



**AgEcon** SEARCH

RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

## Rural Youth Outmigration How Big Is the Problem and for Whom?

*High levels of outmigration in rural America among adults ages 20-34 are largely mitigated by immigration in this age group. Net migration losses are more severe among the best educated young people, reflecting the richer urban array of colleges and high-skill jobs. Net losses also vary sharply over space, approaching 20 percent or more of all young adults in some nonmetro counties. High net-loss counties are distinguished primarily by low immigration rather than high outmigration.*

RURAL areas have historically exported a large portion of their young adult population, just as they have exported their natural resources. Even during the 1970's, a decade of pervasive nonmetro population growth, slightly more young adults left than arrived. This net outmigration of young adults was offset by net immigration of older age groups until the recessions of 1980-81. From then until the closing years of the 1980's, at least, nonmetro losses of young adults remained high, exceeding any gains of older adults.

Today, as in the past, about half of all rural migration occurs among persons ages 20 to 34. Because of this age group's great concentration of movement and because their net losses are by far the highest of any age group, they attract the attention of observers concerned about the loss of future wealth and development prospects. Just how big a problem is rural youth outmigration? We show that the outmigration rate for this age group exceeded 40 percent for nonmetro areas overall between 1985 and 1990, and that high rates are widespread in nonmetro counties. The outflow of young adults with high educational attainment is even more dramatic. The outmigration rate for 20-24-year-olds with college experience (who completed at least a year of college by 1990) is 55 percent. Yet young adults' high immigration rate mitigates much of the perceived loss of human resources. The net rate of population loss of all 20-34 year olds from nonmetro America is about 5 percent, and 11 percent for those who have attended college.

High outmigration rates for this age group reflect the large number of life decisions being made by young adults regardless of where they live. High migration rates prevail among young adults in urban as well as rural areas, in healthy and in ailing economies. As these adults enter their late 20's and 30's, a "settling down" period begins and migration rates decline. Rural areas gain high school graduates at this stage, and their net loss of the college educated declines to one-fourth of the rate among adults under 25. This countervailing movement into nonmetro counties, however, shows much sharper differences across space, confirming studies that link immigration more closely than outmigration with local economic health.

A comparison of the distributions of outmigration and immigration rates across nonmetro counties reveals how life-cycle choices affect aggregate population trends. Immigration is more concentrated geographically than outmigration, with high in-movement rates clustered in relatively few places. As a result, several hundred nonmetro counties actually experience a net gain of young adults. These gains usually occur because of high immigration, especially at the upper end of the age group, and not because of low outmigration. Thus, with youth outmigration driven largely by widely shared life-cycle forces, and immigration more dependent upon the attractiveness of the destination, the key to population growth lies not in retaining young people as they leave high school, but in recapturing them at later stages of life.

### The Moves of Young Adults Dominate Rural Migration Patterns

Figure 1 presents in- and outmigration by age group for nonmetro areas during 1985-90. These numbers include all cross-county moves, including those within nonmetro

areas as well as across nonmetro-metro boundaries. About half of all movements were by 20-34-year-olds. They constituted 95 percent of all net outmigrants from rural areas. If those young adults are excluded, nonmetro America would have actually experienced net population gains from migration (as it did during the 1970's), buoyed by a significant in-movement of people ages 45-70.

People ages 20-24 had the highest in and out rates of any age group—exceeding 40 percent outmigration and 30 percent immigration, with a net loss of 9.2 percent. Net losses in many counties, however, exceeded a third of this age group, giving rise in these areas to an appearance of wholesale abandonment by the young. Among 25-29-year-olds, outmigration rates were still high, but sharply lower than the 20-24-year-olds' rates. Immigration rates fell more modestly. Net losses for this group totaled 5.7 percent. Finally, out and in rates converged for 30-34-year-olds, at about 25 percent each, at rates still well above the long-term average. In- and outmigration continued to decline slowly beyond this point until the post-retirement years. For the entire group of 20-34-year-olds, then, rural America suffered a net loss of 4.8 percent during 1985-90. Although 20-24-year-olds leave their home counties at very high rates, the overall losses are tempered by a significant counterflow from other areas, and by steadily declining outmigration rates among older age groups.

