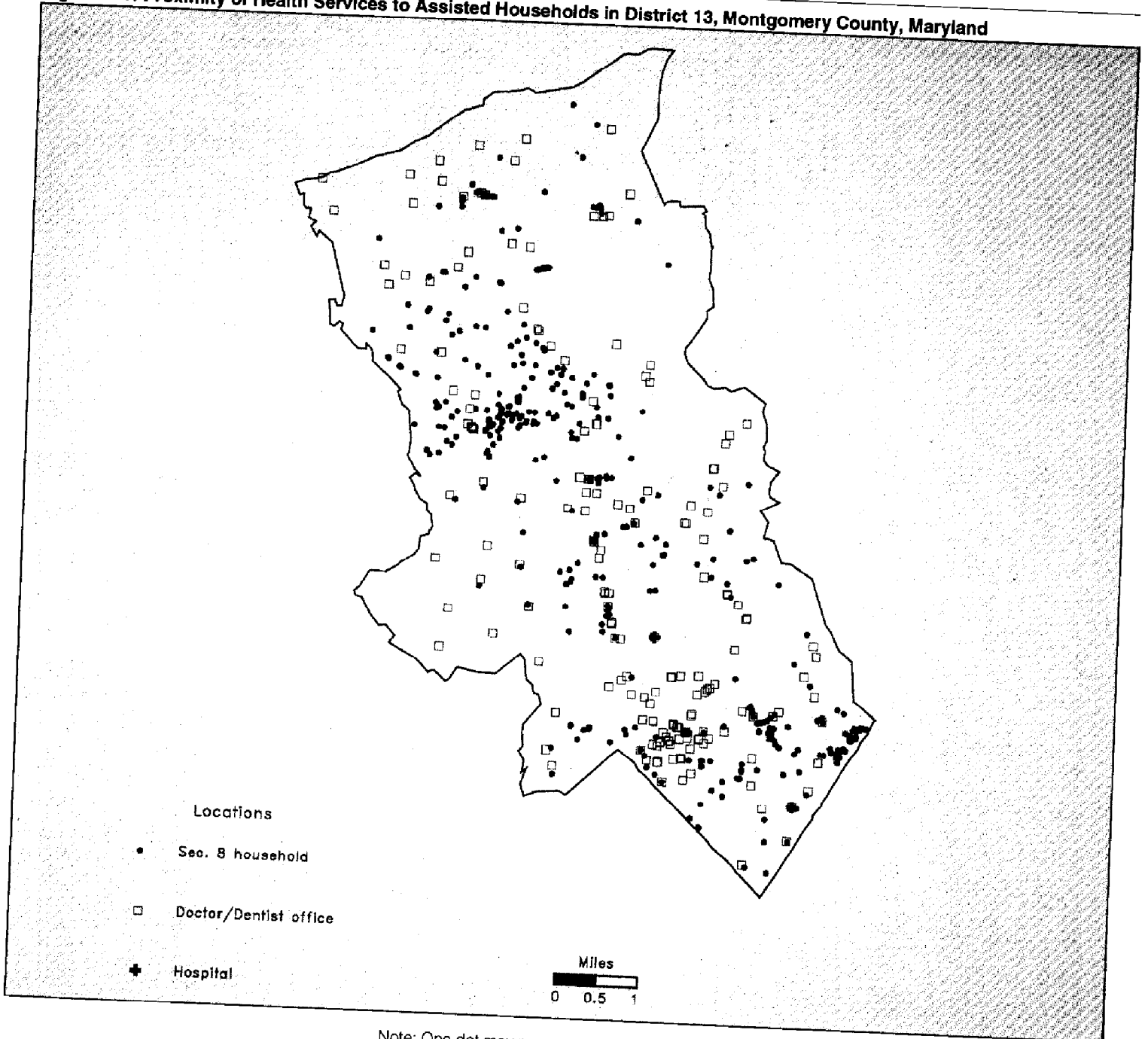
[b]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

Furthermore, the assisted households in District 13 had access to public transportation—buses and a subway. School buses were also provided for the elementary and secondary public school students. Therefore, the schools' proximity to the assisted households had little impact on students' access to schools. Figures I.11, I.12, and I.13 show the assisted households' proximity to services and to District 13's top 10 employers. Figure I.11 shows the households' proximity to health services and figure I.12 to food stores. Figure I.13 shows the households' proximity to public schools and the top 10 employers in the area.

Figure I.11: Proximity of Health Services to Assisted Households in District 13, Montgomery County, Maryland

Locations

• Sec. 8 household

□ Doctor/Dentist office
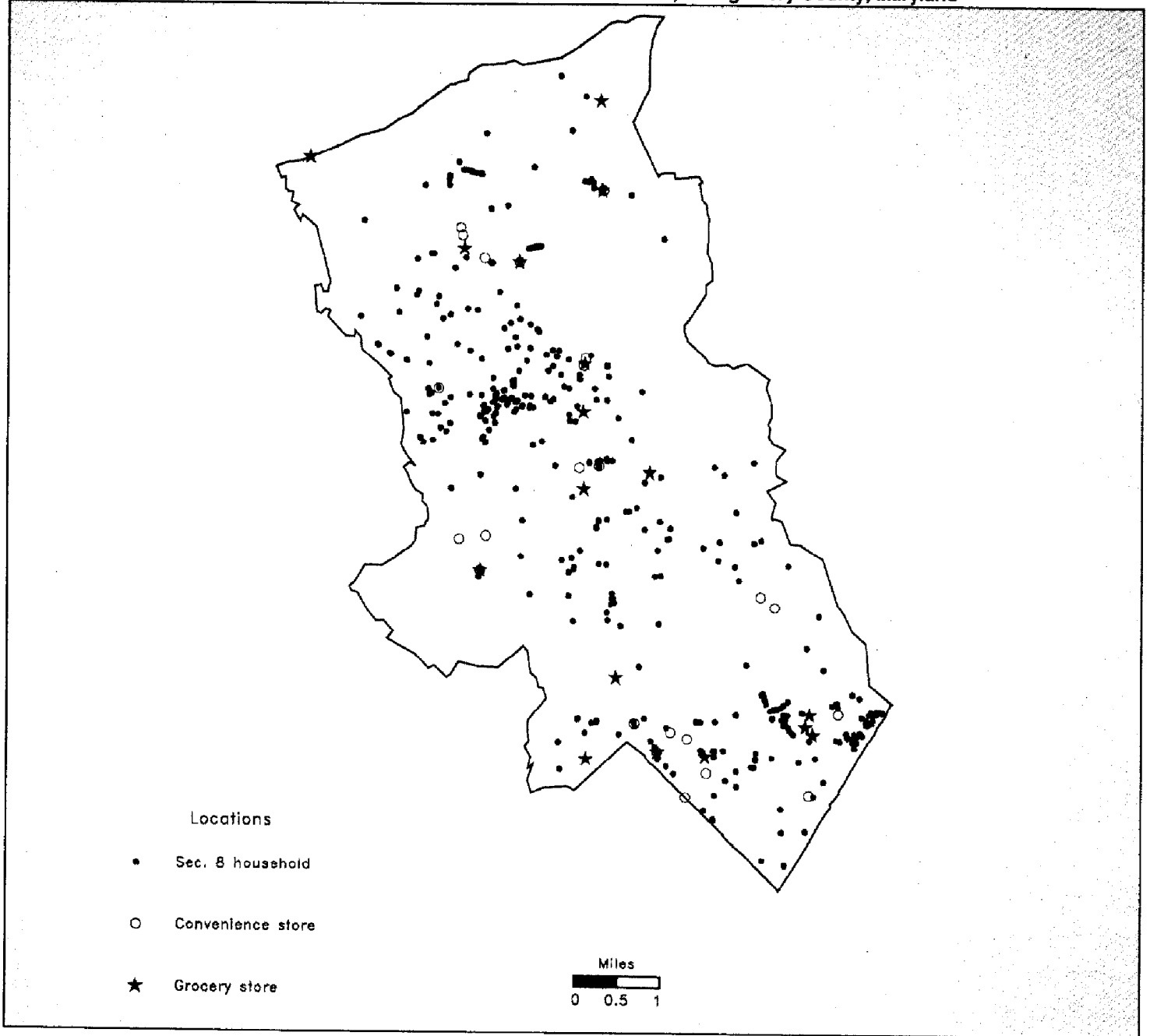
✚ Hospital

Miles
0   0.5   1

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.12: Proximity of Food Stores to Assisted Households in District 13, Montgomery County, Maryland

Locations

• Sec. 8 household

○ Convenience store

★ Grocery store

Miles
0   0.5   1

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.13: Proximity of Businesses and Schools to Assisted Households in District 13, Montgomery County, Maryland

