

First Results from the Census 2000 County-to-County Worker Flow Files

by Stefan Rayer, Ph.D., Demographic Statistician

The Census Bureau has just released the County-to-County Worker Flow Files, which are derived from the long form (sample) questions on where people worked. This special compilation comes in two parts. Part 1 provides information on all work destinations for people who live in a county, and Part 2 shows all origins for people who work in a county. Later this year, the Census Bureau will release a similar file containing worker flows between

county subdivisions for 12 states, including the 6 New England states.

The County-to-County Worker Flow Files are an invaluable resource about commuting patterns and their change over time. The data also contain some unlikely commuting flows. For example, according to the Census 2000 data there were 12 people who lived in Barnstable County, Massachusetts, who worked in Clarke County, Nevada.

While work flows such as this may be legitimate, and while they generally only account for a small proportion of all flows, they do not represent the traditional notion of a daily commute, and are best excluded from the analysis. For the purpose of this article, worker flows between counties are restricted to the six New England states and New York.

Figure 1 depicts the proportion of the population that works in their county of residence in 1990 and 2000. In all counties but Nantucket, the proportion of residents who

work locally (defined as within their county of residence) decreased over the last decade. In 2000, 66.9% of the population of Massachusetts worked in their county of residence, down from 69.5% in 1990. The areas with the highest proportion of residents working locally are the Islands, Berkshire County, and Cape Cod. The very high values for Nantucket and Martha's Vineyard are not surprising given their geographic isolation.

Geographic location, and the absence of employment centers in the immediate vicinity, also account for the high values for Cape Cod and Berkshire County. At the other end of the scale are Plymouth and

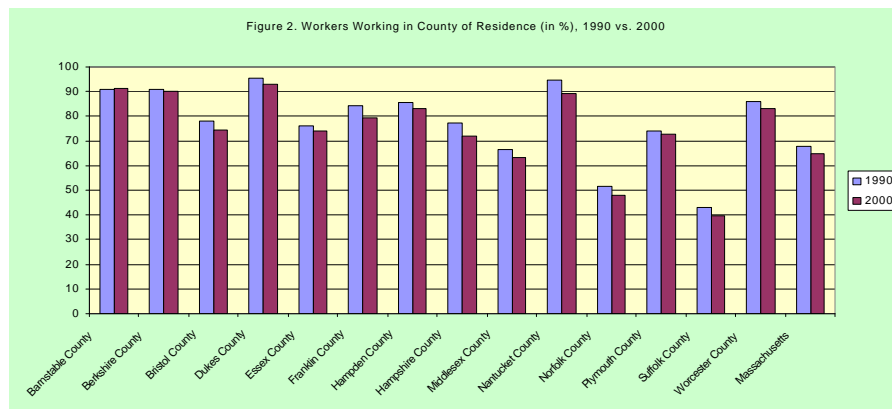
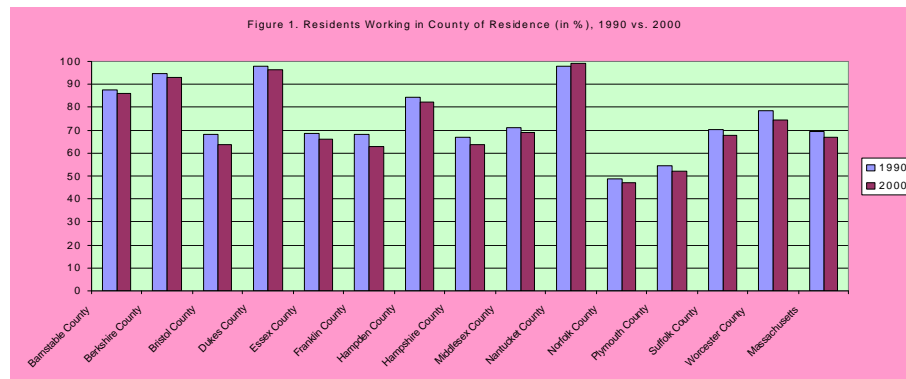
Norfolk counties, where only about half of the resident population works locally. More than a quarter of Norfolk's population works in Suffolk County, with another 15% in neighboring Middlesex County. For Plymouth County, the

largest work destinations are Norfolk County (20.2%) and Suffolk County (13.3%).

Figure 2 provides analogous data, but this time from the place of work rather than the place of residence perspective.

