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COMMUTING AND MIGRATION STATUS IN NONMETRO AREAS *

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INTRODUCTION

The 1865 census of the State of New York provides the first evidence of official interest in the relationship between place of residence and location of employment. A question was asked "on the usual place of employment, if out of the city or town where the family resides." Unfortunately, the results were considered "too meager." Figures were published "only for the counties upon the Hudson and on Long Island and Staten Island," and a recommendation was made that the subject not be pursued (7).¹

Only much later, when the automobile became the primary mode of transportation and contributed to the growth of suburbs, did commuting become a recognized research topic. In this century, the fifties saw a proliferation of studies based on traffic flows, management records, and special surveys, and the Federal Government measured intercounty commuting in a national sample survey (15). But, as Schnore points out, until 1960 "the United States census—long used as a model

A fifth of employed nonmetropolitan household heads engaged in intercounty job commuting in 1975. Such commuting was positively associated with income, but not with education. Only a sixth of recent migrants to nonmetro communities from metro areas continued work at metro jobs, indicating a general severing of metro economic ties by such migrants. The median distance traveled to work by nonmetro household heads was well below that traveled by metro heads. Although there are more long-distance commuters among nonmetro residents, there are also many more who travel very short distances.

Keywords

Commuting
Journey to work
Migration
Population
Household heads

by other nations—[was] one of the few in the Western world which [had] never collected information on the places of work of employed members of the labor force as part of its full-scale operations" (8).² By 1960, a sufficient demand for commuting data existed that the Census of Population included questions on place of employment. Although these questions were repeated in 1970, neither census inquired about distance traveled.

Most commuting research appearing since 1960, whether based on the 1960 and 1970 Bureau of the Census publications, *Journey*

to Work (13, 14) or on other sources, has been confined to metropolitan areas. A bulletin based on the 1975 Annual Housing Survey (AHS) contains general commuting information for both metro and nonmetro populations, but it neither examines migration and commuting nor uses current metro boundaries (10).

No national study of the intercounty commuting patterns of migrants and nonmigrants living in nonmetro areas had been published prior to this study, which was conducted cooperatively by the U.S. Department of Agriculture (USDA) and the University of Georgia (3). Interest in the nonmetro aspects of commuting resulted from the substantial inmovement of people to nonmetro communities in the seventies after decades of net out-movement, growing questions as to the impact of energy costs and supply on settlement patterns, and earlier research findings on the characteristics of metro/nonmetro migrants. Data from the March 1975 Current Population Survey indicated that metro/nonmetro migrants did not have a negative impact on the nonmetro population as some people had predicted. A large number of migrants were in white collar occupations and industries, and their average income was not less than that of the total nonmetro population. The income of metro/nonmetro migrants was similar to that of persons moving in the opposite direction (2).

These issues and findings raised questions about similarities and differences among the migrant and non-migrant groups that had not hitherto been addressed. These questions involved the characteristics of non-metro commuters, the association between migration and commuting,

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¹Italicized numbers in parentheses refer to items in the references at the end of this article.

²Schnore's article contains an excellent bibliography of both published and unpublished works before 1960.

With one exception, income was directly and substantially related to rate of commuting among all household heads, the highest rates occurred among those with the highest incomes

and comparative distances traveled by metro and nonmetro people. A key issue was the extent to which the recent nonmetro population growth resulting from metro/nonmetro migration is linked to commuting to jobs in metro areas.

The 1975 AHS, with its travel-to-work supplement containing information on previous and current places of residence and work for household heads, provides a data base for such investigation.

In our study, *commuters* are defined as household heads who worked in different counties from those in which they lived at the time they were surveyed,³ *migrants* lived in different counties in 1975 from those in which they had lived 5 years earlier, *household heads* were designated by survey respondents, except that married women were not reported as household heads if they were living with their husbands. The data, based on special AHS tabulations, reflect metro designations through 1975. Thus, they reflect nonmetro and metro commuting more accurately than other published AHS data, which were based on older metro boundaries (10).⁴ No data were available by migration and com-

muting status for persons who were not household heads.

GENERAL COMMUTING PATTERNS

About 22 percent of all employed U.S. household heads worked in different counties from those in which they lived in 1975 (table 1). The rate of commuting for household heads was somewhat higher than that for all employed people in 1975, which was about 17 percent (10), and it was considerably higher than the rate for other household members, which was about 10 percent.

Commuting rates among household heads varied by demographic and social characteristics (table 1). Whites and minorities other than blacks had rates higher than that for blacks.⁵ Commuting was far more prevalent among men than women. Household heads living in the South tended to commute slightly more than those in the rest of the country.