Locations

•   Sec. 8 household

△   Public school
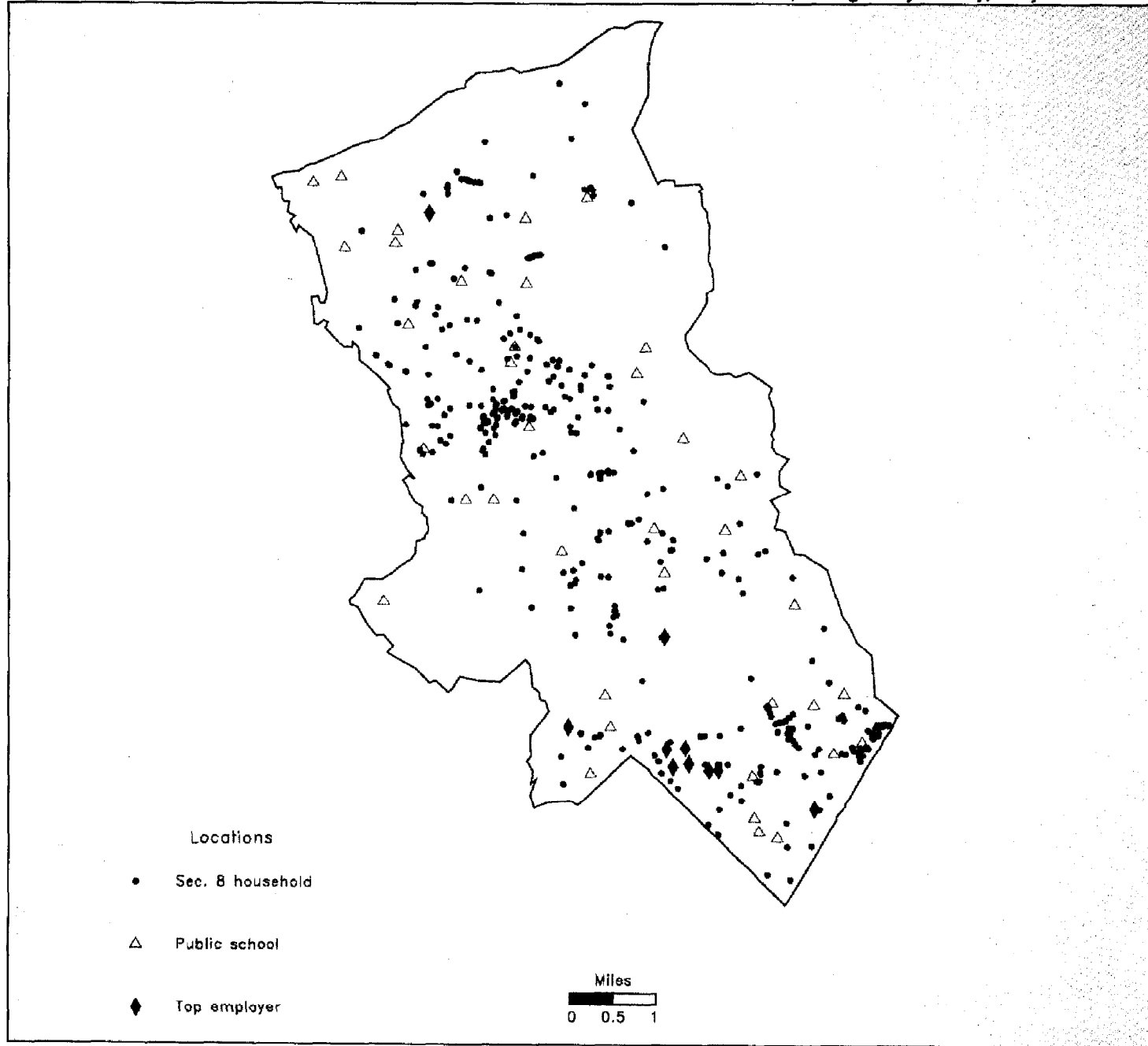
◆   Top employer

Miles

0   0.5   1

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.
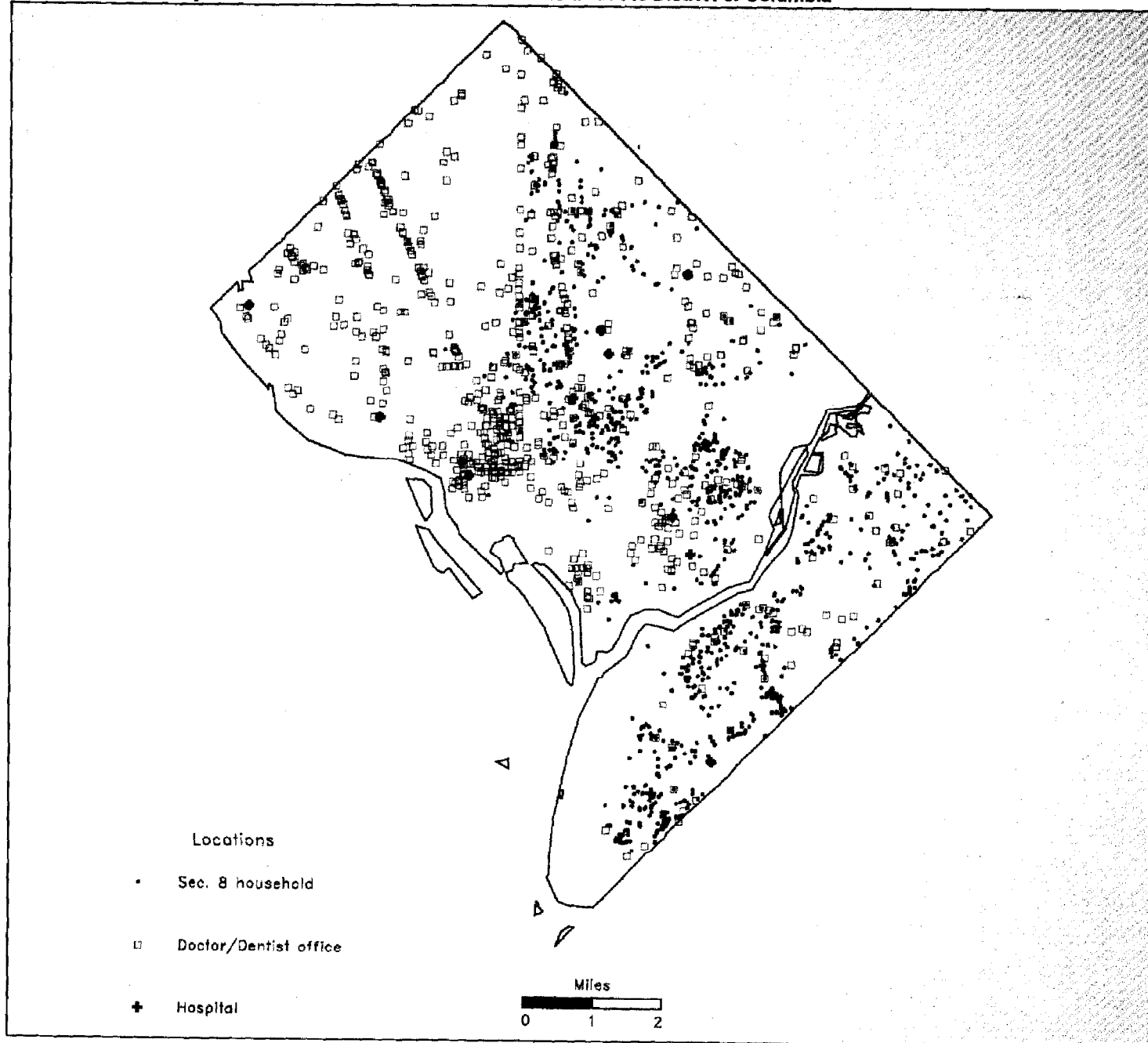
The District of Columbia

In addition to many services and businesses, public transportation—buses and a subway—were available to the assisted households in reaching services and employers within the District of Columbia. Moreover, the public transportation provider subsidized students' bus and subway fares so that they could use the system to attend local public junior and high schools. Elementary school students could attend neighborhood public schools in walking distance from their homes.

Because the District of Columbia is considered both a county equivalent and a MCD, we were unable to break the area down into smaller component parts. Therefore, we could not compare and contrast areas within the District. Figures I.14, I.15 and I.16 indicate the proximity of services and businesses to the Section 8 households in the District. Figure I.14 shows the households' proximity to health services and figure I.15 to food stores. Figure I.16 shows the households' proximity to public schools and the top 10 employers in the area.

Figure I.14: Proximity of Health Services to Assisted Households in the District of Columbia

Locations

• Sec. 8 household

▫ Doctor/Dentist office

✛ Hospital

Miles

0   1   2

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Figure I.15: Proximity of Food Stores to Assisted Households in the District of Columbia

Locations

• Sec. 8 household

○ Convenience store

★ Grocery store

Miles
0 1 2

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Figure I.16: Proximity of Major Businesses and Public Schools to Assisted Households in the District of Columbia

Locations

•   Sec. 8 household

△   Public school
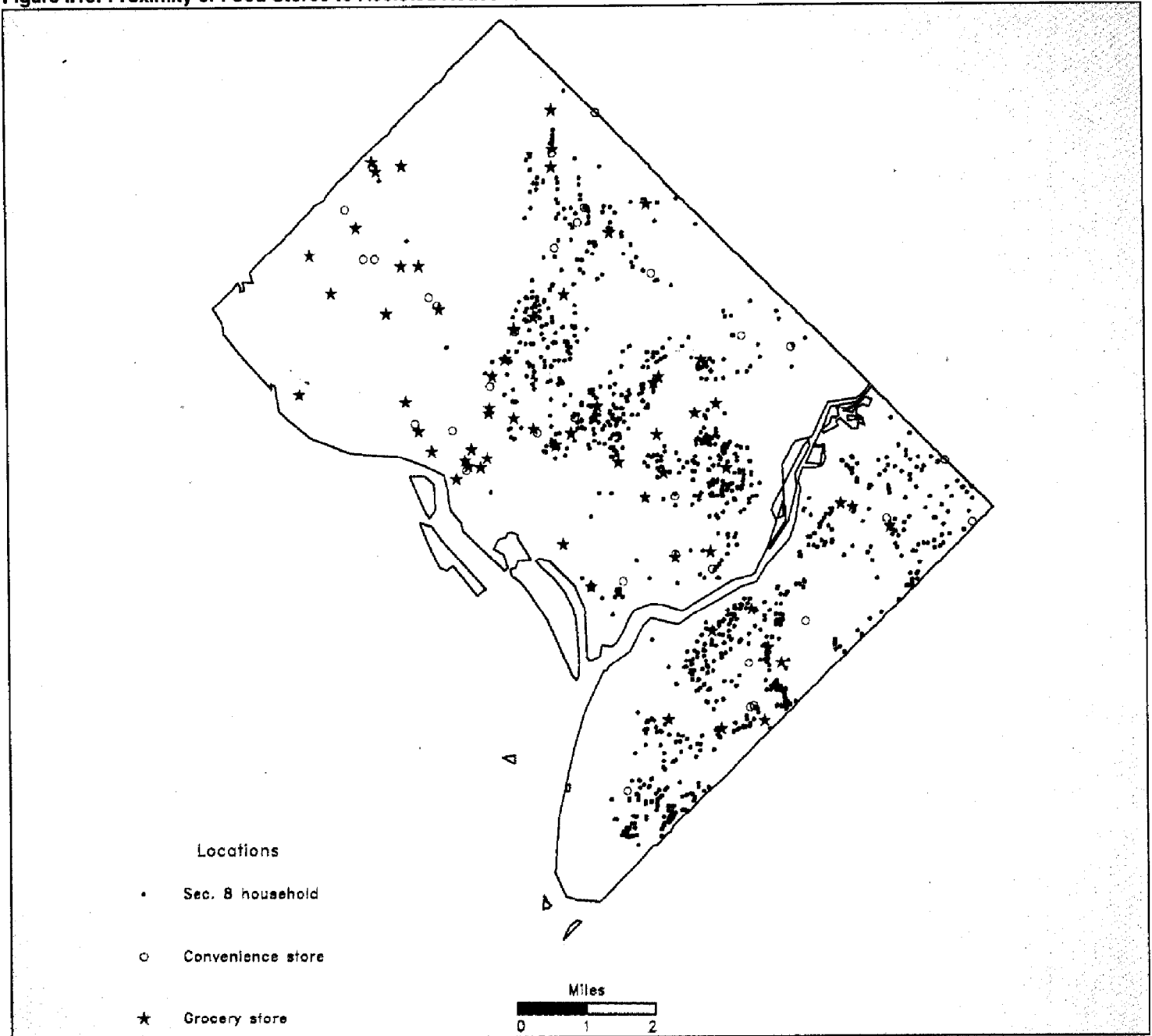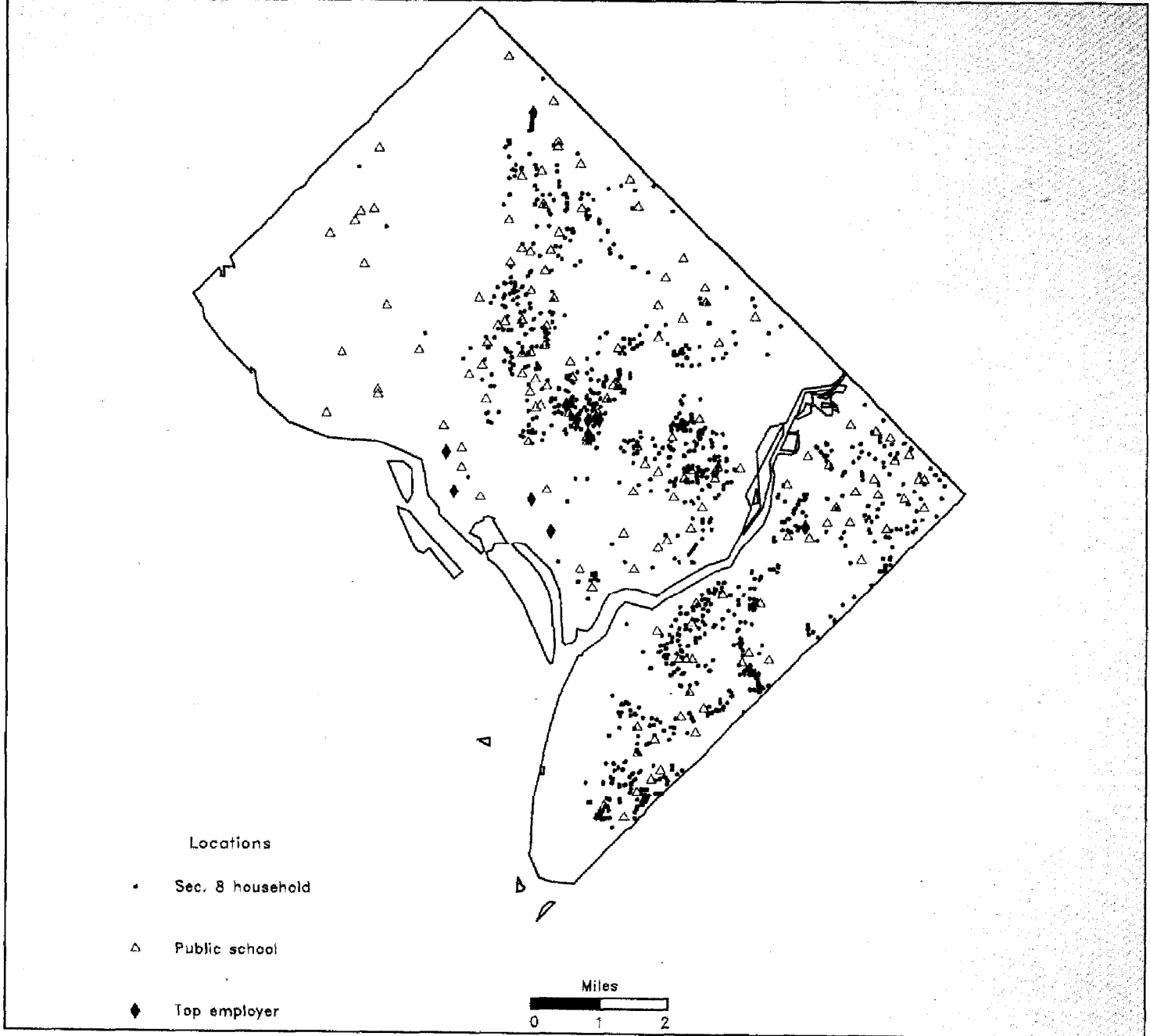
◆   Top employer

Miles

0   1   2

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Section 8 Households in the Oklahoma City, Oklahoma, MSA

The Oklahoma City, Oklahoma, MSA, has a total population of just under a million people and covers about 4,200 square miles. It is made up of six counties, one of which, Oklahoma County, includes Oklahoma City.

