For your final project, you will create three atlas pages to be part of a digital Pennsylvania class atlas. You will create an atlas page on a resource, an opportunity, and a challenge. The topic areas that will be part of the atlas are shown below.

**Resources:**

- Agricultural Resources
  - Agricultural Land
  - Mushrooms
  - Apples
  - Turkeys
  - Farmland Loss
  - Agricultural land Preservation Efforts
- Economic Resources
  - Coal
  - Natural Gas
  - Renewable Energy
- Historical Resources
- Human Resources
- Land Resources

**Opportunities:**

- Public Transportation
- Industries
- Tourism
• Jobs
• Migration
• Renewable Energy
• Bioenergy

Challenges:

• Demographic Challenges
  o Aging Population
  o Urban vs. Rural

• Environmental Challenges
  o Water Pollution/Water Quality
  o Natural Gas Drilling
  o Coal Mining
  o Habitat Loss
  o Land Use/Land Cover Change
  o Gypsy Moth Suppression
  o Abandoned Mines
  o Stormwater

• Economic Challenges

• Agricultural Challenges

• Political Challenges
  o Gerrymandering
  o Commonwealth

• Infrastructure Challenges
  o Public Transportation
  o Aging Infrastructure
• Educational Challenges
  o PASSHE Schools
  o Community Colleges
  o School Districts
• Health Challenges
  o Heroin Addiction

Timeline

Task #1: Crowdsourse final project topics in Graded Discussion #1. Completed 2/8.

Task #2: Select a topic in each of the three categories – resources, opportunities, and challenges. You must select a topic that aligns with the categories above. Due 4/3.

  • Select topics, then specify what GIS data you will need and where you will find or how you will create this data.
  • Submit abstract that explains each of your topics and the data you will be using to create maps and analysis for each of your topics.
  • Get topic selections approved by instructor.

Task #3: Using the project template as a guide, storyboard your topics. What story are you going to tell? What data/resources will you need to tell that story? Remember, this project is more than creating a map – it is creating and developing a visualization that combines maps, text, and graphics to tell a coherent fact based story. Think of this as a visual research paper. Due 4/17.

Task #4: Find and/or create the GIS data you will need for your topics. Submit data. Due 4/24.

Task #5: Submit drafts of your three topics using the template provided to the project discussion board. Due 5/1.

Task #6: Get feedback/constructive criticism from your group and implement feedback into your final draft. Submit final drafts as pdfs to the Final Project Dropbox. Due 5/8.

Data Resources

Just like when you write a research paper you collect many data resources to help you write the paper, the same is true of this project. Each of you will be finding different resources to help you find or create
the GIS data you need. Our librarian, Kathleen Conley, is embedded into this course and is here to help you with your research needs.

Here are some potential GIS data resources for the topics listed above. It is not an exhaustive list, but a potential starting point.

- PASDA
- PennDOT Open Data
- DCNR Open Data
- Geospatial Data Gateway
- eMap PA
- U.S. Census Bureau
- National Historical Geographic Information System
- EDDIE

Also remember that just because the data that you need does not exist in a GIS ready format, your new GIS skills can get data into a GIS ready format. When looking for data, keep GEOGRAPHY in mind. For instance, let’s say you find a spreadsheet that has cancer statistics. Does the spreadsheet contain a field specifying location, like a county, school district, municipality? If it does you can download the GIS data for the geography then join the spreadsheet to the GIS data.