# **Minorities in Rural America**





Department of Health Administration

**Norman J. Arnold School of Public Health** 

University of South Carolina Columbia, SC 29203

Michael E. Samuels, DrPH, Director

## **Minorities in Rural America**

## **An Overview of Population Characteristics**

2002

#### Authors:

Janice C. Probst, PhD Michael E. Samuels, DrPH Kristen P. Jespersen, MSPH Karin Willert, PhD R. Suzanne Swann, PhD Joshua A. McDuffie, MBA

## Funding acknowledgment:

This report was prepared under Grant No. 6 U1C RH 00045-01 with the Federal Office of Rural Health Policy, Health Resources and Services Administration.



Joan Van Nostrand, DPA, Project Officer

## **Minorities in Rural America**

## **An Overview of Population Characteristics**

## **Table of Contents**

Introduction		1
Executive Sur	mmary	2
Chapter One.	Non-metro African Americans	6
Chapter Two.	Non-metro Hispanics	11
Chapter Three	e.Non-metro Native Americans	14
Chapter Four.	Non-metro Asians / Pacific Islanders	17
Chapter Five	Conclusions and Recommendations	19
Appendices:		
A:	Mapping Rural America's Minority Populations	
B:	Supporting Tables	
C·	Economic Patterns in Non-Metro America	

### Introduction

As the first offering in a series of reports addressing minority health issues, the South Carolina Rural Health Research Center presents an overview of demographic and economic statistics pertaining to rural minority populations. We attempt to answer the following questions:

- Where do rural minorities live?
- How is the rural minority population distributed across ages and sexes?
- What is the economic structure of rural, minority communities?
- What health resources are available in rural, minority communities?

This report marks the first compilation of information specifically targeting a broad range of rural minority populations and offering the same analyses for all groups. We hope it will encourage further interest in the experiences of minorities in rural America and serve as a springboard for further research.

For purposes of this report, "rural" is measured at the county level. Counties are sorted into metropolitan - non-metropolitan classifications based on Office of Management and Budget criteria. Non-metropolitan counties (hereafter, "non-metro") are considered rural. Details concerning methods and data sources, together with supporting tables, are presented in Appendix A.

Findings pertaining to each minority group are presented in separate chapters, ordered by the size of each population in rural areas: African Americans (Chapter One), Hispanics (Chapter Two), Native Americans (Chapter Three) and Asian / Pacific Islanders (Chapter Four). Conclusions and recommendations are offered in Chapter Five. Maps illustrating geographic findings are provided in Appendix B. These maps, presented here in black and white, are available in color at our web site, <a href="http://rhr.sph.sc.edu">http://rhr.sph.sc.edu</a>. For readers wishing further background, Appendix C provides a literature review, Economic Patterns in Non-Metro America.

## **Executive Summary**

## Geography

Rural minorities, and in particular poor minorities, are geographically concentrated in different regions:

- Seven of every ten (70%) poor, non-metro African Americans live in six Southern states: Mississippi, Georgia, North Carolina, Louisiana, Alabama, and South Carolina.
- Nearly three quarters (73%) of all poor, non-metro Hispanics live in five Southwestern states: Texas, New Mexico, California, Arizona, and Colorado.
- Over half (57%) of all poor, non-metro Native Americans live in five Western states: Arizona, New Mexico, Oklahoma, South Dakota, and Montana.

Non-metro Asian / Pacific Islanders are a geographic and economic exception among non-metro minority populations. Non-metro Asian / Pacific Islanders, just over half a million people, are not geographically concentrated and are less likely than the white population to live in poverty.

#### **Poverty**

Rural poverty affects both individuals and communities. The proportion of poor persons is higher among minority populations, and total community economic resources are more constrained in communities where minority groups represent over half of the population. The lack of community resources implies that it will be difficult for rural minorities to improve their economic status. Relevant statistics:

#### Rural African Americans:

- One third (34%) of the non-metro African American population is poor, versus 13% of the non-metro white population.
- In non-metro counties where the majority of the population is African American:
  - Average total county income is 67% of the national value: \$259 million versus \$387 million per county.
  - Bank deposits average \$144 million, 56% of the value for majority white counties, \$257 million.

#### Rural Hispanics:

- One quarter (25%) of the non-metro Hispanic population is poor.
- In non-metro counties where the majority of the population is Hispanic:

<sup>&</sup>lt;sup>1</sup> "Poor" or "poverty" is defined as living below the Federal poverty level.

- Total county income is 66% of the average for all non-metro counties (\$257 million versus \$387 million).
- Total bank deposits are 56.2% of the average for all non-metro counties (\$141 million versus \$257 million).

#### Rural Native Americans

- One third (34%) of the non-metro Native American population is poor.
- In non-metro counties where the majority of the population is Native American:
  - Total county income is less than half (48%) the average for all non-metro counties (\$186 million versus \$387 million).
  - Total county bank deposits are less than a quarter (24%) of the average for all non-metro counties (\$59 million versus \$257 million). The resource disparity experienced by Native Americans is greater than that of any other minority group.

### Rural Asian / Pacific Islanders are the exception:

• A smaller percentage of non-metro Asian / Pacific Islanders are poor (11%) than among whites (13%). The poverty population is not geographically concentrated. The five states accounting for over half of all poor, non-metro Asian / Pacific Islanders are Hawaii, California, New York, Oregon and Wisconsin.

