

Inside the Ivy: A Glimpse into the Undergraduate Life at Columbia

A Visualization

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We've spent our whole college careers at CU,
so we want to shed some light on what it's
like to be an undergraduate in Morningside
Heights.

Don't recognize us from the usual QMSS festivities? That's because
we're invaders! Sam's a CC/QMSS BA/MA student, Maneeza's a Psych
PhD student who got her BA from Columbia GS, and Yeji's a fab CC
transfer from Wesleyan.

Let's head into the roller-coaster-like road of a CU undergrad. Today, we're interested in...

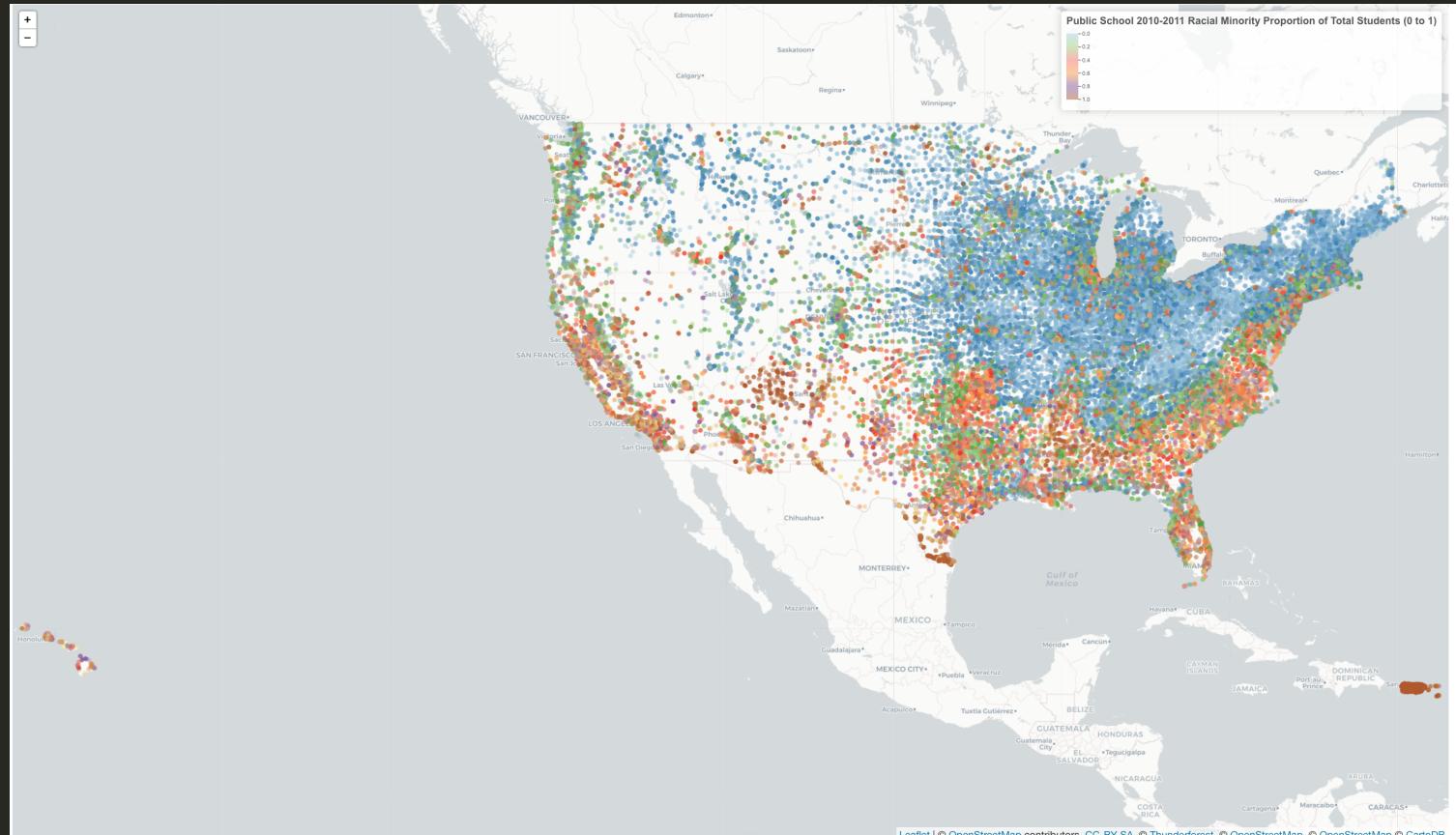
- a. Where do our undergrads come from?
- b. What does ethnoracial diversity mean to young-adult students and how does diversity manifest in social networks?
- c. What developmental socio-ecological factors might influence long-term attitudes toward cultural diversity?