Commuting tends to increase until ages 25-34, presumably as jobs become full time and of career nature, and begins to recede with age group 45-54. The pattern by age may be partly associated with cohort differences in propensity to commute, associated with the recency of high commuting rates (intercounty commuting has increased since it was first measured in 1960), but also reflects

shifts to secondary types of local work after retirement from a career job. The lower rate of commuting among late middle-aged (55-64) and older workers (65 and older) particularly characterizes nonmetro areas. The greater increase in commuting in nonmetro areas than in metro areas since 1960 probably affects younger workers most. The higher average age of noncommuting farmers—who comprise a greater proportion of workers in nonmetro areas—also contributes to the pattern.

The relationship of commuting to educational attainment was mixed. Persons with 4 years of high school or 4 or more years of college had somewhat higher rates than persons with less education, however, differences were minor. With one exception, income was directly and substantially related to rate of commuting among all household heads, the highest rates occurred among those with the highest incomes. Thus, commuting seems to be rewarded. However, the pattern may also reflect the greater ability of higher income people to live where they wish. There is no way of distinguishing between the two causes.

COMMUTING BY METRO STATUS

A somewhat higher proportion of metro than nonmetro household heads crossed a county line on the trip to work (22.7 percent versus 19.5 percent). This difference is partly influenced by the fact that metro counties are generally smaller than nonmetro counties (mean diameters are about 28 and 32 miles, respectively). Thus, a trip of a given length is more likely to become intercounty in a metro setting. Com-

³ We recognize that, in addition to the comparative availability of employment, such geographic features as size, shape, and topography of counties are important determinants of commuting patterns. Intercounty commuting, by definition, always occurs in commuting between nonmetro and metro areas.

⁴ Information on the reliability of AHS estimates and definitions of terms can be found in recent publications of the Bureau of the Census on the journey to work in selected metro areas and in the AHS *per se* (10, 11, 12).

⁵ Tests of significance were made at the 2.0- and 1.6-standard error levels, following procedures recommended by the Bureau of the Census for the AHS. In comparative statements, the word "nominally" is used if the difference was statistically significant at the 1.6, but not at the 2.0, level.

Table 1—Rates of intercounty commuting by employed household heads, by residence, mobility status, and selected characteristics, 1975

Characteristic	Employed household heads	Residence in 1975		Mobility status, 1970-75	
		Metro	Nonmetro	Metro/ nonmetro migrants	Nonmetro/ metro migrants
Thousands					
Number of heads	43,486	32,263	11,222	1,513	1,392
Percent					
Total, 18 years and over	21.9	22.7	19.5	26.6	19.3
Whites	22.2	23.2	19.4	26.2	19.4
Blacks	18.2	17.6	21.0	*	19.0
Others	24.6	24.8	23.1	*	*
Males	23.3	24.2	20.8	27.9	20.6
Females	14.4	15.2	11.3	15.0	13.8
South	23.5	23.6	23.4	31.9	21.3
North and West	21.1	22.3	16.9	23.4	18.0
Age (years)					
18-19	13.8	10.7	20.2	*	*
20-24	16.9	16.6	17.8	14.0	9.8
25-34	24.6	25.0	23.6	27.1	23.8
35-44	24.1	24.9	21.6	28.1	21.7
45-54	22.2	23.2	19.2	34.0	17.5
55-64	19.0	20.2	15.8	34.9	*
65 and over	13.0	16.4	6.0	*	*
Education (years)					
Elementary	20.0	20.1	19.8	32.6	*
High school, 1-3	20.6	21.3	19.3	27.4	20.9
4	22.8	23.2	21.9	32.1	19.5
College, 1-3	20.4	20.9	18.1	25.6	19.4
4	23.9	26.0	15.1	18.8	19.8
5 or more	22.5	24.4	13.6	18.7	19.5
Income (dollars) ¹					
Under 3,000	23.3	24.2	20.8	28.7	23.0
3,000-4,999	15.5	16.1	14.8	*	*
5,000-6,999	14.7	14.1	15.6	*	*
7,000-9,999	17.6	18.9	15.7	16.4	13.3
10,000-14,999	18.9	18.0	20.6	22.2	10.8
15,000-24,999	21.7	21.7	21.7	29.0	24.8
25,000 and over	26.1	26.6	24.4	34.4	27.7
	27.2	29.1	17.4	34.1	29.3

*Base less than 75,000

¹Restricted to household heads with families with incomes in 1975

Note "Migrants" lived in different counties in 1975 from those in which they had lived in 1970. "Metro" and "nonmetro" definitions reflect metro designations through 1975. "Commuters" lived and worked in different counties at the time of the 1975 Annual Housing Survey.

Source: Special tabulations made by the U.S. Bureau of the Census from the 1975 Annual Housing Survey and the Travel to Work Supplement. Household heads for whom commuter status was not reported were omitted. All numbers were independently rounded.