#### **Health Services Infrastructure**

Individuals living in poor, non-metro counties have fewer health care resources available to them. Three of five non-metro white Americans live in Health Professions Shortage Areas (HPSAs); three out of four non-metro minority Americans do so. (Asian / Pacific Islanders are an exception to the pattern of minority disadvantage.) Relevant statistics:

#### Rural African Americans:

- One in eight non-metro African Americans (12%) versus one in 10 whites (10%) lives in a county without a hospital.
- In majority African American counties, there are 6.2 physicians for every 10,000 residents, versus 8.7 physicians per 10,000 residents across all nonmetro counties.
- Seven out of 10 non-metro African Americans (71%), versus six of 10 non-metro whites (64%), live in counties that are whole or in part Health Professions Shortage Areas (HPSAs).
- 84% of counties where African Americans are the majority of the population are HPSAs.

### Rural Hispanics:

- In non-metro counties where the majority of the population is Hispanic, there are an average of 5.3 physicians per 10,000 residents, versus 8.7 physicians per 10,000 persons across all non-metro counties.
- Three quarters of all non-metro Hispanics (76%) live in HPSA counties.
- 84% of counties where Hispanics are the majority of the population are HPSAs.

#### Rural Native Americans

- Non-metro Native Americans are less disadvantaged in physician supply than
  are other non-metro minorities, but still fall below the rural county average. In
  majority Native American counties, there are 8.1 physicians for every 10,000
  residents, versus 8.7 physicians per 10,000 residents across all non-metro
  counties.
- Nearly three quarters (73%) of all non-metro Native Americans live in HPSA counties.
- Two thirds (67%) of counties where Native Americans are the majority of the population are HPSAs.

#### Recommendations

To address the needs of non-metro minority populations requires recognition of the simultaneous presence of low-income *individuals* in low-income *regions*. Rural, minority poverty affects both individuals and communities. At the individual level, about one third of non-metro African Americans and Native Americans, and about one quarter of non-metro Hispanics, are poor. Total community economic resources are more constrained in counties where minority groups represent over half of the population. Typically, counties with high concentrations of minorities have income and assets that are two thirds or less of the national average. In counties where Native Americans constitute the largest population group, incomes are less than half and county bank assets about a quarter of the national average.

The lack of community resources implies that it will be more difficult for non-metro minority persons to improve their economic status unless they leave their present communities. Federal funding for community development tends to bypass many impoverished non-metro counties. A group of researchers at the US Department of Agriculture have examined the flow of Federal funds to metropolitan and non-metropolitan counties. Non-metro counties tend to exceed metro counties in funds received for income security, such as Social Security, public assistance, and medical benefits. However, funding for community resource development—business assistance, community and regional development—flows principally to metropolitan counties. This trend will have to change if rural communities and rural health infrastructures are to survive.

#### Recommendations are as follows:

- The Secretary of the Department of Health and Human Services should assess the degree to which absence of skilled personnel may prohibit rural minority counties from participating in DHHS grant programs and the degree to which appropriate training and support could remediate this personnel shortage.
- Employment and Training Administration programs of the Department of Labor should increase the degree to which they target counties falling into the bottom 25% for economic infrastructure and human capital (the latter measured by educational attainment in the workforce).
- The Secretary of the Department of Health and Human Services should evaluate the degree to which rural health care institutions may be handicapped by limits in rural telecommunications infrastructure.
- Programs that place practitioners directly in needy rural areas, such as
  Community Health Centers and the National Health Service Corps, should
  continue and if possible increase health workforce supply for poor and
  minority non-metro populations.
- Current and future appropriations for National Health Services Corps and Community Health Services programs should target rural counties with the lowest existing infrastructure, measured by economic and human capital.
- The Secretary of the Department of Health and Human Services should support research into the economic and infrastructure characteristics of rural counties that are successful in attracting and retaining health care providers, with the intent of identifying local models that can be exported to other rural counties. Particular attention should be given to successful models in rural counties with significant minority populations.
- The Secretary of the Department of Health and Human Services should support research into transportation barriers experienced by poor and minority rural residents, to better policy information for planning site locations and transportation services.

## **Chapter One**

#### **Rural African Americans**

## **Demographic Characteristics of the Non-metro African American Population**

Approximately 5 million non-metro residents are African American. These 4,992,164 persons make up 9.3% of the non-metro United States population (1999 estimates). Southern states, including South Carolina, Georgia, Alabama, Mississippi, and Louisiana, have the greatest density of non-metro African Americans. (See Maps 1-A and 1-B, Appendix B.) Of all African Americans living in non-metro counties, 69% live in the non-metro counties of those five Southern states.

The age distribution of non-metro and urban African Americans is illustrated in Figures 1-1 and 1-2 (Appendix A), and in Maps 1C-1G (Appendix B). Both non-metro and urban African American age distributions show a high proportion of all persons falling within the child-bearing years (18-44) or younger. African American population patterns that feature a high proportion of youths to older working individuals are particularly noticeable in the Mississippi Delta region. Map 1-C shows the particularly high concentration of African American children age 12 or younger in this area. A high ratio of children within a population places high demands on education and child care, which may not be available or available only in substandard form in economically depressed non-metro areas (Calhoun, Reeder and Bagi, 2000).

#### **Economic Characteristics of Non-metro, African American Counties**

The paragraphs below look at principal types of rural county economy—agriculture, manufacturing, farming—and note the proportion of all African Americans living in each type of county. This does not imply that all African Americans are actually engaged in the "typical" industry of the counties in which they live.

#### Agricultural Counties

The majority of African Americans live in counties that have less than 7% of the labor force in agriculture (See Table 1-1, Appendix A). The white population is much higher in farming-dominant counties, which are principally located in the Great Plains. Only 7.8% of non-metro African – American men, and 2.5% of non-metro African American women, were employed in agriculture in 1990 (Effland and Kassel, 1996).