d. What groups occupy more central positions within a closed network?

- e. How can students become more aware of marginalization of their peers?
- f. Can exposure to outgroup members help foster tolerance and acceptance?
- g. Can an introductory psychology course act as an intervention, increasing how much they discuss diversity?

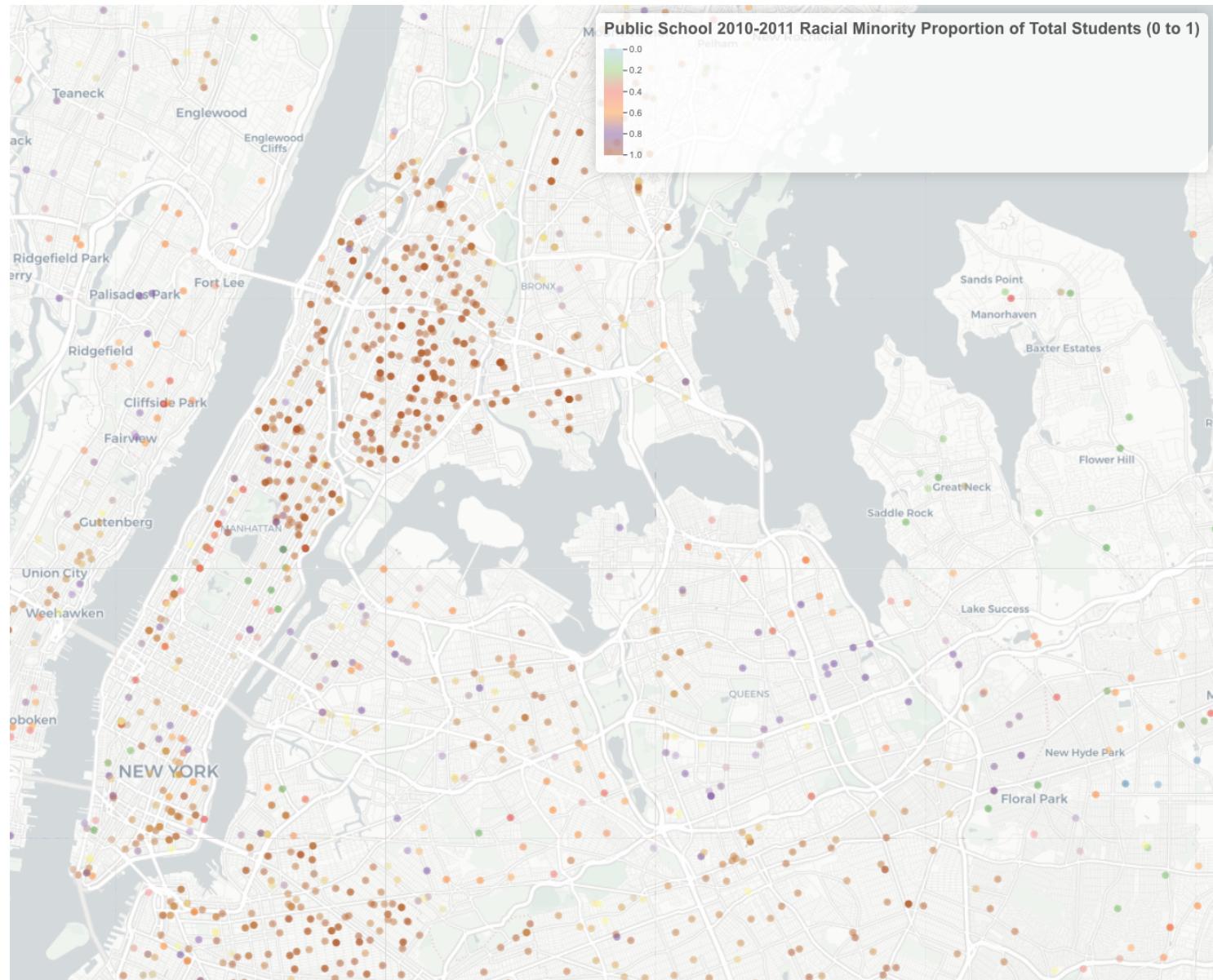
All Columbia students had to start their academic pursuits somewhere. Perhaps they matriculated after nearly two decades in the public school system...

