

August 25, 2020 DEI Working Group Call

Attendees: Olivia Tabares, Anna Sjodin, Alyssa Willson, Jason McLachlan, Jody Peters, John Zobitz

Agenda/Notes:

- Let's make concrete plans for the [IPEDS](#) Analyses
 - [Survey](#) for IPEDS degree categories
 - See the folder IPEDS Analysis within the DEI Folder with the IPEDS data Alyssa downloaded, John's previous IPEDS analyses, the survey results
 - Do we want to put code for the analyses on GitHub?
 - Alyssa's analysis - matches Jason's initial categorization to the survey results. Get an average score for each category. Then weight the different subjects differently based on their scores and look at diversity weighted by subject.
 - The data are high dimensional
 - Alyssa has manipulated the data to be in a more useful format
 - Dimensions Alyssa has categorized by.
 - Data is groups by sex, ethnicity/race, filtered by top most important fields that we care about and by degree type/length for the entire time series
 - Alyssa's graph: Bachelor's degrees through time separated by sex. Really interesting.
 - We can come up with some insights and some overall numbers. It will help us to understand the field and as robust findings come out then that will be good to think about as figures.
 - Alyssa and John have added their R code to the IPEDS Analysis folder
- Strategic Plan and goals for the fall semester
 - IPEDS analysis is useful for getting numbers about the state of the field
 - Other work we can do in parallel
 - Upcoming meetings - RCN workshop next spring/summer which will be focused on education efforts
 - This goes along with DEI. Alyssa is compiling education resources to help identify where there are gaps and at the same time we want to think about ways to make the material more accessible/useful to people
 - Want to have a meeting prior to the Education meeting that focuses on Diversity issues. Then use the ideas that get developed in this Diversity-focused meeting and incorporate them in the meeting on Education
 - Assume that the DEI meeting will be open to anyone (online). Don't expect that everyone will be on the same page in the context of DEI in teaching and ecology. Important starting place is to talk about the statistics to make sure everyone understands the reality of DEI issues.

The IPEDS data could be really helpful for this as well as the lit that we have put together.

- Want to be more practical than some of the lit that covers the overarching concerns. Want to give people practical steps.
- Hunter et al 2010 paper that the McLachlan lab read - gives concrete steps
- Jason's takeaways from working with students in Diana's REU.
 - Making something real that people can work through piece by piece and take the lessons they have learned and apply can work well for forecasting since forecasting builds on itself
 - Providing examples of forecasting from start to finish. Each component can be its own lesson
 - Put it in conjunction with a need - can you connect with students doing research
 - Tutorials to explain why each step is taken
 - Concepts and understanding why we do things is more important than the code/technical part
 - Have a problem students want to solve. This makes getting through the problem more bearable. Get groups of students to work together so they can feed off each other
- RCN NEON Forecasting Challenge - each Design team will provide examples for the forecasting topics (ticks, beetle diversity, carbon/water fluxes, dissolved oxygen/temp forecasts for lakes/streams, leaf phenology).
 - This might be a place we can think about having tutorials that can help people new to forecasting understand the concepts behind those forecasts
 - 5 minute video for each Challenge that puts the topic in context for why people should care
- Another effort - come up with strategies for teaching forecasting that don't rely on the Challenge topics. Use forecasting for intro biology course to introduce the process and the ecology of forecasting
 - Resources for teaching on
- From Olivia's experience teaching biostats with R.
 - Get students to understand that machines are dumb and R will only do what you tell it to do not necessarily what you mean for it to do
 - Learn how R speaks and know how to look for help for themselves (e.g., Stack)
 - When applying R to a project then learning curve goes up
- Want to try out a few ideas to get something out there. Once you have something then it can be built on

- Can you use the IPEDS database to figure out the probability of any discipline being diversely represented in 10 years. Should be able to use forecasting skills to do that.
 - If you make a random walk, if diversity is low there is the chance to go to 0. But if there is an intervention. If you could get a sense for some of the changes we saw in Alyssa's time series plots then could get an idea of what works. Could get to this by looking at what institution made the most change. This would let us figure it out going backwards.
 - For teaching probability/stats - how to find databases that connect with students that really interest them.
 - At ND first science lab option is to look at coastal marsh system. McLachlan lab is working on module that looks at what coastal stability means for vulnerable communities
 - Bird species coming back from extinction over the past 50-70 years
 - If we can find how much leverage it takes to increase diversity within a certain field. Diana's experience increased Native American participation by 800% in one year. Small changes can mean big changes. One Native PhD can have a big influence on other students.
- DEI Bibliography - any additional materials?
 - The Bibliography is posted on [the website](#). We can add to it as we find new materials.
 - There are still 2 citations from the Strategic Plan that we need to add to the DEI Bibliography. Does anyone know the citations for a Trilogy paper or Jolly et al.
 - Jody will check with Diana for these 2 citations. If Diana doesn't have them, then we will remove them from the Strategic Plan
 - Over the next month Jody will add the DEI Bibliography references with a tag labeled "EFI DEI paper" to the Zotero EFI Bibliography. This Zotero library is publicly available and includes a number of papers people have added. And will add the link to the Zotero library to the DEI page
- Book Group general updates [The Years That Matter Most: How College Makes or Breaks Us](#)
- Kindness Project - updates from Jody
 - A grassroots group from multiple disciplines (medicine, biology, etc) that meets weekly to make academia more humane and kinder. Started at the University of British Columbia (UBC), but is gaining participants from additional universities.
 - Activities:
 - The group has received a grant and plans to work with Conflict Theatre at UBC to put together a workshop on microaggressions in the fall that anyone in EFI is welcome to participate in.

- Drafting article for the Canadian Botanical Association on how to incorporate kindness into classrooms
 - Anyone is welcome to join the calls. They are weekly at 2pm pacific time. Contact Laura Super to be added to the email list.
- Anything else for the group to focus on? Anything related to the RCN NEON Forecasting Challenge?