The observed ebb and flow of young adult migration largely reflects an economic and social system organized spatially around dynamic urban cores, and one that allows significant personal investment in one's own

future productiveness. Near the end of high school, most teenagers begin to make job, schooling, and family decisions that will affect their futures. Young people decide to attend college or other postsecondary education, take a job, enter the military, or start a family. Many such decisions entail a move to a new area. Others will move out of a sense of restlessness, a desire to live in places different from the all-too-familiar home community.

As young adults move into their mid- and late 20's, they face a different set of choices. Most have completed their education, and increasing numbers are getting married and having children. Jobs have often changed to careers. The "settling down" period may continue for a number of years, well into a person's 30's or 40's. Regardless of its timing for an individual, settling down signals the decline of frequent, short-term moves for the majority of younger adults. Thus, because the initial outflow of young adults from a local area is only a first step in the early life cycle, focusing on this part of the process distorts the true picture of long-term gains and losses in rural areas.

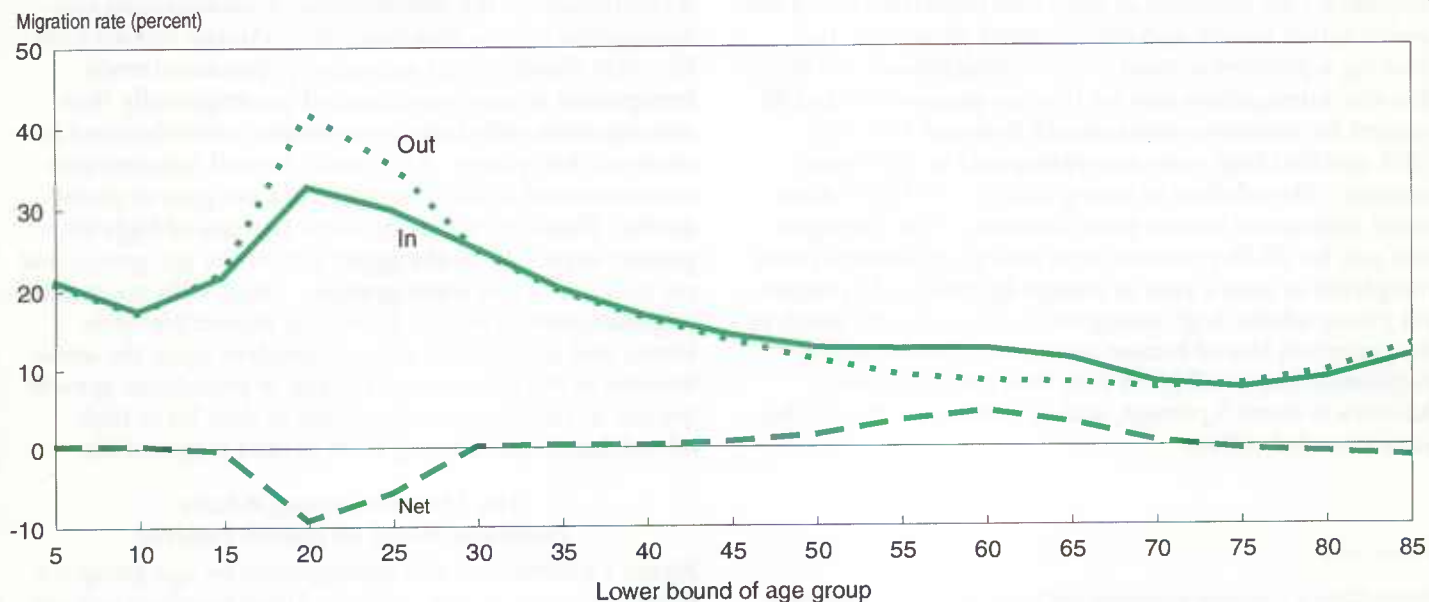
#### The Education Selectivity of Outmigration: Life Cycle and Location Factors

The outpouring of young adults from "home," fostered by life cycle events, occurs in metro areas just as it does in nonmetro areas. Yet the spatial distribution of economic and social activities ultimately leads to significant differences in metro-nonmetro outcomes. For many young adults who do not attend college, early work experiences form the basis of stable future employment. By sampling a number of jobs, young workers attempt to discover the

Figure 1

### Nonmetro in-, out-, and net migration rates by age group, 1985-90

*Net migration losses are almost exclusively among 20-29-year-olds*



Source: Calculated by ERS using data from the 1985-90 county-to-county migration matrix from the U.S. Bureau of the Census.

best match between their skills and interests on the one hand and job requirements on the other. Often the opportunity to sample a variety of jobs is difficult or impossible in small rural places, nudging youth migration toward a nonmetro-to-metro move.

