

Contextualizing with GIS: Geographic Information Systems and Information Literacy

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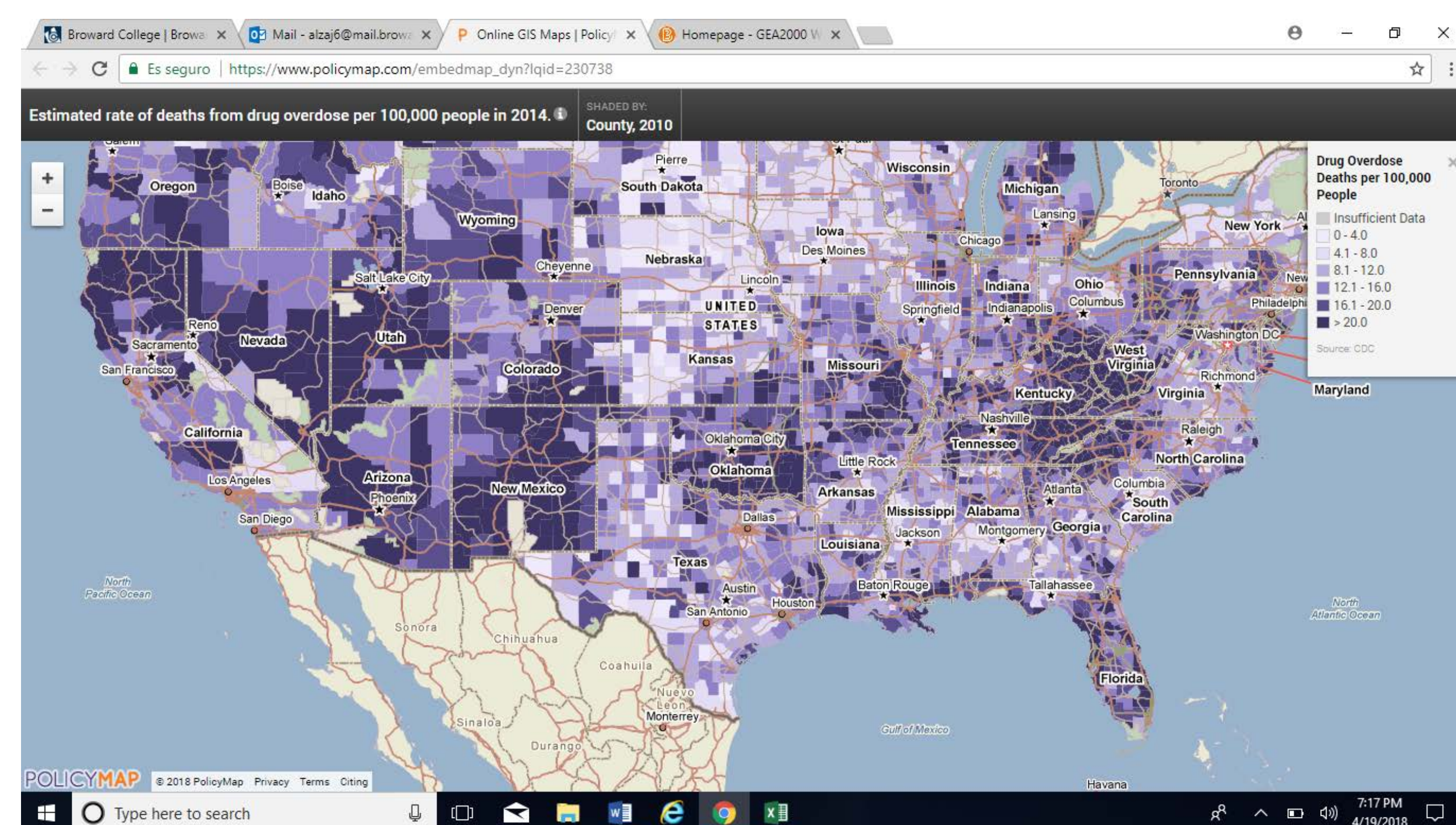
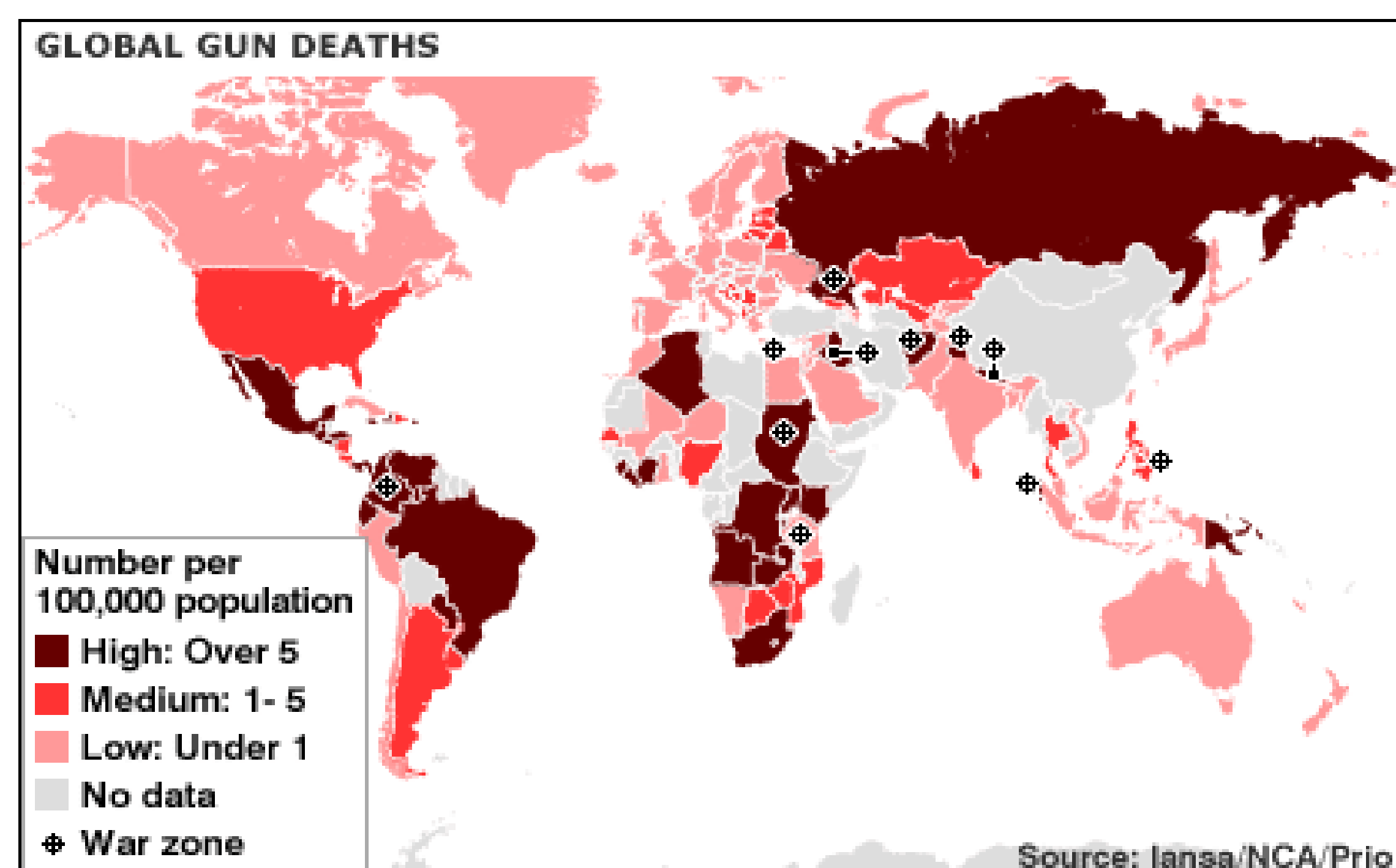
Purpose