A higher education was positively associated with commuting in metro areas, but education was negatively associated with commuting in nonmetro areas

muting rates were not higher in metro areas for blacks, nor for residents of the South. Young household heads (those under 25 years) in nonmetro areas commuted more than their counterparts in the metro areas, but for all other age groups, intercounty commuting was more common in metro areas.

A higher education was positively associated with commuting in metro areas, but education was negatively associated with commuting in nonmetro areas. A fourth of all employed household heads who were college graduates were commuters in metro areas, but only a seventh commuted in nonmetro areas. This may be the most important difference between metro and nonmetro areas in the socioeconomic context of workers commuting.

Nonmetro heads with moderate to above-average incomes commuted more than those with low incomes (see figure). This seems logical, as the payoff from low-income jobs does not often tempt people to incur the cost of commuting. However, commuting rates for nonmetro heads with the highest incomes were lower than those for some heads with less income. The highest income category includes many successful farmers and businessmen who work in their own communities. Despite the lower commuting rate of the highest nonmetro income group, commuting of nonmetro household heads to metro jobs yields average income levels above those generally obtainable in nonmetro work. Thus, commuting to metro work helps to raise income levels of nonmetro communities. No such complementary benefit to metro areas occurs when workers commute from metro residences to nonmetro employment.

COMMUTING AMONG MIGRANTS

In both metro and nonmetro areas, migrants had higher rates of commuting than nonmigrants. Nearly a third of those household heads who had moved from one county to another between 1970 and 1975 made an intercounty journey to work in 1975, compared with only a fifth of nonmigrants (table 2). Nonmigrants in the nonmetro population had the lowest intercounty commuting rates (18 percent), and persons who had migrated from one metro county to another had the highest (37 percent). Members of the latter group may have moved within a multicounty metro area without changing jobs.

Of those metro-nonmetro migrants who were commuters, about a third went to another nonmetro county for work (table 3). The rest, comprising 17 percent of all metro/nonmetro migrant heads, commuted to a metro area for employment. This percentage clearly exceeds that of 7 percent for all other nonmetro heads. A higher rate of metro commuting was expected among the recent migrants into nonmetro areas, as some had moved to such areas for residential purposes only. Furthermore, at the time of survey, others might not yet have found a suitable job closer to their new homes.

More significant, however, is the fact that five of every six nonmetro newcomers—an overwhelming majority—did not depend on metro

Table 2—Intercounty commuting status of employed household heads, 1975

Residence and mobility status	Total ¹	Non-commuter	Commuter	Commuting rate
	--- Thousands ---		Percent	
Employed household heads reporting commuter status	43,486	33,980	9,506	21.9
Nonmigrant, 1970-75	33,689	27,270	6,418	19.1
Migrant, 1970-75	9,797	6,709	3,088	31.5
Nonmetro, 1975	11,222	9,030	2,192	19.5
Nonmigrant, 1970-75	8,566	7,041	1,525	17.8
Nonmetro/nonmetro, 1970-75	1,143	878	265	23.2
Metro/nonmetro, 1970-75	1,513	1,111	402	26.6
Metro, 1975	32,263	24,949	7,314	22.7
Nonmigrant, 1970-75	25,124	20,229	4,895	19.5
Metro/metro, 1970-75	5,747	3,597	2,150	37.4
Nonmetro/metro, 1970-75	1,392	1,123	269	19.3

¹Excludes household heads not reporting commuter status

Rate of Intercounty Commuting, Employed Nonmetro Household Heads, by Selected Characteristics, 1975

Total*
percent

19.5

Race

19.4

White

21.0

Black

23.1

Other

Sex

20.8

Male

11.3

Female

Region

23.4

South

16.9

North & West

Age
(years)

20.2

18-19

17.8

20-24

23.6

25-34

21.6

35-44

19.2

45-54

15.8

55-64

6.0

65 +

Education
(years)

19.8

Elementary

19.3

High School 1-3

21.9

4

18.1

College 1-3

15.1

4

13.6

5 or more

Family
Income
(\$ thous)

14.8

Under 3

15.6

3-5

15.7

5-7

20.6

7-10

21.7

10-15

24.4

15-25

17.4

25 and over

*18 years and older. Number of heads, 11,222,000

Source: USDA UGA internal migration projects. Based on 1975 Annual Housing Survey.