Similarly, postsecondary institutions are located disproportionately in metro areas, biasing college-related movement to run from nonmetro to metro areas more often than the reverse. While the great majority of metro areas possess at least one 4-year college, and often several, most nonmetro counties have no postsecondary institution. Rural college students, then, are compelled either to move away or to commute longer distances compared with urban students. The highly uneven distribution of schools across nonmetro counties is a central factor in the high outmigration rate of college-bound youth. This "brain drain" of potentially highly skilled residents receives close attention by rural observers concerned with the loss of local human capital.

Young outmigrants are more likely to be college-experienced than the young adults who stay (table 1). Between 1985 and 1990, nearly 4 million young adults ages 20-34 migrated from a nonmetro county to another county, metro or nonmetro. Of those, over 2.3 million, or 59 percent, had attended college by 1990, while only 37 percent of those remaining behind had attended college. Outmigration, then, lowers present and future human capital in rural areas. Furthermore, nonmetro areas were less likely to be "compensated" by immigration for the loss of college-experienced outmigrants than for the loss of high school dropouts and graduates. Of the 3.4 million immigrants, 1.8 million, or 53 percent, were college-experienced by 1990. Rural America lost a balance of 532,000 college-experienced young adults during this period, just slightly less than the total net loss of 547,000 young adults. A net loss of 69,000 high school graduates was balanced by a net gain of 54,000 high school dropouts.

These numbers show how college-experienced migrants dominate both out- and immigration streams and also suggest a disproportionately large loss of the best educated in

nonmetro counties. The second point is shown explicitly by comparing migration rates by age and education in figure 2. Inflows and outflows of college-experienced young adults represent a much larger proportion of their base population (all youth in the county in 1985 who completed a year or more of college by 1990) than is true for dropouts or high school graduates. The net percentage losses of high school graduates are modest at ages 20-24, becoming a gain by the 30-34 group. Dropouts have positive rates in all age groups. Net migration rates for the college-experienced population are negative for all age groups and contribute virtually all of the net loss among those 25 and older.

As young adults age, they exhibit declining rates of both immigration and outmigration (fig. 2). The steepest decline in outmigration and immigration rates is among the college experienced, an outcome of the uneven spatial distribution of colleges and high-skill jobs. Comparing the rate of decline in immigration and outmigration rates, we find that falling outmigration rates account for a larger share of the decline in net losses of the college experienced and the change to net gains of high school graduates at later ages. Among high school dropouts and graduates, immigration rates are stable or fall slowly until adults enter their 30's, while outmigration rates decline steadily with age. In contrast, immigration rates fall steadily for college-experienced adults. And, while their outmigration rates drop somewhat between the 20-24- and the 25-29-year-olds, most of their decline in outmigration is after age 30.

Two main findings emerge from the analysis so far. First, while overall young adult net migration losses in rural America are relatively small, the predominance of college-experienced youth in rural outmigration streams significantly magnifies the loss of economic potential that these streams represent. The exchange of young migrants with urban areas between 1985 and 1990 left rural areas with over half a million fewer college-experienced young adults and with lower average education levels than would otherwise be the case. The relatively high losses

Table 1  
**Nonmetro young adults by educational attainment and 1985-90 migration status**  
*College-experienced migrants dominate both in- and outmigration streams*

Educational status	Distribution			Number			
	Stayers	Outmigrants	Inmigrants	Stayers	Outmigrants	Inmigrants	Net migrants
	Percent			Thousands			
Total	100.0	100.0	100.0	7,587	3,907	3,360	-547
Dropouts	20.1	12.4	16.1	1,529	486	540	54
High school graduates	43.8	28.0	30.5	3,323	1,095	1,026	-69
College-experienced	36.1	59.5	53.4	2,735	2,326	1,794	-532

