## Migration GIS Lesson, Ben Bohmfalk

**Objective**: Students will use technology to map and analyze patterns of human migration.

## **Standards**:

- 1. create and interpret maps
- 2. understand human settlement and distribution patterns, including migration (push/pull factors, etc)

Introduction: Warm-up Question: Describe the migration patterns in the Americas today.

## Procedure:

- 1. Give students an overview of the lesson. The central question is "What migration patterns exist in the Americas today, and what are the reasons behind these patterns?"
- 2. Query the data set to create a GIS map layers for each of the following attributes:
  - a. net in-migration (most recent year available)
  - b. net out-migration (same year)
  - c. GNIPPP Per capita or annual income per capita
  - d. Crime rate
  - e. Top Destinations of emigrants from each country
  - f. Top source countries of immigrants to each country
  - g. One other criterion of the student's choice, chosen as a potential explanation of migration trends (hypothesis).
- 3. Compare the maps, selecting and deselecting layers to answer the following questions:
  - a. What migration patterns exist in the Americas today?
  - b. What correlation, if any, do you see between income and migration patterns?
  - c. Another question.
- 4. Students choose (or are assigned) one country in the American to research and prepare a Migration Info Sheet using GIS software. Students will present their findings at a simulated Conference of the Americas. The central questions of the conference will be
  - a. "What challenges and opportunities are presented by migration in the Americas today?"
  - b. "What general policy guidelines can the nations of the Americas agree upon to address these challenges and opportunities?"
- 5. Students' Migration Info Sheet should include the following:
  - a. A student-created map that clearly shows important migration-related information about the country
  - b. A graph of the ethnicity, by percentage, of the country's population (most recent year available)

- c. An explanation of the push and pull factors that influence migration patterns in this country
- d. A graph showing the top destination countries of emigrants from this country (most recent year available)
- e. Top source countries of immigrants to this country (most recent year available)
- f. Basic immigration policies today. Try to identify which two of the following most accurately describes the country's current official approach to the migration patterns it is experiencing:
  - i. Restrictive immigration policies (trying to keep immigrants out)
  - ii. Open immigration policies (inviting people in)
  - iii. Restrictive emigration policies (trying to make people stay)
  - iv. Open emigration policies (allowing people to leave freely)
- 6. Hold the simulated conference. Begin by asking the first central question. Allow each student to present his/her findings and fact sheet, and to state their response to the question from his/her country's perspective. The discussion should allow each student to present his/her country's information and perspective, and also allow questions and discussion among the students. Conclude the conference by drafting a policy statement and taking a vote to see which countries support it. Sample policy statements are provided below.
  - a. Essential questions for discussion:
    - i. "What challenges and opportunities are presented by migration in the Americas today?"
    - ii. "What general policy guidelines can the nations of the Americas agree upon to address these challenges and opportunities?"
  - b. Potential policy statements (sample):
    - i. The nations of the Americas will adopt more open immigration policies.
    - ii. The nations of the Americas will adopt more closed immigration policies.
    - iii. The more developed nations of the Americas will provide economic assistance to the less developed nations to reduce immigration.
    - iv. The nations with high rates of emigration will attempt to prevent their citizens from emigrating.