CEE 6621
GIS in Transportation

Homework #1

Yichang (James) Tsai, Ph.D., P.E., Professor
Yi-Ching Wu, Research Engineer

Tell a story using GIS data

- This is an **individual** homework.
- You will tell a story using **ESRI Story Map Series** to reveal information derived from GIS data; or to synthesize multiple data elements; or to analyze and report results.
- This is a NOT a base map. Instead, your maps should reveal some value-added information (e.g., spatial patterns or relationship) derived from GIS data.
- Some of the broad topics include infrastructure, safety, environment conservation, sustainability, etc. Within each topic you can choose to study changes, analyze patterns and assess impacts.

Tell a story using GIS data (cont'd)

- Examples of topics that were previously chosen were:
  - Demographic changes in a Georgia and their relationship with some factors
  - Land use changes or environmental changes in a Atlanta Region/ Georgia and their relationship with transportation systems
  - Pattern or relationship between demographic and transportation systems
  - Pattern or relationship between income and other factors
  - AADT maps (e.g., changes or relationship with certain factors)
  - Crash location maps (e.g., where are dangerous roads)
  - Ride quality index maps

Deliverables

- A test link due on September 13 at 5:00 pm
  - A link to your draft story map (with title). This is to ensure the link works properly. You can continue modify your maps.
- ESRI Story Map Series due **on September 16 (@1:00 pm)**
  - A link to your story map
    - Use 3 tabs/maps to tell your story logically (DO NOT exceed 3 tabs).
    - Include title, legend, description, north arrow, and scale bar in each map.
    - Write ups for each tab/map must not exceed 250 words.
  - A data source document

Deliverables (cont'd)

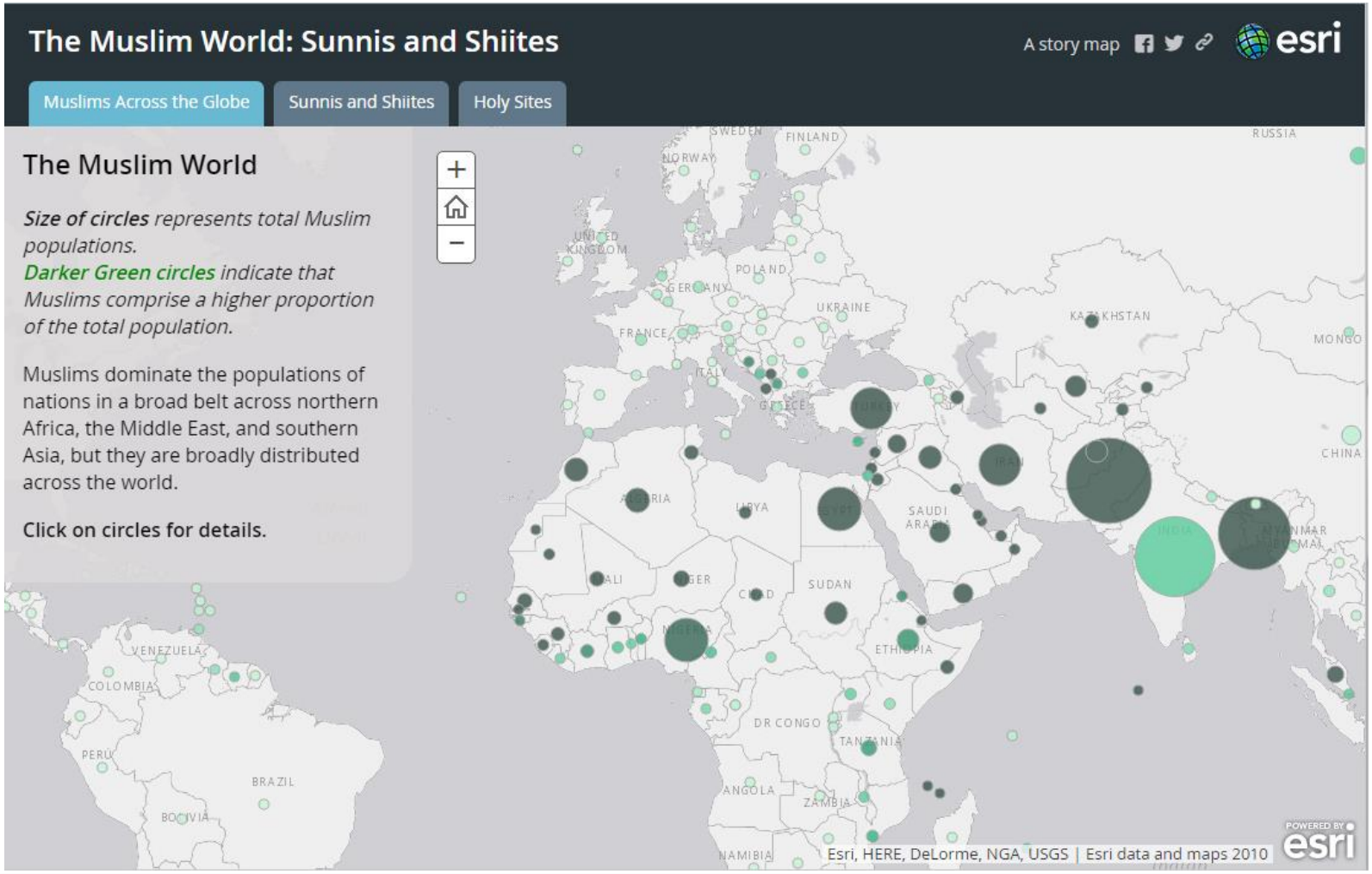
- Each student will give a brief introduction to his/her map (3 mins).
- Students will evaluate the other maps using a scoring sheet provided.
- Each student will give comments to four assigned maps.
- The best map wins a prize.