Racial diversity is concentrated in small pockets here and there, pre-dominantly on the coasts and in major cities. Our pop-up info gives us some additional background information about our plotted schools.



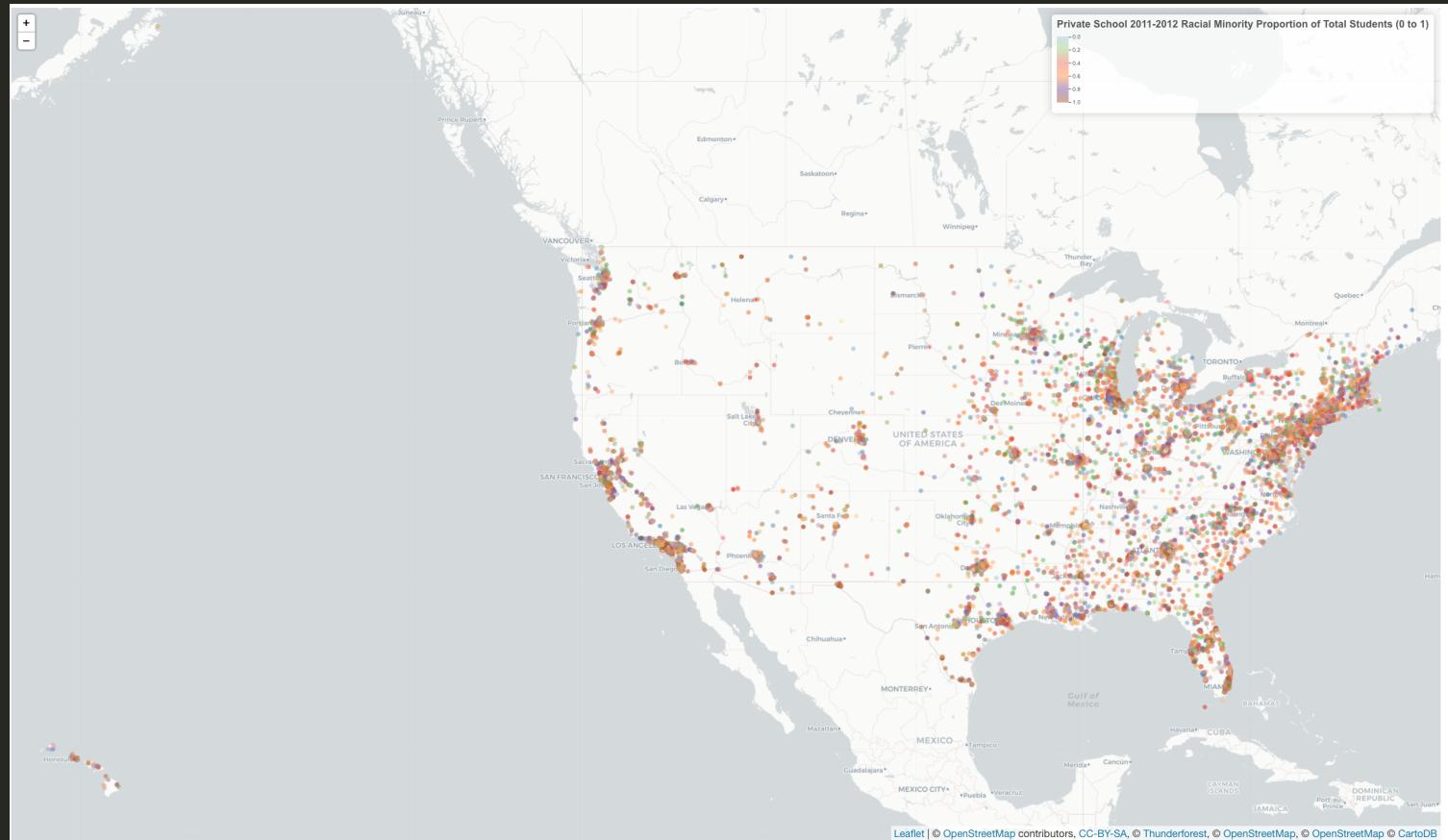
full interactive visualizations are available on: [gitub.com/srhoods/projects](https://github.com/srhoods/projects)

