

Inter-County Commuting Patterns and Migration Trends

Hamilton County

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SUMMARY

This report analyzes commuting patterns between Hamilton County and other counties based on Census 2000 data, and county-to-county migration trends from data collected by the Internal Revenue Service from individual income tax returns.

Commuting Patterns

- In the year 2000, 27% of the nearly 183,000 people who worked in Hamilton County commuted from other counties.
- Roughly 40,000 (22%) of these commuting workers lived in the ten bordering counties.
- The three North Georgia counties of Catoosa, Dade and Walker contributed almost 25,000 workers to Hamilton County.
- Between one-third to one-half of the workers residing in Catoosa, Dade and Walker counties work in Hamilton County.
- In the eleven county region (Hamilton County and the ten adjoining counties), only Hamilton County, TN and Whitfield County, GA (where Dalton is located) have more jobs than workers who reside in the county.
- The number of workers residing in Hamilton County was about 147,000 compared to the 183,000 jobs in the county. Of the 147,000 workers living in Hamilton County, 133,600 (91%) worked in the county. Similarly, the number of workers residing in Whitfield County was about 39,000 compared to the nearly 57,000 jobs in that county. Of the 39,000 workers living in Whitfield, roughly 34,000 (87%) worked in their home county.
- Average annual wages paid to people working in both Hamilton County (\$31,000) and Whitfield County (\$30,000) were significantly higher than in the other counties in the immediate region.

Migration Trends

- During the ten-year period of 1991-2001 approximately 65,500 households moved out of Hamilton County, and almost an identical number moved into the county. However, during the first five years of this period (1991-1996) the County enjoyed a net inflow of about 1,500 households but this gain was essentially nullified by a net outflow of a similar number during the most recent five years (1996-2001).
- The average income of households migrating into Hamilton County is approximately the same as that of households moving out, about \$39,000 in the year 2000. However the average income of households not migrating is significantly higher at \$49,000 in 2000.
- Georgia counties and other Tennessee counties were the principal destinations of households that migrated from Hamilton County. Over the ten-year study period, Hamilton County experienced a net outflow of approximately 2,800 households to Georgia counties, and nearly 1,600 to other Tennessee counties.
- For the nine-year period of 1992-2001 for which income data is available, Hamilton County had a net outflow of \$93 million in household income to Georgia counties and \$69 million to other Tennessee counties. (Income figures have been adjusted to year 2000 dollars to account for inflation.)
- The ten counties surrounding Hamilton County, particularly the Georgia counties of Catoosa, Dade and Walker, had significant inflows of households and household income from Hamilton County over the study period.

- Catoosa County, GA had a net inflow from Hamilton County of 1,337 households over the 1991-2001 period, and \$64 million in Adjusted Gross Income over the 1992-2001 period.

Conclusions and Implications

- If recent out-migration trends continue and possibly accelerate, Hamilton County's economic growth may be impaired.
- Continued growth in neighboring counties, particularly in North Georgia is likely to attract increased commercial development, which might otherwise occur (or at least remain) in Hamilton County.
- Further study is needed to understand the factors influencing peoples' moving out of Hamilton County to nearby counties, and the possible impact on Hamilton County's economy.

INTRODUCTION

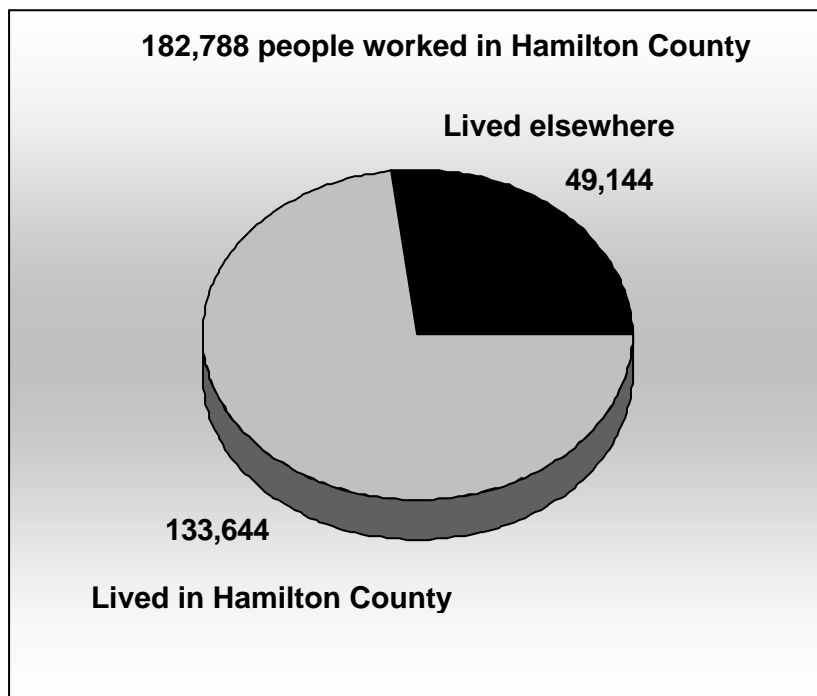
This report covers two separate but related topics concerning Hamilton County. The first is an analysis of workers' commuting patterns between Hamilton County and other locations. The second topic is migration trends—households that have moved out Hamilton County to other areas as well households that have moved into Hamilton County from other areas. The fact that there are a significant number of workers commuting into Hamilton County may be attributable in large measure to an increase in people moving out of the county to nearby counties, yet continuing to hold jobs in Hamilton County.

