

# Nonearnings income migration in the United States: Anticipating the geographical impacts of baby boom retirement

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**NONEARNINGS INCOME MIGRATION IN THE UNITED STATES:  
ANTICIPATING THE GEOGRAPHICAL  
IMPACTS OF BABY BOOM RETIREMENT**

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## **Abstract**

This paper highlights geographic regions gaining and losing investment and social security income (collectively referred to as nonearnings income) through migration of baby boomers and their predecessors. There is a consistent Rustbelt to Sunbelt shift in nonearnings income due to migration, as well as movement down the urban hierarchy into nonmetropolitan destinations. The analysis further indicates migration of those over age 55 contributes to greater levels of economic disparity across space. Regions like the Plains are losing a higher proportion of well-to-do migrants in this age group, as individuals move to high amenity destinations in the Rocky Mountains. Such destinations are likely to enjoy significant economic benefits as these new sources arrive. The places of origin, however, are left with less-well-off populations posing significant social and economic problems. In contrast, baby boomer migration appears to benefit nonmetropolitan territories in all regions, and baby boomers with higher levels of per capita economic resources appear to be responsible for these nonmetropolitan income gains.

## ***Introduction***

In the mid-1990s, Don McGeehan and his wife moved to Pagosa Springs, Colorado from Los Angeles. While many people making such moves from metropolitan cores to nonmetropolitan destinations do so at the time of retirement, the McGeehans were not yet ready to leave the workforce. In fact, at the time of their move, both were in their mid to late 40s, having been born in the early 1950s, the height of the baby boom. Rather than retire, the McGeehans decided to combine a portion of their accumulated home equity with personal savings and purchase a commercial print shop serving primarily local customers. While the McGeehans are very much employed working hard to build their print shop into a successful business, they made their move to Pagosa Springs in anticipation of retirement. In effect, their move to Pagosa represents their transition *toward* rather than *into* retirement.

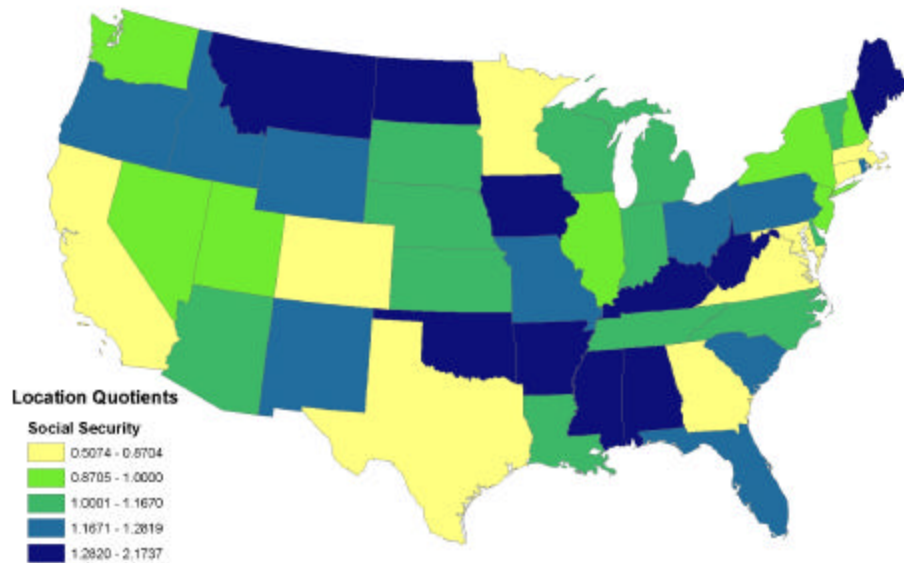
This type of retirement transition has been described in the academic literature on age-cohort perspectives on migration (Bures 1997). The pre-elderly show distinctly different migration patterns compared with both the retired populations and their younger counterparts. The impacts of pre-retirement and retirement migration, however, go beyond changes in population growth. As illustrated by the story of the McGeehans, migration of both pre-retirees and retirees can produce a significant shift in economic resources from one region to another. This type of age-dependent migration influences the geographic transfer of home equity, personal savings, Social Security income, and investment, yet the nature and extent of these income transfers remains unknown. How extensive are the impacts of migration flows similar to those of Don McGeehan and his wife? Which regions benefit the most from this income migration? Is there evidence that income migration associated with the baby boomers is structured differently than income migration of their preceding generations? While the impacts of such income transfers are likely to be significant in certain regions, our understanding of such transfers is quite limited. Furthermore, as the baby boomers begin to enter a period in their lives characterized by both high levels of accumulated wealth and high levels of mobility, such transfers will only increase, making our understanding of the geographic processes critically important.

Despite fears surrounding Social Security's future solvency and the recent troubles of the stock market, retirement income is becoming increasingly important to our economy. Yet such

income varies in importance across space and at different geographic scales. Nationally, between 1970 and 2000, Old Age Survivor and Disability Insurance (OASDI, hereafter referred to as Social Security) payments to individuals increased from \$127.5 billion to \$425 billion or 233%<sup>1</sup>. This outpaced total personal income, which grew 170% over the same time period. Investment income grew at an even more rapid pace from \$431 billion to \$1.6 trillion, or 271%. Social Security now accounts for 5% of total personal income in the United States up from 4% in 1970, and investment income accounts for 20% of personal income in 2000 up from 14% in 1970 (BEA 2003). While these aggregate statistics are interesting in and of themselves, they mask significant geographic variation in the importance of Social Security and investment income to regional economies. For example, Social Security accounts for 8% of nonmetropolitan personal income indicating, remote parts of the country are 60% more dependent on this type of government transfer. There are distinct geographic regions of greater nonearnings dependency (see Figure 1). West Virginia has the highest dependence on Social Security with over 11% of the state's personal income derived from such government transfers. North Dakota and Montana also show high Social Security dependence. More broadly, the Plains and portions of the South (Alabama, Mississippi, and Arkansas) have higher than average dependence on Social Security largely due to their predominantly rural character, retirement migration, and the processes of aging in place. In contrast, the mountain states of Colorado, Utah, and Nevada fall below the US average. More urban states of Maryland, New York, and California with younger populations also have lower relative dependence on Social Security. Investment income has its own geography at the state level. Wyoming has the highest dependency on investment income accounting for 27% of all personal income followed by Florida, Montana, and South Dakota. Texas, Tennessee, and Mississippi, on the other hand, have relatively low dependency on this income source.

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<sup>1</sup> All dollar values are reported in constant \$2000.



**Figure 1 – Location Quotients for Social Security Income, 2000.**  
**1.00 = US Average (BEA 2003)**

It is obvious that nonearnings income<sup>2</sup> is unevenly distributed across space. It is equally obvious that nonearnings income is unevenly distributed across age groups. According to estimates derived from US Census microdata, those under the age of 55 generate at least 90% of their annual personal income from work related activities (wages, salaries, self-employment). In contrast, the population aged 75 and older generates 93% of their income from nonearnings sources (Bureau 2003). Therefore, as the population ages, these nonearnings sources will become increasingly important to regional economies. Furthermore, the likelihood of migration increases in and around the retirement years (Bures 1997; Rogerson 1999), and the baby boomers are on the cusp of this increase in their migration schedule. Therefore, as the baby boomers move closer to retirement, we are likely to see more substantial geographic shifts in these footloose sources of income. Over the 1995-2000 period, an estimated \$33 billion in Social Security income shifted locations as did \$53.4 billion in investment income. While baby boomers only account for 7% of the movement in social security income (right now the oldest

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<sup>2</sup> Social Security, pensions, dividends, interest, and rent are commonly referred to as nonearnings income.

boomers are 58), their migration accounts for 32% of the investment income flows. The convergence of these demographic and economic forces requires deeper understanding.