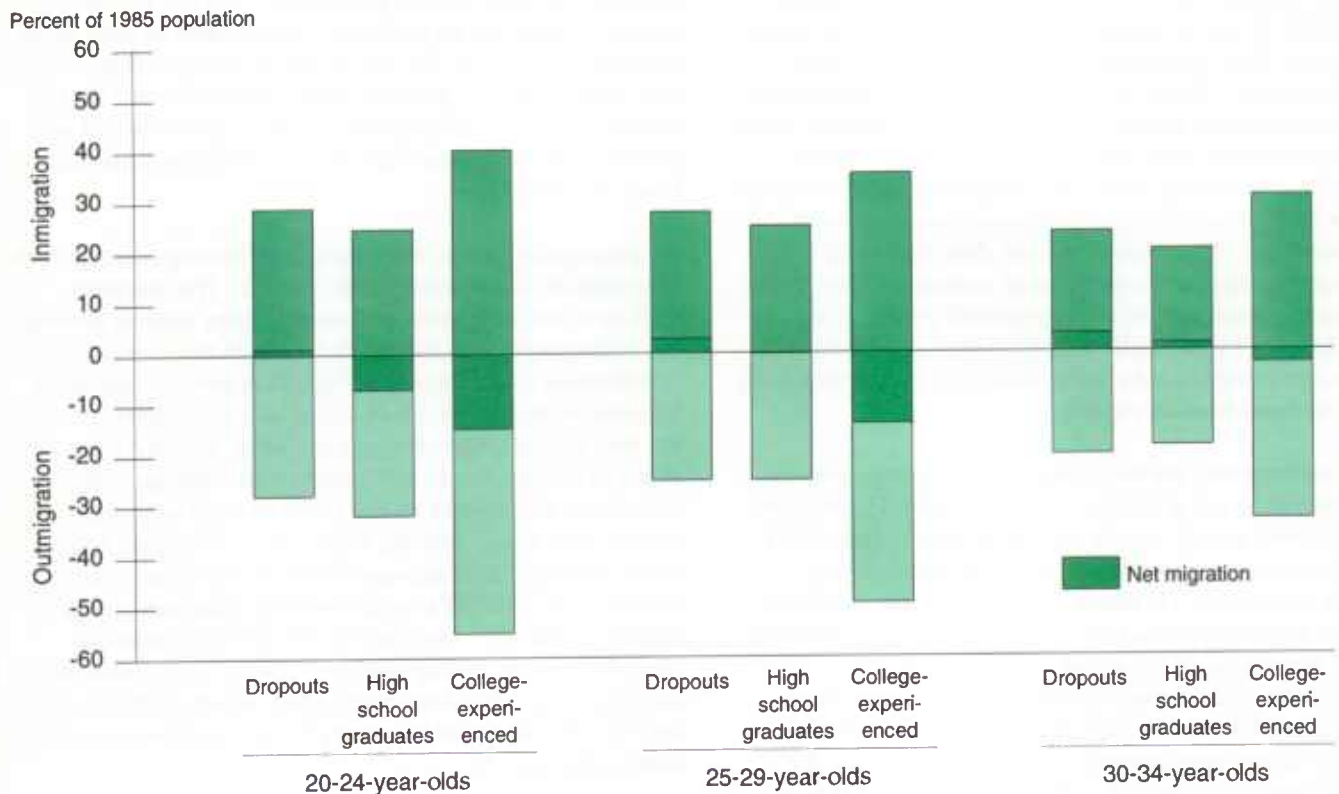
Notes: Young adults are ages 20-34. See "Data and Definitions," p. 15 for definition of education categories.

Source: Calculated by ERS using data from the 1985-90 county-to-county migration matrix from the U.S. Bureau of the Census.

Figure 2

### Migration rates for nonmetro young adults by education, 1985-90

*The college-experienced move more than less educated young adults, but they start settling down as they reach their early 30's, leaving nonmetro areas less frequently*



Note: Dropouts include anyone who has not graduated from high school, and the college-experienced have completed 1 year of college or more.