COMMUTING PATTERNS

The data on inter-county commuting was collected as part of the 2000 Census. It provides a snapshot view of where people worked in relation to where they lived in April of 2000 based on responses to the long-form Census questionnaire.

Over one-fourth of the people who worked in Hamilton County at the time of Census 2000 lived outside of the county. The U.S. Census Bureau reported that there were 182,788 people who worked within the jurisdictional boundaries of Hamilton County. Of these, 133,644 (73%) lived in Hamilton County. The other 49,144 (27%) lived outside the county, principally in nearby counties. In fact, 39,950 (22%) lived in the ten counties bordering Hamilton County.

Chart 1
People Who Worked in Hamilton County
2000

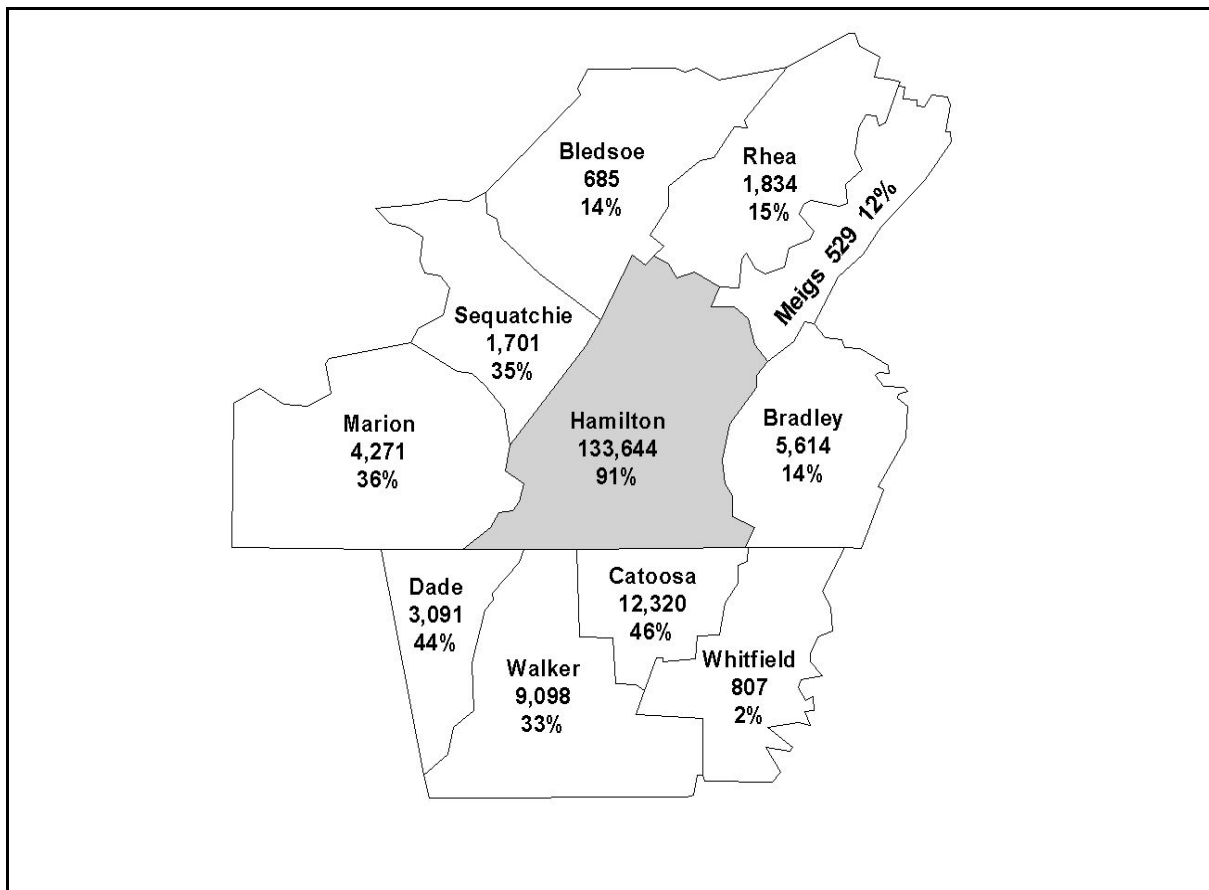


Hamilton County drew slightly more than 25,000 workers from the four Georgia counties of Catoosa, Dade, Walker and Whitfield. Catoosa County alone supplied 12,320 workers to Hamilton County. Also, nearly 15,000 workers commuted into Hamilton County from the six bordering Tennessee counties of Bledsoe, Bradley, Marion, Meigs, Rhea and Sequatchie.

Not all workers who lived in Hamilton County worked within the county. The Census Bureau showed 146,824 workers age 16 or older living in Hamilton County in 2000. Of these, 133,644 or 91% worked in Hamilton County and 13,180 worked outside of the county. About three-fourths (9,971) of those who worked outside of Hamilton County commuted to work in one of the ten counties adjoining Hamilton.

Map 1 shows the number of people who worked in Hamilton County in 2000 according to where they lived. The percentages accompanying the numbers reflect the proportion of the workers who lived in the county but worked in Hamilton County. For instance, 12,320 workers who lived in Catoosa County commuted to work in Hamilton County, and this represented 46% of all workers who lived in Catoosa County.

