INTRODUCTION AND OBJECTIVES

Complete count data sets for the North Atlantic population in the nineteenth century represent a powerful new resource for analyzing demographic processes. Since the data covers the entire enumerated population, they are particularly suitable for spatial representation and analyses of sub-group populations. Migeon's work can help us understand the impact of social and economic change on places in which people live and work. This paper is a demonstration of the benefits of incorporating maps into research on the North Atlantic population in the nineteenth century using data from NAPP (North Atlantic Population Project). These data are available on-line at no cost to historians and other qualified researchers. The objectives of this paper are to introduce researchers and educators to the availability of these data for analysis and classroom use.

NAPP DATA

The North Atlantic Population Project (NAPP) is a harmonized database from the late nineteenth century comprised of census microdata from Canada, Denmark, Great Britain, Ireland, Scotland, Sweden, and the United States. Each NAPP data contains data on more than 100 million individuals, including several complete-count censuses. All the samples are coded consistently across all countries, facilitating an easy comparative analysis of historical census data of the North Atlantic world.

- The oldest data is from Mecklenburg in Germany in 1819.
- The newest is from the United States in 1900.
- Most data are complete counts of the population for that year.
- All NAPP datasets contain basic demographic information on age, sex, marital status, place of residence, birthplace, and occupation.
- Other variables of interest to researchers studying migration and social incorporation include race, language, and religion.
- A shopping cart system for extracting data limits download to those countries and cases needed for analysis.
- The mapping examples shown here analyze males aged 15-65 living in England, Norway, Sweden, and the United States and Wales.
- Migration and immigration rates for these people are shown by migration status for each country, with each dot representing a number of moves.
- Choropleth maps show the contribution of agricultural and industrial employment to each geographic subunit.

EXAMPLE 1: ONE COUNTRY, TWO MIGRATIONS

Industrial employment, migration and immigration in the United States, 1881.

These two maps show county rates of industrial employment in the United States in 1880 (measured by the percent of persons employed in industry in each county) and the distribution of internal migrants and immigrants in the same year. The maps show the impact that the cumulative decisions of individuals have on the places they inhabit. Maps as historical and social documentation of population processes are not evenly distributed across the landscape. The bunching or spread of these processes on one have widely differing impacts across counties or across counties within one nation.

- Blank spaces indicate no data available, including the Oklahoma Indian Territories.
- Native Americans were not included in the census of 1880 unless they were living off of reservation land.
- Concentrations of industrial employment vary widely across the regions of the United States.
- Internal migrants are spread across the whole landscape, settling in areas of both high- and low-concentrations of industrial employment.
- Immigrants do not settle in the south, however, where industrial employment is low.

EXAMPLE 2: INTERNAL MIGRATION IN FOUR COUNTRIES

Nineteenth-century industrial employment and internal migration in Great Britain, Norway, and Sweden.

These two maps show parish rates of industrial employment in Great Britain, Norway, and Sweden in the nineteenth century measured as the percent of persons employed in industry in each parish and the distribution of internal migrants represented by dot concentrations.

- Census of 1885, Norway and Sweden were taken in the same year and can be shown on the same map. Mapping contiguous countries shows cross-border processes more clearly.
- Norway shows the lowest levels of internal migration and migrants are concentrated in a few rather isolated places.
- Sweden shows higher internal migration rates than Norway.
- Sweden's internal migration is more evenly distributed across the country than migration is in Great Britain or Norway.
- Internal migration in Great Britain is twice as high as either Norway or Sweden.
- Industrialization is stronger and came earlier in Great Britain than the other countries.
- Differences in the economic base of the four countries is clearly revealed in their migration patterns.

DATA SOURCES

- The British Historical GIS Project, Department of Geography, University of Portsmouth, United Kingdom.

EXAMPLE 3: THREE COUNTRIES, TWO MIGRATIONS

Nineteenth-Century agricultural employment, migration, and immigration in Norway, Sweden, and the United States

These maps show the relationship between two measures of movement—internal migration and immigration—and agricultural employment. Only in the United States does agriculture act as a draw to both internal migrants and immigrants in this time period. The US, however, all of 1920 saw very low levels available to immigrants. Immigrants in this period were driven to the U.S. by the desire to own farms of their own.

- Displaying contiguous countries in this map, as with Norway and Sweden, reveals that internal migration and immigration are the same process in border regions.
- In Norway and Sweden, neither migrants nor immigrants appear to be drawn to areas of high agricultural employment.
- In the U.S., there is an almost complete absence of immigrants to the agricultural south, due to the primacy of the plantation systems.
- The concentration of immigrants and migrants in the U.S. northeast region confirms that industrial employment was also a lure for both groups of movers.

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