#### *Manufacturing counties*

Non-metro African Americans, much more so than the non-metro white population, tend to be located in counties where a relatively large proportion of the economy is in manufacturing (See Table 1-2, Appendix A). While they may not be working directly in manufacturing themselves, seven out of every 10 non-metro African

Americans (73%) lives in a county that falls above the median in the proportion of its labor force in manufacturing in 1990.

In theory, living in manufacturing-based counties would be advantageous to African Americans. Manufacturing tends to hire a greater number of low-education workers than do other economic sectors (except for low skill service jobs), and to pay them comparatively well for that educational level. In the non-metro South, where most non-metro African Americans live, family poverty rates were lower among manufacturing workers than among other private sector workers. Only 9% of families of non-metro Southern workers in manufacturing were below the poverty level in 1998, versus 22% of the families of workers in other private sector jobs (McGranahan, 2001).

Other factors may work to reduce the advantages listed in the preceding paragraph. Jobs available to non-metro African Americans in the South are influenced by the nature of the region's manufacturing base, which has focused on less skilled jobs, and also by a "particularly strong legacy of racial segregation" (Gibbs, 1996, p. 66). African Americans in the non-metro South tend to have lower incomes than whites of similar educational background (Beaulieu, Barfield and Stone, 2001). Smaller non-metro towns, particularly African American majority towns, have become "pockets of poverty with high unemployment" (Cromartie and Beale, 1996). As recently as 1980, 47% of African American women and 56% of African American men employed in service industries in the non-metro South were categorized as household or commercial cleaning staff. (Gibbs, 1996). The drop in black women in service roles between 1980 and 1990 (to 35%) was due mainly to their moving into sales, particularly cashiers, and into technical positions, particularly nurse's aides. Neither of these occupations can be said to represent a significant occupational or financial advance. In blue collar industries, African American women are generally found at the bottom rungs of the employment structure, working in job classifications such as "operator". These jobs are at the lowest end of the wage scale and have the greatest likelihood of being moved offshore to lower cost locations (Gibbs, 1996).

#### Mining counties

"Mining" as an industrial sector refers to industries that extract raw materials from the ground. Mining thus includes extraction of oil via wells, and sand/gravel via quarries, as well as the traditional image of an underground mine. Mining as an industry is concentrated in relatively few counties across the United States. The median percent of income derived from mining across all non-metro counties is only 0.46%; the top quartile begins at 1.97%. Non-metro African Americans are slightly less likely than non-metro Whites to live in counties in the upper quartile for mining income (See Table 1-3, Appendix B). Mining income tends to be concentrated in Appalachian counties, which have predominantly white populations, and in the West, where Hispanics are the principal minority group.

#### **Income Available to Rural African Americans**

### Background

Most poor, non-metro African Americans are located in the South, including South Carolina, Georgia, Alabama, Mississippi, Louisiana as well as in western West Virginia and eastern Kentucky. Across the United States, including both non-metro and urban counties, 16.6% of persons lived below the poverty level in 1990. For metropolitan counties, the proportion of residents living in poverty was 12.8%. Non-metro counties had 18.3% of their residents living below the poverty level. Just under a third (31.8%) of African Americans across all county types live in poverty. In urban counties, however, 27.1% of African Americans lived in poverty, versus 34.1% of African American residents of non-metro counties.<sup>2</sup>

#### Personal Income

Average per capita income among non-metro African Americans, measured at the county level, ranges from under \$250 to \$74,896.<sup>3</sup> (See Map 1-H.) The median per capita income for African Americans in non-metro counties was \$5,893 in 1989, while in urban counties it was \$8,171. In comparison, the median household income for the white non-metro population in these same counties was \$10,981; for the white population in urban counties with more than 0.14% African American population it was \$13,851.

About one third (33.8 %) of the non-metro African American population lives below the poverty line, versus 12.9% of the white population. The number of non-metro African American persons living below the poverty line is highest in Mississippi, Georgia, North Carolina, Louisiana, Alabama, and South Carolina. Just over two thirds (69.9%) of all poor, non-metro African Americans live in these six states.

#### Community resources

The level of total wealth in a community offers a partial index of the level and quality of infrastructure support available in that county. For obvious reasons, richer counties are likely to have better schools, roads, health networks, and economic opportunities in general. One measure of wealth is the total income of the population of a county. Income includes money gained through earnings, interest and dividends from savings, and transfer payments, such as Social Security. Total personal income aggregated at the county level averages \$387,087,900 per county across non-metro counties.<sup>4</sup> In counties where the majority of the population is African American, this

\_

<sup>&</sup>lt;sup>2</sup> (US. Bureau of the Census, March Current Population Survey with aggregate data from federal individual income tax records, food stamp programs population estimates and 1990 Census figures) (www.Census.gov/hhes/www/saipe93.html).

<sup>&</sup>lt;sup>3</sup> All population data are from the population information on the USA Counties 1998 CD, and originate from US Census Bureau 1996 data. All income data are from the per capita income by race information on the USA Counties 1998 CD and originate from US Census Bureau 1996 data. Analysis is limited to the 1708 non-metro counties with more than 0.14% African American population. One county, Uvalde, Texas, was excluded from the sample of counties with African American population greater than 0.14% because the per capita income was reported to be more than \$200,000.

<sup>&</sup>lt;sup>4</sup> Figures are from the Bureau of Economic Analysis, 1994.

value drops to \$259,417,040, or 67.0% of the national value. In majority white non-metro counties, total personal income measured at the county level averaged \$392,241,160.