Source: Calculated by ERS using data from the 1985-90 county-to-county migration matrix from the U.S. Bureau of the Census.

reflect both the nature of life cycle decisions and the spatial distribution of activities.

Second, net migration rates for all education levels improve with age as both in- and outmigration rates decline. Declines in outmigration are larger, as the life-cycle theory of rural youth migration would predict. The question arises at this point whether the life-cycle theory would have predicted rising, rather than falling, immigration rates in rural areas. The answer is, not necessarily. As people age, they become less likely to move, in large part for the reasons described previously. Compared with 20-24-year-olds, 30-34-year-olds are less likely to move at all. But those who do move are more likely to choose nonmetro destinations. Hence, nonmetro counties become relatively more attractive for successive age groups, particularly for those with college experience.

#### Gaining Counties Characterized by High Immigration

Just as overall youth population losses understate the severity of human capital depletion, the average population loss in rural areas masks wide variation from county

to county. Most of the more than 2,300 nonmetro counties experienced a net loss of young adults between 1985 and 1990 (fig. 3). Net losses are widespread nationally and in every region. The largest concentrations are found in the West, the Great Plains, and the Corn Belt. Close inspection of the East, however, reveals sizable patches as well, especially in the poverty areas of Appalachia, the Mississippi Delta, and the southeastern Black Belt. Half of all nonmetro counties lost more than 8 percent of their young adult population in 1985, and a sizable number lost more than 20 percent. For counties with such large losses, youth migration often presents a serious obstacle to local economic progress.

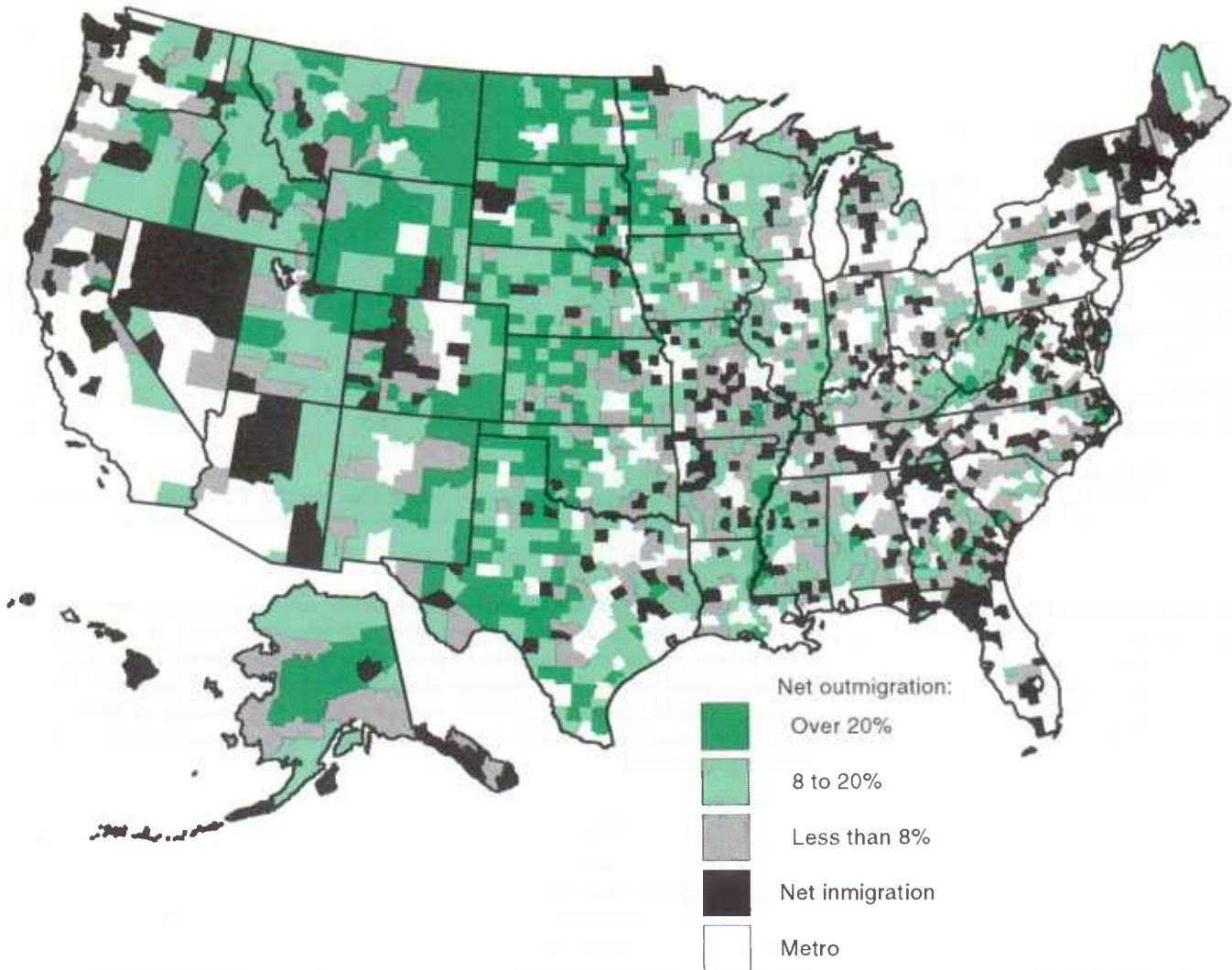
At the same time, several hundred counties enjoyed a net increase in the young adult population through migration. Although scattered, gaining counties exhibited some clustering in areas of the East and the West Coast adjacent to cities. Areas rich in natural amenity also tended to gain younger migrants, as did counties with universities. High-gain areas often lay alongside high-loss areas in



