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A Brain Drain or an Insufficient Brain Gain?

Upstate New York's weak population and labor force growth in recent years has raised concerns about a loss of educated workers. Indeed, the region has seen a net outflow of college-educated people. This issue of Upstate New York At-a-Glance finds that this net outflow reflects a low rate of in-migration to the region, rather than an unusually high rate of out-migration.

Introduction

In-migration and out-migration are a natural result of the nation's mobile workforce. However, they can impact population growth when out-migration is relatively high or in-migration is relatively low—and even more so when the trends converge.

We use data from the 2000 census detailing out-migration and inmigration patterns between 1995 and 2000 for each U.S. state. For comparative purposes, we consider upstate New York a separate region¹ and include only the population aged thirty to sixty-four (aged twenty-five to



Out-Migration: A Brain Drain

In our study, the **out-migration rate** is the number of college-educated people—those with four or more years of college—leaving a state over the five-year period as a share of the entire college-educated resident population.

- Out-migration rates range from 8.2 percent in California to 22.2 percent in Alaska.
- Upstate New York's out-migration rate of 13.4 percent is roughly equivalent to the 13.5 percent median across states. Out-migration rates were higher in twenty-five states.
- Rather surprisingly, sluggish regional economies do not necessarily have high out-migration rates. States in the Northeast and along the Great Lakes tended to have relatively slow economic and population growth in recent years, but many of these states also had low out-migration rates. In fact, better performing economies had higher out-migration rates than poorer performing ones.²



Source: Author's calculations, based on data from the U.S. Census Bureau.

Out- and In-Migration Rates of College-Educated Workers by State, 1995-2000 Percent

10 Highest Out		10 Lowest Out		10 Highest In		10 Lowest In	
22.2	Massachusetts	11.5	Nevada	39.4	Iowa	11.9	
20.9	Pennsylvania	11.3	Arizona	27.6	Michigan	11.6	
19.4	Ohio	11.2	Florida	23.7	West Virginia	11.5	
19.3	New Jersey	11.1	Colorado	22.2	Illinois	11.4	
17.7	Wisconsin	10.4	Idaho	21.8	Wisconsin	11.2	
17.7	Maine	10.2	North Carolina	21.7	Pennsylvania	11.2	
16.8	Texas	10.0	Georgia	21.4	North Dakota	11.0	
16.6	Minnesota	10.0	Virginia	21.3	Ohio	10.9	
15.5	Michigan	9.6	Delaware	20.3	New York	10.0	
15.4	California	8.2	New Mexico	20.2	Louisiana	9.9	
			Median: 17.1				
Upstate New York: 13.4			Upstate New York: 9.3				
	22.2 20.9 19.4 19.3 17.7 17.7 16.8 16.6 15.5 15.4	 22.2 Massachusetts 20.9 Pennsylvania 19.4 Ohio 19.3 New Jersey 17.7 Wisconsin 17.7 Maine 16.8 Texas 16.6 Minnesota 15.5 Michigan 15.4 California 	22.2 Massachusetts 11.5 20.9 Pennsylvania 11.3 19.4 Ohio 11.2 19.3 New Jersey 11.1 17.7 Wisconsin 10.4 17.7 Maine 10.2 16.8 Texas 10.0 16.6 Minnesota 10.0 15.5 Michigan 9.6 15.4 California 8.2	22.2Massachusetts11.5Nevada20.9Pennsylvania11.3Arizona19.4Ohio11.2Florida19.3New Jersey11.1Colorado17.7Wisconsin10.4Idaho17.7Maine10.2North Carolina16.8Texas10.0Georgia16.6Minnesota10.0Virginia15.5Michigan9.6Delaware15.4California8.2New Mexico	22.2 Massachusetts 11.5 Nevada 39.4 20.9 Pennsylvania 11.3 Arizona 27.6 19.4 Ohio 11.2 Florida 23.7 19.3 New Jersey 11.1 Colorado 22.2 17.7 Wisconsin 10.4 Idaho 21.8 17.7 Maine 10.2 North Carolina 21.7 16.8 Texas 10.0 Georgia 21.4 16.6 Minnesota 10.0 Virginia 21.3 15.5 Michigan 9.6 Delaware 20.3 15.4 California 8.2 New Mexico 20.2	22.2Massachusetts11.5Nevada39.4Iowa20.9Pennsylvania11.3Arizona27.6Michigan19.4Ohio11.2Florida23.7West Virginia19.3New Jersey11.1Colorado22.2Illinois17.7Wisconsin10.4Idaho21.8Wisconsin17.7Maine10.2North Carolina21.7Pennsylvania16.8Texas10.0Georgia21.4North Dakota16.6Minnesota10.0Virginia21.3Ohio15.5Michigan9.6Delaware20.3New York15.4California8.2New Mexico20.2LouisianaMedian: 17.1Kedian: 17.1Kedian:17.1Kedian:	