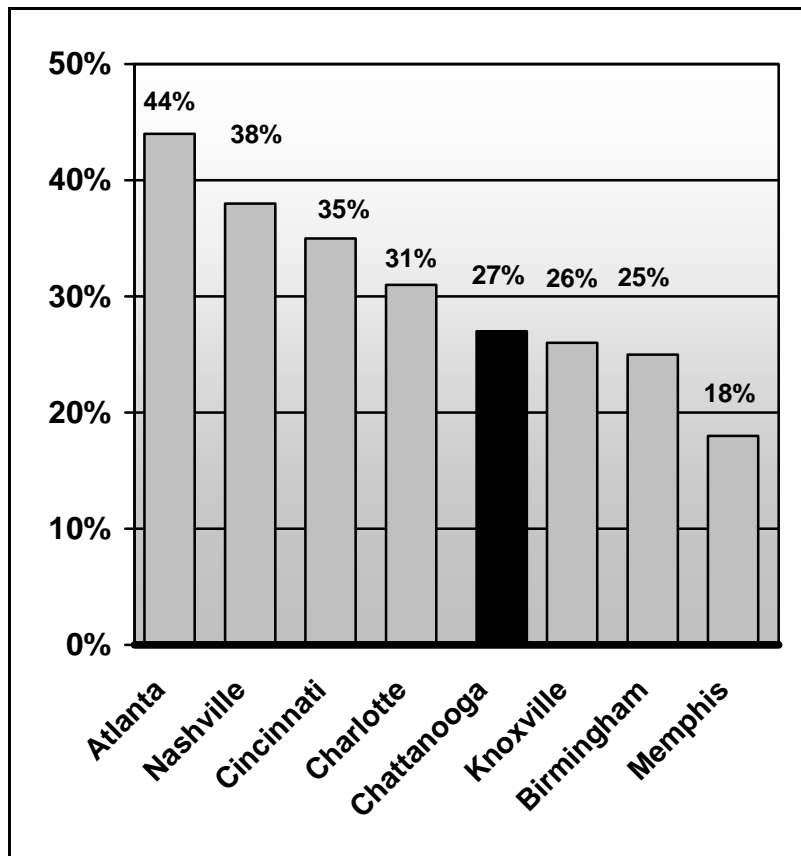
Map 1
Number of People Who Commuted to Work in Hamilton County
From Adjoining Counties, 2000



The proportion of people working in Hamilton County while residing elsewhere has increased. In 1990, 23% of the people who worked in Hamilton County lived outside of the county, compared to the 27% in 2000.

Hamilton County is not unusual in having jobs filled by workers living in other areas; many large metropolitan counties draw workers from surrounding counties. Chart 2 displays the proportion of workers who commute to work from adjoining counties into the central counties of several other metropolitan areas. For example, 31% of the workers in Mecklenburg County, NC (principal county of Charlotte metro area) commute from adjoining counties.

Chart 2
Percentage Who Commuted to Work in Metro Area's Principal County
From Adjoining Counties
2000



Several factors may influence workers who reside in other counties to commute to work in Hamilton County. One is the availability of jobs; another is the relatively higher wages in Hamilton compared to the surrounding counties. As noted in a study by Huang (1999), "Higher earnings in metropolitan areas are a major incentive for non-metropolitan to metropolitan area commuting for all workers." Another factor may be

that workers in Hamilton County have migrated to neighboring counties. This aspect will be examined in more detail in the Migration Trends section of this report.

Table 1 contains data for Hamilton County and the ten adjoining counties. Column B represents the number of jobs in the county (as measured by the number of people working in the county). Column C shows the number of working people who lived in the county, and Column D shows the average annual wages paid to workers employed in the county.

Table 1
Comparison of Jobs to Resident Workers and
Average Annual Wages for
Hamilton and Adjoining Counties

A	B	C	D
County	Number of Jobs* in the County 2000	Number of Workers Residing in the County 2000	Average Annual Wages Paid to People Working in the County 2001
Hamilton, TN	182,788	146,824	\$31,240
Bledsoe, TN	3,417	4,830	\$21,920
Bradley, TN	41,211	41,355	\$28,853
Marion, TN	7,797	11,766	\$22,114
Meigs, TN	2,000	4,353	\$23,998
Rhea, TN	12,217	12,260	\$26,695
Sequatchie, TN	3,462	4,805	\$21,597
Catoosa, GA	13,255	26,710	\$25,311
Dade, GA	3,617	6,983	\$21,905
Walker, GA	17,823	27,223	\$24,124
Whitfield, GA	56,711	38,909	\$30,189
*Reflects the number of people working in the county, which is used as a proxy for the number of jobs in the county.			

Most of the surrounding counties have more workers living in the county than there are jobs in their county of residence. Both Hamilton and Whitfield (Dalton) import workers to fill available jobs since there are not enough workers residing there. Further, the average annual pay in these two counties is higher than in other counties surrounding Hamilton County.

It is believed that many of the workers who commute from surrounding counties to work in Hamilton County are former residents who have moved. Although this cannot be proven conclusively, there are strong indications from the analysis of inter-county migration patterns. This is consistent with the thinking of Renkow of North Carolina State University (2002): "Approximately 20% of workers residing in rural counties located adjacent to metropolitan counties hold jobs in those metropolitan counties, and considerable evidence suggests that many of those commuters are fairly recent migrants."

MIGRATION TRENDS

This section analyzes trends in migration between Hamilton County and the surrounding counties based on year-to-year changes in the addresses on individual income tax returns. The primary data source for this analysis is the *County-to-County Migration Flow Data* developed by the Internal Revenue Service (IRS) with assistance from the Census Bureau.

The data were developed by matching records of individual income tax returns filed in a base year with tax returns filed in the following year. If the taxpayer's address was in the same county from one year to the next, the taxpayer was deemed to be a "non-migrant." If the address was not in the same county from one year to the next, the taxpayer was counted as a migrant. For instance, if the filer's address was in Hamilton County, TN in 2000 and in Catoosa County, GA in 2001, the filer was considered to be an "out-migrant" of Hamilton County and an "in-migrant" of Catoosa County for the 2000-2001 period.