Location of Section 8 Households

The MSA's 3,754 Section 8 households were located in each of the six counties that make up the MSA. (See fig. I.17.) The majority of the assisted households, over 2,700 households, or 72 percent, resided in the MSA's urban center—Oklahoma City—located in Oklahoma County. The remaining households were dispersed throughout the market area.

Figure I.17: Location and Number of Assisted Households Within the Oklahoma City, Oklahoma, MSA
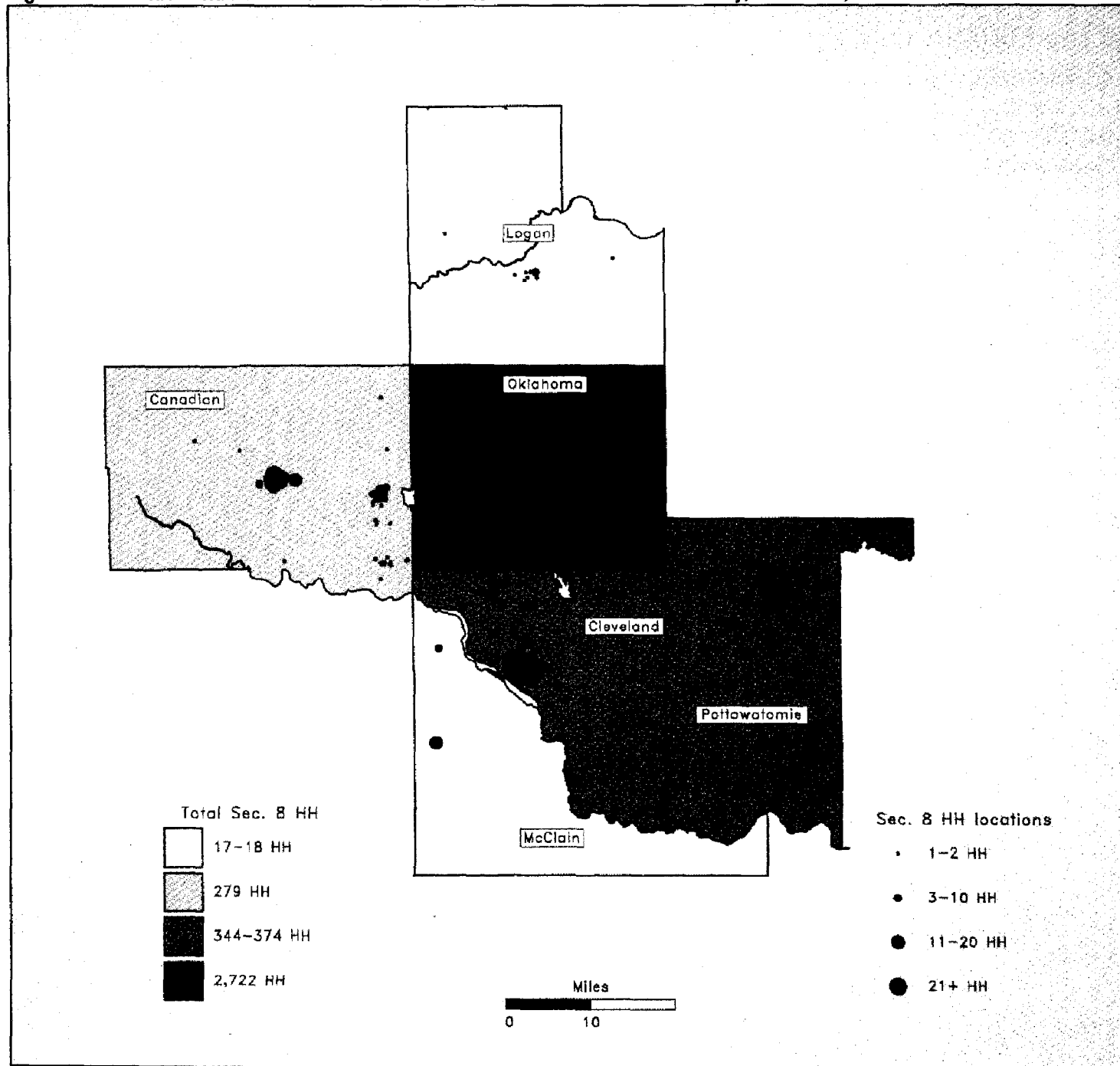
Total Sec. 8 HH

- [ ] 17-18 HH
- [ ] 279 HH
- [ ] 344-374 HH
- [ ] 2,722 HH

Sec. 8 HH locations

- · 1-2 HH
- ● 3-10 HH
- ● 11-20 HH
- ● 21+ HH

Miles

0   10

Key Demographic Data for Areas Where Section 8 Households Live

For each of the six counties in the MSA, we collected key demographic data to show the characteristics of the different areas. Table I.19 provides these comparative data.

Table I.19: Comparison of Counties Within the Oklahoma City, Oklahoma, MSA

County	MSA's total rental stock (%)	Two-bedroom rental units at or below the MSA's 45th percentile[a] (%)	Total Section 8 households (%)	Population per square mile	Median household income[b]	Percent minority population	Unemployment rate
Canadian	1,844 (4)	892 (48)	279 (7)	82.7	33,853	7.0	3.3
Cleveland	9,623 (20)	4,341 (45)	374 (10)	325.0	29,974	10.0	3.8
Logan	870 (2)	686 (79)	18 (0.5)	39.0	24,048	14.4	4.2
McClain	541 (1)	420 (78)	17 (0.5)	40.0	25,434	7.7	3.1
Oklahoma	33,166 (69)	14,503 (44)	2,722 (72)	845.5	26,129	19.0	4.6
Pottawatomie	2,171 (4)	1,379 (63)	344 (9)	74.6	21,912	11.8	5.0
Total	**48,215 (100)**	**22,221 (46)**	**3,754 (100)**	225.7 (average)	26,883 (median)	18.9 (average)	4.3 (average)

[a]See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent rental housing stock at or below the 45th percentile.

[b]The income figure shown in the chart cannot be used to estimate Section 8 recipients' program eligibility. Program eligibility is based on the adjusted median household income for the entire MSA.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

As the table shows, the county with the most Section 8 households—Oklahoma County—was also the area with the most rental housing stock and the most two-bedroom rental units available at or below the MSA-wide 45th-percentile rent level. However, it also had the lowest proportion of two-bedroom rental units available at or below the 45th-percentile rent (44 percent). That is, for Oklahoma County, the MSA's FMR of $371 made 44 percent of its rental units available to the assisted households. The Section 8 households that chose to live in the less urbanized portions of the area—Canadian or McClain counties for example—had less rental housing available, but the local FMR permitted

them access to housing at levels above the 45th percentile—48 and
78 percent, respectively.

In addition, relative to other counties in the MSA, Oklahoma County had the
highest population density and the third highest median household
income. It also had the highest minority population, 19 percent, and the
second highest unemployment rate, 4.6 percent, in the MSA.

Because Oklahoma County is considered both a county and an MCD, we
were unable to break the area down into smaller component parts.

Services and Businesses Available to Section 8 Households

In the Oklahoma City, Oklahoma, MSA, the majority of the Section 8
households lived in the most urbanized county—Oklahoma County. This
area also had the most services and businesses in close proximity to the
Section 8 households. Table I.20 provides data on the services available in
each of the area's six counties.

Table I.20: Services Within the Oklahoma City, Oklahoma, MSA

County	Total Section 8 households (%)	Health care (%)		Food stores (%)	Public schools (%)
		Hospitals	Doctor/ Dentist		
Canadian	279 (7)	2 (4)	39 (3)	41 (7)	32 (9)
Cleveland	374 (10)	7 (14)	142 (11)	81 (13)	56 (17)
Logan	18 (0.5)	1 (2)	15 (1)	20 (3)	10 (6)
McClain	17 (0.5)	2 (4)	14 (1)	18 (3)	16 (3)
Oklahoma	2,722 (72)	31 (63)	990 (79)	399 (66)	188 (56)
Pottawatomie	344 (9)	6 (12)	55 (4)	45 (7)	33 (10)
Total	**3,754 (100)**	**49 (100)**	**1,255 (100)**	**604 (100)**	**335 (100)**

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not
be complete.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

Table I.21 provides data on the total number of businesses and employees
within the Oklahoma City, Oklahoma, MSA, and for each county.

Table I.21: Businesses Within the Oklahoma City, Oklahoma, MSA

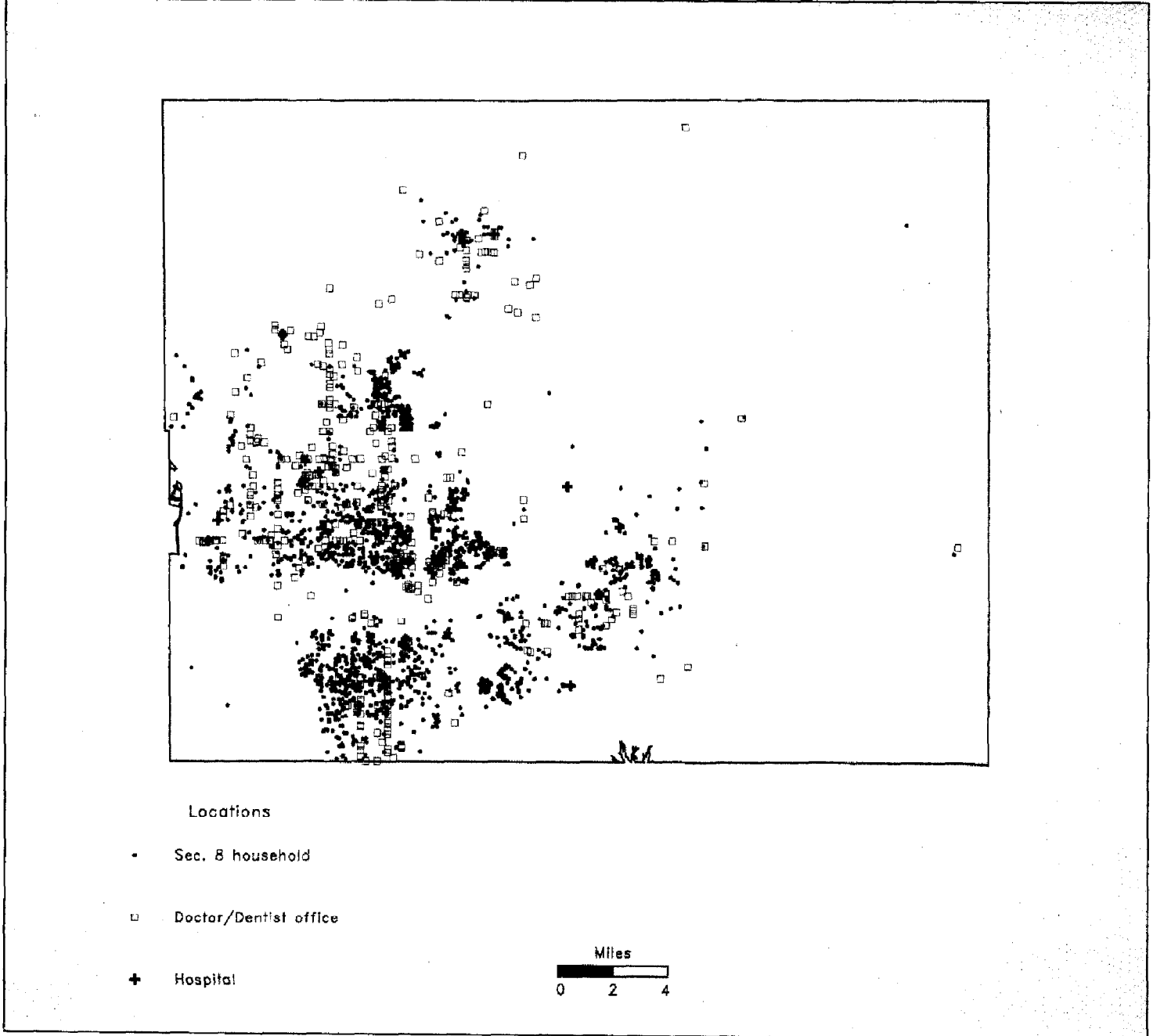| County	Total Section 8 households (%)	Total businesses (%)	Total employees (%)
Canadian	279 (7)	1,647 (5)	14,403 (4)
Cleveland	374 (10)	4,145 (13)	46,917 (12)
Logan	18 (0.5)	869 (3)	4,804 (1)
McClain	17 (0.5)	755 (2)	4,306 (1)
Oklahoma	2,722 (72)	22,689 (71)	293,190 (77)
Pottawatomie	344 (9)	1,723 (5)	14,760 (4)
Total	**3,754 (100)**	**31,828 (100)**	**378,380 (100)**