Grading Criteria

- Map story will be graded based on:
  - Clarity and completeness of map story (40%)
    - Succinct title or caption (clearly state the objective)
    - Clear and logic story (tabs/maps flow logically)
    - Value-added information (reveal some info other than show the data)
    - Usability of information as presented
  - Quality of Map (40%)
    - Map components (e.g., legend)
    - Map consistency
    - Effectively convey the information (self-explained map)
  - Data source documentation (10%)
  - Peer Evaluation (10%)

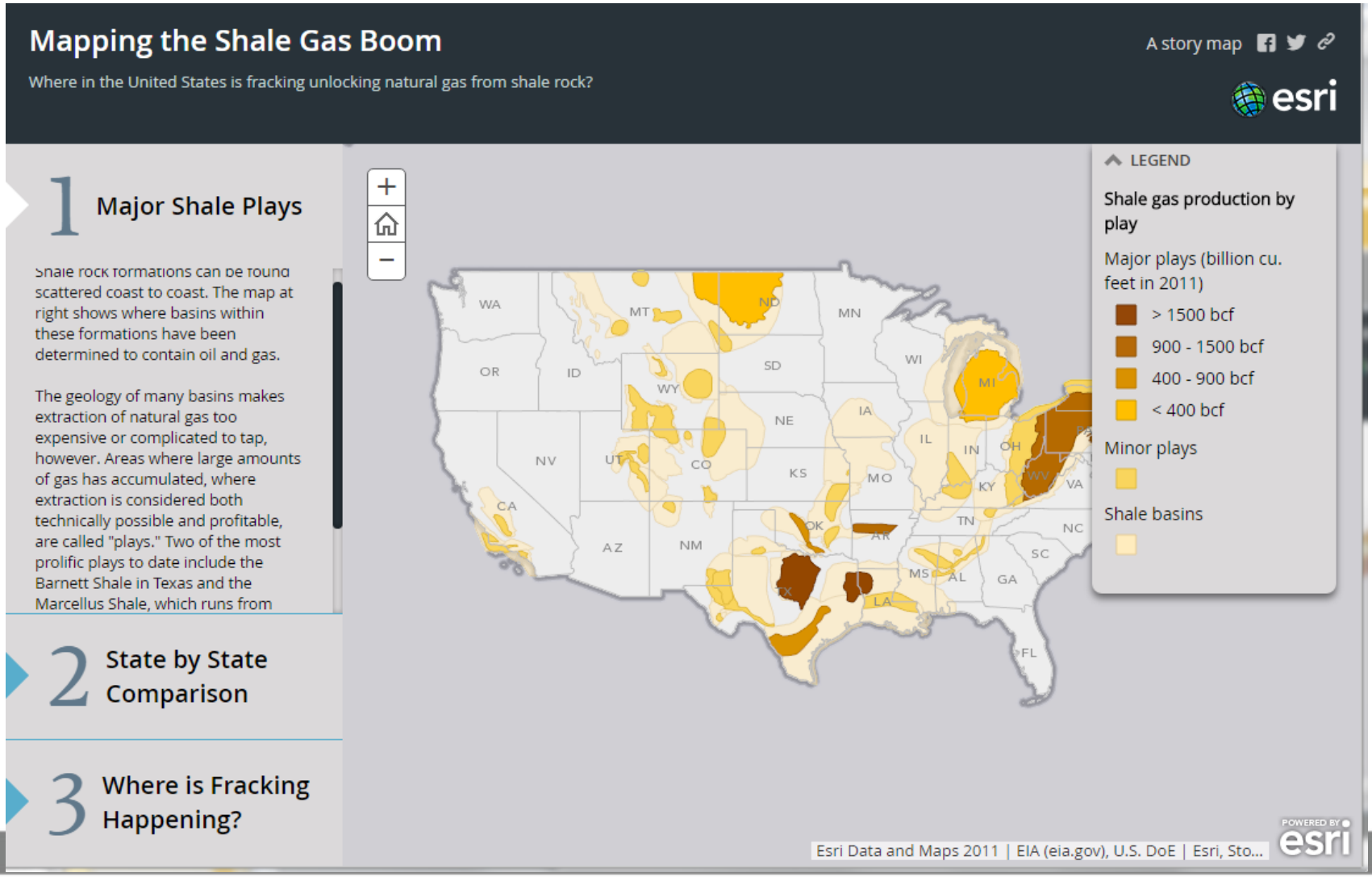
Q/A

Evaluate This Story

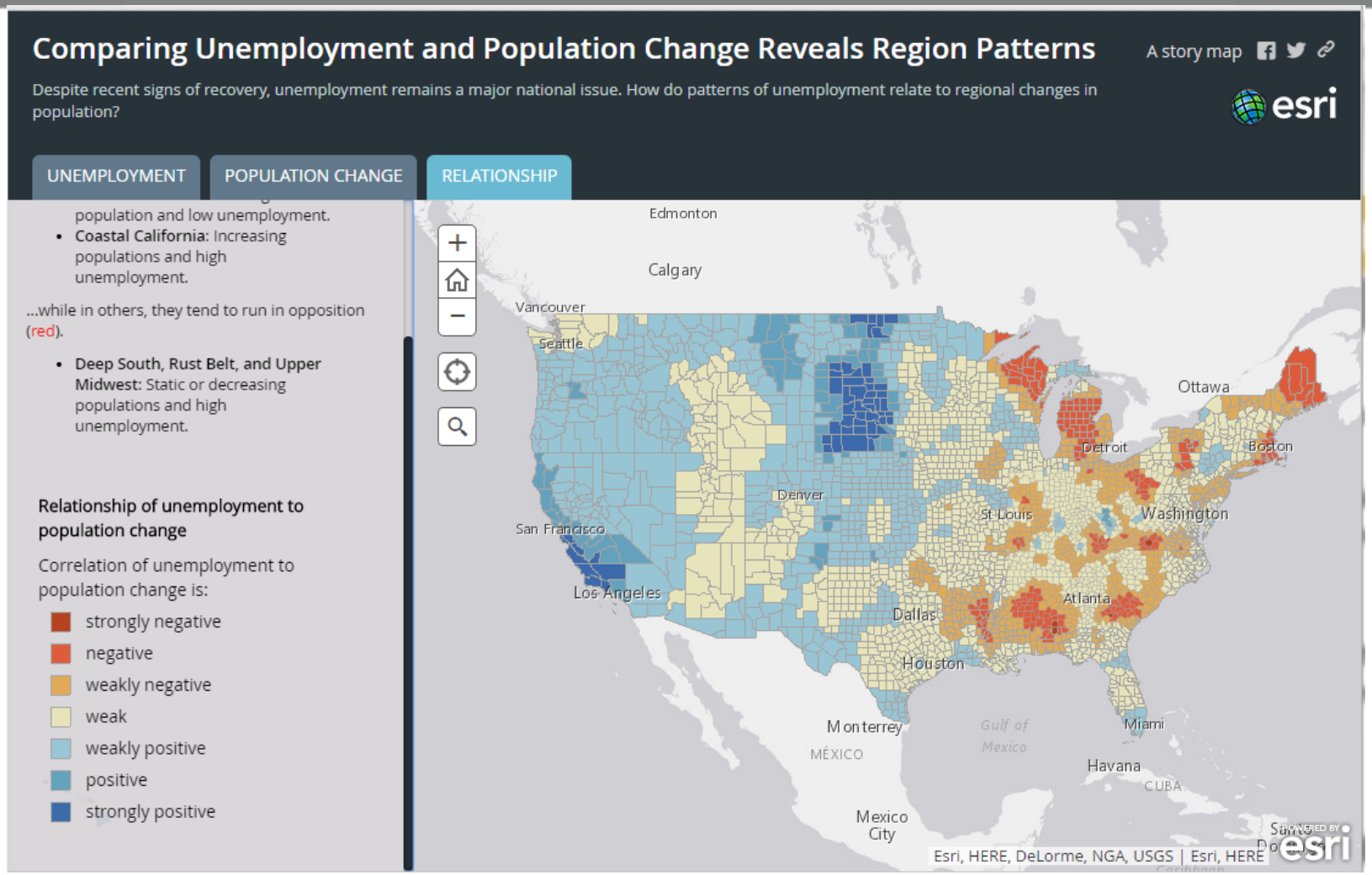


http://story.maps.arcgis.com/apps/MapSeries/index.html?appid=f2cbd5ef95d346038f554951879ca7c3

Evaluate This Story



Evaluate This Story



http://www.arcgis.com/apps/MapSeries/index.html?appid=6aab740eb5f146d0bbc073185aa726cb

Report Considerations

	Excellent	Good	Needs Work
Clarity and Completeness (40%)	Objective is clear. The story map series together provide value-added information. The series flow logically. Reveal useful (or new) information (e.g., spatial pattern or relationship) to the identified users. Critical thinking is considered in future applications.	Objective is clear. The story map series together provide some value-added information. The series flow logically. Reveal some information (e.g., spatial pattern or relationship). Considered some future applications.	The story map series together does not provide value-added information. The series do not tie together logically. Do not provide much useful (or new) information.
Quality of Map (40%)	Include basic map components. Maps are clear and can effectively convey the message.	Include basic map components. Maps are clear but some colors are not consistent among maps.	Does not include basic map components. Maps are not easy to understand. Need to check legend to understand it.
Data Source (10%)	More than 2 external data sources documented with meta data	More than 2 external data sources documented with basic information	Less than 2 external data sources documented with basic information
Peer Evaluation (10%)	Seriously evaluate maps and provide constructive comments	Seriously evaluate maps and provide some justification.	Does not properly evaluate map stories (e.g., assign equal or high score to everyone).