The pattern suggests that, although commuting occurs at all educational levels, it is the more successful people among metro-nonmetro migrants of low-to-average schooling who are most attracted to inter-county job commuting

Table 3—Location of employment for commuters, by migrant status

Residence and mobility status	Commuters to—		Percentage of total ¹		Percentage of commuters ¹	
	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro
	--- Thousands ---		--- Percent ---			
Employed household heads reporting commuter status ²	7,619	1,889	17.5	4.3	80.1	19.9
Nonmigrant, 1970-75	5,072	1,346	15.1	4.0	79.0	21.0
Migrant, 1970-75	2,547	543	26.0	5.5	82.5	17.6
Nonmetro, 1975	<u>973</u>	1,219	<u>8.7</u>	10.9	<u>44.3</u>	55.6
Nonmigrant, 1970-75	<u>658</u>	864	<u>7.7</u>	10.1	<u>43.2</u>	56.7
Nonmetro/nonmetro, 1970-75	<u>51</u>	214	<u>4.5</u>	18.7*	<u>19.2</u>	80.8*
Metro/nonmetro, 1970-75	<u>262</u>	141	<u>17.3*</u>	9.3	<u>65.2*</u>	35.1
Metro, 1975	6,646	<u>668</u>	20.6	2.1	90.9	9.2
Nonmigrant, 1970-75	4,414	<u>482</u>	17.6	1.9	90.2	9.8
Metro/metro, 1970-75	2,044	<u>107</u>	35.6*	1.9	95.1*	5.0
Nonmetro/metro, 1970-75	190	<u>81</u>	13.6	5.8*	70.6	30.1*

¹The base data are in table 2

²Excludes household heads not reporting commuter status

Note Underlined figures indicate interresidential commuting

* = commuting to type of area of origin

employment for their income. Therefore, their move away from the metro area generally was more than just a residential relocation, and more than just exurban sprawl. It involved severing direct economic ties with the metropolis.

Commuting rates among metro/nonmetro migrant heads surpassed those of people who had moved in the other direction, except among college graduates. The relationship between age and rate of commuting among metro/nonmetro migrant heads was direct rather than inverse, in contrast to that in the general population 25 years old and over. The older metro/nonmetro migrants had the highest rates. The commuting rates of metro/nonmetro migrants generally fell as education

increased, but rose as income increased. This pattern is unusual in social data, education normally correlates positively with income. The pattern suggests that, although commuting occurs at all educational levels, it is the more successful people among metro/nonmetro migrants of low-to-average schooling who are most attracted to inter-county job commuting. Many operatives and craftsmen, for example, are in this group.

LOCATION OF EMPLOYMENT FOR INTERCOUNTY COMMUTERS

Several authors have attributed the higher prevalence of commuting

among migrants to their remaining in jobs they had before moving (4, 6, 9). Unfortunately, we cannot address this issue directly, as the AHS sample included no questions on place of work before migration or at any previous date.

It is possible, however, to measure the differences in interresidential commuting among migrants and nonmigrants and to determine the degree to which migrants continued to work in the types of areas from which they had migrated. *Interresidential commuting* is defined as living in an area whose metro or nonmetro status is different from that of the area of employment.

Such commuting was higher for migrants than for nonmigrants among both metro and nonmetro

residents. This was true whether the proportions of those working in metro and nonmetro locations were based on overall totals or on the number of commuters in each migrant category. Of the metro/nonmetro migrants who commuted, 65 percent worked in metro areas (table 3).

Only 30 percent of household heads who had moved from nonmetro to metro areas commuted back to nonmetro jobs. However, this is several times higher than the percentage of other metro household heads who had job links to rural and small town areas.

INCOME OF COMMUTERS AND NONCOMMUTERS

We have already indicated the generally positive relationship between income and rates of intercounty commuting for employment. For household heads, median family income was \$17,310 for commuters and \$14,907 for noncommuters in 1975. The literature is inconclusive as to whether people of higher income status live where they wish because they can afford a longer trip to work or if they commute to another county to maximize earnings (17). Suitability of housing at the price a family can afford, preferences as to size of community, considerations of relative safety, availability of educational facilities, and many other factors determine residential choice. These factors are associated with intercounty commuting for employment, but we do not have the data to explore their significance here.

Except for household heads who had moved between two nonmetro

areas, commuters in each residence and mobility group had significantly higher median incomes than did the noncommuters (table 4). In general, AHS data for employed household heads showed similar relationships between income, residence, and mobility, as reported in other research (2). Whether they were commuters or noncommuters, long-term metro residents had the highest incomes and long-term nonmetro residents had the lowest. Household heads moving between metro and nonmetro areas were in an intermediate position.

AHS data provide additional evidence that metro/nonmetro migrants did not have a negative impact on the income of the nonmetro

population. The median income of metro/nonmetro migrants was as high or higher than that of other groups of nonmetro household heads, both for commuters and noncommuters.