Source: Based on data from PHAs and Donnelly Marketing Information Services.

In addition to having the greatest number of services and businesses, Oklahoma County residents had access to public transportation. There were 23 fixed bus routes and 11 express bus routes throughout the county and there was a publicly funded school bus system that provided access to public elementary and secondary schools.

Because Oklahoma County is considered both a county and an MCD, we were unable to break the area down into smaller components. Therefore, we could not compare and contrast areas within the county. Figures I.18, I.19, and I.20 indicate of the proximity of services and businesses to the Section 8 households in the county. Figure I.18 shows the households' proximity to health services and figure I.19 to food stores. Figure I.20 shows the households' proximity to public schools and the top 10 employers in the area.

Figure I.18: Proximity of Health Services to Assisted Households in Oklahoma County, Oklahoma

Locations

- Sec. 8 household

▫ Doctor/Dentist office

+ Hospital

Miles
0   2   4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.19: Proximity of Food Stores to Assisted Households in Oklahoma County, Oklahoma

Locations

•   Sec. 8 household

○   Convenience store

★   Grocery store

Miles
0   2   4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.20: Proximity of Major Businesses and Public Schools to Assisted Households in Oklahoma County, Oklahoma

Locations

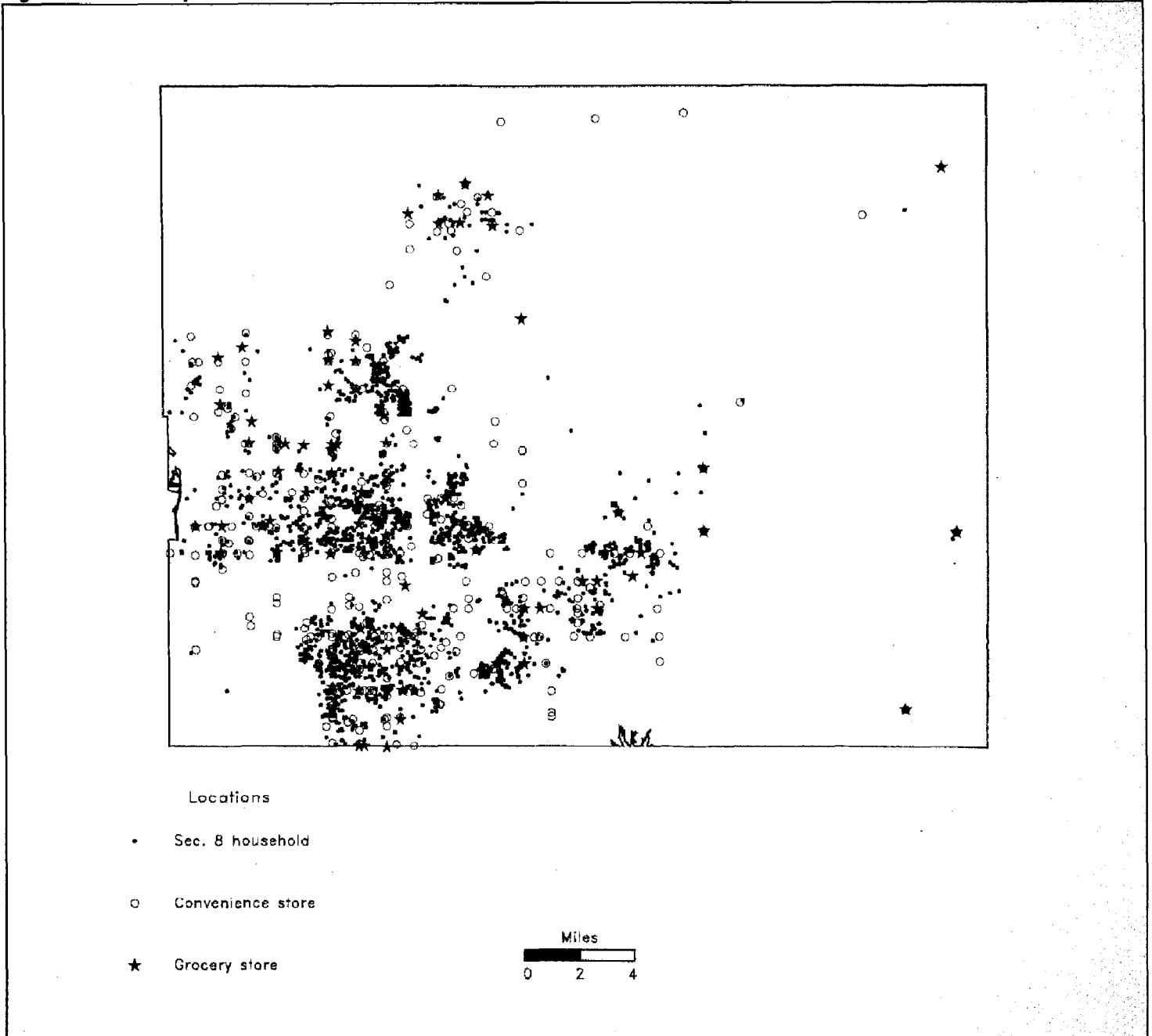•　Sec. 8 household

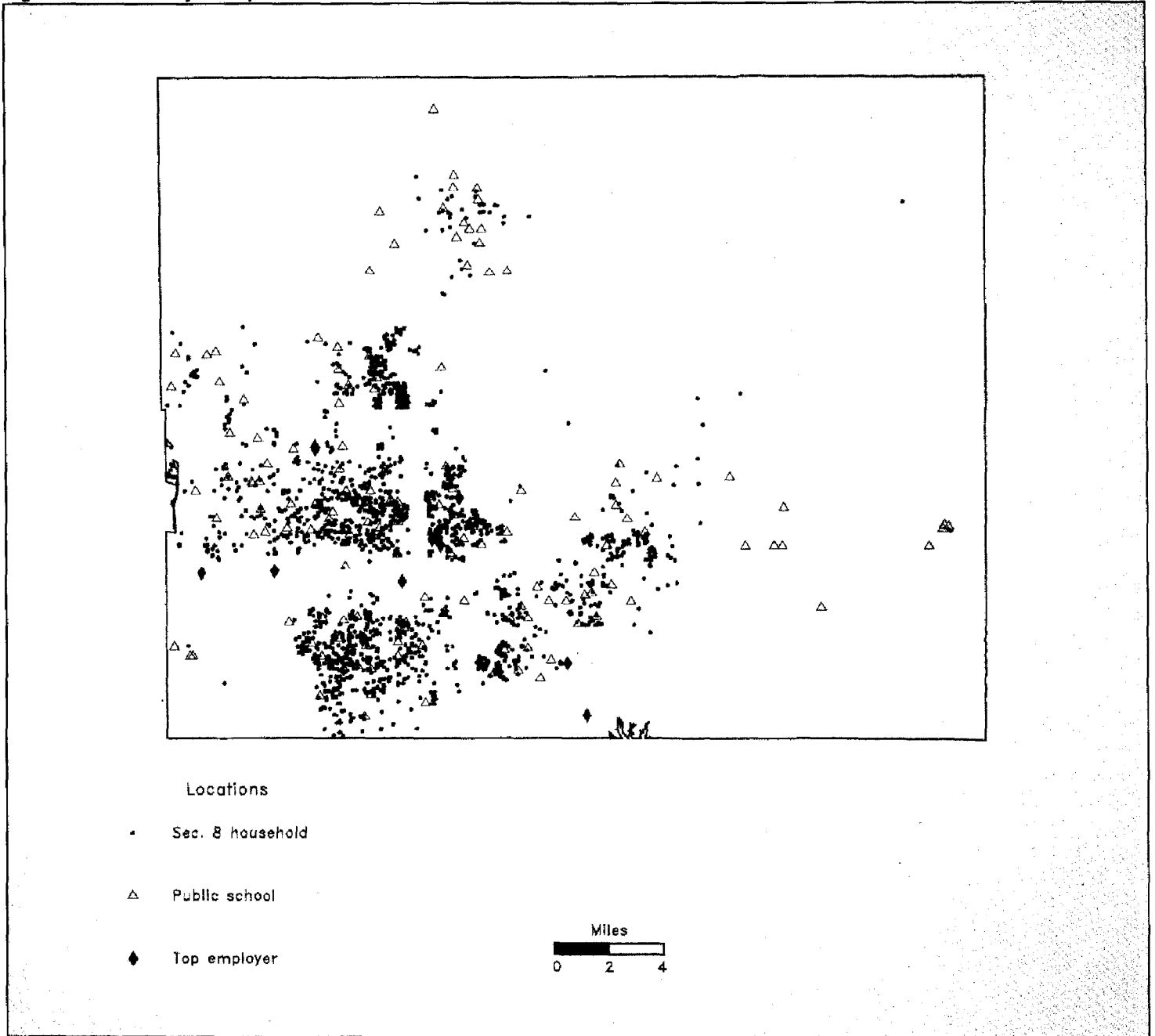△　Public school

◆　Top employer

Miles
0　2　4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Section 8 Households in the Seattle, Washington, MSA

The Seattle, Washington, MSA, has a total population of 1,972,961 and is about 4,216 square miles in size. It is made up of two counties—King, which includes the city of Seattle, and Snohomish.

Location of Section 8 Households

The MSA's 7,061 Section 8 households were located in both counties that make up the MSA. (See fig. I.21.) The majority of the assisted households, over 5,000 households, or 75 percent, resided in King County. The remaining households were dispersed throughout Snohomish County.