A close-up on the Big Apple!



Or, perhaps they stuck it out through the private school life.

NCES's Private School Survey (PSS) released demographic reports for 2011-2012 (nearly the same period as our public school reports). It's evident there exist many fewer private than public schools in the United States, though the racial diversity of public schools is no match for the more elite and usually costly private schools.



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A close-up on the Big Apple!

So, where did Columbia students attend secondary school? Private schools? Public schools? The coasts?

It seems as though Columbia matriculators come primarily from the diverse hubs of the country. But what do these hometown socio-ecological factors mean for perceptions of racial variation in day-to-day life? Answers to come!

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Today, we want to take a look at the past, present, and predominant perceptions of CU students' diversity attitudes at social networks.

Maneeza will now take it away!

Little old Columbia sits right above Manhattan's Upper West Side and it's home to some of the most studious students in the nation. After all, it's rated by some prolific media sources as the US's most academically stressful university.

The cultural psychology course

Participants in this study included 126 Columbia undergraduates

Students in this class learned about research on culture, diversity and intergroup relations

Students were also assigned a group project for the course, which included an ethnographic assessment of a NYC based company or organization.

surveys were collected at the start and end of the semester, examining:

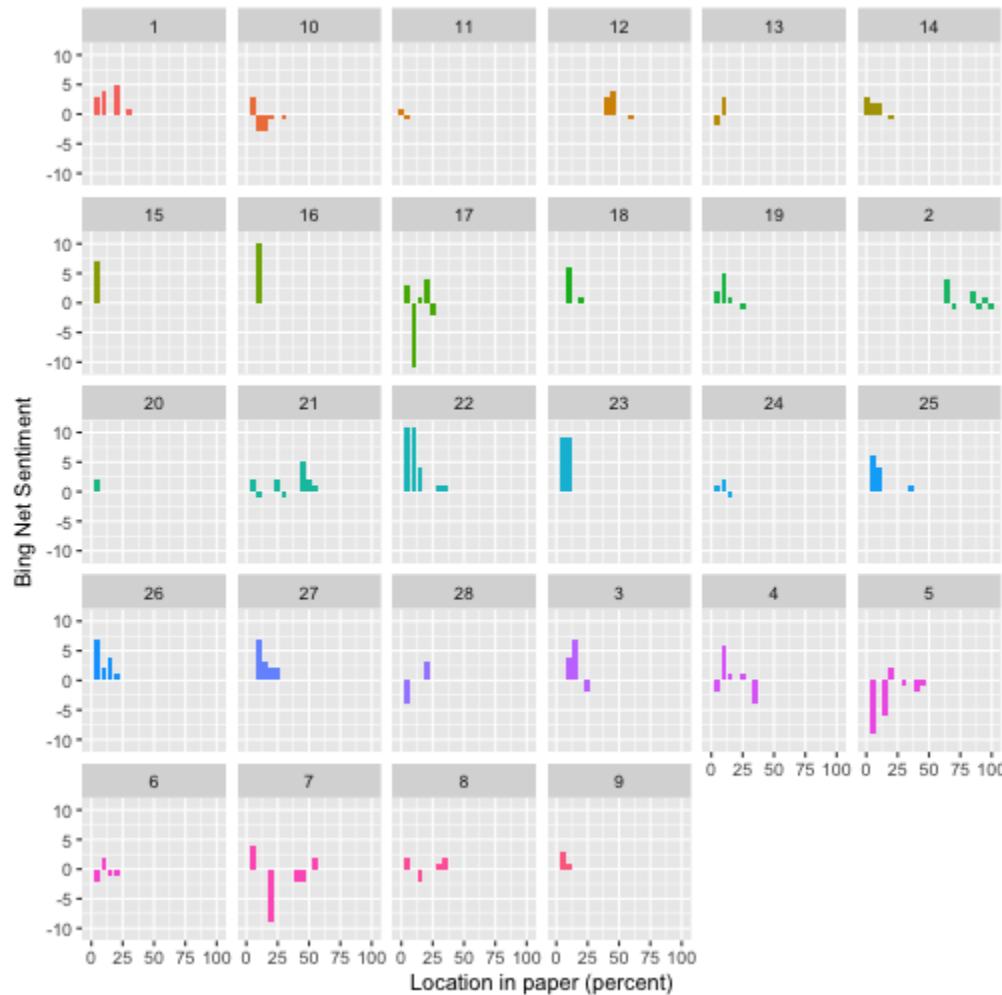
colorblind and multicultural attitudes at the start and end of the semester

networks at the start and end of the semester

What did students discuss in their group project proposals for the class?

A word cloud visualization centered around the theme of diversity and inclusion in education. The words are arranged in a grid-like structure, with larger words representing more frequent topics. The colors of the words vary, creating a visual hierarchy. The central words include 'diversity', 'program', 'student', 'school', 'will', 'differ', and 'york'. Other prominent words include 'cultural', 'opportunity', 'address', 'well', 'plan', 'project', 'community', 'question', 'observe', 'film', 'work', 'explore', 'understand', 'interest', 'goal', 'focus', 'class', 'also', 'look', 'bias', 'investigating', 'company', 'children', 'aim', 'new', 'research', 'process', 'organ', 'gender', 'help', 'study', 'increase', 'ask', 'inclus', 'promot', 'include', 'language', 'parent', 'citizen', and 'will'.