Local bank deposits speak to the ability of a community to finance local endeavors. Bank deposits aggregated at the county level average \$251,551,000 across all non-metro counties. In majority white non-metro counties, total bank deposits at the county level averaged \$257,320,460. In counties where the majority of the population is African American, this value drops to \$144,762,000, or 57.5% of the national value and 56.3% of the white county value. Non-metro counties with majority African American populations have both lower earnings and lower ability to access capital than other counties.

#### **Medical Resources**

Among 2297 non-metro counties, 529 do not have a hospital (1997 data). Approximately one in eight (12.0%) of all non-metro African Americans, versus one in 10 non-metro whites (9.6%), lives in a county without a hospital. The mean ratio of persons to hospital beds across all non-metro counties is 250 persons per bed. In counties where the majority of the population is African American, this value decreases to 219 persons per bed. Thus, bed capacity is higher in non-metro African American counties than in other rural counties.

While non-metro African Americans live in counties with more hospital beds per person, the reverse is true for nursing home beds. Across all non-metro counties, there were 255 with no nursing home at all and 666 with one nursing home in 1991; only 23 urban counties had no nursing home and 79 had one. <sup>7</sup> Nearly all non-metro African Americans (95.3%) live in counties with a nursing home. The mean ratio of population to nursing home beds across all non-metro counties is 136 persons to one bed, versus 218 to one in urban counties. In non-metro counties where the majority of the population is African Americans, however, the ratio is one bed for every 175 persons. For comparison, the same ratio for non-metro counties where the majority of the population is white is one bed for every 133 persons.

Very few rural African Americans (0.6%) live in a county without any physicians; the percentage for whites is 0.9%. The mean ratio of physicians to people across all non-metro counties is 8.65 physicians for every 10,000 persons. In counties where the majority of the population is African American, this ratio drops to 6.18 physicians per 10,000 persons. African Americans are more likely than whites to live in counties that fall into the bottom quartile for physician-population ratio, and less likely to live in the top quartile. Thus, 14.8% of non-metro African Americans live in counties in

\_

<sup>&</sup>lt;sup>5</sup> Data on total deposits to commercial banks and savings institutions are from the USA Counties 1998 CD and originate from FDIC 1997 data.

<sup>&</sup>lt;sup>6</sup> Data on hospitals are from the Bureau of Health Professions Office Of Research and Planning Area Resource File, February 2000.

<sup>&</sup>lt;sup>7</sup> Data on nursing homes are from the USA Counties 1998 CD and originate from National Center for Health Statistics 1991 data.

<sup>&</sup>lt;sup>8</sup> Data on physicians are from the Bureau of Health Professions Office Of Research and Planning Area Resource File, February 2000.

the bottom quartile for the physician/population ratio; 38.0% live in counties in the top quartile for the physician/population ratio. The same percentages of non-metro whites are 12.2% and 43.6%.

Non-metro America's sparse population and relatively low financial resources have not been conducive to attracting or retaining health care personnel. In consequence, many non-metro counties are Health Professions Shortage Areas (HPSAs). Seven out of 10 non-metro African Americans (71.2%) live in HPSA counties, 9 versus six out of 10 non-metro whites (63.6%). Of African American majority non-metro counties, 84.3% are HPSA counties. The same percentage for majority White non-metro counties is 64.8%.

County-based ratios of beds per 1000 population and physicians per 1000 population are gross measures of access and do not consider geographic and transportation barriers in obtaining access to care. Neither do they take into consideration financial barriers. Thus, difficulties in obtaining needed health care experienced by African Americans and other minorities may be greater than implied by the differentials noted above.

-

<sup>&</sup>lt;sup>9</sup> Data on HPSA status from the Bureau of Health Professions Office Of Research and Planning Area Resource File, February 2000.

## **Chapter Two**

## **Rural Hispanics**

#### **Demographic Characteristics of the Rural Hispanic Population**

Approximately 4.5% of all non-metro residents, an estimated 2,411,569 persons, are Hispanic (Map 2-A, Appendix B). "Hispanic" is a broad category. When enumerating Hispanic data, the 1990 Census included persons from 17 different categories (Effland and Kassel, 1996). The Hispanic non-metro population has historically been concentrated in the Southwest. Of all rural Hispanics, 69.9% live in eight states: Texas, New Mexico, California, Arizona, Colorado, Washington, Florida, and Kansas.

The Hispanic population has been increasing, and county-level data from the 2000 Census, when available, should show even faster growth than the 1990 – 1999 estimates available for this report (Map 2-B). Virtually all non-metro counties (96.5%) saw their Hispanic population increase from 1990 to 1999.

The age distribution of non-metro and urban Hispanics is illustrated in Figures 2-1 and 2-2 (Appendix A) and graphically presented in Maps 2-C through 2-G (Appendix B). Both non-metro and urban Hispanic age distributions show a high proportion of all persons falling within the child-bearing years (18-44) or lower. More clearly than African-Americans, rural Hispanics fall into a population pyramid, with children making up the largest age groups. School districts in counties with significant Hispanic representation will need to plan for these children.

#### **Economic Status of Non-metro Hispanic Counties**

Non-metro Hispanics are more likely than non-metro whites to live in counties with a significant proportion of the total county population employed in agriculture. Thus, 47.5% of non-metro Hispanics, versus 29.8% of whites, live in such counties (Table 2-1, Appendix A).

Rural Hispanics are under-represented in counties where the labor force is involved in manufacturing. Half (50.0%) of non-metro Hispanics live in counties falling into the bottom quartile of the United States for percent of the work force involved in manufacturing. Only 22.2% of the non-metro Hispanic population, versus 59.1% of non-metro whites, lives in counties falling above the median in percent of total workforce engaged in manufacturing. (See Table 2-2, Appendix B). The tendency of counties where Hispanics currently live to be more vested in agriculture, and less involved in manufacturing, limits job opportunities for Hispanics. As noted earlier, manufacturing tends to hire a greater number of low-education workers than do other economic sectors (except for low skill service jobs), and to pay them comparatively well. The absence of such jobs places non-metro Hispanics at an economic disadvantage.