Source: Author's calculations, based on data from the U.S. Census Bureau.

Notes: Upstate New York is defined in footnote 1. The median across states is weighted by state population.

Editor's note: The in-migration rate for New York State was incorrectly reported as 11.8 in the printed copies of *Upstate New York At-a-Glance*.

In-Migration: A Brain Gain

The **in-migration rate** is the number of college-educated people moving into a state over the five-year period as a percentage of the entire collegeeducated resident population.

- In-migration rates range from 9.9 percent in Louisiana to 39.4 percent in Nevada.
- If upstate New York were a state, it would have the nation's lowest in-migration rate, 9.3 percent.
- As one might expect, weaker regional economies have low inmigration rates. Many of the lowest rates are in Northeast and Great Lakes states, which have experienced sluggish economic and population growth in recent years.³

A Net Loss of Educated Workers

The **net migration rate** is the difference between the in-migration rate and the out-migration rate.

- Net migration rates range from a loss of 6.1 percent in North Dakota to a gain of 22.5 percent in Nevada.
- Upstate New York, along with twelve states, experienced a net outflow of college-educated workers between 1995 and 2000. Upstate's net loss was 4.1 percent, the second worst in the nation if the region were a state.
- Like states with a net outflow of college-educated workers, upstate New York tends to have relatively low in-migration rates coupled with moderate but not unusually high outmigration rates. Out-migration rates

among states vary much less than inmigration rates, and the variance in in-migration rates largely drives net migration flows.

States with the strongest net inflows of the educated population are mainly in the South and West, including Nevada, Arizona, and Florida. While out-migration rates for these states—like the rate for upstate New York—tend to be about average, in-migration rates are at least three times as great.

Conclusion

Compared with U.S. states, upstate New York's net outflow of collegeeducated workers reflects a lack of a "brain gain" rather than an unusually large "brain drain." College-educated adults are not moving to the region fast enough to stem natural out-migration flows.

Research suggests that job opportunities and local amenities influence choice of location. While regional amenities such as a favorable climate, cultural offerings, and family and social networks are attractive forces, they may not be enough to attract college-educated workers if good job opportunities do not exist. Similarly, job prospects may not be sufficient to sway a relocation decision if a region is not perceived to be a desirable place to live. Both factors are important policy considerations.

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The views expressed are those of the author and do not necessarily reflect the position of the Federal Reserve Bank of New York or the Federal Reserve System.

³ The coefficient between employment growth and in-migration rates is positive and statistically significant.

¹ In this analysis, New York is divided into two regions: upstate New York—a forty-nine-county region encompassing all but the counties of Ulster, Dutchess, Orange, Putnam, Westchester, Rockland, Bronx, New York, Richmond, Kings, Queens, Nassau, and Suffolk—and downstate New York, which encompasses these thirteen counties.

² The correlation coefficient between employment growth (1990-2000) and out-migration rates for the fifty states is positive but not statistically significant at the 95 percent confidence level.