Sentiment analysis by proposal

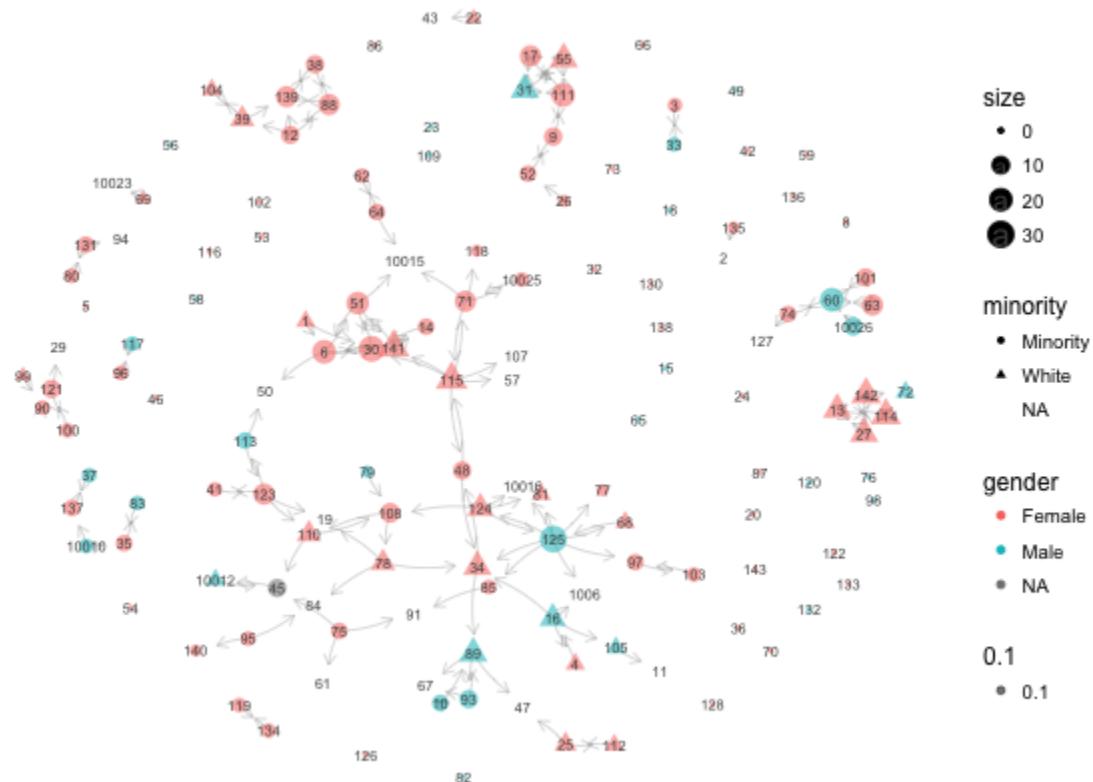


Do people actually interact with each other and form new ties throughout the course of the semester?