Figure 3

### Population change among nonmetro young adults due to migration, 1985-90

*Large net losses are extensive throughout the Great Plains*



Source: Calculated by ERS using data from the 1985-90 county-to-county migration matrix from the U.S. Bureau of the Census.

regions where farming, lumbering, and mining underwent sharp employment declines in the 1980's.

What separates these counties from those losing younger adults in the same time period? We try to answer this question by examining the distinct effects of immigration and outmigration on differences between counties with migration gains and those with migration losses. For example, do counties with net migration gains have outmigration rates similar to net losers but much higher immigration rates? Do they have similar immigration rates but much lower outmigration rates? Or does some other pattern characterize gainers?

One intuitively expects net gainers to be counties with high immigration and low outmigration. The life cycle process, however, implies a more complex relationship between the two flows. Outmigration occurs everywhere because its motivations are universal within our society. Immigration is the result of choosing particular destinations possessing traits migrants deem desirable, usually traits that are unevenly distributed across space. Life cycle choices sharpen this basic asymmetry. In the settling-down period, in particular, migrants are often looking for the high-skill jobs they are now qualified to take, or for physical or cultural amenities that heighten the pleasure of living and of raising a family.

Table 2  
**Distribution of nonmetro counties across in- and outmigration categories by age and education of migrants, 1985-90**  
*Inmigration is concentrated in fewer counties than outmigration, except among the college-experienced 25-34-year-olds*

Migrant group	Outmigration			Immigration		
	Bottom	Middle	Top	Bottom	Middle	Top
	Percentage of counties in group					
Migration of all young adults	22.8	58.7	18.5	35.8	57.5	6.7
Ages 20-24:						
Dropouts	26.6	48.2	25.2	36.0	52.0	12.0
High school graduates	20.7	53.2	26.1	37.9	56.6	5.5
College-experienced	20.8	50.2	29.0	69.8	28.8	1.4
Ages 25-29:						
Dropouts	28.9	50.2	21.0	32.2	52.8	15.0
High school graduates	26.2	57.8	16.1	33.8	52.6	13.6
College-experienced	33.2	60.1	6.7	31.6	53.4	15.0
Ages 30-34:						
Dropouts	32.2	47.6	21.2	33.5	50.2	16.3
High school graduates	27.5	55.8	16.8	32.6	53.2	14.2
College-experienced	32.6	56.3	11.1	38.7	48.6	12.7

Note: See "Data and Definitions," p. 15, for definition of education categories.

Source: Calculated by ERS using data from the 1985-90 county-to-county migration matrix from the U.S. Bureau of the Census.