Figure I.21: Location and Number of Assisted Households Within the Seattle, Washington, MSA
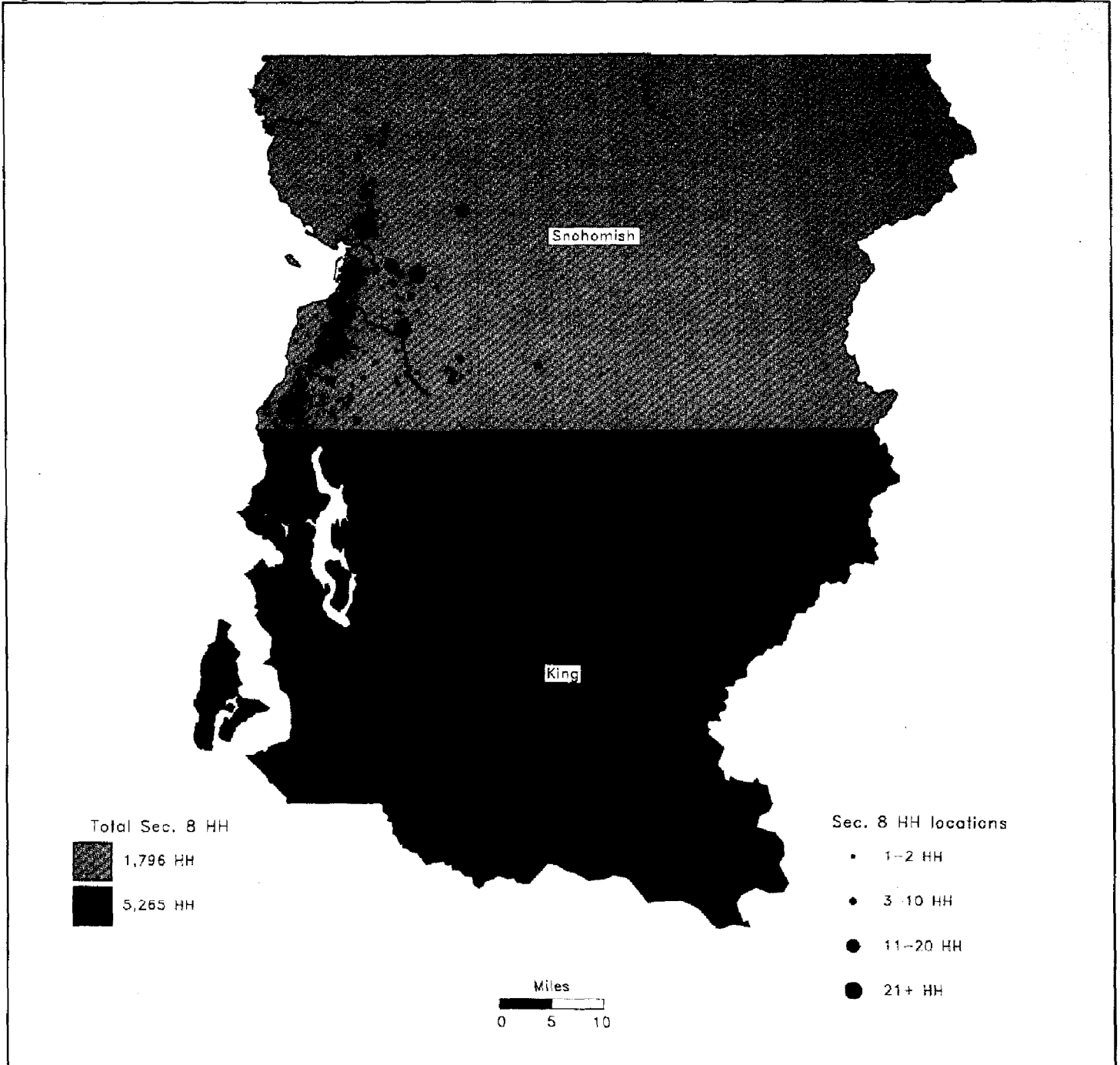
Total Sec. 8 HH

- 1,796 HH
- 5,265 HH

Sec. 8 HH locations
- • 1–2 HH
- • 3–10 HH
- ● 11–20 HH
- ● 21+ HH

Miles
0   5   10

Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

Key Demographic Data for Areas Where Section 8 Households Live

For the two counties in the MSA, we collected key demographic data to show the characteristics of the different areas. Table I.22 provides these comparative data.

Table I.22: Comparison of Counties Within the Seattle, Washington, MSA

County	MSA's total rental stock (%)	Two-bedroom rental units at or below the MSA's 45th percentile [a] (%)	Total Section 8 households (%)	Population per square mile	Median household income [b]	Percent minority population	Unemployment rate
King	87,438 (78)	40,792 (47)	5,265 (75)	709.0	36,179	12.25	3.0
Snohomish	25,185 (22)	13,640 (54)	1,796 (25)	222.8	36,847	5.02	2.9
Total	**112,623 (100)**	**54,432 (48)**	**7,061 (100)**	467.9 (average)	36,338 (median)	13.2 (average)	2.9 (average)

[a] See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent rental housing stock at or below the 45th percentile.

[b] The income figure shown in the chart cannot be used to estimate Section 8 recipients' program eligibility. Program eligibility is based on the adjusted median household income for the entire MSA.
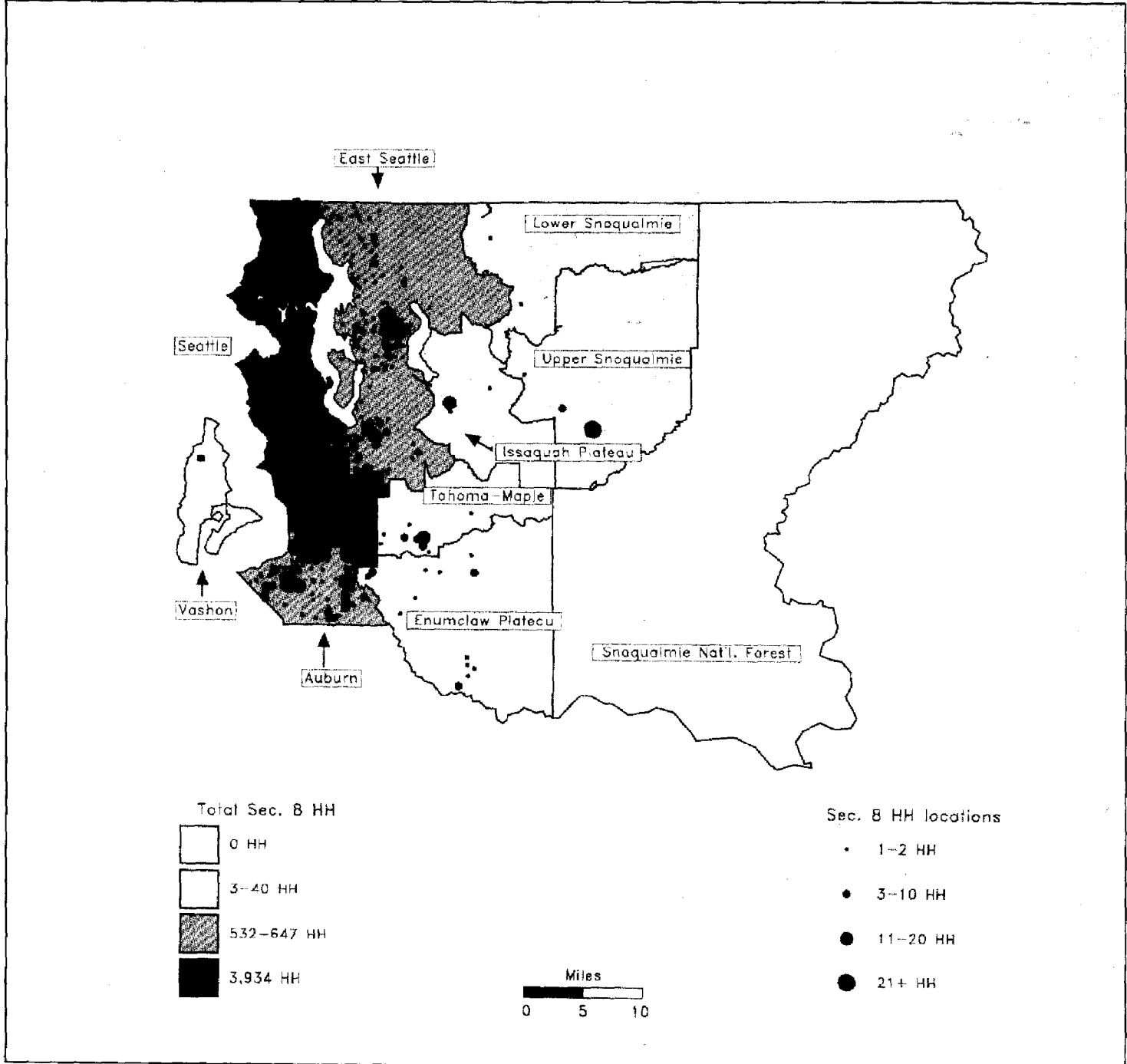
Source: Based on data from PHAs and Donnelly Marketing Information Services.

As the table shows, the county with the most Section 8 households—King County—was also the area with the most rental housing stock and the most two-bedroom rental units available at or below the MSA-wide 45th-percentile rent level. However, the MSA-wide FMR of $540 allows both counties to provide more than 45 percent of their rental units to the assisted households. King County had the lowest proportion of rental units available at or below the 45th-percentile rent, 47 percent. Snohomish County, the less urbanized county, had less rental housing available, but the local FMR permitted the assisted households access to 54 percent of the county's rental units. King County had the highest population density, minority population, and unemployment rate. It also had the lowest median household income, $36,179.

Within King County, the majority of the Section 8 households, 3,934 households, or 75 percent, resided in the Seattle Division—one of 10 MCDs within the county. Figure I.22 shows the number and location of the Section 8 households in King County.

Figure I.22: Number and Location of Assisted Households in King County, Washington

Source: Illustration based on data from PHAs and Donnelly Marketing Information Services.

As table I.23 shows, in comparison with the rest of the county, the Seattle Division had one of the lowest median household incomes, had the highest unemployment rate, and was the most congested area in the county. As table I.24 shows, it also had the highest proportion of minority residents, about 16 percent. As table I.25 shows, the Seattle Division had the highest total rental housing stock, 61 percent, and the highest proportion of two-bedroom rental units at or below the MSA-wide 45th-percentile rent in the county, 67 percent.

Table I.23: Demographic Characteristics—Income, Unemployment, and Population Per Square Mile—of King County, Washington

MCD division name	Median household income	Percent unemployment	Population per square mile
Auburn	$36,533	3.1	2317.8
East Seattle	44,518	2.4	1928.8
Enumclaw Plateau	40,482	2.8	212.0
Issaquah Plateau	52,361	2.1	342.0
Lower Snoqualmie Valley	38,790	3.1	78.4
Seattle	31,457	3.3	4309.4
Snoqualmie National Forest	29,808	0.6	1.0
Tahoma-Maple Valley	47,378	2.4	541.1
Upper Snoqualmie Valley	36,639	2.4	79.3
Vashon Island	36,041	2.1	251.8
Overall for county	**$36,179**	**3.0**	**709.0**

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.24: Demographic Characteristics—Race by Household and Percent Minority Population—of King County, Washington

MCD division name	Race by household			Percent minority population
	White	Black	Other [a]	
Auburn	45,032	1,301	3,013	8.7
East Seattle	148,363	3,246	9,566	7.9
Enumclaw Plateau	13,556	75	473	3.9
Issaquah Plateau	11,435	43	329	3.1
Lower Snoqualmie Valley	3,587	7	76	2.3
Seattle	295,885	23,627	32,901	15.8
Snoqualmie National Forest	363	1	11	3.2
Tahoma-Maple Valley	12,591	138	408	4.1
Upper Snoqualmie Valley	5,919	14	129	2.3
Vashon Island	3,618	13	72	2.3
Total	**540,349**	**28,465**	**46,978**	12.25 (average)

[a]"Other" includes American Indian, Asian and other race categories.

Source: Based on data from Donnelly Marketing Information Service's census demographic files.