Non-metro Hispanics are slightly more likely than non-metro whites to live in counties in the upper quartile for percent of the workforce engaged in mining (See Table 2-3, Appendix A). The West and Southwest are regions where geology allows a significant mining presence (See Map C-3, Appendix C). However, mining does not create many jobs. Concentration of a minority population in mining areas is not economically advantageous.

## **Income Available to Non-metro Hispanic Residents**

#### Personal income

Hispanics have an average per capita income, by county, ranging from under \$543 to \$93,810. (See Map 2-H, Appendix B.) The median per capita income for Hispanics in non-metro counties is \$5,888 while in urban counties it is \$8,738. For comparison, the median per capita income for the white non-metro population is \$10,801; for the white population in urban counties it is \$13,773.

One quarter (24.5 %) of the non-metro Hispanic population lives below the poverty line, versus 12.9% of the white population. The number of non-metro Hispanic persons living below the poverty line is highest in Texas, New Mexico, California, Arizona, and Colorado. (See Map 2-I, Appendix B.) Nearly three quarters (73.2%) of all poor, non-metro Hispanics live in these five states.

## Community resources

As discussed in the Chapter on non-metro African Americans, total community income and community capital as measured by bank deposits provide indices of the ability of a community to offer jobs and support an effective infrastructure. Total personal income aggregated at the county level in all non-metro counties averages \$387,087,900. In counties where the majority of the population is Hispanic, this value drops to \$257,362,020, or 66.1% of the value for all non-metro counties. Bank deposits aggregated at the county level average \$251,551,000 across all non-metro counties. In counties where the majority of the population is Hispanic, this value drops to \$141,459,000, or 56.2% of the value for all non-metro counties.

#### **Medical Resources**

Rural Hispanics are not more likely than non-metro whites to live in counties without a hospital. About one in ten persons in each group, 9.7% of non-metro Hispanics and 9.6% of non-metro whites, lives in a county with no hospital. However, Hispanics live in counties with fewer hospital beds available. The mean ratio of persons to hospital beds across all non-metro counties is 250 persons per bed. In counties where the majority of the population is Hispanic, this ratio increases to 342 persons per bed.

Six percent (6.0%) of non-metro Hispanics live in counties without a nursing home. Non-metro majority-Hispanic counties have fewer nursing home beds per person, as well as fewer hospital beds per person. The mean ratio of population to nursing home beds across all non-metro counties is 136 persons per bed. In non-metro counties where the majority of the population is Hispanic, this ratio increases to 516 persons per nursing

home bed. For comparison, the same ratio for non-metro counties where the majority of the population is White is 133 persons per bed.

Very few non-metro Hispanics (1.1%) live in a county without any physicians. This value is similar to that for non-metro whites (0.9%). The mean ratio of physicians to people across all non-metro counties is 8.65 physicians per 10,000 persons. In counties where the majority of the population is Hispanic, this ratio drops to 5.27 physicians per 10,000 residents. Hispanics, like African Americans, are more likely than whites to live in counties falling into the bottom quartile for physician/population ratio, and less likely to live in counties with the highest physician / population ratios. Thus, 15.5 % of non-metro Hispanics live in counties in the bottom quartile for the physician/population ratio; 32.8% live in counties in the top quartile for the physician/population ratio. The corresponding percentages of non-metro Whites are 12.2% and 43.6%.

Three quarters of all non-metro Hispanics (75.5%) live in HPSA counties, versus 63.6% of whites. (See Map 2-J, Appendix B.) Of all Hispanic majority non-metro counties, 84.1% are HPSA counties. The same percentage for majority White non-metro counties is 64.8%. Absence of local practitioners becomes more significant when residents lack the means to schedule appointments with more distant practitioners. Nationally, 17.3% of Hispanic households, versus 5.0% of white households, were estimated to lack a telephone in 1991 (Schement, 1995).

## **Chapter Three**

#### **Rural Native Americans**

### **Population Characteristics**

About 1.8% of the non-metro population, or 978,300 persons, are Native American. Of all Native Americans living in non-metro counties, 63.9% live in the non-metro counties of the seven states of Oklahoma, Arizona, New Mexico, Alaska, North Carolina, South Dakota, and Montana. (See Map 3-A, Appendix B.)

Native Americans living in non-metro counties of the United States are slightly older than their urban peers, with a median age of approximately 32.0 years for non-metro Native Americans versus 31.1 years among urban Native Americans. The female Native American non-metro population is older. Male Native Americans have a median age of 30.6 years, while female Native Americans have a median age of 33.5. The age distribution of non-metro Native Americans is shown in Maps 3-B through 3-F, Appendix B.

#### **Economic Status of Non-metro Native American Counties**

Non-metro Native Americans are more likely than any other minority populations to live in counties which fall in the bottom half of all counties for percent of the work force employed in agriculture. (See Table 3-1, Appendix A.) Thus, 71.7% of all Native Americans live in counties falling below the median in percent of total workforce employed in agriculture.

Non-metro Native Americans, like non-metro Hispanics are under-represented in counties where the labor force is involved in manufacturing. Nearly half (47.1%) of non-metro Native Americans live in counties falling into the bottom quartile of the United States for percent of the work force involved in manufacturing. Only 27.5% of the non-metro Native Americans population, versus 59.1% of non-metro whites, live in counties falling above the median in percent of total workforce engaged in manufacturing. (See Table 3-2). As was noted in the discussion of non-metro Hispanics, the tendency of counties where Native Americans currently live to have a small manufacturing base limits job opportunities.