### How We Measured Concentration

Measuring dispersion and concentration when all counties are considered together, rather than when county groups are compared, is complicated. If counties are divided into top and bottom groups according to migration rates, we cannot be sure that the high-migration counties capture a large segment of total migration flows. For instance, most counties with very high rates may have small populations, thereby representing only a small portion of the number of migrants. If divided into groups by the number of migrants received or sent, however, large counties will probably dominate the top quintile. Furthermore, allowing the number of counties in each group to vary will reflect differences in in- and outmigration rate distributions (a small number of high immigration counties relative to outmigration counties, for example.)

We solved this dilemma with the following method. As we did initially, counties are sorted separately by out- and immigration rates. Beginning with the county having the lowest outmigration rate, the number of outmigrants was summed over the counties until a fifth of the total number of outmigrants from rural areas was reached. These counties are the low outmigration group. Summing continued until four-fifths of the total number of migrants had been reached. Counties above this mark contain the remaining fifth of all outmigrants and are classified in the high outmigration group. The same procedure was applied to counties ranked by their immigration rates, resulting in low, middle, and high immigration groups. In this way, the number of counties in each group was allowed to vary according to the distribution of migration rates. Furthermore, large population counties do not necessarily dominate the upper end of the distribution because counties are sorted by rate, not by the number of migrants.

Concentration is measured by the proportion of nonmetro counties that fall into the bottom, middle, and top categories. An even distribution—20 percent of counties in the bottom fifth, 60 percent in the middle, and 20 percent in top—would indicate that counties with large numbers of in- or outmigrants have large populations, and counties with small migration flows tend to have smaller populations. If, alternatively, a smaller percentage of counties receive a fifth of all in-migrants, this would indicate that the counties where migration's impact on local population is greatest also receive a disproportionate share of all migrants. Hence, high concentration by our definition requires large migration flows and high migration rates.

Inmigration should be relatively concentrated, while outmigration should be relatively evenly distributed. If so, then counties that enjoy gains in younger adults through migration should receive a disproportionate share of in-migrants, regardless of their flow of outmigrants. We find that the data support this conclusion using the following method. Counties are sorted by outmigration rate, then divided into five equal-number groups, or quintiles. The 20 percent of counties with the highest rates are said

to be in the top quintile, the next 20 percent in the second quintile, and so on. The procedure is next repeated for immigration. Finally, each county's placements in the "in" and "out" quintiles are compared.

For clarity, we examine only the extreme high and low groups, placing the other three groups into a middle category. Without the life cycle explanation, we would expect counties with migration gains to fall disproportionately

## Data and Definitions

### Data

All migration numbers and rates in this article were derived from the Census Bureau's special county-to-county migration tally for 1985-90, a detailed matrix with breakdowns by several individual characteristics including age and education. We estimated each county's 1985 population by adding together nonmovers, movers within the county, and outmigrants.

### Definitions

Nonmetro and rural are used interchangeably in this article. Both terms refer to counties defined as nonmetro in June 1993 by the Office of Management and Budget using 1990 Census data.

A migrant is a person who lived in a different county in 1985 than in 1990. All migrants with a nonmetro residence in 1985 (outmigrants) or 1990 (inmigrants) are included in this analysis. Nonmetro migrants include those who move to another nonmetro county and those who enter from, or leave to, metro areas.

A county's immigration rate is the number of inmigrants to that county (living there in 1990 and did not live there in 1985) divided by the county's 1985 population and multiplied by 100 to put the rate in percentage terms.

A county's outmigration rate is the number of outmigrants from that county (no longer living there in 1990) divided by the county's 1985 population and multiplied by 100 to put the rate in percentage terms.

Age is measured as of 1990.

Education is measured as of 1990. Dropouts had not graduated from high school by 1990, high school graduates had graduated by 1990, and the college-experienced had completed a year or more of college by 1990.

into the top quintile of immigration rates and the bottom quintile of outmigration rates. The life cycle model predicts that gaining counties fall heavily in the top immigration group, but also that they are rather evenly distributed across outmigration groups. Of the 474 net gainers, 63.7 percent fall into the top immigration group. All other gainers are located in the middle three quintiles. In contrast, gainers are distributed more evenly across outmigration groups. Almost 29 percent of the gainers are low outmigration counties, 15 percent are high, and the remaining 56 percent fall into the middle. Thus, gainers are distinguished more by robust immigration than by a lack of outmigration.