The three basic measures included in the IRS data are:

- The number of individual tax returns, which can be used as an approximation of the number of households (A household represents a person, or a group of people, occupying the same housing unit.);
- The number of exemptions ("extra" exemptions for blindness or age 65+ are not included), which can be used as an approximation of population;
- Adjusted gross income (AGI), which can be used as an approximation of household income.

The following table provides a comparison of the IRS data to Census data for Hamilton County.

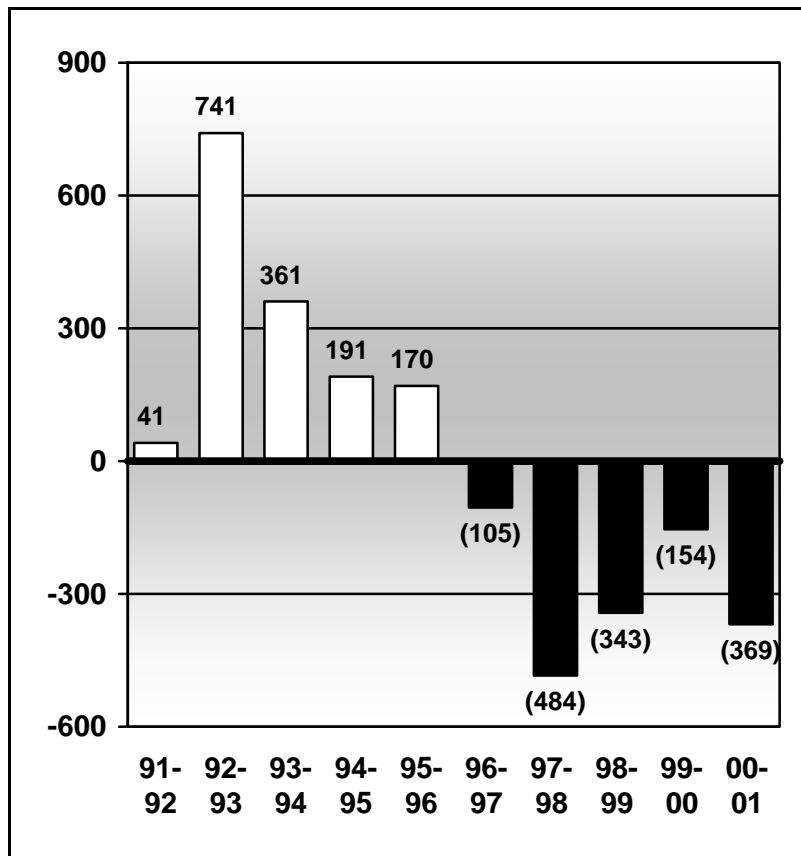
Table 2
Comparison of Census Data to IRS Data for Hamilton County

	Census Number of Households	IRS Number of Returns	Difference: Census vs. IRS	
			Number	Percent
1980	103,319	105,755	(2,436)	(2.3%)
1990	111,799	111,501	298	0.3%
2000	124,444	120,574	3,870	3.2%
	Census Population	IRS Number of Exemptions		
1980	287,643	253,348	34,295	13.5%
1990	285,536	247,074	38,462	15.6%
2000	307,896	254,455	53,441	21.0%

There are some limitations in the IRS data. In order to be included in the migration data file, the Social Security Number (SSN) of the primary taxpayer must match for two consecutive-year returns. According to the IRS, for tax year 1996 there were a total of 114.8 million tax returns, but only 102.7 million (89%) had matching SSNs. Some possible reasons for nonmatches include: marriages, divorces, deaths, changes in income levels resulting in not having to file in one of two consecutive years, and errors in reporting the SSNs. Despite these limitations, the data are useful in analyzing the direction of migration flows.

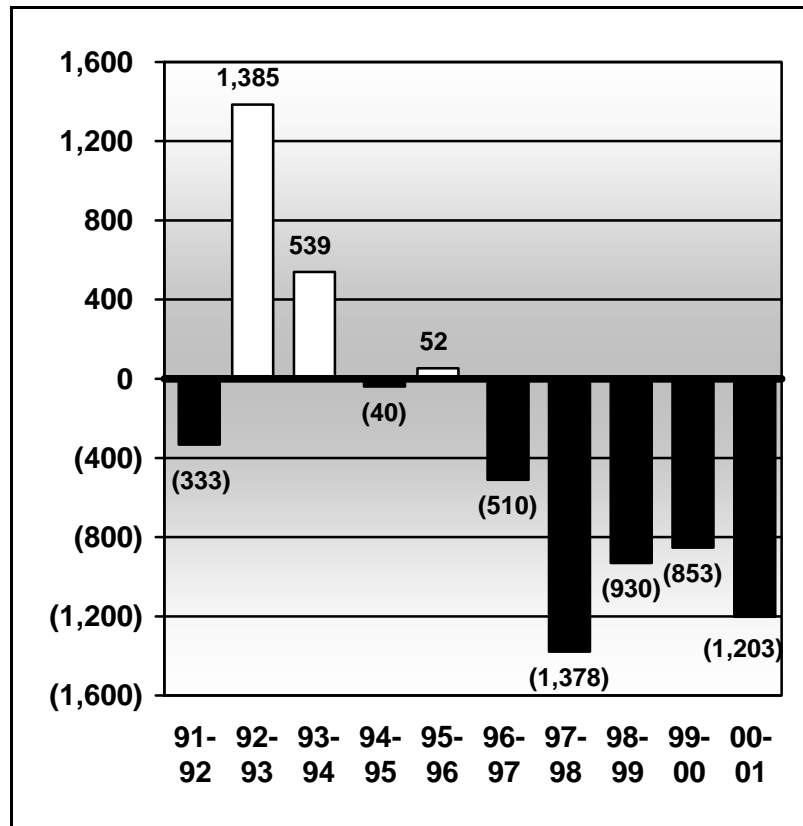
From 1991 to 2001, a total of 65,546 households (represented by individual income tax returns) migrated out of Hamilton County. This is about 5% of total households each year. During this same period, an almost identical number, 65,595, migrated into Hamilton County so that over the ten-year period, Hamilton had a net inflow of 49 households. However, the year-by-year pattern is striking. From 1991 to 1996, Hamilton County experienced a net inflow of 1,504 households. But from 1996 to 2001 nearly all of the gains from the previous five years were wiped out as the County had a net outflow of 1,455 households.