Non-metro Native Americans are slightly more likely than non-metro whites to live in counties in the upper quartile for mining income (See Table 3-3). Over half of all Native Americans (57.0%), versus 44.6% of whites, live in counties falling above the median in the proportion of workforce engaged in mining.

#### **Income Available to Native American Residents**

#### Personal income

Native Americans have an average per capita income, by county, ranging from under \$1,768 to \$161,818. The median per capita income for Native Americans in nonmetro counties is \$6,667, while in urban counties it is \$10,109. For comparison, the

median household income for the white non-metro population is \$10,801; for the white population in urban counties it is \$13,773.

About one third (34.3%) of the non-metro Native American population lives below the poverty line, versus 12.9% of the non-metro white population. (See map 3-G.) The number of poor non-metro Native Americans is highest in the five states of Arizona, New Mexico, Oklahoma, South Dakota, and Montana. Over half (57.3%) of all poor, non-metro Native Americans live in these five states. Poverty stems from un- and underemployment. The unemployment rate among non-metro Native American men was 21.1% in 1990, and 15.4% among non-metro Native American women, versus 5.8% among both white men and women (Swanson, 1996). Unemployment, Tootle (1996) argues, stems not from cultural differences between Native Americans and other ethnic groups, but from their residence in counties where opportunities are fewer. A much higher proportion of non-metro Native American than non-metro white men who have left the work force report that they are not looking for work because they cannot find a job or believe no jobs are available (12.5% versus 2.1%; Tootle, 1996).

#### Community Economic Resources

Total personal income aggregated at the county level in all non-metro counties averages \$387,087,900. In counties where the majority of the population is Native American, this value drops to \$186,302,080, or 48.1% of that for all non-metro counties. This resource disparity is greater than that experienced by any other minority group.

Bank deposits aggregated at the county level average \$251,551,000 across all non-metro counties. In counties where the majority of the population is Native American, this value drops to \$59,061,000, or 23.5% of the value for all non-metro counties. Again, this disparity is greater than that experienced by any other minority group. The extremely low level of capital in majority Native-American counties implies that control of local economic growth is beyond the resources of these communities.

#### **Medical Resources**

Only 5.6% of non-metro Native Americans live in counties without a hospital, versus 9.6% of all non-metro Whites. Across all non-metro counties, the mean ratio of population to hospital beds is 250 persons to one bed. In counties where the majority of the population is Native American, this ratio drops to 202 person per bed.

Although inpatient beds are available, rural Native Americans may have reduced access to specific types of hospital service. A study in Montana found that 18.2% of Native American mothers, versus 60.7% of white mothers, lived in counties with Level II hospitals for obstetric care (Reichert, McBroom, Reed and Wilson, 1995). As a result, Native American mothers traveled an average of 25-30 km further for care.

Non-metro Native Americans are more likely than other minorities to live in a county that does not have any nursing homes. Thus, 10.5% of non-metro Native

-

<sup>&</sup>lt;sup>10</sup> "Unemployment" is lack of a job when the person is actively seeking one. "Under-employment" refers to persons who are only able to find part time employment when they wish to work full time. An individual who has left the work force would not be considered unemployed, even though he or she lacks a job.

Americans, versus 4.7% of African Americans and 6.0% of Hispanics, live in counties without a nursing home. The mean ratio of persons to nursing home beds across all non-metro counties is 136 persons per bed. In counties where the majority of the population is Native American, this ratio increases to 375 persons to each bed. For comparison, the same ratio for non-metro counties where the majority of the population is White is 133 persons to one nursing home bed.

Very few rural Native Americans, 1.2%, live in a county without any physicians. The same percentage for Whites is 0.9%. However, the number of physicians available per resident is less. The mean ratio of physicians to residents across all non-metro counties is 8.65 physicians to 1,000 persons. In counties where the majority of the population is Native American, this ratio declines to 8.13 to 1,000. Non-metro Native Americans are more likely than whites to live in counties falling into the bottom quartile for physician / population ratio, and less likely to fall into the upper quartile. A total of 17.6 % of non-metro Native Americans live in counties in the bottom quartile for the physician/population ratio, versus 12.2% of whites; 34.5% of Native Americans live in counties in the top quartile for the physician/population ratio, versus 43.6% of non-metro whites.

Nearly three quarters (72.6%) of all non-metro Native Americans live in HPSA counties; 63.6% of Whites do. Of all Native American majority non-metro counties, 66.7% are HPSA counties. The same percentage for majority white non-metro counties is 64.8%.

## **Chapter Four**

#### Asian / Pacific Islanders

About 1.0% of all non-metro residents in the United States, 533,108 persons, are Asian/Pacific Islanders. Asians / Pacific Islanders are not geographically concentrated as are other minorities; only three of the seven states which together account for a majority of non-metro Asians / Pacific Islanders are contiguous. (See Map 4-A, Appendix B.) Of all Asian/Pacific Islanders living in non-metro counties, 53.4% live in the non-metro counties of the seven states of Hawaii, California, New York, Texas, Georgia, Washington, and Oregon. Only in three rural counties, all in Hawaii, is the majority of the population Asian / Pacific Islander.

Non-metro Asian / Pacific Islanders are difficult to discuss as a group, because of the wide range of ethnicities encompassed within this rubric, and the differing economic and social histories of each. "Asian / Pacific Islander" can mean a prosperous Japanese American who is virtually indistinguishable from mainstream culture or a recent Hmong immigrant with poor language skills and few social resources. Studies of non-metro Asian / Pacific Islander populations are best carried out within specific groups and locales; this limitation should be considered when reviewing the information presented here.

