

Statistics in Service of Social Justice: Projects for Math 101  
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Social Justice Issues and STEM content are two lanes on an educational highway, and traffic can move in both directions. Students who are concerned about current events and social justice can be motivated to learn STEM content in the context of empowering them to understand the issues and act on them in a more effective manner. Students who are interested in STEM content can be made aware of social inequities through applications of STEM methods and results to shed light on news stories they hear about and read in the media. Believing that critical literacy is one of the most important skills we can hope to nurture in our students, I am constantly alert for examples of ways that my content area (mathematics) can be used in the service of social justice and critical understanding of current controversies relevant to students' lives.

In this presentation I give examples of three projects I have developed for an introductory statistics and quantitative literacy class called Working with Data. The three issues tackled here are: how quantitative analysis is being used to ensure accountability and guide humanitarian efforts in Sierra Leone; understanding the controversy over estimates of Iraqi deaths, and how to assess the methods used; a critique of statistical arguments found on an anti-immigration website. Each project module consists of a series of questions to guide the students through the arguments made, and stimulate their critical thinking about competing claims, culminating in a written essay where they must state and support their own informed opinion on the topic.

I will explain how I create these modules, and how I use them as teaching tools in class. After sharing my own list of questions, I will distribute the articles and ask participants to form groups and create their own projects from these clippings.