An understanding of the patterns of and forces behind this geographic movement of income is important for both theoretical and practical reasons. On a theoretical level, migration has traditionally been seen as a mechanism that evens income differentials across space (DaVanzo 1981; Greenwood 1981). Areas with labor shortages will tend to pay high wages and attract surplus labor eventually driving wages down. Nonearnings income, however, is less likely to behave in such a way, as it is not tied to interactions within a labor market. Rather, nonearnings income is tied to the individual migration behavior of the migrants themselves and their preferences for certain destinations. For example, areas with high levels of natural amenities may attract footloose income, but the migration itself does not directly lead to an adjustment of natural amenities or nonearnings income. In other words, migration and nonearnings income are independent of one another. Therefore, nonearnings income migration challenges existing theoretical relationships between income and migration, and rather than causing an evening out over space, migration is likely to contribute to regional inequalities in nonearnings income levels.

On a more practical level, nonearnings income migration has significant implications for regional economic planning and forecasting. Just as exporting logs, cars, or computers draws new money into a region, nonearnings income migration contributes to the economic base of destination regions (Tiebout 1962). It is commonplace now for regions to see retirement migration as a mechanism for boosting local economies (Tarmann 2003). In addition, areas with net losses in nonearnings income through migration can be seen as providing an income subsidy to destination regions. On the one hand, these destination regions are positioned to benefit considerably from the flows of income into their economies. On the other hand, with the long-term future of social security somewhat in question and the continued struggles of the stock market, areas with increased economic dependence on these nonearnings income sources may become more vulnerable to future economic shocks.

The remainder of this paper is divided into four parts. The literature review synthesizes work on both income migration and baby boomer migration to provide context for the current analysis. A section describing the unique data set used and analytical methods follows the literature review. The results section describes the broad patterns of income migration in the



United States and illustrates some of the key forces behind the income shifts associated with migration. The final section discusses the implications of the findings and outlines a research agenda for future work.

## ***Literature Review***

The literature review below draws together two distinct bodies of work to provide context for this current examination of nonearnings income migration in the United States. The first section describes the emerging literature on income migration in the United States, while the second section demonstrates the baby boomers' unique geographic past. The synthesis of this body of work forms the argument that nonearnings income migration will become increasingly important as the boomers move into retirement, but the boomers' unique geographic past suggests that current patterns of nonearnings income migration may shift as the boomers enter "third age" (Bass 2000).<sup>3</sup>

## **Income Migration in the United States**

Geographers and regional scientists have begun to examine the connections between migration of population and income across space. At the regional scale, the Rocky Mountain West has enjoyed the most recent benefits of income migration. Between 1994 and 1997, approximately \$1billion of new money entered the Rocky Mountain West through migration, with each county averaging \$3.7 million (Shumway and Otterstrom 2001). This region also has a relatively large concentration of nonearnings income serving as a base for economic growth. It is estimated that over a third of the region's total personal income is derived from nonearnings sources (Power and Barrett 2001), and nonearnings income is becoming increasingly important to the West's economic base. There are distinctly different county economic structures emerging in the Rocky Mountain West, and those with high dependence on nonearnings income are generating the highest levels of both employment and population growth further demonstrating the links between nonearnings income, migration, and economic expansion at the regional scale (Nelson and Beyers 1998). While it is clear that the Rocky Mountain West is benefiting from income migration, the impacts of income migration in other parts of the United States remain unstudied.

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<sup>3</sup> Third age is, "... a time period in one's lifetime between the completion of the primary family and traditional career opportunities and old age and frailty..." (Bass 2000, page 8)

Income migration also appears to be differentiated at the metropolitan scale. IRS data indicates that total personal income is moving down the metropolitan hierarchy. In the early 1990s, there was a distinct outward movement of income from the metropolitan core into the outer suburbs. In addition, nonmetropolitan destinations adjacent to metropolitan regions were beneficiaries of positive levels of income migration (Manson and Groop 2000).

There are very clear regional and metropolitan geographies to income migration, yet the work of Manson and Groop (2000) and Shumway and Otterstrom (2001) suffers from its focus on total personal income derived from IRS records. Total personal income includes wages, salaries, interest, social security, welfare, pensions, etc. leaving the amount of income that truly moves with a migrant somewhat uncertain. “Whereas a migrant leaving or entering a place literally moves from one location to another, the income received at a migrant’s destination may not necessarily have been received at the migrant’s origin had the person not moved.... What migrates is a person’s capacity to receive income (or lack thereof), not the income per se....” (Manson and Groop 2000, page 496). The direct effect of migration on total personal income redistribution therefore, remains somewhat ambiguous. For example, an unemployed migrant may be moving to a new job opportunity. Therefore, his/her wages at the destination would not have been earned at their origin, and income has not exactly flowed from origin to destination. This limitation is certainly true for some sources of personal income including wages and salaries, but other income is more mobile. Social Security, pensions, self-employment, and property income are all directly tied to individual migrants, and are much more mobile. Therefore, an analysis of income migration focusing on one or all of these sources more directly addresses the effects of migration on regional income redistribution. In addition, both migration and income are dependent on a variety of individual characteristics such as age, gender, race, and education. The IRS data does provide such detailed information at the individual level, so it is not possible to control for any of these important characteristics. The dataset used in this analysis allows us to isolate a variety of separate sources of income as well as control for age (among other things), ensuring that the analyses that follow focus on truly mobile sources of income.

## **The Unique Geographical Past of the Baby Boom**

The baby boomers born between 1946 and 1964 have inspired volumes of academic literature (Bouvier 1980; Russell 1982; Newman 1993; Alperovich 1995). While a complete review of the “boomer” literature is neither feasible nor valuable within the context of this work, it is important to demonstrate that the boomers do differ from their predecessors in several ways relevant to the task at hand. Specifically, the boomers’ geographical “footprint” has thus far been unique from any preceding generation. It is therefore unlikely that their future migration and the migration of their income will simply follow in the footsteps of their parents and grandparents.

Many forces contributed to the creation of the baby boom between 1946 and 1964 (Bouvier 1980; Russell 1982). Among these forces was the widespread prosperity of the post-war period. For a variety of reasons, the US economy boomed after the war and fertility levels boomed as well. Another driving component behind this post war expansion was an explosion in the housing industry. Fueled by the GI Bill and federally subsidized mortgages, post war parents were able to escape crowded and congested urban settings and move to newly constructed suburbs (Newman 1993). With increased construction in the housing sector comes increased demand for durable goods further fueling the economic expansion. In addition, this mass wave of suburbanization coincided with the birth of the boomers. Therefore, while their parents mostly came of age in the city during the Depression, the baby boom was the first generation to be born and raised almost entirely in the suburbs during a period of unprecedented prosperity.

As the boomers began to enter their young adult years, the sheer size of this demographic bulge created further geographic pressures and implications. Newman (1993) describes the difficulties boomers have had in their early adult lives. They came of age (in the 1970s and 1980s) as the economy was entering a more difficult period, yet housing prices and overall inflation were on the rise. Increased labor and housing market competition hit the boomers especially hard, resulting in two distinct geographic outcomes. First, as the boomers entered the labor market, much of the urban industrial Northeast and Midwest was experiencing the negative effects of economic restructuring. Plant closures and layoffs were common throughout these regions (Bluestone and Harrison 1987) making it difficult for these labor markets to absorb the increased number of labor market entrants. In response to these difficult conditions, migration streams adjusted and shifted toward the South and West. In fact, part of the rise of the “sunbelt”

region has been attributed to the boomers' migration adjustment in the face of labor market competition in the Northeast (Plane and Rogerson 1991; Plane 1992).