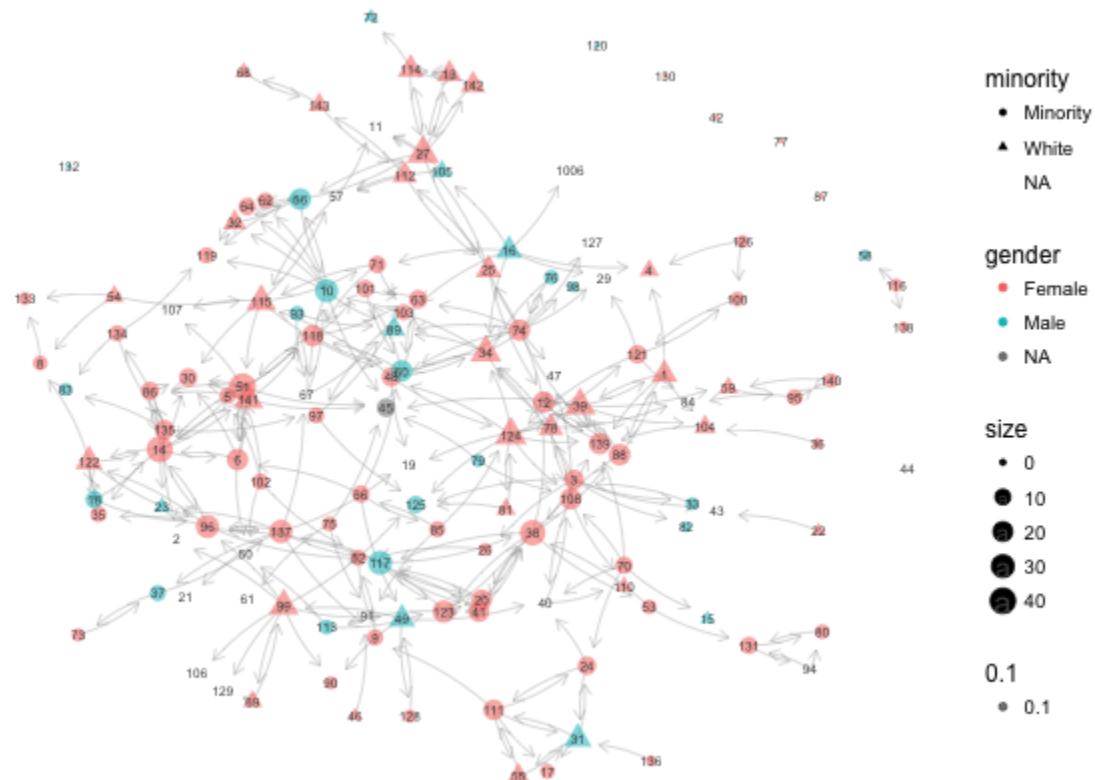
Friend Network

We first created students' friend network. Basically, participants were asked to give the names of people who they consider