## **Population characteristics**

Asian/Pacific Islanders living in non-metro counties of the United States are slightly older than their urban peers, with a median age of approximately 32.0 years for non-metro Asian/Pacific Islanders versus 31.1 years among urban Asian/Pacific Islanders. The female Asian/Pacific Islanders non-metro population is older. Male Asian/Pacific Islanders have a median age of 30.6 years, while female Asian/Pacific Islanders have a median age of 33.5. (Age distributions of non-metro Asian / Pacific Islander populations are shown in Maps 4-B through 4-F, Appendix B.)

Non-metro Asian / Pacific Islanders have higher average educational attainment levels than the non-metro white population. Thus, 31.6% of non-metro Asian Pacific men, versus 14.0% of white men, and 20.5% of non-metro Asian / Pacific women, versus 12.0% of non-metro white women, report having a bachelor's degree or above (Swanson, 1996).

#### **Income Available to Asian / Pacific Islanders**

#### Personal Income

Non-metro Asian/Pacific Islanders have an average per capita income, by county, ranging from under \$1,750 to \$130,356 (See Map 4-G). The median per capita income for Asian/Pacific Islanders in non-metro counties is \$6,368 while in urban counties it is \$11,648. For comparison, the median household income for the white non-metro population is \$10,801; for the white population in urban counties it is \$13,773.

The non-metro Asian/Pacific Islander population is slightly less likely than the white population to live in poverty (See Map 4-H). Thus, 11.4 % of the non-metro Asian/Pacific Islanders live below the poverty line, versus 12.9% of the white population. The number of non-metro Asian/Pacific Islanders persons living below the poverty line is highest in the five states of Hawaii, California, New York, Oregon, and Wisconsin. Over half (53.4%) of all poor, non-metro Asian/Pacific Islanders live in these five states.

## Community Economic Resources

Total personal income aggregated at the county level in all non-metro counties averages \$387,087,900. Asian / Pacific Islanders constitute a majority of the population in only four non-metro counties, all of which are in Hawaii. In those four counties, this average aggregate income is \$1,543,736,750.

Bank deposits aggregated at the county level average \$251,551,000 across all non-metro counties. In the four Hawaiian counties where the majority of the population is Asian/Pacific Islanders, this value increases to \$763,879,000.

#### **Medical Resources**

Only 2.9% of non-metro Asian/Pacific Islanders, versus 9.6% of all non-metro Whites, live in counties without a hospital. Across all non-metro counties, the ratio of residents to hospital beds is 250.0 persons to one bed. In counties where the majority of the population is Asian/Pacific Islanders, this ratio increases to 379.4 to one.

Only 1.6% of non-metro Asian/Pacific Islanders live in counties without a nursing home. The mean ratio of population to nursing home beds across all non-metro counties is 136.2 to 1, and in urban counties the ratio is 218.1 to 1. In counties where the majority of the population is Asian/Pacific Islanders, this ratio increases to 275.5 to 1. For comparison, the same ratio for non-metro counties where the majority of the population is White is 133.4 to 1.

Very few non-metro Asian/Pacific Islanders (0.2%) live in a county without any physicians. The mean ratio of physicians to people across all non-metro counties is 8.65 to 1,000. Only in four counties, three located in Hawaii, was the majority of the population Asian/Pacific Islander. The three Hawaiian counties have a physician/population ratio of 1.95 to 1,000. Most Asian/Pacific Islanders enjoy better physician access. Only 5.5 % of non-metro Asian/Pacific Islanders live in counties in the bottom quartile for the physician/population ratio; 71.8% live in counties in the top quartile for the physician/population ratio. The same percentages of non-metro Whites are 12.2% and 43.6%.

About two thirds (67.0%) of all non-metro Asian/Pacific Islanders live in HPSA counties; this value is similar to that for non-metro whites (63.6%). Of the four Asian/Pacific Islander majority non-metro counties in Hawaii, 50.0% are HPSA counties. The same percentage for majority white non-metro counties is 64.8%.

## **Chapter Five**

#### **Conclusions and Recommendations**

## **Geography and Poverty**

Rural minorities are geographically concentrated in areas reflecting historic settlement patterns: African Americans in the South, Hispanics in the Southwest, and Native Americans in the West. Non-metro Asian / Pacific Islanders are an exception. Only Hawaii has non-metro counties with a predominantly Asian / Pacific Islander population; this group is not geographically concentrated in the mainland. The concentration of rural minorities in specific geographic regions with distinctive histories, resources, and state-level policies makes it difficult to develop a unitary national health policy.

Minorities in non-metro areas are more likely to experience poverty than are their white peers. Poverty and health care are intertwined: persons without resources cannot afford health services, and communities without resources have difficulty attracting and retaining health care providers. Thus, issues surrounding rural poverty must be addressed if health resources for rural minorities are to reach levels comparable to rural whites.

Rural, minority poverty affects both individuals and communities. At the *individual* level, about one third of non-metro African Americans and Native Americans, and about one quarter of non-metro Hispanics, are poor. Total *community* economic resources are more constrained in counties where minority groups represent over half of the population. Typically, counties with high concentrations of minorities have income and assets that are two thirds or less of the national average. In counties where Native Americans constitute the largest population group, incomes are less than half and county bank assets about a quarter of the national average.