Table I.25: Rental Housing Stock and Availability Within King County, Washington

MCD division name	Total rental housing stock	Percent rental stock	Total two-bedroom units at or below 45th percentile[a] (%)	Percent rental units	Percent at MSA's 45th percentile
Auburn	8,173	9.4	5,241	12.9	64.1
East Seattle	21,836	25.0	6,171	15.1	28.3
Enumclaw Plateau	1,291	1.5	869	2.1	67.3
Issaquah Plateau	1,183	1.3	304	0.7	25.7
Lower Snoqualmie Valley	203	0.2	95	0.2	46.8
Seattle	53,523	61.2	27,398	67.2	51.2
Snoqualmie National Forest	45	0	45	0.1	100.0
Tahoma-Maple Valley	397	0.4	148	0.4	37.3
Upper Snoqualmie Valley	504	0.6	297	0.7	58.9
Vashon Island	283	0.3	224	0.5	79.1
Total	**87,438**	**100.0**	**40,792**	**100.0**	**46.6**

[a]See table I.1, note a, for an explanation of why two-bedroom rental units were used to represent rental housing stock at or below the 45th percentile.

Note: Percentages may not add to 100 because of rounding.

Source: Based on data from Donnelly Marketing Information Services census demographic files and HUD's analysis of data from the 1990 decennial census.

Services and Businesses Available to Section 8 Households

In the Seattle, Washington, MSA, the majority of the Section 8 households lived in the more urbanized county—King. This area also had the most services and businesses within close proximity to the Section 8 households. Table I.26 provides data on the services available in each of the MSA's two counties.

Table I.26: Services Within the Seattle, Washington, MSA

County	Total Section 8 households (%)	Health care (%) Hospitals	Doctor/ Dentist	Food stores (%)	Public schools (%)
King	5,265 (75)	45 (90)	2,704 (87)	474 (79)	153 (87)
Snohomish	1,796 (25)	5 (10)	399 (13)	123 (21)	22 (13)
Total	**7,061 (100)**	**50 (100)**	**3,103 (100)**	**597 (100)**	**175 (100)**

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

Source: Based on data from PHAs and Donnelly Marketing Information Services.

Table I.27 provides data on the total number of businesses and employees within the Seattle, Washington, MSA, and each of its two counties.

Table I.27: Businesses Within the Seattle, Washington, MSA

County	Total Section 8 households (%)	Total businesses (%)	Total employees (%)
King	5,265 (75)	66,359 (84)	769,070 (85)
Snohomish	1,796 (25)	12,319 (16)	134,058 (15)
Total	**7,061 (100)**	**78,678 (100)**	**903,128 (100)**

Source: Based on data from PHAs and Donnelly Marketing Information Services.

In addition to many services and businesses, public transportation—buses—were available to most parts of the county. There were 164 fixed local routes and 46 express routes. Exceptions include (1) the very southern end of the county—Auburn—where services end; and (2) towns north of Seattle, close to the Snohomish County line, which receive spotty service. In addition, the further east the households lived in the county, the less service they had. For example, residents in Upper Snoqualmie had regular full-time service because that county is closer to Seattle. However, residents in Lower Snoqualmie, Tahoma-Maple Valley, and Issaquah Plateau counties had limited rush hour service, and the Snoqualmie National Forest District, which is further east and located in a National Forest, had no service. As figure I.23 shows, about 97 percent of

the Section 8 households living in King County had good access to public transportation. Only 3 percent had some (one or two bus routes) or no access.

Figure I.23: Public Transportation and Location of Assisted Households in King County, Washington
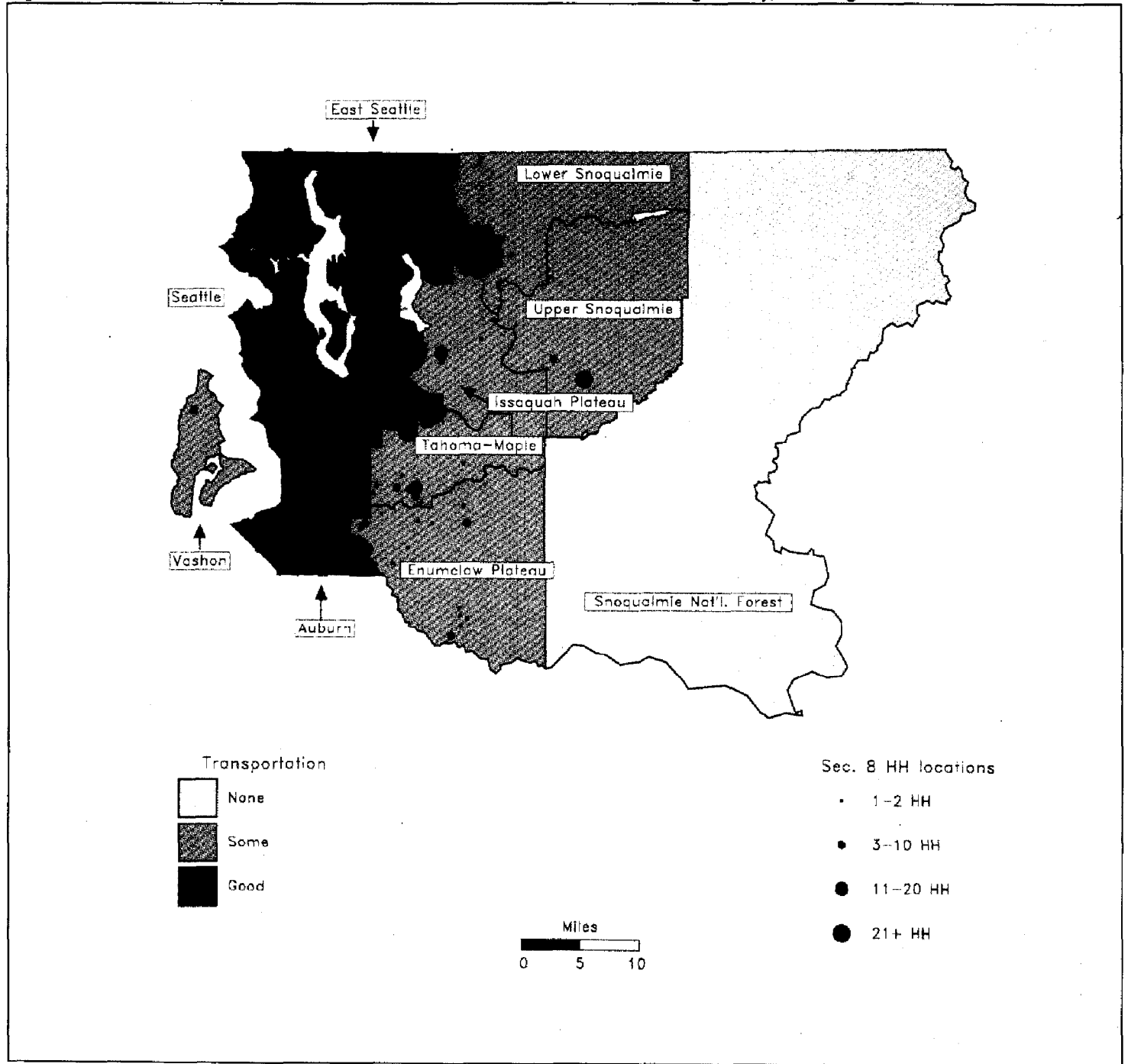
Source: King County public transportation providers.

As stated earlier, the majority of the assisted households resided in the county's more urbanized area—the Seattle Division—which also had the largest number of services and businesses located within its boundaries. As table I.28 shows, the Seattle Division is home to 27 hospitals, or 60 percent of the county's hospitals, and the largest number of doctors' and dentists' offices in the county, over 1,600, or 61 percent. As table I.29 shows, it also had the largest number of food stores—107 grocery stores, or 46 percent, and 123 convenience stores, or 50 percent—and the highest number of public schools—79 schools in the county, or 52 percent. As table I.30 shows, the Seattle Division had the largest number of employers in the county, 39,729, or 60 percent.

Table I.28: Health Care Services Available Within King County, Washington

| | | | Health care | |
| | | | | |
MCD division name	Total households	Total Section 8 households	Hospital	Doctor/Dentist Offices
Auburn	49,346	532	2	227
East Seattle	161,175	647	5	733
Enumclaw Plateau	14,104	40	1	19
Issaquah Plateau	11,807	26	0	38
Lower Snoqualmie Valley	3,670	3	0	3
Seattle	352,413	3,934	27	1,648
Snoqualmie National Forrest	375	0	0	0
Tahoma-Maple Valley	13,137	36	0	15
Upper Snoqualmie Valley	6,062	33	0	12
Vashon Island	3,703	7	0	9
Unknown[a]	b	7	10	0
Total	**615,792**	**5,265**	**45**	**2,704**

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

[a]The data base we used was unable to identify in which of the 10 MCDs these services were located.

[b]Not applicable.

Source: Based on data from PHAs and Donnelly Management Information Service's census demographic files and BusinessLine data bases.

Table I.29: Food Stores and Public Schools Within King County, Washington

MCD division name	Total households	Total Section 8 households	Food stores		Public schools
			Grocery[a]	Convenience	
Auburn	49,346	532	15	21	15
East Seattle	161,175	647	38	40	48
Enumclaw Plateau	14,104	40	1	1	3
Issaquah Plateau	11,807	26	3	3	3
Lower Snoqualmie Valley	3,670	3	0	0	0
Seattle	352,413	3,934	107	123	79
Snoqualmie National Forest	375	0	0	0	0
Tahoma-Maple Valley	13,137	36	1	2	5
Upper Snoqualmie Valley	6,062	33	0	0	0
Vashon Island	3,703	7	0	0	0
Unknown[b]	c	7	65	54	0
Total	**615,792**	**5,265**	**230**	**244**	**153**

Note: See table I.5, note 1, for an explanation of why the number of services listed above may not be complete.

[a]"Grocery" stores also include supermarkets.

[b]The data base we used was unable to identify in which of the 10 MCDs these services were located.

[c]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographics files and BusinessLine data base.

Table I.30: Businesses Located Within King County, Washington

MCD division name	Total households	Total Section 8 households	Number of businesses
Auburn	49,346	532	4,284
East Seattle	161,175	647	18,217
Enumclaw Plateau	14,104	40	1,107
Issaquah Plateau	11,807	26	1,304
Lower Snoqualmie Valley	3,670	3	308
Seattle	352,413	3,934	39,729
Snoqualmie National Forest	375	0	43
Tahoma-Maple Valley	13,137	36	501
Upper Snoqualmie Valley	6,062	33	506
Vashon Island	3,703	7	360
Unknown[a]	b	7	b
Total	**615,792**	**5,265**	**66,359**