In addition to the labor market competition, boomers faced rising housing market competition that coincided with rising interest rates and inflation in the 1970s and 1980s. These forces made it rather difficult for boomers to shift from renting to owning. Many young boomer couples adopted a multiple earner strategy to try to offset the escalating housing costs (Newman 1993), but an alternative strategy employed a geographic solution. Sociologists and geographers have coined the 1970s the "rural renaissance." This was the first time since the Depression that rural and nonmetropolitan growth rates exceeded those in urban areas (Fuguitt 1985; Fulton, Fuguitt et al. 1997). Many factors contributed to this rise in rural population growth, but one rather prominent factor was the baby boomers entering the housing market. Unable to afford homes in the metropolitan core regions, boomers looked beyond the metropolitan boundaries to cheaper options in rural nonmetropolitan hinterlands. The ebbs and flows of nonmetropolitan population change over the past 25 years have been closely linked to the migration flows of the baby boom cohort as it has progressed through the life-course (Nelson and Sewall 2003; Nelson, Stege et al. 2004).

It is clear that migration can potentially have significant effects on income flows – specifically nonearnings income – across regions. With the boomers on the cusp of retirement, it likely that these nonearnings income flows are going to increase in magnitude as this cohort makes pre-retirement and retirement migration choices. Yet, as the baby boomers have aged through the life-course thus far, they have left a rather distinct geographic footprint. Their progression through both time and space has been rather unique. Therefore, the destinations likely to disproportionately benefit from this income migration are unknown, as we cannot simply assume the typical retirement destinations of Florida and Arizona are going to benefit from this next wave of retirement. The analysis that follows examines flows of both Social Security and investment income through space for the 1995-2000 period. The analysis further isolates the baby boom generation from its predecessors in order to better anticipate the future geographies of income migration in the United States.

## ***Data and Methods***

The fundamental question guiding this work is “how does migration of the baby boomers and their predecessors redistribute nonearnings income across space?” Answering this question requires a data source providing income by source, migration, and age information at the individual level. The IRS provides aggregate income and migration information at the county level, but no detail on specific source of income or age. Rather, the analysis in this paper utilizes the 5% Public Use Microdata Samples (PUMS) from the 2000 Census.<sup>4</sup> The PUMS data is the only known data source that provides migration as well as detailed income information at the individual level in a single source. While the PUMS data provides the needed variables to complete the analysis, certain problems do exist in the PUMS data.

The main data related challenge stems from the changing metropolitan designations over time, and the fact that PUMAs (Public Use Microdata Areas) are not constructed entirely along metropolitan lines. In all regions other than New England, metropolitan areas are aggregations of core counties along with outlying counties depending primarily on levels of urbanization and commuting flows. Unfortunately, PUMAs can include multiple counties and/or split counties, and often PUMAs span both metropolitan and nonmetropolitan territory. Further complicating the picture is the dynamic nature of metropolitan designations; metropolitan definitions were revised three times in the 1990s alone. Therefore, any classification of PUMAs as metropolitan will involve some compromise. Morrill, Cromartie, and Hart (1999) provide a refined metropolitan classification system based on census tract rather than county boundaries (Morrill, Cromartie et al. 1999). This paper borrows their census tract classification scheme, and assigns each census tract to a PUMA using GIS overlay procedures. Then, tract population data are aggregated by PUMA, summing the metropolitan and nonmetropolitan populations separately. The last step simply designates a PUMA as metropolitan or nonmetropolitan depending on a majority rule. If there are more nonmetropolitan residents in a PUMA, it was classified as nonmetropolitan; more metropolitan residents, and it is classified as metropolitan.<sup>5</sup> Inevitably,

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<sup>4</sup> This paper presents results focusing entirely on the years 1995-2000, the period covered by the 5-year migration question from the census long form. The larger project replicated the analysis for the 1980 and 1990 census years. However, during these years, the baby boomers were much younger and had virtually no effect on nonearnings income migration across space.

<sup>5</sup> Admittedly, such a binary metro-nonmetro classification scheme is overly simplified. However, when considering the analysis covers eight different regions, we decided to maintain this binary metropolitan classification. An

some PUMAs containing metropolitan areas are classified as nonmetropolitan using this majority rule technique, but given the finer geographic resolution enabled by using the census tract classification scheme from Morrill et al., this procedure allows for a more accurate assignment of metropolitan status to PUMAs than simply relying on counties as the building units.

After creating a dataset with temporally consistent metropolitan definitions, the analysis proceeds in two main phases. The first phase involves simply describing the flows of Social Security and investment income over the 1995-00 time period. This description utilizes the concept of income migration efficiency derived as follows:

$$SSeff = \frac{(SS_{in} - SS_{out})}{(SS_{in} + SS_{out})}$$

Income efficiency is simply the ratio of net income flow to gross income flow, and the values range from  $-1.00$  to  $1.00$  and provide a more effective way to determine how migration serves to redistribute Social Security income. Negative values indicate migration serves to draw income away from a particular region while positive values suggest income is drawn into a region through migration. Values close to zero indicate in- and out- migration simply cancels each other out. These results are mapped, and then compared across regions, and between metropolitan and nonmetropolitan areas.

Phase two of the analysis seeks to answer the question, “how important is the aggregate amount of migration versus the per capita levels of nonearnings income in driving regional income redistribution in the United States?” Borrowing on work from Plane (1999), it is possible to decompose income migration streams into two components:

- 1) the *net migration component* which measures the effect of aggregate levels of migration on regional income redistribution, and
- 2) the *differential migration component* which measures the effects of differences in income per capita for in-migrants versus out-migrants on regional income redistribution.

Following Plane (1999), we can express the net migration component for PUMA  $i$  as:

$$Y_i^{NMC} = y_* (I - O)$$

where

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alternative metropolitan classification would have introduced increased complexity for interpretation. We are currently working on analyses involving a more refined metropolitan classification.

$$y_* = \frac{(y_{in} + y_{out})}{2}$$

$I$  and  $O$  are in-migrants and out-migrants respectively, and  $y_{in}$  and  $y_{out}$  are the average amount of Social Security (or investment) income per in- and out-migrant respectively. We can then express the differential migration component as:

$$Y^{DIF}_i = 1/2(y_{in} - y_{out})(I + O)$$

When the absolute value of the net migration component exceeds that of the differential migration component, it is the sheer volume of migration that is contributing the most to income redistribution. In the opposite situation, when the absolute value of the differential migration component is greater, the characteristics of the migrants themselves (rich versus poor) are driving spatial income redistribution rather than the volume of migration. Using these different income components, it is then possible to classify PUMAs along two dimensions. The first dimension is whether or not the area was gaining or losing income through migration, and the second dimension identifies the driving force behind these gains or losses (net migration component or differential migration component). These results are presented using two main geographic classifications. First, income flows are examined at the regional level using Bureau of Economic Analysis regional classifications (see Figure 2). We then compare income flows between metropolitan and nonmetropolitan portions of the BEA regions.