Chart 3
Net Migration of Households
1991 - 2001



The total number of exemptions reported on the tax returns represents the number of people associated with these household migrations. From 1991 to 2001, Hamilton County's out-migration of people totaled 132,192. In-migration amounted to 128,921, yielding a net outflow of 3,271 over the ten-year period. However, the trend in the most recent five-year period has been negative, with a net outflow of 4,874 people.

Chart 4
Net Migration of People
1991- 2001

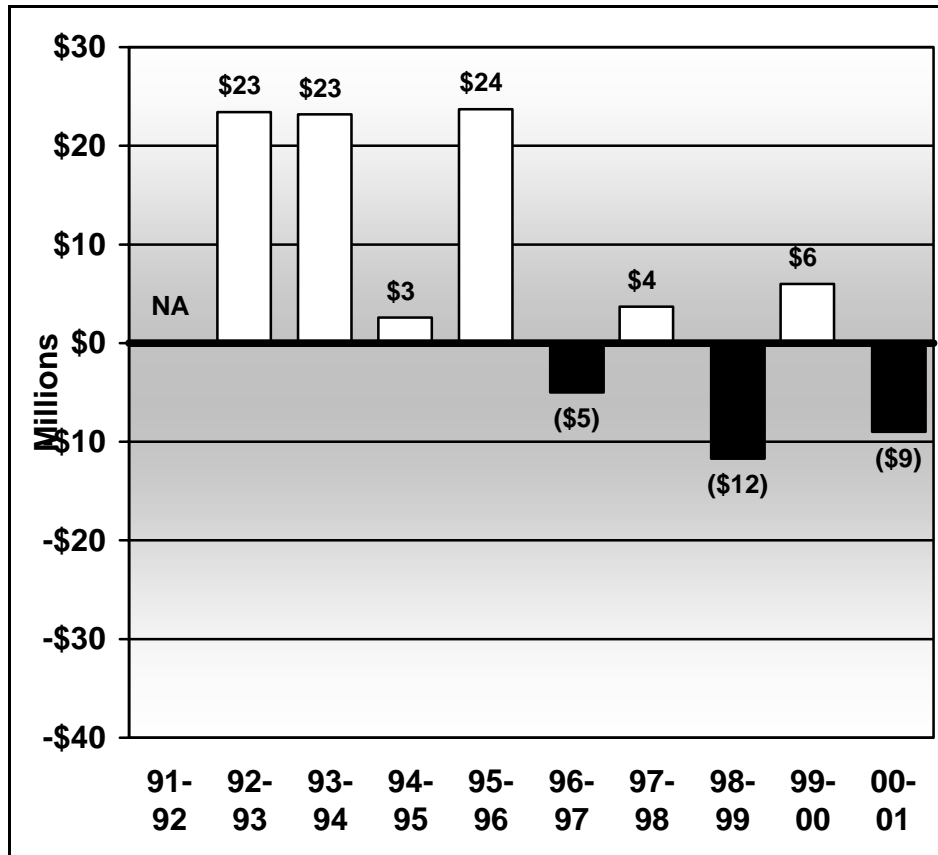


The IRS data includes the total Adjusted Gross Income (AGI) for the previous year as reported on the Income tax returns. For instance, the returns filed in 2001 contain the AGI for tax year 2000. AGI figures are not available for the 1991-92 period. The figures have been adjusted to reflect year 2000 dollars in order to account for inflation.

Over the nine-year period of 1992-2001, the total AGI of the households that migrated out of Hamilton County amounted to \$2.177 billion. The households migrating into Hamilton County during this period had a total AGI of \$2.217 billion. So, if it is assumed that the income of the households was similar in the year after they migrated to Hamilton County as it was in the year prior to migrating, then we could estimate that Hamilton County had a net inflow of approximately \$40 million over the 1992-2001 period.

Similar to the pattern of household and people migration, the flow of AGI was generally positive in the early years of the study period, but more negative in the most recent years.