Among intercounty commuters, male household heads who worked in different metro counties from those in which they lived had the highest median family incomes (table 5). They were largely suburban commuters to central cities, although our data on metro residents are not specific as to location of employment within metro areas. Their incomes were substantially higher than those of metro residents who commuted to nonmetro locations. Among nonmetro commuters, those

Table 4—Median family income, by mobility status and residence

Residence and mobility status	Median family income, 1975		
	Total	Commuter	Non-commuter
	<i>Dollars</i>		
Employed household heads reporting commuter status ¹	15,495	17,310	14,907
Nonmigrant, 1970-75	15,648	17,241	15,181
Migrant, 1970-75	14,926	17,459	13,983
Nonmetro, 1975	13,076	13,685	12,907
Nonmigrant, 1970-75	13,094	13,500	12,992
Nonmetro/nonmetro, 1970-75	12,278	12,808	12,093
Metro/nonmetro, 1970-75	13,645	15,248	13,020
Metro, 1975	16,736	18,523	16,088
Nonmigrant, 1970-75	16,880	18,559	16,384
Metro/metro, 1970-75	16,665	18,686	15,017
Nonmetro/metro, 1970-75	14,379	16,667	13,790

¹Household heads with families who had incomes in 1975, rather than all employed heads of household.

The median time traveled from home to work by all household heads working away from home at a fixed workplace was 21 minutes, and the median distance was 7 miles. Nonmetro heads required a third less time, and—contrary to what we think may be the popular belief—traveled a 40-percent shorter median distance than did metro heads

Table 5—Family income for male intercounty commuters

Location of residence and place of work	Number	Median income, 1975	Standard error of income
	Thousands	--- Dollars ---	
Intercounty commuters	7,906	17,779	171
Residence, metro	5,987	19,019	189
Place of work, metro	5,438	19,201	196
Place of work, nonmetro	549	16,856	730
Residence, nonmetro	1,919	13,943	228
Place of work, metro	870	14,931	519
Central city	365	14,421	535
Ring	505	15,500	648
Place of work, nonmetro	1,048	13,189	297

who worked in metro areas had higher median incomes than those who commuted to other nonmetro counties. The incomes of those working in ring locations appear higher than those of the group who commuted to the central cities, however, because of the small number involved, the difference is not statistically significant.

The same general patterns of income differences were observed among white male metro/nonmetro migrants who commuted to other counties for employment (table 6). Those working in metro counties had the highest incomes, and the difference between those in ring and central cities was not statistically significant. Those commuting to nonmetro counties had the lowest incomes. For nonmetro/metro migrants, no real income differences existed between those commuting to other metro areas and to nonmetro locations.

In general, interresidential commuting appears to have raised the

overall income of nonmetro residents. This was particularly true for those who had moved from metro areas into nonmetro communities since 1970. Indeed, the data suggest that migrants to nonmetro communities accepted a significant income reduction, on the average, by electing not to commute or by locating beyond the metro commuting range.

JOURNEY TO WORK

Despite the 1974 price increases in gasoline, the prevalent mode of transportation to work for employed household heads in 1975 was the automobile. A majority drove alone, whether migrants or nonmigrants, commuters or noncommuters. No real differences existed, by residence of household head or by mobility status within each population, in the proportions who drove alone. About 70 percent of household heads in all these classes drove to work alone

(table 7). Commuters were somewhat more likely to drive with others (table 8)—probably because of the greater average distance and cost of intercounty trips. Commuters also used public transportation more than noncommuters. More noncommuters walked, rode bicycles or motorcycles, or used other means to reach their places of employment.

A higher proportion of nonmetro commuters traveled in automobiles with other people and a higher proportion of metro commuters used public transportation. This represented the major difference in mode of transportation between the two groups.

The median time traveled from home to work by all household heads working away from home at a fixed workplace was 21 minutes (table 9), and the median distance was 7 miles (table 10). Nonmetro heads required a third less time, and—contrary to what we think may be the popular belief—traveled a 40-percent shorter median distance than did metro heads. The nonmetropolitan population is a mixture of people who do not have far to go to work (such as those living in small employment centers and most farmers) and those nonfarm people who live in the open country or small villages and who depend on commuting for employment. Thus, a relatively high proportion of nonmetro workers are at the two extremes of the distance scale, and a wide difference in distance traveled occurs between intercounty commuters and noncommuters. In nonmetro areas, a fourth of all household heads worked either at home or less than 1 mile from their work, whereas in metro areas only a tenth did so (table 8). However, in nonmetro areas, about 1 in every 13