Note: Alaska and Hawaii are included in the Far West

**Figure 2 – BEA Regions**

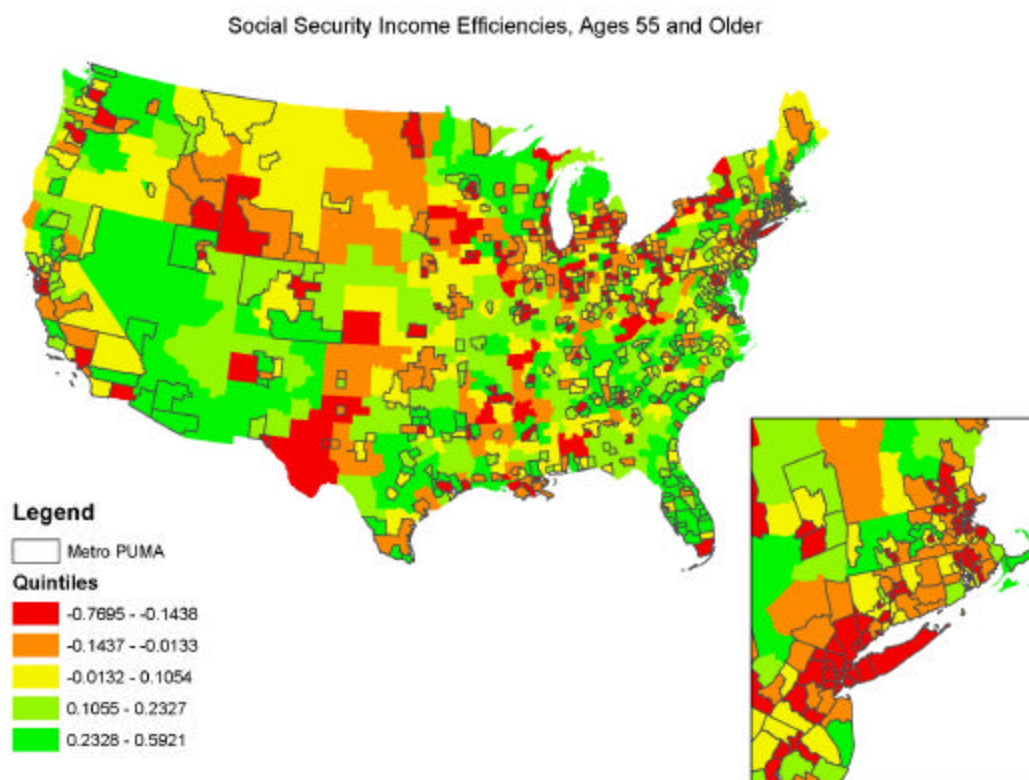
## ***Results***

### ***Describing Income Flows***

At the regional level, social security income migration follows the patterns of population migration (figures 3 and 4) for those over age 55. The northeastern industrial core regions of New England, the Great Lakes, and the Mid-East all have lagged behind the southern and western regions in terms of overall population growth for several decades and these population growth patterns are largely driven by inter-regional migration (Schachter 2001). The patterns evident in figures 3 and 4 demonstrate that social security income follows suit. There is a fairly consistent band of social security losses following the Great Lakes from western New York through Ohio, Michigan, and on to Chicago. These losses continue onto the Plains through Iowa, Eastern Montana, and into the arid regions of southern Idaho. Concurrently, typical retirement regions are enjoying income gains through migration. Most of Florida, Arizona, and the coastal Carolinas all fall in the highest quintile. While these patterns are not terribly surprising, figure 3 highlights some areas that may be emerging retirement destinations. The southern Ozarks in Arkansas and Missouri have high social security income efficiencies, as does



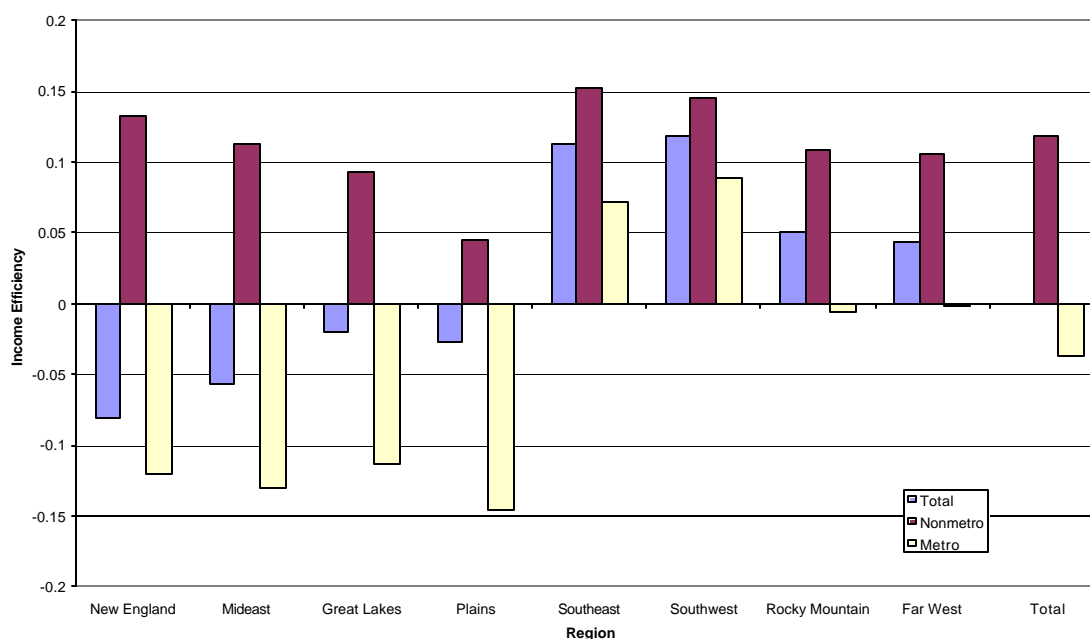
are large are in the northern great lakes states of Michigan and Minnesota. Similarly, there is a pocket of social security income gain in the mountain region of western North Carolina, eastern Tennessee, and eastern Kentucky. Equally interesting patterns of social security income migration are evident at the metropolitan scale, where we see consistent metropolitan losses. The metropolitan corridor from Boston to New York has experienced consistent losses, and many metropolitan areas within regions enjoying overall gains are losing social security income. Seattle, San Francisco, Salt Lake City, Houston, and Miami all fall within the lowest quintile of social security efficiencies, and each of these metropolitan areas is in a region enjoying overall gains.



**Figure 3 – Social Security Income Efficiencies for the Population over age 55 (Bureau 2003)**

Figure 4 presents the mean social security income efficiencies by region and metropolitan designation. In the aggregate, the rustbelt to sunbelt shift visibly evident in figure 3 becomes quite clear in figure 4. The bars in figure 4 representing all territory present a clear northeast to southwest shift, and there is also a distinct metropolitan to nonmetropolitan flow of social

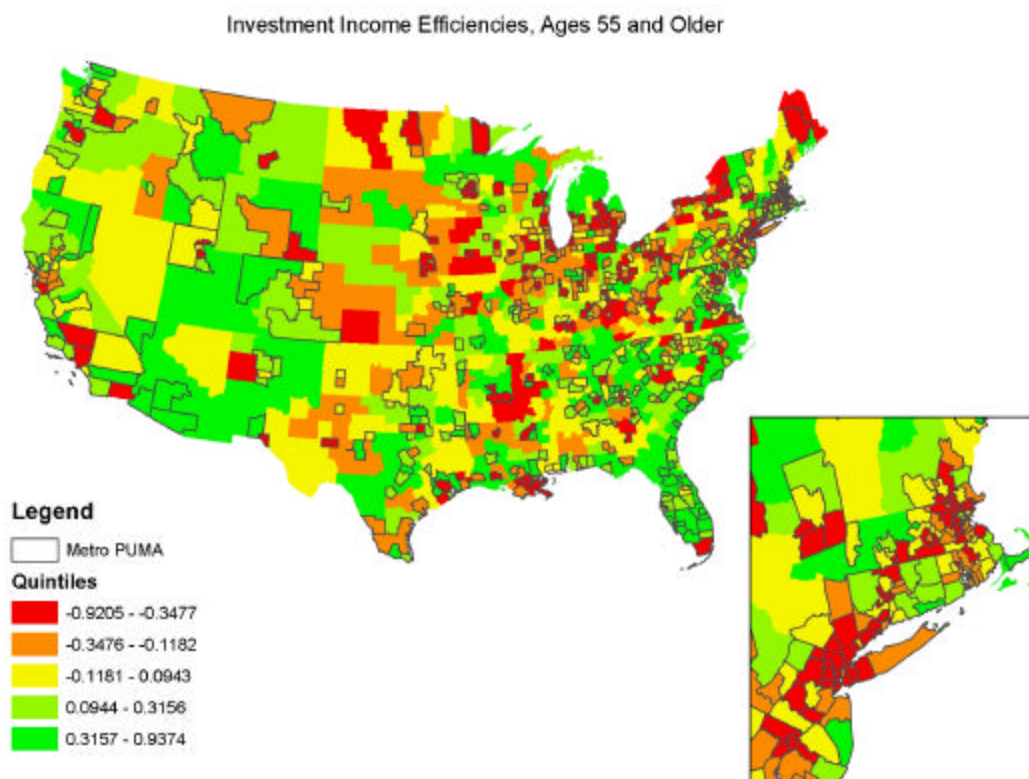
security income. In every region, nonmetropolitan territory is gaining social security income through migration, and this has the potential to dramatically boost economies in otherwise struggling areas. Many nonmetropolitan economies have suffered as their traditional industries (agriculture, mining, timber, etc.) lagged. Figure 4 shows that these areas are now enjoying a new infusion of basic income through the migration of people over age 55. Even a region like the nonmetropolitan Plains, which has suffered decades of population loss through out-migration and a dramatic reorganization of its dominant industry – agriculture – has enjoyed gains in social security income through migration. The average nonmetropolitan PUMA on the Plains gained \$2.4 million through social security migration. The nonmetropolitan Southwest has gained the most social security income on average. The typical PUMA in this region gained \$10.7 million in mobile social security.