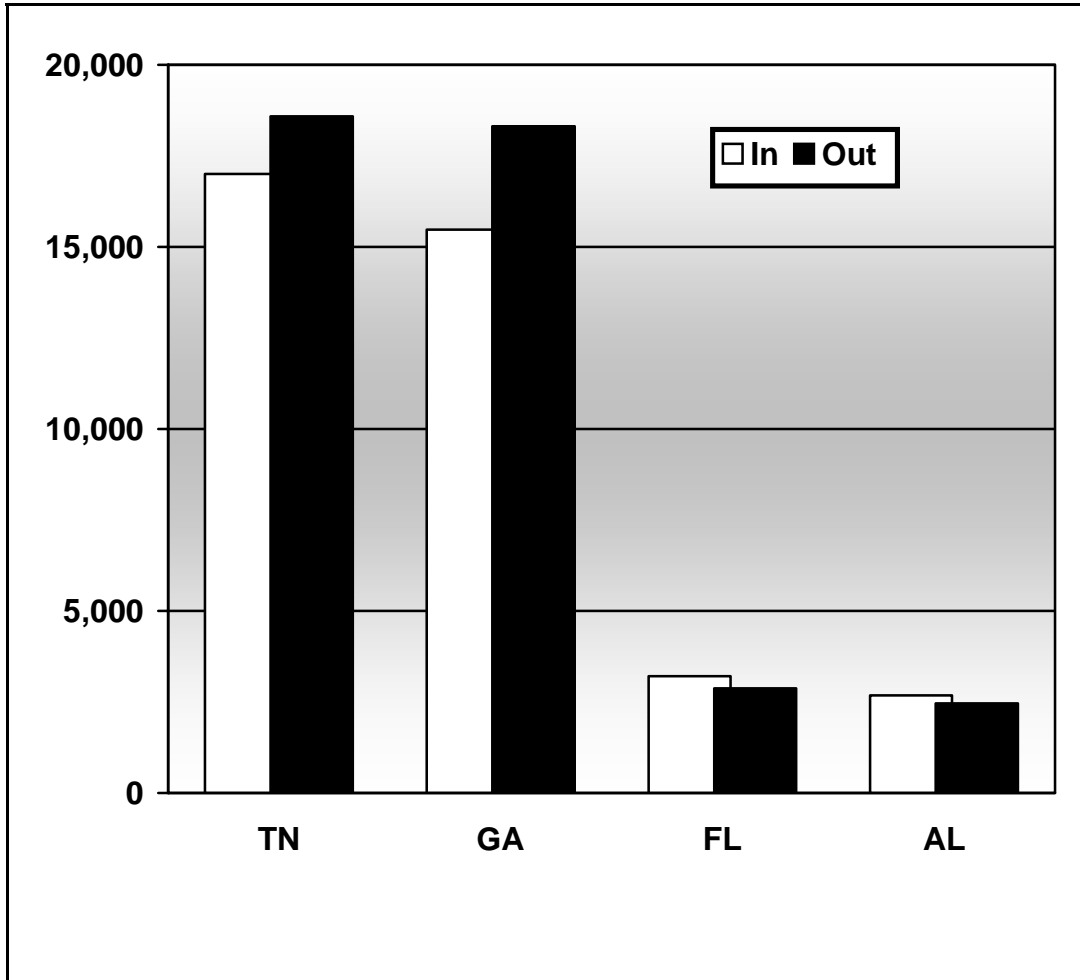
Chart 5
Net Flow of Adjusted Gross Income
1992- 2001
Adjusted to Year 2000 Dollars



Overall, there is little difference in the average AGIs between the households migrating into and out of Hamilton County. The average difference for the years 1992 through 2000 was only \$669 (in year 2000 dollars). However, the average AGI of non-migrating households was significantly higher than that of migrating households, \$49,000 versus \$39,000 in year 2000.

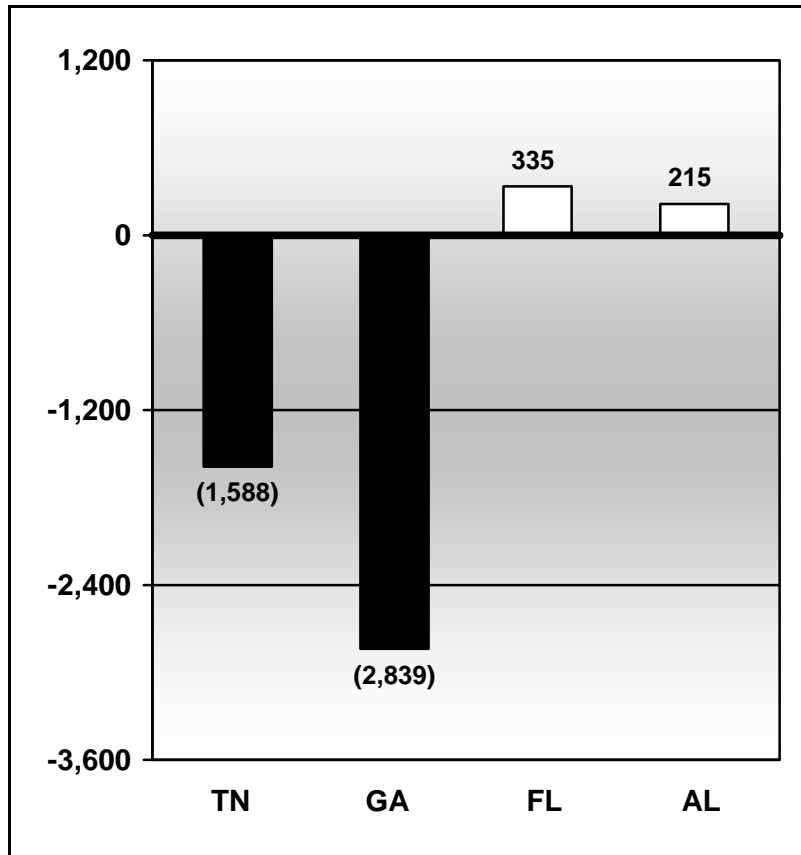
Of the 65,546 households that migrated out of Hamilton County over the 1991-2001 period, 28% (18,589) went to other Tennessee Counties and 28% (18,313) went to Georgia counties. The next highest recipient states were Florida (2,878) and Alabama (2,463), each with about 4%. These same four states represented the largest sources of households that migrated into Hamilton County during the 1991-2001 period: Tennessee (17,001), Georgia (15,474), Florida (3,213), Alabama (2,678).