The lack of community resources implies that it will be more difficult for non-metro minority persons to improve their economic status unless they leave their present communities. Federal funding for community development tends to bypass many impoverished non-metro counties. A group of researchers at the US Department of Agriculture have examined the flow of Federal funds to metropolitan and non-metropolitan counties. Non-metro counties tend to exceed metro counties in funds received for income security, such as Social Security, public assistance, and medical benefits. However, funding for community resource development—business assistance, community and regional development—flows principally to metropolitan counties. Throughout the US, Federal expenditures for community resources averaged \$549 in metro counties versus \$349 in non-metro counties. In majority African American counties identified by USDA, non-metro counties averaged \$300 in community resource funding; in Mississippi, these counties averaged \$235 (1997 data; Calhoun, Reeder, Bagi 2000). Similarly, non-metro counties in Appalachia averaged \$260 in community resource funding (Bagi, Reeder and Calhoun, 1999).

To address the needs of non-metro minority populations requires recognition of the simultaneous presence of low-income individuals in low-income regions. Federal policies need to be tailored to meet the needs of such persons and communities. Determining which Federal agencies should be active in addressing non-metro policy is daunting; Calhoun and associates (2000) pooled data from 816 Federal funding streams in their analysis of majority African American counties. Some general suggestions are possible:

- Economic development assistance at present frequently bypasses poor non-metro counties, possibly because such communities lack the expertise to compete successfully in the "grantsmanship" game. Only 31% of rural counties have an economic developer on staff and only 28% employ a grants writer (Kraybill and Lobao, 2001). Economic development agencies at the state and Federal levels should develop mechanisms to foster skills development in low income rural counties. For example, communities submitting grants that show theoretical promise but lack managerial skills could be assigned a "case worker" to educate local personnel. Technical assistance conferences, with leadership and entrepreneurship training for rural county officials, offer another improvement mechanism. The Secretary of the Department of Health and Human Services should assess the degree to which absence of skilled personnel may prohibit rural minority counties from participating in DHHS grant programs and the degree to which appropriate training and support could remediate this personnel shortage.
- Rural communities in general suffer from lack of human capital, with lower educational levels than metropolitan areas. The Employment and Training Administration of the Department of Labor funds a broad range of programs to improve workforce competitiveness through grants for youth, adult and worker retraining. Both applications and subsequent funding through ETA programs should be periodically reviewed to ensure that counties falling into the bottom 25% for economic infrastructure and human capital (the latter measured by educational attainment in the workforce) are not disproportionately absent from program participation. Regarding health services infrastructure, the Secretary of the Department of Health and Human Services should evaluate the degree to which rural health care institutions might benefit from increased support for training programs located in rural minority counties.
- Rural regions fall short in basic telephone service and are even more disadvantaged when it comes to the high speed digital and broadband connections needed for Internet connectivity. The Rural Policy Research Institute has published several papers exploring the effects of telecommunications regulations and policy on rural issues. Continued study in this area is needed. In particular, research is needed into the degree to which rural health care institutions may be handicapped by inadequate telecommunications infrastructure in their communities. Telecommunications are needed allow rural facilities to take advantage of grant programs, such as those offered by the National Library of Medicine, that facilitate institutional

Internet access. The Secretary of the Department of Health and Human Services should evaluate the degree to which rural health care institutions may be handicapped by limits in rural telecommunications infrastructure.

#### **Health Services Infrastructure**

Individuals living in poor, non-metro counties have fewer health care infrastructure resources available to them. In general, three of five non-metro white Americans live in HPSAs, versus three out of four non-metro minority Americans. Differences in physician-population ratios favor white over minority population counties. While bed-population ratios favor non-metro minority counties, without providers, it is likely that the bed capacity is generally unused. County-based ratios of beds per 1000 population and physicians per 1000 population are gross measures of access and do not consider geographic and transportation barriers in obtaining access to care. Thus, difficulties in obtaining needed health care experienced by African Americans and other minorities may be greater than implied by resource differentials.

Non-metro counties with blighted economic structures are unlikely to support practitioners within present reimbursement structures. Should the economy of the United States as a whole experience a downturn during the first decade of the 2000's, as some anticipate, the greater swings experienced by non-metro minority populations in the past suggest that these populations would again be disproportionately affected. In addition, changes to the safety net structure, such as limitations to the duration of assistance through Temporary Assistance to Needy Families, may force non-metro residents to leave locations with few job opportunities.

Counties in which the majority of residents are Native American enjoy higher physician / population ratios (8.13 physicians per 10,000 residents) than do counties with majority African American (6.19 physicians) or Hispanic (5.27 physicians) populations, despite low economic resources. While the statistics presented in the preceding report are descriptive rather than explanatory, it is possible that the Indian Health Service, by placing physicians in proximity to Native American populations, has improved physician availability.

Recommendations pertinent to health services are as follows:

- Increase targeting of programs that place practitioners directly in high need areas, such as the Community Health Centers and the National Health Service Corps, to bring providers to poor and minority non-metro populations.
- Target additional current and future appropriations for National Health Services Corps and Community Health Services programs to rural counties with the lowest existing infrastructure (see recommendations re rural shortages of grant personnel, above).
- While most non-metro, minority counties suffer from shortages in health care personnel, not all do so. The Secretary of the Department of Health and Human Services should support research into the economic and infrastructure characteristics of rural counties that are able to attract and retain health care providers, with the intent of identifying local models that can be exported to

- other rural counties. Particular attention should be given to successful retention in rural counties with significant minority populations.
- When providers are absent, non-metro residents must travel for health care.
   For non-metro minority residents who lack personal vehicles, such travel may be foregone. Most studies of travel in rural areas, however, are based on trips actually made and thus may underestimate transportation problems.
   Population-based, rather than clinic-based, research is needed to better define non-metro transportation issues. Research will improve practitioner understanding of barriers faced by low income minority populations and provide better policy information for planning site locations and transportation services.