**Figure 4 – Mean Social Security Income Efficiencies by Region and Metropolitan Status, ages 55 and older, 1995-2000 (Bureau 2003) (all differences of means significant at 0.01 level)**

Figures 5 and 6 present investment income efficiencies for the population over age 55. Rather similar patterns are evident in the geographic flows of investment income for this age group when compared with social security income. Again, these figures present general rustbelt to sunbelt shifts coupled with movement out of the metropolitan core regions into nonmetropolitan destinations. The major difference between the two maps shown in figures 3 and 5 is found in the northern Rocky Mountain region. Whereas social security income was

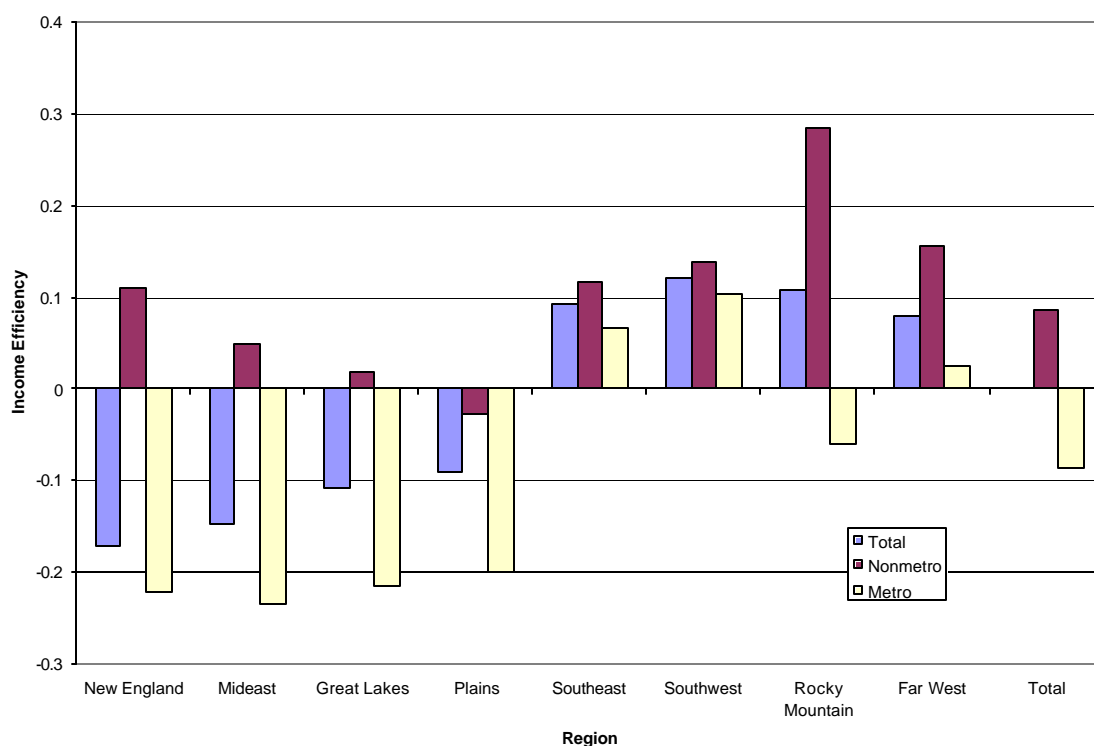
moving out of this area, western Montana and Idaho are enjoying rather large gains in investment income. The nonmetropolitan Rockies are by far the region enjoying the largest investment income gains through migration, with the average PUMA in this region gaining \$13.5 million of annual basic income gain.



**Figure 5 – Investment Income Efficiencies for the Population over age 55, 1995-2000 (Bureau 2003)**

There is evidence that migration of the population over age 55 may be contributing to overall regional disparities in aggregate investment income levels. Figure 6 shows that while the overall regional shifts of investment income parallel those of social security income, the regional nonmetropolitan shifts are much more varied. The nonmetropolitan portions of the Plains have actually lost investment income through migration (figure 6), and the nonmetropolitan Great Lakes and Mideast have experienced very small gains. These losses and relatively small gains are rather problematic considering investment income comprises a much larger share of personal income compared with Social Security. Therefore, these regions are struggling to attract an increasingly important source of income, and the gains of social security income they might be

enjoying are muted by their investment income struggles. It appears that the Rocky Mountain region is becoming a strong destination for investment income at the expense of the Plains and Great Lakes.



**Figure 6 – Mean Investment Income Efficiencies by Region and Metropolitan Status for those over age 55, 1995-2000 (Bureau 2003) (all differences of means significant at 0.01 level).**

Investment income migration of the baby boomers presents a rather distinct geography compared with that of the preceding generations.<sup>6</sup> Figure 7 maps the investment income flows attached to mobile baby boomers, and figure 8 presents the mean efficiency values by region and metropolitan status. While New England and the Mid-East still have overall losses, the other northern regions (Plains and Great Lakes) are enjoying overall gains, and many of these gains result from large flows into nonmetropolitan destinations. This pattern of overall gains in these two regions is in distinct contrast to the flows associated with the older populations. Likewise,

<sup>6</sup> Baby Boomer migration only accounts for 7% of shifts in social security income, but 32% of investment income. Therefore, the analysis for the boomers focuses on investment income.

with the exception of the Plains, the metropolitan losses for investment income are considerably reduced in the northern regions.

A close look at figure 7 sheds light on the character of metropolitan investment income flows associated with baby boomer migration. Recall, Manson and Groop (2000) highlight how migration is drawing total personal income down the urban hierarchy. Figure 7 highlights the suburban movement of investment income as well. In many large metropolitan areas, we see a core PUMA with investment income loss surrounded by PUMAs with investment income gains. For example, this type of flow characterizes the suburbs to the north and west of Boston (Lincoln, Concord, Wellesley), to the north and east of New York City (Darien, Greenwich), north of Chicago (Evanston), north and east of Houston, and to the north of Minneapolis. In this light, the metropolitan gains (or reduced losses) in many regions are dominated by flows of investment income toward the outlying suburbs from the more urbanized core. This trend is particularly problematic when one considers the rising importance of investment income as a share of total personal income. Urban core areas are at a distinct disadvantage in attracting this type of mobile income.

Figures 7 and 8 indicate that migration is drawing investment income even further down the urban hierarchy beyond the metropolitan suburbs, and once more, the regional patterns for these income flows associated with the baby boomers are distinct from preceding generations. *Every* nonmetropolitan region is gaining investment income through migration of baby boomers, and there is considerably *less* variation from region to region with respect to these nonmetropolitan flows. In other words, baby boomer migration is drawing investment income into nonmetropolitan destinations regardless of region. Even regions like the nonmetropolitan Plains, which have consistently lost population through out-migration, are enjoying gains of investment income through baby boomer migration. Figure 7 shows that portions of eastern Kansas, western South Dakota, northern Iowa, and northern Minnesota all fall in the highest quintile of investment income efficiencies resulting from baby boomer migration. These patterns of gains are in direct contrast to those driven by the migration of the preceding cohorts, as virtually all of Kansas, Iowa, and the Dakotas experienced income losses through migration for those over age 55.