Chart 6
Total Household Migration
1991-2001



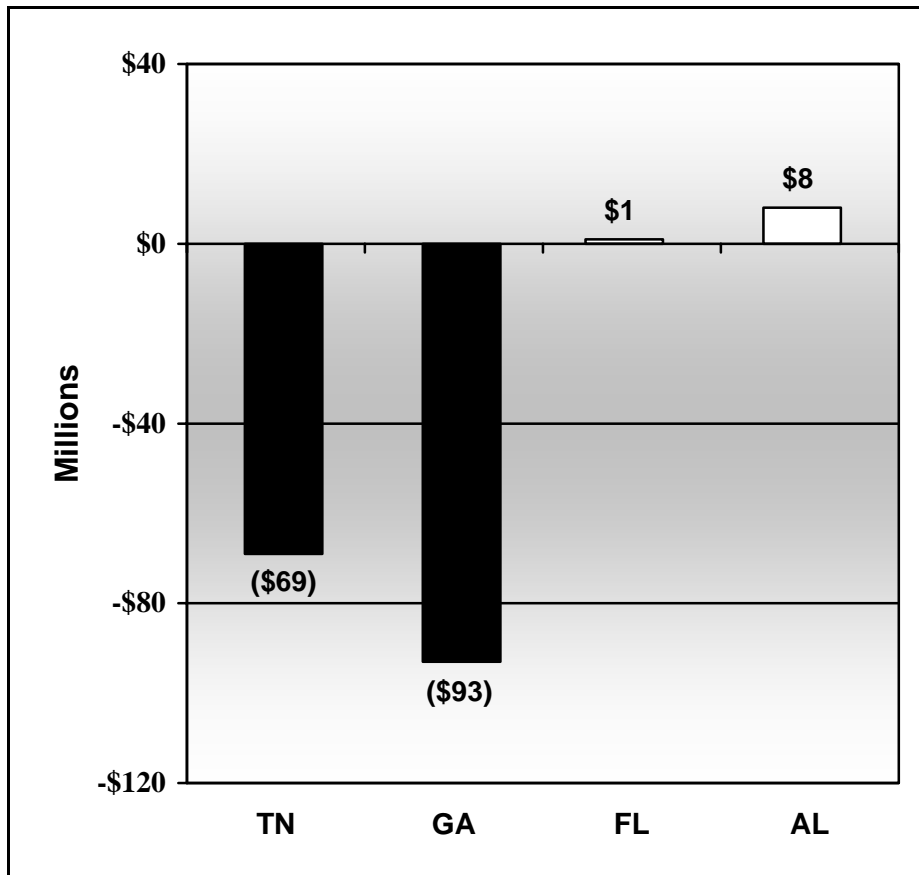
The net outflow of households from Hamilton County to other Tennessee counties was 1,588 and the net outflow to Georgia counties was 2,839. On the other hand, Hamilton County enjoyed a net inflow of households from Florida and Alabama.

Chart 7
Net Household Migration
1991-2001



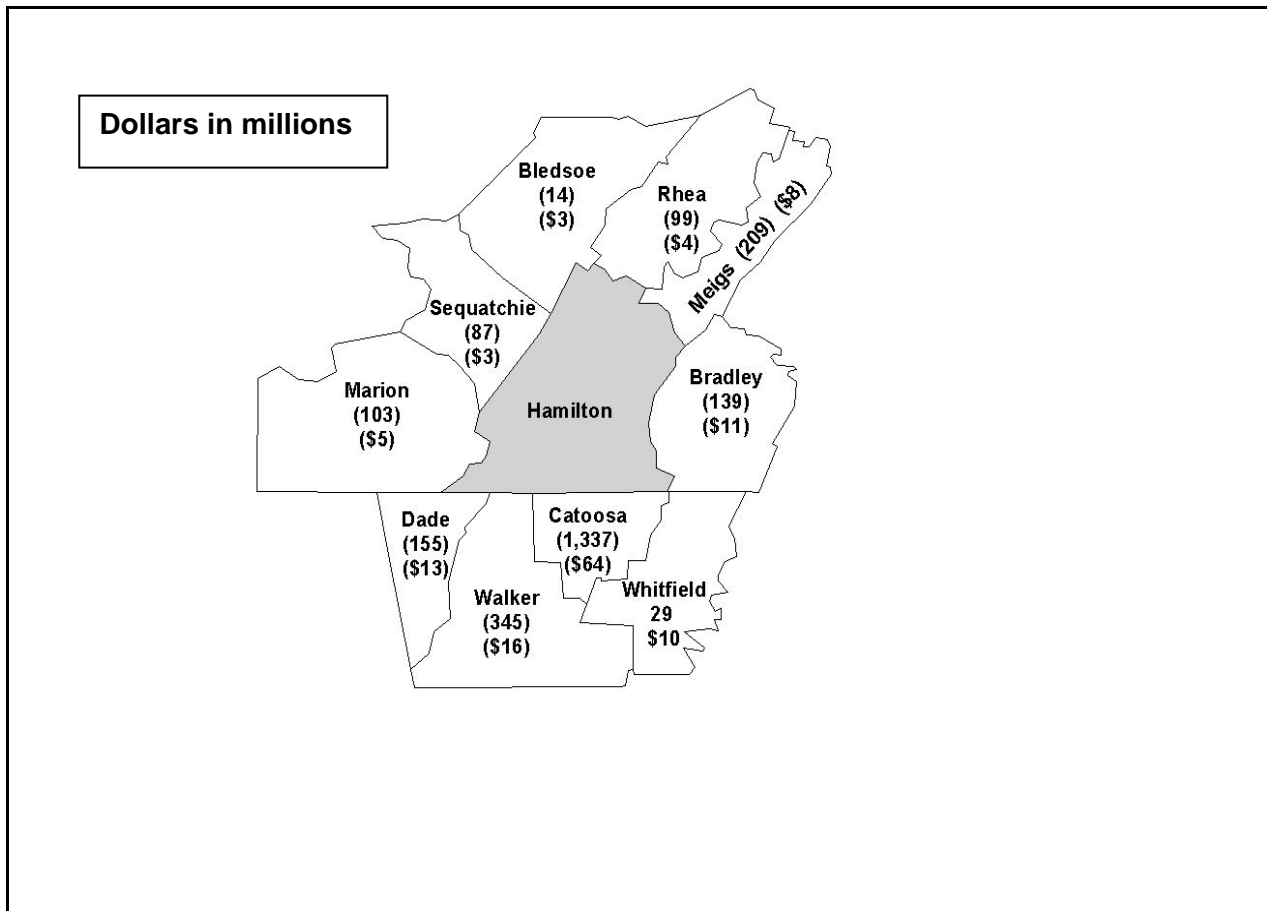
The net outflow of AGI from Hamilton County to Georgia counties during the 1992-2001 period amounted to \$93 million, while the net outflow to other Tennessee counties totaled \$69 million. Net inflow of AGI was received from both Florida and Alabama.