[a]The data base we used was unable to identify in which of the 10 MCDs these households and/or services were located.
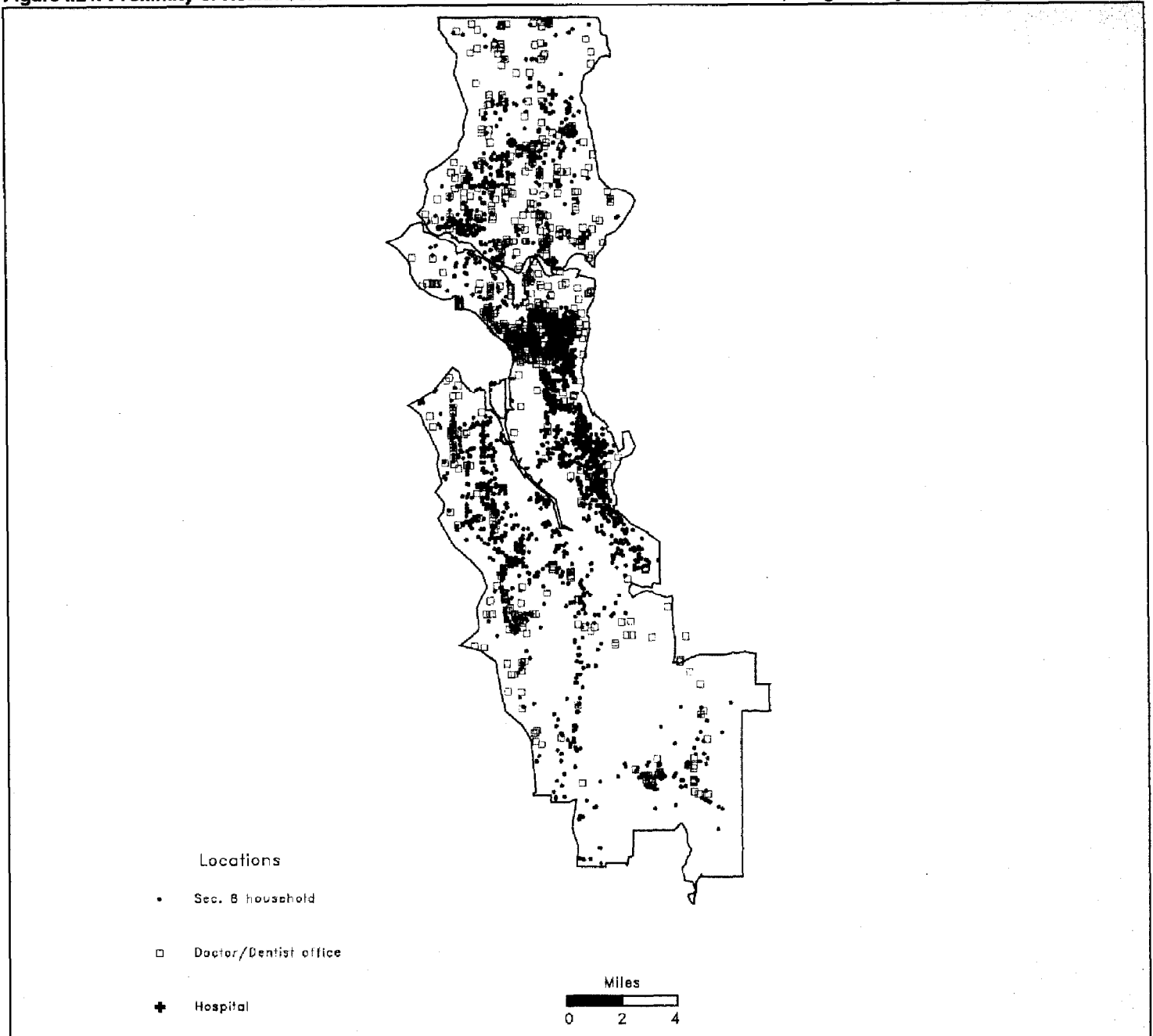
[b]Not applicable.

Source: Based on data from PHAs and Donnelly Marketing Information Service's census demographic files and BusinessLine data base.

The assisted households in the Seattle Division also had access to public transportation. In addition, school buses were provided for elementary and secondary school students. Therefore, the assisted households' proximity to public schools had no impact on students' access to education. Figures I.24, I.25, and I.26 show the assisted households' proximity to services and to the Seattle Divisions top 10 employers. Figure I.24 shows the households' proximity to health services and figure I.25 to food stores. Figure I.26 shows the households' proximity to public schools and the county's top 10 employers.

Figure I.24: Proximity of Health Services to Assisted Households in the Seattle Division, King County, Washington

Locations

• Sec. 8 household

□ Doctor/Dentist office

✛ Hospital

Miles

0   2   4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Figure I.25: Proximity of Food Stores to Assisted Households in the Seattle Division, King County, Washington

Locations

- Sec. 8 household

○ Convenience store

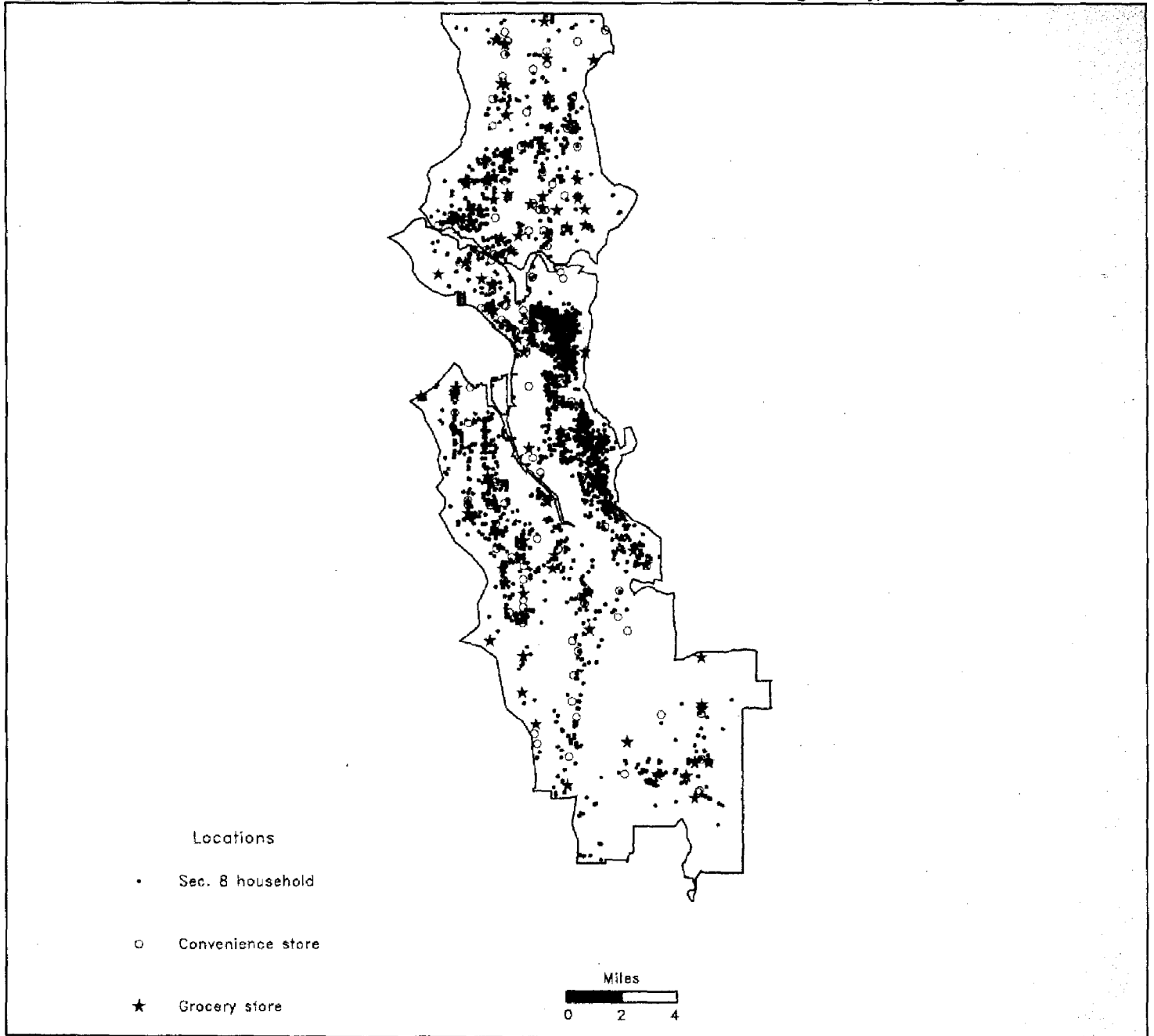★ Grocery store

Miles

0   2   4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's
BusinessLine data base.

Figure I.26: Proximity of Major Businesses and Public Schools to Assisted Households in the Seattle Division, King County, Washington

Locations

•   Sec. 8 household

△   Public school

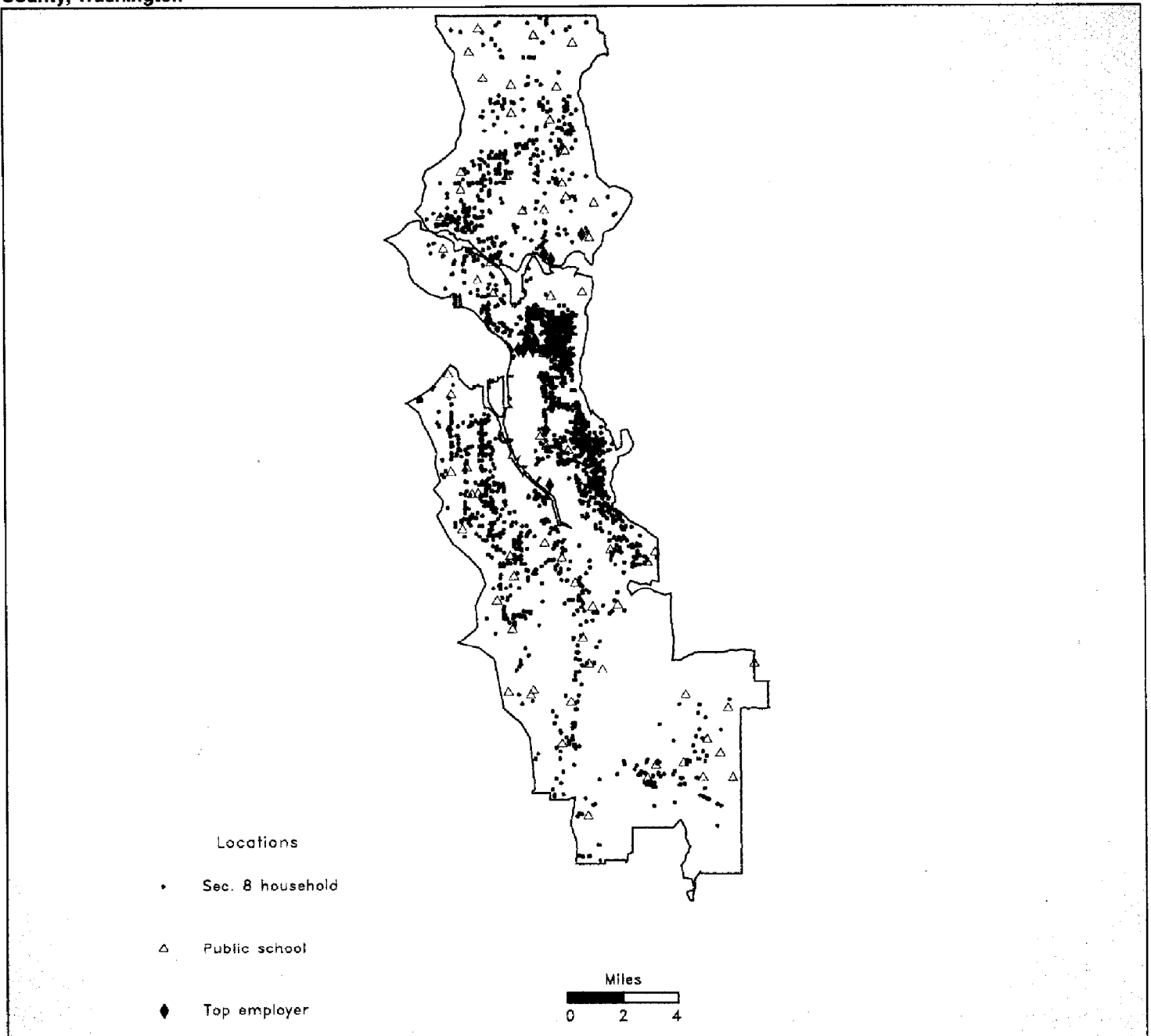◆   Top employer

Miles

0   2   4

Note: One dot may represent more than one service provider.

Source: Illustration based on data from PHAs and Donnelly Marketing Information Service's BusinessLine data base.

Technical Methodology of Mapping

To provide information on the location and demographic characteristics of Section 8 households, we used computerized mapping based on a geographic information system (GIS). This appendix discusses our methodology, the data we used, and the data sources. It also discusses the various shortcomings and/or problems we encountered and their effects on our maps.

Geographic Information System

A GIS is a computerized system for portraying geographic, demographic, and economic information on maps. Basically, it consists of specialized software, hardware, and CD-ROM (compact disk—read only memory) data files for producing a wide variety of geographic images. Economic, demographic, and other information, supplied by either the system's vendor or user, can be incorporated into the maps to show these data geographically. The data shown on maps can represent points, lines, or areas. We used data representing points and areas.