Table 6—Family income for white male migrants

Commuter status and place of work	Metro/nonmetro migrants			Nonmetro/metro migrants		
	Number	Median income, 1975	Standard error of income	Number	Median income, 1975	Standard error of income
	<i>Thousands</i>	<i>---Dollars---</i>		<i>---Thousands---</i>	<i>---Dollars---</i>	
Employed ¹	1,330	13,965	303	1,041	14,929	502
Noncommuter	828	13,466	336	711	14,136	415
Commuter	336	15,560	826	208	17,580	943
Place of work						
Metro	225	16,702	968	148	17,676	1,036
Central city	100	16,184	1,585	N A	N A	N A
Ring	123	17,090	1,220	N A	N A	N A
Nonmetro	110	13,750	938	61	² 17,273	2,130

N A = not available

¹Total includes migrants for whom commuter status was not available²Base less than 75,000

Table 7—Household heads driving to work alone, 1975

Residence and mobility status	Total	Intercounty commuter	Non-commuter
	<i>Percent</i>		
Employed household heads reporting commuter status ¹	70.2	63.7	72.1
Nonmigrant, 1970-75	70.5	62.5	72.4
Migrant, 1970-75	69.3	66.1	70.8
Nonmetro, 1975	70.6	63.3	72.6
Nonmigrant, 1970-75	70.3	60.7	72.7
Nonmetro/nonmetro, 1970-75	71.5	68.9	72.3
Metro/nonmetro, 1970-75	71.2	69.7	71.8
Metro, 1975	70.1	63.8	71.9
Nonmigrant, 1970-75	70.5	63.1	72.3
Metro/metro, 1970-75	68.2	65.1	70.1
Nonmetro/metro, 1970-75	70.0	65.7	71.1

¹ Excludes household heads who did not report commuter status, who worked at home, or who had no fixed place of work

Table 8—Mode of transportation, time, and distance to work for employed household heads by commuter status, residence, and mobility status, 1975

Characteristic	Employed household heads		Residence in 1975				Mobility status, 1970-75			
			Metro		Nonmetro		Metro/nonmetro migrants		Nonmetro/metro migrants	
	Commuter	Non commuter	Commuter	Non-commuter	Commuter	Non commuter	Commuter	Non-commuter	Commuter	Non commuter
<i>Thousands</i>										
Household heads	9,506	33,980	7,314	24,949	2,192	9,030	402	1,111	269	1,123
<i>Percent</i>										
Mode of transportation										
Auto, alone	63.7	68.9	63.8	70.2	63.3	65.4	69.7	67.6	65.6	70.1
Auto, with others	24.6	15.5	21.7	15.2	34.4	16.2	27.8	16.5	23.2	17.6
Public transport	10.5	4.6	13.4	6.1	8	5	8	5	8.5	3.4
Walks only	3	5.3	2	4.8	7	6.6	8	6.9	1.5	5.9
Other means	9	1.2	9	1.2	7	1.4	1.0	2.6	1.1	1.6
Works at home	0	4.4	0	2.4	0	9.9	0	5.9	0	1.5
Time, home to work ¹										
Not working at home	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 minutes	8.1	45.1	7.4	39.2	10.4	62.9	7.5	61.7	11.7	48.3
15-29 minutes	28.1	37.1	29.0	40.2	25.0	28.1	24.8	30.0	31.7	37.0
30-44 minutes	30.0	12.9	30.4	14.9	28.5	7.0	28.3	6.5	27.9	11.6
45-59 minutes	15.6	3.1	15.7	3.8	15.5	1.2	17.5	1.1	14.3	2.4
60 and over minutes	18.2	1.6	17.5	1.8	20.6	8	22.0	7	14.3	8
Distance, home to work ¹										
Not working at home	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 mile	1.0	13.4	8	10.4	1.9	22.6	1.5	19.3	1.5	13.4
1-4 miles	7.4	8.7	7.4	37.1	7.4	43.4	4.3	43.5	7.9	40.4
5-9 miles	14.7	22.4	16.3	24.3	9.3	16.5	9.4	19.1	14.7	22.3
10-19 miles	32.2	19.6	34.8	21.8	23.4	13.1	20.0	13.7	31.3	18.4
20-29 miles	21.9	4.5	21.4	4.9	23.5	3.4	25.3	3.0	20.7	4.5
30 and over miles	22.8	1.4	19.3	1.5	34.4	1.1	39.5	1.4	23.8	1.0

¹ Excludes those working at home or with no fixed place of work

Source: Special tabulations made by the U.S. Bureau of the Census from the 1975 Annual Housing Survey and the Travel to Work Supplement. Household heads for whom commuter status was not reported were omitted. All numbers were independently rounded.