### Rural Migrant Concentration and Dispersion Reflect Life Cycle Decisions

The distinct patterns of dispersed outmigration and concentrated immigration of young adults characterize overall nonmetro migration flows as well as those in gaining counties. To measure these patterns, we have again categorized counties into top, middle, and bottom groups, but now divide migrants into quintiles, allowing the number of counties in each group to vary (see "How We Measured Concentration"). The distribution of counties across categories, considering all in- and outmigrants ages 20-34, shows a nearly even, or dispersed, pattern for outmigration, but a highly concentrated pattern for immigration (table 2). Only 6.7 percent of all nonmetro counties receive 20 percent of all migrants. Migration does not merely "shuffle" people around nonmetro America, but

rather redistributes them selectively into a relatively small number of areas where their impact on population change is significant.

Although the universality of outmigration and the concentration of immigration reveal themselves in the aggregate, we can easily chart changes in these patterns over the early life course by measuring the distribution of counties for each age-education subgroup. For most of the nine age-education subgroups, high outmigration counties are more numerous than high immigration counties. Moreover, the outmigration proportions are generally closer to an even distribution of counties.

A notable exception arises among the college-experienced population in the 25-29 age group. Because a majority of college students move from their home counties to a relatively small number of counties containing colleges, the concentration of immigration among 20-24-year-olds is particularly strong. As a result, however, college-experienced young adults subsequently leave a relatively small number of college counties. Most of them move in order to take a job, but their period of "settling down," unlike that of high school graduates, has been delayed by further education. Their destinations will be dispersed compared with their origins at this time of life, as some move back home (often temporarily), and others move to other areas for job opportunities. Still others engage in nonemployment activities, such as travel or graduate school. Hence, we observe a very concentrated outmigration pattern and



a dispersed immigration pattern for the college-experienced 25-29-year-olds.

### Conclusion

The loss of younger adults, especially the best educated, continues in nonmetro areas. Outmigration, however, is not only a common part of the life course, but often serves useful functions for both the individual and the home area. In most rural counties, many young people must leave to further their education or to gain experience in the job market. Since most rural communities cannot recreate the milieu of economic and educational activities that define urban life, many individuals must leave to fully develop their productive capabilities.

Inmigration flows are more concentrated, largely because job opportunities, educational institutions, and physical and cultural amenities are unevenly distributed across the landscape. Past research has shown that these factors are strongly linked with the decision to move to particular locations. We make no attempt in this article to measure directly the role of local jobs, schools, and amenities on in- and outmigration. Rather, the analysis here confirms that inmigration is the more important force in redistributing nonmetro young adults. Furthermore, this redistribution is more dramatic for groups with the highest educational attainment.

From a policy perspective, it may seem that most local areas have limited control over the level of migration, since natural amenities and colleges are largely fixed, and even job growth is difficult for communities to "engineer." Furthermore, migration gains are not unambiguously beneficial to the receiving area. Migrants usually increase the

productive capacity of the county, but they may also place new burdens on local services and strain the existing social fabric.

For local areas in which population growth is essential for development, potential returnees can be a ready source of economic and social vitality. When choosing a place to live, migrants respond to the family and community ties they develop in childhood. Those who grew up in nonmetro areas and left may be willing to select their home community over highly attractive alternatives in the settling-down period if good jobs for themselves and good schools for their children are available.

### For Further Reading

J. B. Cromartie, "Leaving the Countryside, Young Adults Follow Complex Migration Patterns," *Rural Development Perspectives*, Vol. 8, No. 2, 1992, pp. 22-27.

K. M. Johnson, "Recent Population Redistribution Trends in Nonmetropolitan America," *Rural Sociology*, Vol. 54, No. 3, Fall 1989, pp. 301-26.

D. T. Lichter, D. K. McLaughlin, and G. T. Cornwall, "Migration and the Loss of Human Resources in Rural America," in L. J. Beaulieu and D. Mulkey (eds.), *Investing in People: The Human Capital Needs of Rural America*, Westview Press, Boulder, CO, 1993, pp. 235-56.

C. C. Roseman, "Changing Migration Patterns Within the United States," *Resource Papers for College Geography*, No. 77-2, Association of American Geographers, 1977.