

Visualizing College Freshmen Migration Patterns Using Flow Mapper

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2007 SPACE Workshop

Undergraduate Course Description

► Research & Technology (GE 2022)

This course provides an introduction to the research process, including preparing a formal research paper and an oral presentation with an emphasis on the use of computer technology to design, investigate, and report research activities.

General Introduction

- ▶ The net out-migration of college freshmen from New Jersey has been described as its “special dilemma.”
- ▶ Out-migration has also been perceived to be a problem in California, Illinois, and New York.

Project Description

- ▶ Students examine the flows of college freshmen to and from New Jersey colleges using Flow Mapper from two different years.
- ▶ Generate potential hypotheses and ways to test them using research methods learned in class.

Dataset

- ▶ National Center for Education Statistics 's Integrated Postsecondary Education Data System (IPEDS)
- ▶ Contains the number of first-time freshmen at each college or university by state of residence.
- ▶ Collected biennially in even-numbered years.

Lab Exercise

- ▶ Students are asked to “predict” the largest flows to and from New Jersey.
- ▶ Students are presented with a list of flows between states to model in Flow Mapper.
- ▶ Students hypothesize about the processes that might cause the flows and how to examine them using the research methods taught in the class.

Student Learning Goals

- ▶ Content

 - Factors influencing migration

- ▶ Reasoning / Thinking Skills

 - Frictional effect of distance

 - Selecting appropriate research methods

- ▶ Technical Skills

 - Excel pivot tables

 - Flow Mapper

Assessing Student Learning

▶ Before lab

Minute paper

- ▶ Where do New Jersey students go to college? Why?

Class discussion questions

▶ Lab

Lab Report

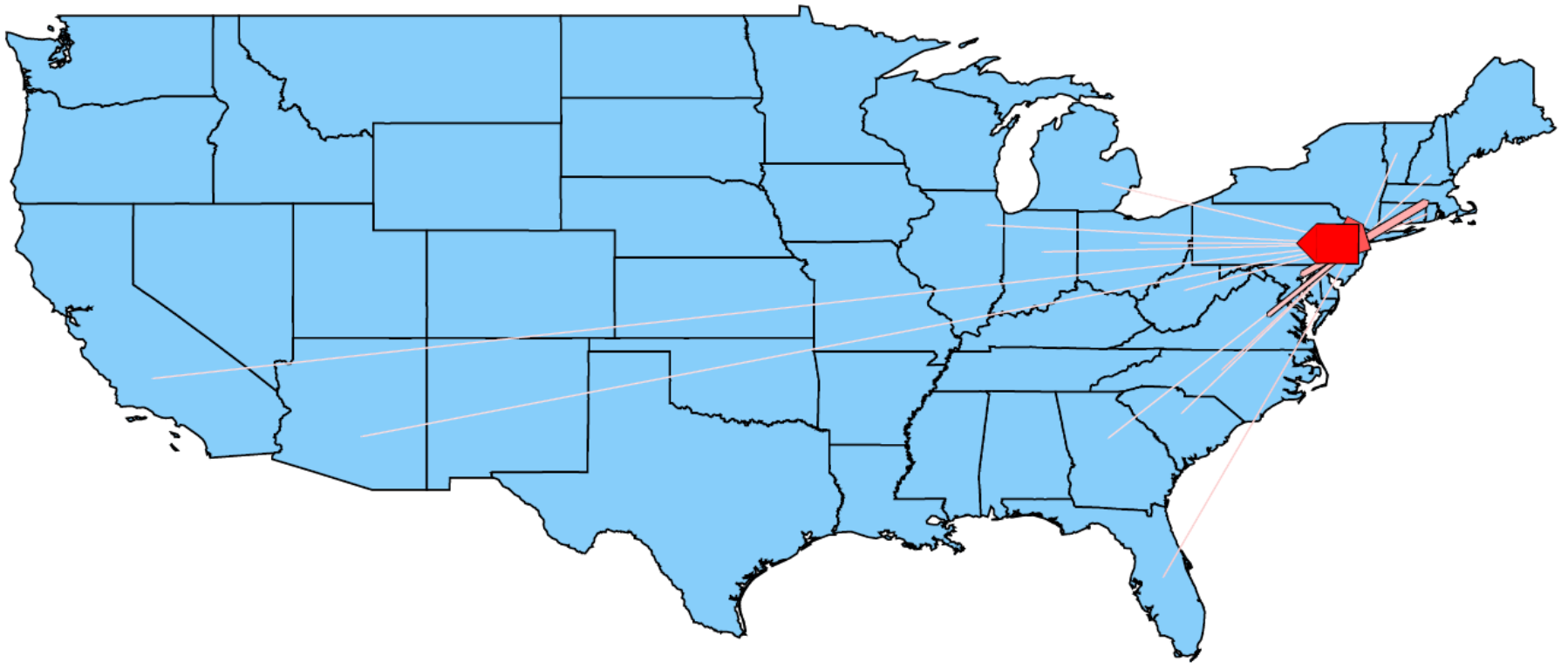
▶ After lab

Minute paper

- ▶ How can a researcher further examine this phenomenon?

Lab Debriefing

Above Average Flows from NJ



Flows to New Jersey

