Migration To and From Wisconsin

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Concern over a potential “brain drain” from Wisconsin to other states motivated us to examine migration to and from Wisconsin. Our analysis focuses on three comparisons. First, we look at net migration to Wisconsin from the United States. Second, we look at net migration between Wisconsin and our largest neighboring states, Illinois and Minnesota. Third, we look at migration from Wisconsin to Chicago and migration from Illinois to Milwaukee, plus migration from Wisconsin to Minneapolis/St. Paul and migration from Minnesota to Milwaukee. In all cases we focus on the population of people with a bachelor’s degree or more (sometimes including individuals currently in school).

We use Census data, drawn from the University of Minnesota Integrated Public Use Microdata Series (available at http://www.ipums.umn.edu/usa/index.html, see the appendix for detail on our methodology). In addition to baseline demographic characteristics, the Census includes a question about where the respondent (and family) lived five years previously. Hence, we study migration patterns between 1975-80, 1985-90, and 1995-2000.

We briefly summarize our results below:

- In all comparisons, Wisconsin loses college graduates who are 22 to 29 years old.
- Wisconsin is gaining college graduates in the 30-to-39-years-old age group. Moreover, these gains increase across decades. Nevertheless, the state is a net exporter of college graduates.
- Although migration to Illinois and to Chicago is the largest source of leakage from Wisconsin, migration to Minnesota and to Minneapolis/St. Paul is almost of the same magnitude.
- Migration to Chicago and Minneapolis/St. Paul is substantially larger than migration to Milwaukee from Illinois or Minnesota. These “big city” differences are larger than the aggregate state differences, suggesting that regions of Wisconsin outside Milwaukee have positive net in-migration.
- Net out-migration of college graduates between 1995-2000 was around 7,000 people (it was around 18,000 between 1985-90).

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1 We define net migration as the number of people coming to Wisconsin minus the number of people leaving Wisconsin.
We do not view this as an alarmingly large number, but it is nevertheless cause of some concern. An important caveat is that we have not been able to assess the relative quality (or human capital) of those who leave versus those who come. It is possible that the net migration figures mask a substantial change in the overall quality of Wisconsin’s college-educated workforce.

**Wisconsin versus the United States**

Figure 1 shows the patterns of net migration of college graduates to Wisconsin from the United States. For each age group we show the net totals for people in 1975-80, 1985-90 and from 1995-2000. The lefthand bars show Wisconsin is a net “exporter” of college-educated labor. Around 7,000 people left Wisconsin in the 1975-80 and 1995-2000 periods. Around 18,000 college educated workers left between 1985-90.

Flows of individuals age 22 to 30 form what is probably the most disconcerting aspect of our migration analysis: if a “brain-drain” exists, this is the strongest evidence. The net emigration numbers for 22- to 30-year-olds in the last two periods are greater than that of all other age categories combined. While gross flows (available from the authors on request) indicate a substantial number of people migrating in both directions, we have no way of measuring the relative “quality” of this population. Given that the educated are not perfect substitutes for each other, whether Wisconsin emigrant quality is equivalent to that of our immigrant replacements is an important concern.

The rosy spot in Wisconsin’s immigration picture occurs with the 30- to 39- and the 40- to 49-year-olds. Consistent with Wisconsin’s image as a family-friendly state with good services and a high quality of life, the most recent Census reports a net inflow (with an increasing trend) of 30-39 year olds and 40-49 year olds.

Our conjecture is that recent graduates emigrate in search of employment and the more “stimulating” atmosphere of major metropolitan areas. The (broadly defined) middle-aged and those with families return to Wisconsin for the “silent” qualities that are not originally enticing to the twenty-something population.

**Wisconsin vs. Illinois and Minnesota**

Figures 2 and 3 show the net migration to Wisconsin from Illinois and Minnesota. Total emigration from Wisconsin to Illinois has been increasing slightly over the three censuses, while migration to Minnesota decreased in the three censuses.

Wisconsin was a net exporter of its educated 22- to 30-year-old population to Illinois and Minnesota, with an apparent trend of more people going to Minnesota and roughly constant for emigration to Illinois. Similarly, as in the national comparisons above, a significant number of people older than 30 are leaving Minnesota and Illinois for Wisconsin, the last two censuses show.
Milwaukee’s gains from Illinois and Minnesota not as large as Minneapolis/St. Paul’s and Chicago’s gains from Wisconsin

The overall flows of people from state to state are much more balanced across the years than those that arise when examining the “draws” of each city—it is in the city comparisons that Wisconsin and Milwaukee really get walloped. As figures 4 and 5 show, Wisconsin loses far more educated people to Minneapolis/St. Paul and Chicago than Milwaukee gains from Minnesota and Illinois. The rest of Wisconsin may be making up for Milwaukee’s failure to attract population from the other two states.