Table 9—Median time from home to work

Residence and mobility status	Total	Intercounty commuter	Non-commuter
<i>Minutes</i>			
Employed household heads reporting commuter status ¹	20.7	36.9	17.0
Nonmetro, 1975	14.5	37.7	11.9
Nonmigrant, 1970-75	14.3	37.9	12.0
Nonmetro/nonmetro, 1970-75	14.0	34.6	11.4
Metro/nonmetro, 1970-75	16.8	39.4	12.2
Metro, 1975	22.2	36.7	19.0
Nonmigrant, 1970-75	22.0	36.7	19.4
Metro/metro, 1970-75	24.0	37.0	18.2
Nonmetro/metro, 1970-75	18.7	33.6	15.7

¹Excludes household heads who did not report commuter status, who worked at home, or who had no fixed place of work

Table 10—Median distance from home to work

Residence and mobility status	Total	Intercounty commuter	Non commuter
<i>Miles</i>			
Employed household heads reporting commuter status ¹	6.9	18.3	4.8
Nonmetro, 1975	4.6	23.4	3.5
Nonmigrant, 1970-75	4.5	23.3	3.5
Nonmetro/nonmetro, 1970-75	4.3	19.9	3.3
Metro/nonmetro, 1970-75	5.9	25.9	3.8
Metro, 1975	7.6	17.3	5.5
Nonmigrant, 1970-75	7.3	16.9	5.6
Metro/metro, 1970-75	9.3	18.2	5.7
Nonmetro/metro, 1970-75	6.2	18.3	4.6

¹Excludes household heads who did not report commuter status, who worked at home, or who had no fixed place of work

household heads commuted 30 miles or more each way, compared with 1 in every 18 of metro heads

The differences among nonmetro residents are more obvious when one compares intercounty commuters with noncommuters. Of those nonmetro household heads who worked within their own counties, the vast majority (three-fourths) worked within 5 miles of home. However, when they worked in other counties, nearly three-fifths traveled 20 miles or more each way. Nonmetro household heads who commuted traveled a median distance 6.7 times that of noncommuters, whereas metro commuters traveled a median distance only 3.1 times that of noncommuters, as can be computed from table 10.

The time spent in intercounty commuting was nearly the same for both metro and nonmetro household heads (table 9), because the greater distance traveled by rural and small-town commuters is largely offset by faster travel. However, among noncommuters it took the metro group longer to go to work (19 minutes median) than those in nonmetro counties (12 minutes) (table 9). This difference occurs not because of slower travel, but because metro people live farther away from jobs in their own counties than do people in rural areas and small towns.

Among nonmetro residents, those who have moved from metro areas were not only the most likely to commute to a different county to work, but they were also prone to make the longest trips. About 40 percent of intercounty commuters among this group commuted 30 miles or more each way (table 7). Of all residential groups, this population appears to be the one most likely to

Probably the most striking statistics in this study are on the short median distance to work traveled by nonmetro workers (4.6 miles), even when those working at home are omitted from the computation, and the fact that this distance is well below the median for metro workers (7.6 miles)

be affected adversely by higher prices for gasoline or any recurrence of gasoline shortages. Of all nonmetro employed household heads, 8 percent traveled 30 miles or more each way.

CONCLUSIONS

The data presented here are for 1975 but the patterns they describe are not likely to have changed perceptibly. We can say that about a fifth of employed nonmetro household heads work in counties in which they do not live, and that somewhat less than half of this group commute to metro jobs. Given the fact that more than half the total nonmetro population lives in counties adjoining metro areas, this is a rather low percentage. Nonmetro residents remain overwhelmingly independent of metro labor markets, despite the comparative ease of automotive commuting today.

Only 17 percent of all household heads who had moved into nonmetro communities from metro areas between 1970 and 1975 were still working in metro locations. When renewed population growth in nonmetro areas was first noticed in the early seventies, there was an initial tendency to ascribe it to little more than the residential sprawl of metro workers into the next tier of nonmetro counties. As data on the geography of nonmetro growth became available, it was evident that nearly all areas of the Nation were affected, not just those within commuting distance of metro areas. The data presented here should lay to rest any lingering suspicions that a major portion of the newcomers to nonmetro areas have retained their metro employment.

The journey to work by household heads is dominated by workers who travel by car and drive alone. Interestingly, nonmetro workers who work away from home are somewhat more likely to have carpools than are metro workers (21 versus 17 percent). Yet, it would seem more difficult to arrange for joint use of autos in the dispersed low-density population of rural and small town areas than in large cities and suburbs. Although carpooling may not be as common anywhere as it should be for conservation purposes, nonmetro people evidence a greater willingness to adopt it thus far.

Probably the most striking statistics in this study are on the short median distance to work traveled by nonmetro workers (4.6 miles), even when those working at home are omitted from the computation, and the fact that this distance is well below the median for metro workers (7.6 miles). The difference in mean distances would not be as large, as nonmetro workers are disproportionately found among those traveling lengthy distances as well as short ones. However measured, the mass of nonmetro residents—especially the longer term ones—do not require inordinate amounts of fuel or time to travel to and from their employment, whether in absolute terms or in comparison with metro residents.