We needed a system that could plot the actual locations of Section 8 households as well as portray demographic information at various levels, such as counties, census tracts, and zip codes. In addition to general mapping capabilities, we needed data on stores, schools, medical facilities, employers, and transportation that could be plotted on maps. We selected a GIS named CONQUEST from Donnelly Marketing Information Services (DMIS), a subsidiary of Dun & Bradstreet. (DMIS has since been purchased by Strategic Mapping, Inc.) We selected this system primarily for its combination of mapping abilities and data availability. Rather than contracting with one firm for the mapping software and other firms for the different data we needed, we obtained from DMIS a package of mapping software and data. We used CD-ROM files containing a wide range of demographic and economic variables for point locations as well as for geographic areas.

After producing initial versions of the maps with CONQUEST, we used a more powerful GIS from Strategic Mapping named ATLAS to draw the final maps. ATLAS enabled us to construct higher-quality, more readable maps for this report.

We used the following methodology to geocode the areas we reviewed. From approximately 33 PHAs, we collected the addresses of every household receiving Section 8 assistance in four MSAs: Seattle, Washington; Oklahoma City, Oklahoma; Washington, D.C.; and Wilmington, Delaware.

After eliminating a number of Section 8 recipients for quality control reasons, we had 25,731 Section 8 households in our universe. We sent our file of addresses of Section 8 households to DMIS for geocoding. Geocoding is a process in which computers are used to determine the geographic locations of addresses on the basis of the street address, the city, the county, and the state. Depending on the exactness of the computerized match, the software appends to each address geographic data such as the latitude, longitude, state code, county code, census tract, and other data as needed. Each geocoded address contains a status code that indicates whether the latitude/longitude coordinates are exact or based on an approximation. For example, if an address could not be geocoded to the exact latitude/longitude, the software would try to place the address into the correct block group. If that attempt was not successful, the software would try to place the address into the correct census tract. The appended latitude/longitude would be approximated by using the population-weighted center of the block group or census tract, called the centroid. Overall, we were able to geocode approximately 96 percent of the Section 8 household addresses. Our successfully geocoded universe contained 24,574 households.

Because we originally intended to analyze our data at the level of counties and census tracts, we did not initially have the minor civil division (MCD) code appended to each Section 8 household address. Later, however, we decided to use MCDs rather than census tracts in many of our analyses. We chose MCDs for certain analyses because they are generally smaller than counties but larger than census tracts. We used another GIS, MapInfo, to append the MCD value to each Section 8 household address rather than having our entire data base geocoded a second time. We were able to append the MCD value to all but 66 addresses in our geocoded universe.

Data

In addition to the Section 8 household addresses, we extracted the coordinates of the addresses for assorted services and employers from CD-ROMs provided by DMIS and from other DMIS proprietary data bases. The coordinates were extracted for grocery stores, convenience stores, public schools, doctors'/dentists' offices, hospitals, and the largest 10 employers for specific MCDs. As with the address coordinates of the Section 8 households, these data were used to plot the individual locations of these facilities on the maps.

We also gathered information pertaining to geographic areas such as counties and MCDs rather than representing points such as household

locations. We used data provided by HUD on the percentage of housing available in counties and MCDs at different FMR levels. We also gathered information on the public transportation available in the MCDs of certain counties. The specific sources of the data we used in the maps are as follows:

Section 8 households. We contacted the 33 public housing agencies that administer the Section 8 program in the four MSAs. We acquired the addresses of all households receiving assistance during 1990.

Grocery stores. DMIS provided the coordinates of grocery stores in the four MSAs from a proprietary data base. Supermarkets are included in this category.

Convenience stores. DMIS provided the coordinates of convenience stores in the four MSAs from a proprietary data base.

Offices of doctors and dentists. We used Dun's BusinessLine data base (version 2.65, 7/92), a product of Dun & Bradstreet Information Services, to collect the coordinates for doctors' and dentists' offices in the four MSAS.

Hospitals. DMIS provided the coordinates for major medical and surgical hospitals in the four MSAs.

Public schools. We contacted local governments in the four areas where we mapped public school locations: King County, Washington; Oklahoma City, Oklahoma; Washington, D.C.; and New Castle County, Delaware. We were provided with the addresses of the elementary and secondary public schools in these counties. We used DMIS' system to geocode the addresses.

Top employers. We used Dun's BusinessLine data base to select the largest employers, on the basis of the number of employees at the employer's location, in each MCD. After sorting the employers in descending order by number of employees, we picked the 10 largest employers in each MCD. We sometimes selected more than 10 employers if there was no clear breaking point at the 10th employer. For example, if the 10th through 12th employers on our list each had 120 employees and the 13th employer had 115 employees, we picked the top 12 employers rather than arbitrarily cutting off the 11th and 12th employers.

Transportation available. We contacted state and county public transportation offices to determine the types of public transportation available throughout the MCDs in the four MSAS.

Percentage of Housing Available. HUD's Economic Market Analysis Division in the Office of Economic Affairs, Office of the Assistant Secretary for Policy Development and Research, provided us with information on the percentage of housing available at the MSA, county, and MCD levels under MSA-based FMRs and the option of FMRs based on single counties.

Mapping

The maps were constructed using the relevant/selected data in layers. First an area's boundaries were selected and constructed, then data pertaining to portions within that area were selected and illustrated on the map using gray scales. Finally, if desired, data denoting the locations of households or businesses were plotted. For example, we selected the boundaries for the MCDs within Montgomery County, Maryland. Next, the MCDs were shaded according to the amount of transportation available—none, some, or "good." Finally, the individual locations of the Section 8 households were plotted on the map using red circles.

Problem Areas and Their Potential Effects

Of the 25,731 addresses, 1,157 (about 4 percent) were not geocoded for a variety of reasons. First, the data base used for geocoding addresses varies in its completeness. The address coverage in the geocoding data base is much better in urban areas than in rural areas. Second, some of the addresses might have been on a new street or in a new development. Third, some of the addresses were incorrect or incomplete. However, because we were able to geocode such a high percentage (about 96 percent) of the total number of addresses and because the geocoding failures were relatively spread out over the areas in our analysis, we did not feel that the geocoding failures would seriously affect our maps.

Some locations of Section 8 households were approximated rather than exact. Due to geocoding limitations in rural areas and inaccurate or incomplete address data, many of the addresses were approximated as accurately as possible rather than being assigned the actual coordinates. This means that some addresses were assigned coordinates that would put the location point in the centroid (the population-weighted center) of the block group or census tract. Consequently some portion of the data points are in the wrong locations—that is, not where the households actually

reside—especially if the centroid location is very different from the true location. This limitation occurs more often in rural areas than in urban areas. Because of the large number of data points we plotted for Section 8 households and other services on the maps, we did not attempt to measure/quantify the occurrence of this limitation. As noted, this problem is much less serious for urban areas.

Many of the point locations of Section 8 households on the maps represent more than one household. This occurs for several reasons: First, several Section 8 households may live in an apartment complex where the address is the same except for the apartment number. In this case the latitude/longitude coordinates would be identical. Second, other Section 8 households have been set at approximate locations. Many household locations in rural areas have been approximated. Consequently, approximated locations in a general area may share the same set of coordinates. This limitation causes some of the maps to be less accurate and somewhat less informative than they would be if all the household locations were the actual locations. For some of the maps, we used different-sized symbols to denote points representing multiple households.

The maps that show the locations of health services, public schools, and businesses for a single MCD are somewhat incomplete. We found that many of the data bases we used to gather the information on these services did not contain the MCD code for all observations. Consequently, when we extracted the observations for a particular MCD, we missed a certain number of valid observations because of missing MCD codes.

On one series of maps, we plotted the top employers (based on the number of employees) in each of five MCDs. Some of the businesses in the geographies had the same coordinates. As a result, one or more location points represents more than one employer. Because we were trying to show the locations of at least 10 top employers on each map and also because we were dealing with a small number of observations, we manually changed the coordinates very slightly for any points representing multiple employers so that each map would show at least 10 different points. For example, if three businesses in an MCD had the same latitude/longitude, we altered the latitude/longitude just enough to move the points apart from each other to show three separate points. We did not alter the coordinates for any other points on any of the maps.

In general, the smaller the area represented on any given map showing data points, the more pronounced the data shortcomings. Because of the

individual problems listed above, such as missing data, approximated rather than actual locations, and multiple Section 8 households with the same coordinates, the maps showing locations have some degree of inaccuracy. In the more rural areas, where the maps have fewer observations and the points tend to be clumped together because the locations are approximated to the centroid, the data limitations are even more noticeable. Despite these limitations, the maps work well to show where Section 8 households are concentrated and what types of services are available in the different areas.

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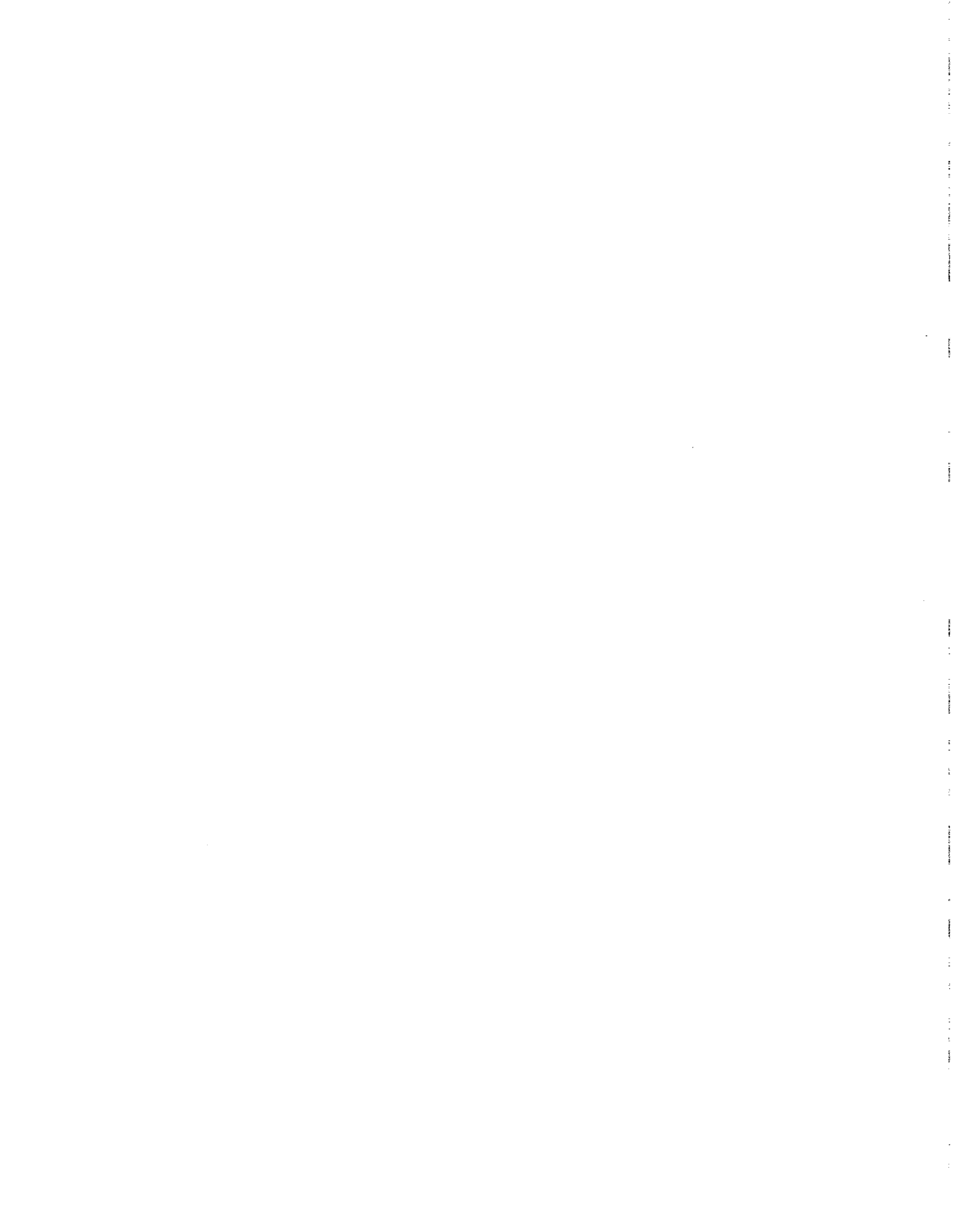
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