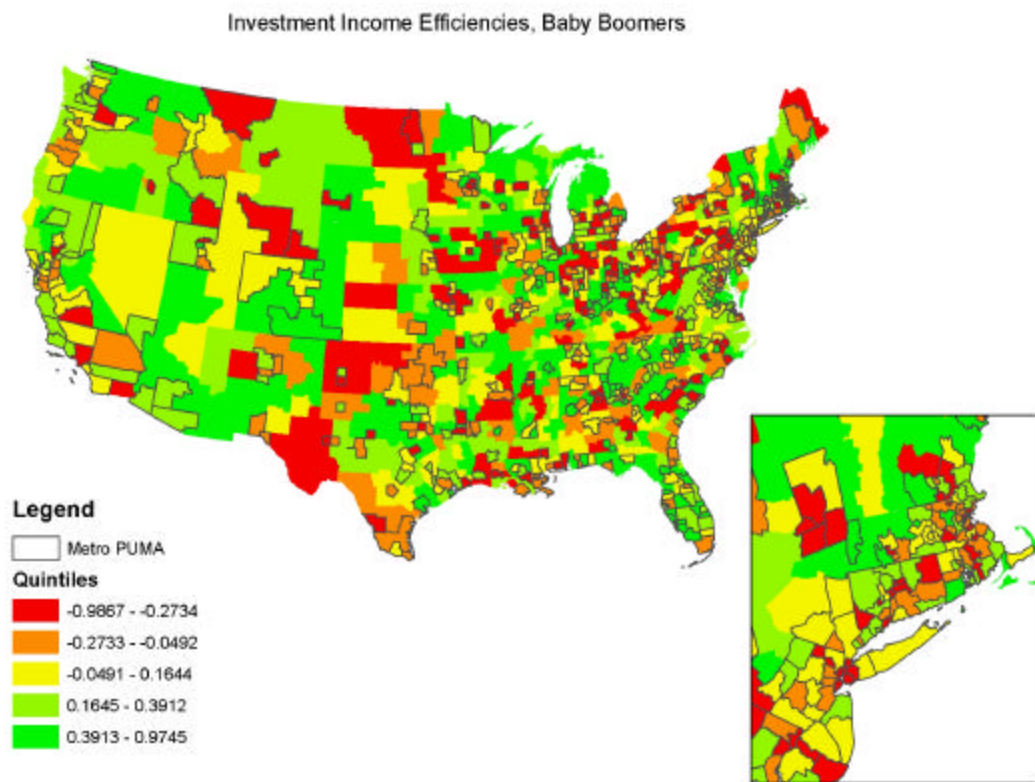
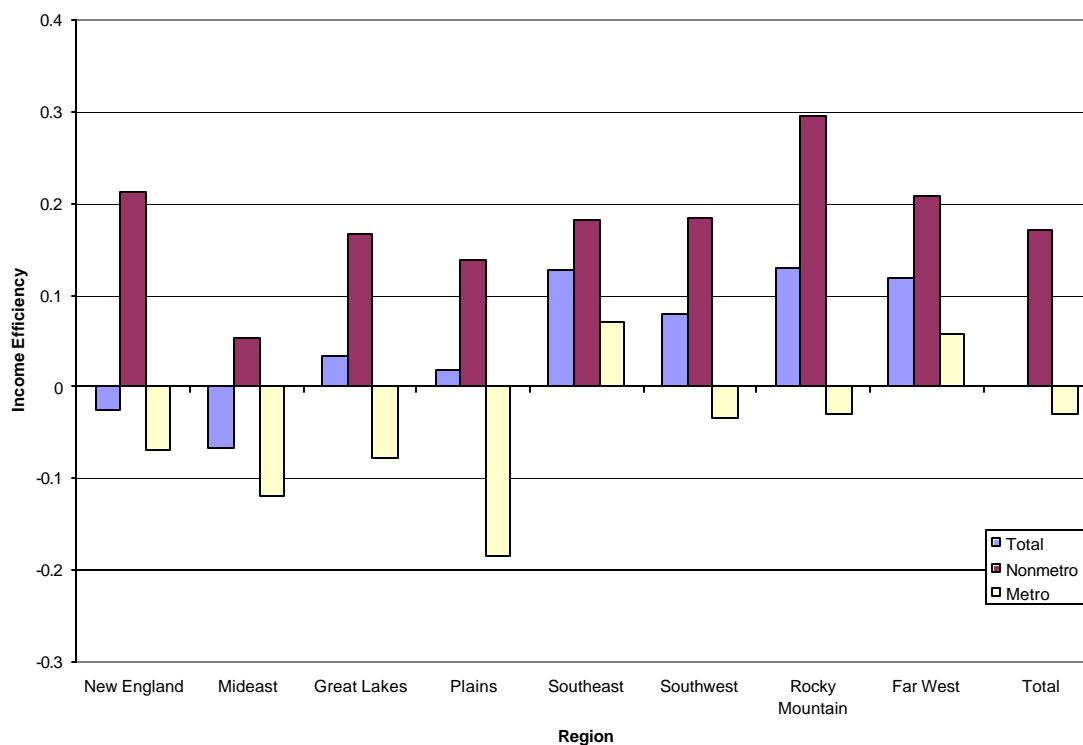


Figure 7 – Investment Income Efficiencies for Baby Boomers, 1995-2000 (Bureau 2003)



**Figure 8 – Mean Investment income efficiencies by region and metropolitan status for Baby Boomers, 1995-2000 (Bureau 2003).** (note: differences of means for nonmetropolitan flows *not* statistically significant. All other differences of means significant at 0.01 level).

### ***Decomposing Income Flows***

While a detailed explanation of the income flows described above is beyond the scope of this paper, by decomposing the flows following Plane’s methodology, it is possible to better understand the primary forces behind regional income gain or loss. In areas where “net effects” dominate, the sheer volume of migration is the driving force behind income gain or loss. In contrast, in areas where “differential effects” dominate, the characteristics of the migrants are propelling income gain or loss. Areas that are gaining income due to primarily differential effects are either gaining individuals with higher per capita income levels, or losing individuals with lower per capita income levels.

The analysis of social security income efficiencies from above indicates that nonmetropolitan regions were gaining this form of income through migration from metropolitan origins, and the only metropolitan regions with overall gains in social security income were the traditional retirement destinations in the Southwest and Southeast. Table 1 shows the driving

forces behind these Social Security income flows. Net effects dominate Social Security flows in all nonmetropolitan regions. Nearly 70% of nonmetropolitan PUMAs nationwide enjoyed Social Security gains resulting from net effects. A majority of nonmetropolitan PUMAs in every region experienced Social Security gains resulting from net effects, and this was the case for over 75% of nonmetro PUMAs in the Southeast, Southwest, and Far West.

In contrast, Social Security income loss through net effects dominates the metropolitan landscape, characterizing the situation for nearly 50% of metropolitan PUMAs nationwide. The only exceptions to this trend are found in the Southeast and Southwest regions where metropolitan regions enjoyed more extensive gains through net effects (46.6% of Southeast metro PUMAs and 48.9% of Southwest metro PUMAs). It is clear that the regional redistribution of Social Security income stems primarily from the sheer volume of movers (net effects dominate) rather than the differential income characteristics of the movers themselves. These patterns are not surprising considering there is a limit to the amount of Social Security benefits an individual can receive. Such a limit reduces the likelihood of substantial differences between per capita Social Security income levels of in- and out-migrants.