As an example of this loss, even in its previous “winning” category of the 30- to 39-year-olds, Wisconsin is still a net exporter of the educated in this age group compared to Milwaukee’s gains from the neighboring states. Per other examples in the gross flows, the most lopsided comparisons are city to state, between Minneapolis/St. Paul to Wisconsin and Milwaukee to Wisconsin.

Given the Minnesota to Wisconsin comparisons, Figure 5 suggests that if our concern is about the relative draws among the big cities of the tri-state area, Wisconsin would do well to focus on what has occurred in Minneapolis/St. Paul and Minnesota in general.
Figure 1: Net Migration of the Population with at Least a College Degree or who are Attending a University, to and from Wisconsin and the US, by age and year.
Figure 2: Net Migration with Illinois, by Age Group and Year, for the Population with Bachelor’s Degree or Higher
Figure 4: Wisconsin Losses to Chicago and Milwaukee Gains from Illinois, by Age Group and Year, for Population with a Bachelor's Degree or Higher

- Milwaukee Gains from Illinois
- Wisconsin Losses to Chicago
Figure 5: Wisconsin Losses to Minneapolis-St. Paul and Milwaukee Gains from Minnesota, by Age Group and Year, for a Population with a Bachelor's Degree or Higher
Appendix: Migration Tables Methodology

Using data downloaded for the STATA format from the 1980, 1990 and 2000 decennial censuses (obtained at http://www.ipums.org/usa/index.html) we constructed tables for our three broad conceptual migration categories: state-to-city, state-to-state and state-country. Broadly speaking, we were interested in both the gross and net flows between each of these geographic areas, as well as the finer detail of movements of specific age groups and those with higher education.

We relied upon the following variables for differentiating these categories:

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statefip</td>
<td>A state identifier code</td>
</tr>
<tr>
<td>Metaread</td>
<td>A code used to distinguish between OMB metropolitan statistical areas</td>
</tr>
<tr>
<td>Age</td>
<td>Age of the census respondent, and their family members</td>
</tr>
<tr>
<td>Educrec</td>
<td>Educational attainment of the respondent and their family</td>
</tr>
<tr>
<td>Migplac5</td>
<td>State of residence of five years ago</td>
</tr>
</tbody>
</table>

State-to-City
For these set of tables, we looked at the migration from Minnesota and Illinois to Milwaukee, and from Wisconsin to Minneapolis/St. Paul and Chicago, with the hope being to compare the relative “draws” of the big cities from each of these states.

To create these tables, we tabulated the census data for each of the cities, using the metaread, migplac5 and age variables, which provided us with counts of the populations arriving to each of our cities of concern from the U.S. states, broken into the age categories of 22-29, 30-39, 40-49, 50-59, and 60+. Two separate lists were created, one for the general population, and another for just the population with at least a bachelor’s degree or higher.

Here is a short sample of the STATA code used:

```
tab migplac5 if metaread==5080 & age<30 & age>21 & educrec==9
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with migplac5 being the state of residence from five years ago, metaread being the current metro area of residence (5080 being Milwaukee), the age variable indicating the desired age category of 22-29, and educrec being the level of attained education (9= bachelor’s degree or higher).

The tab results were then imported into Excel and manipulated to produce the corresponding graphs.
State-to-State
A similar methodology was used for the state-to-state tables, with the exception being that the geographic areas were kept to just the states of Wisconsin, Illinois and Minnesota. Our intent here was to look at the gross and net flows to and from these states. The code here was the same as above, with the exception of replacing the respective statefip code for metared.

State-Country
For the state-country graphs, our interest was to uncover the gross and net flows from Wisconsin to the rest of the country. Extracting the data on migration to Wisconsin from the rest of the country was similar to the above commands. For the data on migration out of Wisconsin, we first eliminated all but the respondents who had previously lived in Wisconsin five years prior, and then tabulated them by both age group and education.

Sample Weights and Size
The 1980, 1990 and 2000 data we used were 1 percent unweighted samples that have a household and person weight of 100, providing accurate proportionate distributions if not actual numbers. To obtain these actual figures, the numbers in the 1990 and 2000 samples were multiplied by 100. Since migration questions in the 1980 data were coded for only half the sample, these proportional numbers were instead multiplied by 200 to obtain actual figures.

Geographic Delimitation
For the state-to-city and state-to-state comparisons, only the data for the metropolitan statistical area and states of interest (metaread values 1601 Chicago, 1602 E. Chicago, 5080 Milwaukee and 5210 Minneapolis/St. Paul, statefip values of 17 Illinois, 55 Wisconsin and 27 Minnesota) were used.

The geographic area selected for the Wisconsin-U.S. comparison comprises the 50 states, Puerto Rico and the “minor outlying areas” such as the Pacific Trust Territories. For the state-to-country comparisons, geographic categories such as “at sea” or “abroad” were used in this comparison, as it was reasoned that migrants from abroad who chose to move to Wisconsin should be counted.