This project integrates Geographic Information System (GIS) software and information literacy to provide innovative ways for faculty and students to learn about their local, national, and global community.

Research Questions

- What is the effect of using GIS technology in a contextualized research assignment on student's level of engagement with the assignment?
- After using the GIS technology in a contextualized research assignment did students feel there was value in using the GIS technology in connection to their Pathway?

Spring 2018 Student Research Maps



Contextualized Assignment – Mapping Analysis

Outcomes:

- Students will be able to locate, evaluate, and effectively use needed information. (Gen Ed Information Literacy competency)
- Students will be able to explain questions or issues through interpreting/evaluating information in order to develop a logical conclusion. (Gen Ed Critical thinking competency)
- Students will be able to recognize how we can affect each other, different groups, and our surroundings. (Gen Ed Global Self-Awareness competency)
- Students will be able to write effectively using clarity of language, organization of content, and supporting content with relevant and credible sources. (Gen Ed Written Communication competency)

Students will choose a topic of interest related to their career field and using GIS technology will research a thematic map (local, national, global) related to their topic. Students will then follow up with a 3-5 page paper conducting a spatial analysis of the map results. These maps should be included in the research paper. Students will analyze the results of the GIS mapping and compare the results to research conducted.

Spring 2018 Student Feedback on GIS Mapping

"GIS helps gather place-based information and digitally organized on a map to help people better visualize, question, analyze, and understand data about the world and human activity."

"...GIS is a helpful tool on showing real problematic events occurring in the area and can provide real life feedback."

"GIS links location to information. The intriguing thing about GIS is that different information can be layered onto the digital map."

"...GIS as a newly emerging technology, can help better visualize, analyze, and understand social issues such as substance abuse on a global, regional, and local scale."

"GIS could help visualize the hot spots where the very populated regions are full with HIV infected people. With that being said, it can help the treatment facilities know where to actually put their offices for the community."

Fall 2018 Student Survey and Sample Size

Student Survey:

1. Using GIS technology with the research assignment did you feel more or less engaged with the assignment?
2. After using GIS technology within your Geography course, would you be interested in taking additional GIS coursework?
3. After using the GIS technology with the research assignment did you feel more connected to your Pathway?
4. How easy or difficult was it to use the GIS technology for your assignment?

Sample Size:

- Students from five sections of GEA2000 World Geography will participate in the assignment and will therefore be our population for the sample. Potential sample size is 75.
- At the end of the fall 2018 term students will be asked to anonymously complete a survey asking about their experiences with the GIS technology and the assignment.

Innovation

Students working with ESRI ArcGIS will have exposure to a new analysis tool, which allows them to answer research questions through mapping of an issue or problem within their Pathway, with the final product allowing them to visualize the results on a local, national, or global level. Broadening access to both faculty and students to this innovative GIS software will allow for the creative use of this technology in the classroom.

References

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