<b>Nonmetro</b>	loss driven by net	loss driven by diff	gain driven by net	gain driven by diff
New England	6.3%	18.8%	<b>62.5%</b>	12.5%
Mideast	13.9%	11.1%	<b>66.7%</b>	8.3%
Great Lakes	12.3%	15.1%	<b>64.4%</b>	8.2%
Plains	19.4%	17.7%	<b>53.2%</b>	9.7%
Southeast	5.4%	13.2%	<b>75.4%</b>	6.0%
Southwest	10.4%	8.3%	<b>81.3%</b>	0.0%
Rocky Mountain	11.8%	11.8%	<b>64.7%</b>	11.8%
Far West	8.8%	11.8%	<b>76.5%</b>	2.9%
Total	10.2%	13.5%	<b>69.8%</b>	6.6%
<b>Metro</b>				
New England	<b>65.2%</b>	11.2%	4.5%	19.1%
Mideast	<b>62.7%</b>	6.0%	21.7%	9.6%
Great Lakes	<b>69.3%</b>	5.7%	17.0%	8.0%
Plains	<b>70.3%</b>	2.7%	13.5%	13.5%
Southeast	24.5%	12.9%	<b>46.6%</b>	16.0%
Southwest	31.1%	4.4%	<b>48.9%</b>	15.6%
Rocky Mountain	<b>38.9%</b>	16.7%	33.3%	11.1%
Far West	<b>39.6%</b>	4.2%	35.4%	20.8%
Total	<b>48.5%</b>	8.6%	28.5%	14.4%

**Table 1 – Percent of PUMAs by Decomposition Classification for Social Security Income Migration, ages 55+, 1995-2000. (Bureau 2003) note: modes are shown in bold italics.**



When the focus shifts from Social Security migration to investment income migration, much more interesting and distinct pictures emerge for both those over age 55 and the baby boomers. Table 2 presents the distribution of PUMAs across the different decomposition classifications for investment income by region and metropolitan status for those over age 55. While net effects still dominate the picture for nonmetropolitan territory in most regions, there are a few regions where differential effects are becoming more important. The Rocky Mountains are enjoying considerable investment income gains through migration (see figure 6), and differential effects dominate these gains. Numerous popular media outlets have reported rising conflicts in the rapidly growing Rocky Mountain region, and much of these media reports suggest the region is becoming a playground for wealthy in-migrants (Elliott, McGuire et al. 1995; Brooke 1998; Nelson 2001). These results suggest the phenomenon is more widespread than simple anecdotes from Vail, Jackson Hole, or Telluride. Rather, nearly two-thirds of all nonmetropolitan PUMAs in the Rocky Mountains enjoyed investment income gains from differential effects. Clearly, the in-migration of relatively well off individuals over age 55 is common throughout the region.

In contrast, the modal category for the nonmetropolitan Great Lakes and Plains is loss due to differential effects. Half of all nonmetropolitan PUMAs on the Plains and 44% of nonmetropolitan PUMAs in the Great Lakes region lost investment income through differential effects of migration for those over age 55. Two equally disturbing possibilities could explain the dominance of differential effects in these regions. Either these areas are losing their wealthier residents over 55, or they are gaining poorer residents through in-migration. Earlier work examining age-specific population migration explicitly indicates that the latter is the more likely scenario, as the Plains and Great Lakes are enjoying increased migration streams of those over age 55 (Nelson 2004). Combining the losses of the Plains and Great Lakes with the gains of the Rocky Mountains suggests that migration may be contributing to emerging regional income inequalities, as wealth becomes more concentrated in a select few destinations.

The picture for the metropolitan portions of the BEA regions is more diverse, as no single category stands out as dominant. In general, the metropolitan portions of northern and eastern regions (Rustbelt) are losing investment income through both differential and net effects of migrants over age 55. The Great Lakes and Plains are slightly more influenced by overall levels of migration (net effects) while New England and the Mideast show slight concentrations of

differential effects. The southern and western regions are gaining investment income through a similar combination of differential and net effects.

<b>Nonmetro</b>	loss driven by net	loss driven by diff	gain driven by net	gain driven by diff
New England	6.3%	25.0%	<b>50.0%</b>	18.8%
Mideast	2.8%	36.1%	<b>41.7%</b>	19.4%
Great Lakes	4.1%	<b>43.8%</b>	31.5%	20.5%
Plains	8.1%	<b>50.0%</b>	27.4%	14.5%
Southeast	2.4%	36.5%	<b>45.5%</b>	15.6%
Southwest	10.4%	22.9%	<b>54.2%</b>	12.5%
Rocky Mountain	0.0%	11.8%	23.5%	<b>64.7%</b>
Far West	2.9%	8.8%	<b>61.8%</b>	26.5%
Total	4.4%	34.7%	<b>41.9%</b>	19.0%
<b>Metro</b>				
New England	30.3%	<b>44.9%</b>	6.7%	18.0%
Mideast	37.3%	<b>38.6%</b>	8.4%	15.7%
Great Lakes	<b>46.6%</b>	36.4%	3.4%	13.6%
Plains	<b>43.2%</b>	27.0%	8.1%	21.6%
Southeast	14.1%	25.2%	<b>30.7%</b>	<b>30.1%</b>
Southwest	17.8%	20.0%	<b>31.1%</b>	<b>31.1%</b>
Rocky Mountain	16.7%	27.8%	22.2%	<b>33.3%</b>
Far West	25.0%	20.8%	10.4%	<b>43.8%</b>
Total	28.2%	<b>31.3%</b>	16.1%	24.3%

**Table 2 - Percent of PUMAs by Decomposition Classification for Investment Income Migration, ages 55+, 1995-2000. (Bureau 2003) note: modes are shown in bold italics.**

Table 3 presents the distribution of PUMAs across the different decomposition classifications for investment income migration associated with baby boomer migration by metropolitan status and region. In contrast with the older age group, the flows associated with the baby boomers are much more influenced by differential effects. In every region, nonmetropolitan territory enjoys positive investment income efficiencies from baby boomer migration (see figure 8), and these flows tend to be dominated by differential effects. For every region other than the Mideast, the modal decomposition category for nonmetropolitan territory was gain driven by differential effects. Therefore, the nonmetropolitan investment income gains tied to baby boomer migration stem primarily from nonmetropolitan regions attracting boomers with relatively high per capita levels of investment income. At the same time, metropolitan regions tended to lose investment income through baby boomer migration. Once more, differential effects dominate the regional profiles for metropolitan losses. For six of the eight metropolitan regions, loss driven by differential effects was the modal category. Only the

metropolitan portions of the Southeast and Far West enjoyed positive investment income efficiencies, and these are also the result of differential effects.

The differences in decomposition results for investment income between the baby boomers and their elders are rather interesting, especially with respect to nonmetropolitan territory. Net effects tend to dominate the flows associated with the pre-boom generations, while differential effects dominate the baby boomer flows. In 2000, the boomers ranged in age from 36 to 54 – their prime working years. They’ve moved past entry-level jobs, and have ascended their career ladders. In many cases, people at this stage in their careers are relatively inflexible, at least in terms of long-distance migration decisions, and the possibilities for making a move to a nonmetropolitan destination may be unlikely. The fact that differential effects dominate investment income flows resulting from baby boomer migration suggests that investment income may enable migration to a nonmetropolitan destination, as it did in the case of the McGeehans. While the population in these age ranges is relatively immobile, those with higher levels of investment income possess greater flexibility in migration decisions, as investment income will follow them regardless of where they go. Therefore, they can move to a nonmetropolitan destination and still generate income through their investments.