From 1990 to 2000, the percentage of workers who worked in their county of residence declined everywhere but Barnstable County. For the Commonwealth, it decreased from 67.9% to 65.0%. Once again, the highest values are recorded on the Islands, Cape Cod, and Berkshire County. While Norfolk County has similarly low values as in the place of residence data,

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(First Results...from other side)

the workforce of Plymouth County is considerably more local, with 72.6% also residing in the county. Suffolk County has the lowest percentage of local workers; in 2000, six out of ten workers commute in from surrounding areas. 24.2% of the workforce of Suffolk County resides in Middlesex County, followed by 16.2% in Norfolk County.

Figure 3 shows the employment-residence ratio for 1990 and 2000 for the 14 counties and for the Commonwealth overall. The employment-residence ratio can be viewed as a measure of the functional specialization of a locale. It is calculated here as the number of all workers in a county divided by the number of workers who reside in the county. Counties with employment-residence ratios above 1 are able to draw in a larger workforce than the workforce residing there, while more residentially oriented

counties (i.e. counties with net out-commuting) have values below 1.

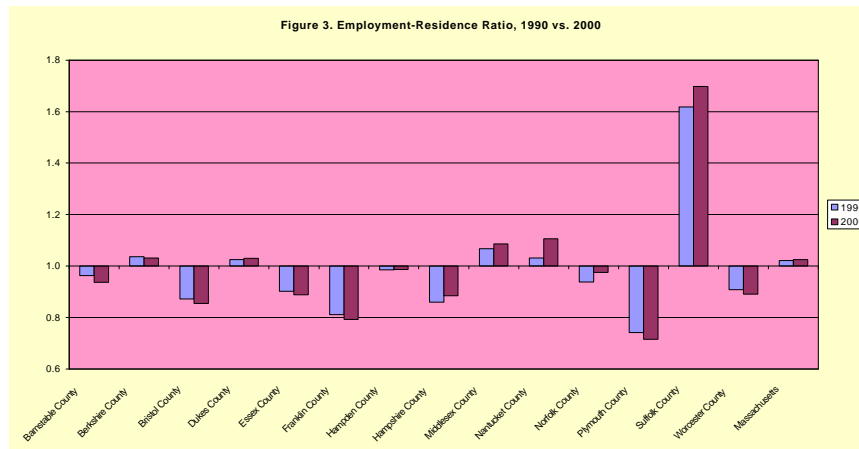
As Figure 3 indicates, 9 of the 14 counties have employment-residence ratios below 1.

Plymouth County has the lowest value: in 2000, the county had a resident population of around 230,000 persons in the workforce, but there were only about 165,000 persons working in the county, resulting in an employment-residence ratio of 0.72. In contrast, Suffolk County draws in significantly more workers from surrounding counties than it has residents in the workforce, which is reflected in the county's employment-residence ratio of 1.70. The only other counties where the employment-residence ratio exceeds 1 are Berkshire County and Middlesex County as well the Islands, although in the case of the Islands the employment-residence ratio may have less to do with daily commuting. For example, in 1990 the second largest origin of the workforce on Nantucket was from Boston. As for Berkshire County, the positive employment-residence ratio seems more due to the lack of employment centers in the vicinity rather than Berkshire County being a

significant employment magnet. Apart from a resident workforce of 59,386 workers in 2000, the second and third largest origins of workers are neighboring Columbia County, NY, and Bennington County, VT, amounting to an inflow of only 1,187 and 1,137 workers, respectively. This is in sharp contrast to Middlesex County which, besides a local workforce of 524,959 workers, had significant inflows from Essex County (61,135) and Suffolk County (60,547) in 2000. The counties with the lowest employment-residence ratios, and thus the most residential orientation, were Plymouth, Franklin, Bristol, Hampshire, Essex, and Worcester.

Whereas four of the five counties with employment-residence ratios above 1 became more employment oriented between 1990 and 2000 (Berkshire County being the exception), the majority of counties with employment-residence ratios below 1 turned more residential in

character, thus increasing the functional specialization of counties. Of the counties with employment-residence ratios below 1, only Hampshire County and Norfolk County increased their employment-residence ratio



over the decade, the latter almost reaching parity by 2000. There was little change in Hampden County, which has an employment-residence ratio just below 1. Finally, the Commonwealth as a whole drew in somewhat more workers from other states than there were Massachusetts residents working in neighboring states, and the state's employment-residence ratio increased slightly during the 1990s.

The County-to-County Worker Flow Files from Census 2000 highlight that most workers in Massachusetts still work in their county of residence, but that the proportion of workers who commute to work in another county has increased since 1990. This coincides with the fact that the time spent commuting has grown from 22.7 minutes in 1990 to 27.0 minutes in 2000 for the Commonwealth overall. It will be interesting to analyze the changing commuting patterns at the local level once the worker flow data for the cities and towns have been released later this year.