Nonmetro residents who rely on intercounty commuting for their employment are an exception, for they have the longest work trips of any residential class, with a median of 24 miles. Gasoline price increases and/or future supply shortages could make people less willing to move into nonmetro counties if they want to retain metro jobs, or could reduce their movement into the rural

countryside if they work in nonmetro towns. Such a dispersal trend in counties far removed from metro areas was one of the most characteristic—and unforeseen—aspects of the growth of nonmetro population in the seventies (1).

Much intercounty commuting and other long distance travel to work in rural areas occurs because suitable employment within the home community is lacking. The rapid growth of nonagricultural work in rural areas and small towns in the last 10-15 years has probably eased this problem. However, it has also drawn many people into the nonfarm labor force who previously did not work away from home or who would have moved to a metro area if local work was unavailable.

As we have shown, low-income people commuted less than higher income people. One reason was their lack of access to transportation (5, 16). Low income rural and small-town people often have neither automobiles nor access to public transportation, or they may have only one vehicle when two are needed if both spouses work. Thus, if they are to work at all, they may have to take jobs in their home communities that are often low paying. Improved rural transportation facilities would almost certainly increase the number and proportion of workers who commute beyond their home communities. However, even in metro areas the proportion of employed household heads using public transportation is so low (8 percent) as to suggest that public transportation may not be able to absorb a significant proportion of potential workers or of current automobile riders unless radical changes in facilities, preferences, and relative costs occur.

The AHS data do not answer all our questions concerning job commuting and its relationship to residential status and recent migration. However, they considerably advance our understanding of the issues.

REFERENCES

- (1) Beale, Calvin, and Glenn V Fuguitt "Demographic Perspectives on Midwestern Population Redistribution." Paper presented at a conference on Issues and Consequences of Population Redistribution in the Midwest, Urbana-Champaign, Ill., Mar. 12-14, 1979.
- (2) Bowles, Gladys K. "Contributions of Recent Metro/Non-metro Migrants to the Non-metro Population and Labor Force," *Agricultural Economics Research*, Vol. 30, No. 4, Oct. 1978, pp. 15-22.
- (3) Bowles, Gladys K., and others "Commuting Patterns of Nonmetro Household Heads, 1975." Cooperative report of the U.S. Department of Agriculture and the University of Georgia, 1980.
- (4) Goldstein, Sidney, and Kurt Mayer "Migration and the Journey to Work," *Social Forces*, Vol. 42, May 1964, pp. 472-481.
- (5) Kain, John "Journey to Work and Residential Location," Gerald Carrothers (ed.), *Regional Science Association Papers*, Vol. 9, Japan International Academic Printing Co., Ltd., Tokyo, 1962.
- (6) Liepmann, Kate K. *The Journey to Work: Its Significance for Industrial and Community Life*. Oxford University Press, New York, 1944.
- (7) New York State *Census of the State of New York for 1865*. Prepared by Franklin B. Hough, Superintendent of the Census. Printed by Charles Van Benthuysen and Sons, Albany, N.Y., 1867.
- (8) Schnore, Leo F. "Three Sources of Data on Commuting Problems and Possibilities," *Journal of the American Statistical Association*, Vol. 55, Mar. 1960, pp. 8-22.
- (9) Sheldon, H. D., and S. A. Hoermann "Metropolitan Structure and Commutation," *Demography*, Mar. 1965, pp. 186-193.
- (10) U.S. Bureau of the Census "The Journey to Work in the United States 1975," *Current Population Reports*, Series P-23, No. 99, 1979.
- (11) ——— "Selected Characteristics of Travel to Work in 20 Metropolitan Areas 1976," *Current Population Reports*, Series P-23, No. 72, 1978.
- (12) ——— "Annual Housing Survey 1975. United States and Regions, Part A, General Housing Characteristics," *Current Housing Reports*, Series H-150-75A, (and related data tapes), 1977.
- (13) ——— *Journey to Work 1970 Census of Population*, Series PC(2)-6D, 1973.
- (14) ——— *Journey to Work 1960 Census of Population*, Series PC(2)-6B, 1963.
- (15) ——— "County of Work and County of Residence September 1954," *Current Population Reports*, Series P-20, No. 60, 1955.
- (16) Westcott, Diane N. "Employment and Commuting Patterns: A Residential Analysis," *Monthly Labor Review*, Vol. 102, July 1979, pp. 3-9.
- (17) Wheeler, J. O. "Occupational Status and Work Trips," *Social Forces*, Vol. 45, June 1967, pp. 508-515.