<b>Nonmetro</b>	loss driven by net	loss driven by diff	gain driven by net	gain driven by diff
New England	0.0%	31.3%	18.8%	<b>50.0%</b>
Mideast	5.6%	<b>38.9%</b>	33.3%	22.2%
Great Lakes	1.4%	30.1%	<b>34.2%</b>	<b>34.2%</b>
Plains	1.6%	33.9%	21.0%	<b>43.5%</b>
Southeast	0.6%	31.1%	31.7%	<b>36.5%</b>
Southwest	4.2%	25.0%	<b>35.4%</b>	<b>35.4%</b>
Rocky Mountain	5.9%	17.6%	35.3%	<b>41.2%</b>
Far West	2.9%	17.6%	35.3%	<b>44.1%</b>
Total	2.0%	29.8%	31.1%	<b>37.1%</b>
<b>Metro</b>				
New England	15.7%	<b>41.6%</b>	9.0%	33.7%
Mideast	25.3%	<b>39.8%</b>	19.3%	15.7%
Great Lakes	21.6%	<b>36.4%</b>	14.8%	27.3%
Plains	32.4%	<b>37.8%</b>	5.4%	24.3%
Southeast	14.7%	28.8%	21.5%	<b>35.0%</b>
Southwest	<b>28.9%</b>	<b>28.9%</b>	17.8%	24.4%
Rocky Mountain	11.1%	<b>38.9%</b>	22.2%	27.8%
Far West	20.8%	18.8%	20.8%	<b>39.6%</b>
Total	20.1%	<b>33.6%</b>	16.8%	29.4%

**Table 3 - Percent of PUMAs by Decomposition Classification for Investment Income Migration, Baby boomers, 1995-2000. (Bureau 2003) note: modes are shown in bold italics.**

## ***Discussion and Conclusion***

The analysis above shows that there indeed are unique geographies to both Social Security and investment income, and migration of both the baby boomers and their predecessors makes these geographies rather dynamic. As the population ages, migration is going to redistribute these increasingly important sources of income in geographically distinct ways with important implications. All of the analyses highlight a marked regional shift in nonearnings income from the Rustbelt to the Sunbelt consistent with overall population movements in the late 20<sup>th</sup> Century (Long 1988). Furthermore, while many of the typical retirement destinations in the Southwest and Southeast are still receiving large flows of this mobile income through migration, there is evidence that new pockets of Social Security and investment income concentration are emerging in places like the northern Great Lakes, the Ozarks, the Southern Rockies, and the Coastal Northwest.

The more compelling insights from these analyses come when shifting scales and comparing differences between metropolitan and nonmetropolitan territory. For both those over age 55 and the baby boomers, migration is drawing nonearnings income out of metropolitan areas into the nonmetropolitan hinterlands, and these patterns are fairly consistent across most regions. From the perspective of metropolitan areas, this loss of nonearnings income is problematic for two reasons. First, as the population ages, these sources of income will comprise a larger share of total personal income. If metropolitan regions are losing these sources of income through migration of baby boomers and their predecessors, the older population that remains in these regions will be characterized by lower levels of economic resources. This is most likely going to negatively impact metropolitan regions in New England and the Mideast, as these areas were dominated by investment income losses resulting from differential effects. Second, in essence, migration serves as a metropolitan income subsidy for nonmetropolitan regions. Workers accrue both Social Security and investment income while working in metropolitan labor markets, but then transfer this income to nonmetropolitan regions by migrating. As these sources of income grow in importance, metropolitan regions will suffer as migration continues to subsidize nonmetropolitan economies.

For most nonmetropolitan regions, this new income is quite welcome, as traditional sources of income and basic industries have struggled in recent years to maintain employment and earnings levels (Vias and Nelson forthcoming). This new income is cause for optimism in

many parts of nonmetropolitan America, but there is a down-side to this optimism. While in the short term, nonmetropolitan economies may benefit from nonearnings income migration, they may be replacing one type of volatile economy with another economy that is equally volatile. In the past, many resource dependent communities across rural America suffered from tremendous boom-bust cycles associated with volatile supply and demand conditions (Freudenburg 1982). As we have seen in the early years of the 21<sup>st</sup> Century, the stock market can be equally volatile. Migration is certainly changing the economies and income sources for many nonmetropolitan regions, but these regions may simply be replacing one form of volatility (resource cycles) with another (bear and bull markets).

In the aggregate, it appears that nonmetropolitan economies have benefited from positive nonearnings income migration; however, the analyses above indicate that migration may be resulting in regional income inequalities, and such inequalities have significant implications. The efficiency analysis demonstrates that the nonmetropolitan Great Lakes and Plains have struggled to hold onto the investment income of those over age 55, and the decomposition analysis suggests this is the result of losing migrants in this age group with relatively high levels of per capita investment income. At the same time, the Rocky Mountain region is gaining these relatively well-off individuals and enjoying considerable gains of nonearnings income. The outcomes of these processes in the Rockies have already been documented as wealthy in-migrants challenge notions of community and drive real estate prices to levels that long term residents can no longer afford (Nelson 2001). If these processes continue, we can expect to see regions like the nonmetropolitan Plains and Great Lakes left with a population characterized by lower levels of economic resources. Such populations will certainly require higher levels of public services that such communities will be less able to provide due to their loss of income and subsequent tax revenue. Compounding the situation is the likelihood that housing costs will drop in these struggling regions making them further attractive to older migrants with similarly low levels of nonearnings income (Fitchen 1995).

This pessimistic outlook for certain nonmetropolitan regions is brightened by the flows of income associated with baby boomer migration, as baby boomer flows are somewhat distinct from those associated with the population over age 55. Every nonmetropolitan region enjoyed increases in investment income through boomer migration, and these flows were largely the result of differential effects. In other words, baby boomers with higher per capita levels of

investment income are moving to nonmetropolitan destinations, regardless of region. If baby boomers continue to show this preference for nonmetropolitan migration, the regional inequalities resulting from their predecessors' migration will likely be mitigated. If, however, the boomers become more like their parents as they age into their 60s and 70s, regional inequalities will likely grow.

This analysis has provided key insights into the processes of income migration across space, and has highlighted some of the differences between the impacts of baby boomer migration compared with their predecessors. At the same time, many pressing questions remain unanswered. First, the techniques utilized in this study are largely descriptive serving to highlight the general patterns of income migration between the two age groups, but statistical explanations of these income flows are lacking. It will be particularly beneficial to build a series of multivariate models that can offer such explanations behind why certain PUMAs enjoy positive and large income efficiencies while other PUMAs are losing mobile income. Are these flows associated with certain labor market or housing market characteristics, or do noneconomic factors like natural amenities better explain the variation in income efficiencies across space? Are the explanations of spatial variation in net effects similar to those for differential effects, or do these two components of income change respond to different place-based characteristics?

A second line of future work (currently underway) will involve developing a more refined classification of places beyond a simple metropolitan-nonmetropolitan binary system. Not all nonmetropolitan regions are similar. Some contain large towns while others lie in close proximity to metropolitan core regions. Along the same lines, not all metropolitan areas are the same. Places like New York, Houston, and Los Angeles contain millions of residents, while places like Burlington, Vermont barely meet the minimum threshold for metropolitan designation. How do these different flows of income play out across a geographic classification that allows for greater specificity? Are all nonmetropolitan regions enjoying investment income gain through baby boomer migration, or only those areas adjacent to a metropolitan core region?

Third, this analysis has been conducted at the macro scale. A future phase of this project currently under development will include an examination of the impacts of this type of Social Security and investment redistribution at the microscale. How do these migratory processes impact specific communities? What shape and form do these processes take "on the ground"? How do communities cope with the gain or loss of these sources of income? What types of labor

markets politics emerge around “mailbox” economies receiving basic income relatively detached from local economic activity?

In January, the principal investigator attended a conference in Washington, DC sponsored by the Department of Agriculture’s Economic Research Service. It was clear in this conference that academics, federal employees, and local level practitioners are all curious about the future impact of the baby boomers on rural America. This analysis has begun to address this important question, but clearly considerable work lies ahead.

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