Chart 8
Net Flow of Adjusted Gross Income to Selected States
1992- 2001
AGI Adjusted to Year 2000 Dollars



The total net outflow of households to adjoining counties over the ten-year period amounted to 2,459. Catoosa County alone represented 1,337 households. The total net loss of Adjusted Gross Income (AGI) over the nine-year period of 1992-2001 was \$117 million; \$64 million of this loss was to Catoosa County.

Map 2
Net Household Migration 1991-2001
and Net AGI Flow 1992-2001
to Adjoining Counties
AGI Adjusted to Year 2000 Dollars



CONCLUSIONS and IMPLICATIONS

The commuting and migration patterns described in this report show what appears to be an increasing trend for Hamilton County residents to move to nearby counties while continuing to work in Hamilton County. The North Georgia counties of Catoosa, Dade and Walker have been major recipients of this outflow from Hamilton County.

Although we do not have data to explain the reasons for these migration patterns, studies in other geographic areas may offer some insight that would be applicable to the local situation. One study by Eff (1999) stated, "For local migration, the search for affordable housing, or for housing in communities of one's peers, may be an especially important determinant." He further states, "If local migration flows consist of residence relocation movements, rather than shifts in workplace location, then inter-county differentials in housing quality and price should determine inter-county migration flows. Specifically, migration should occur toward counties with cheaper housing and/or higher quality housing." In another study, Huang (1999) observed that, "Individuals with stronger preferences for ownership of large homes are more willing to live farther from a metropolitan area to take advantage of lower housing costs and are willing to bear the longer commutes associated with their choices.

There are probably several factors that influence Hamilton County residents to move to nearby Georgia counties. Some of these factors might be (1) perceived lower overall tax burden for Georgia residents (2) the availability of HOPE scholarships for college (begun in 1993) for Georgia residents (3) housing prices; and (4) quality of public schools. Unfortunately, at this time, we have only limited information regarding these factors.

In a recent article in the *Chattanooga Times Free Press*, the chairman of the Catoosa County Development Authority was quoted as follows: "We're only a 15- or 20-minute drive to Chattanooga, be we have the advantages of relatively low taxes, good schools and HOPE college scholarships, among many other attributes. It's a great place to live." In the same article, a homebuilder and President of the Northwest Georgia Home Builders Association said, "Communities in North Georgia fit the desire by many to live closer to the country with the advantages of a city close by." He further stated in the article that, "land in North Georgia is 'most definitely cheaper,' meaning homes are more affordable. For example, a 1,300 square foot home in Catoosa County or elsewhere in North Georgia is about \$10,000 cheaper on average than a similar home in Tennessee." However, several homebuilders in North Georgia who were contacted by RPA staff, indicated that land prices in North Georgia counties have been rising, and may now be comparable to land prices in Hamilton County. Even the homebuilder quoted above told an RPA staff member by phone that land prices in Catoosa County, GA are no longer cheaper than Hamilton County, TN.

An article in the Summer, 2003 issue of Chattanooga State's *Chattanooga On The Move*, focused on three families who live in Northwest Georgia but work in

Chattanooga. It was specifically stated that one family “. . . intentionally chose to live in [Catoosa County] Georgia. Excellent elementary schools are primary reason.”

Further study is needed on why people have moved from Hamilton County to nearby counties in Northwest Georgia. Also, it would be worthwhile to know the potential implications to Hamilton County if recent trends continue: for instance, the extent to which Hamilton County and its municipalities have lost potential tax revenue, and the expected future loss; implications for the Hamilton County Department of Education if enrollment drops as a result of families with school age children migrating to other counties; and the possibilities of loss of future commercial development, which might follow the population and household growth in nearby counties. The RPA hopes to investigate these and other related questions to the extent budget is available.

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