to be their friends, and rate how close they feel to each person that they listed.

Start of the semester



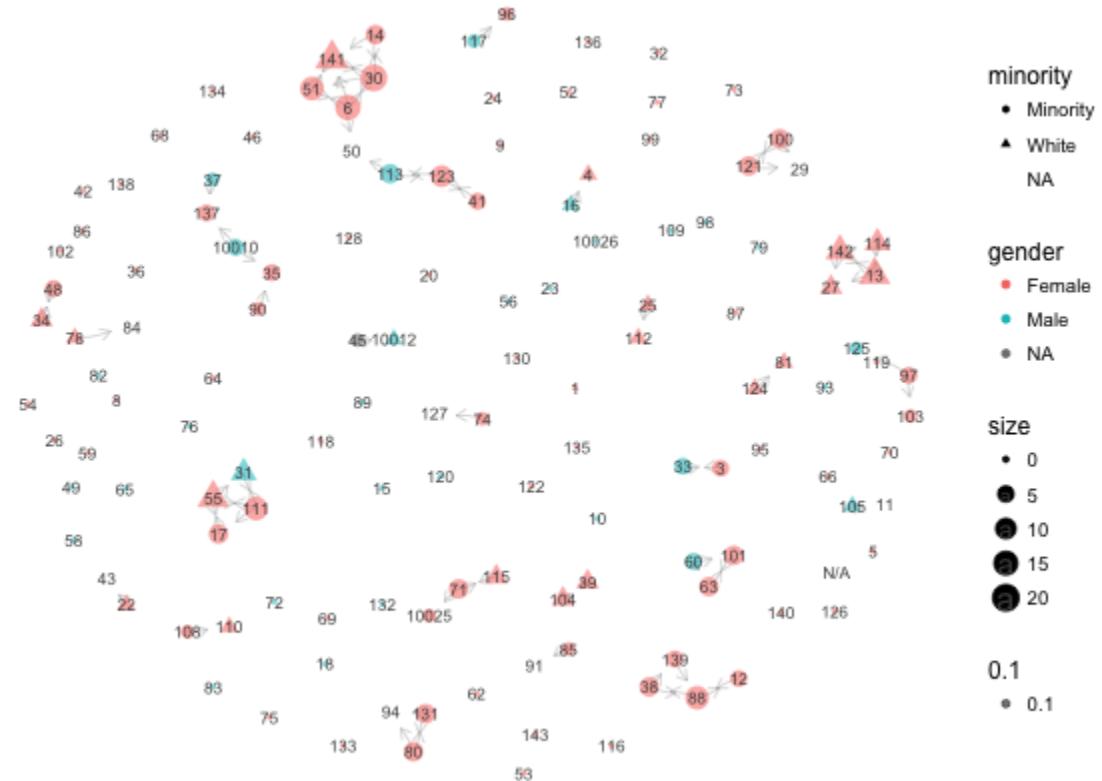
End of the semester



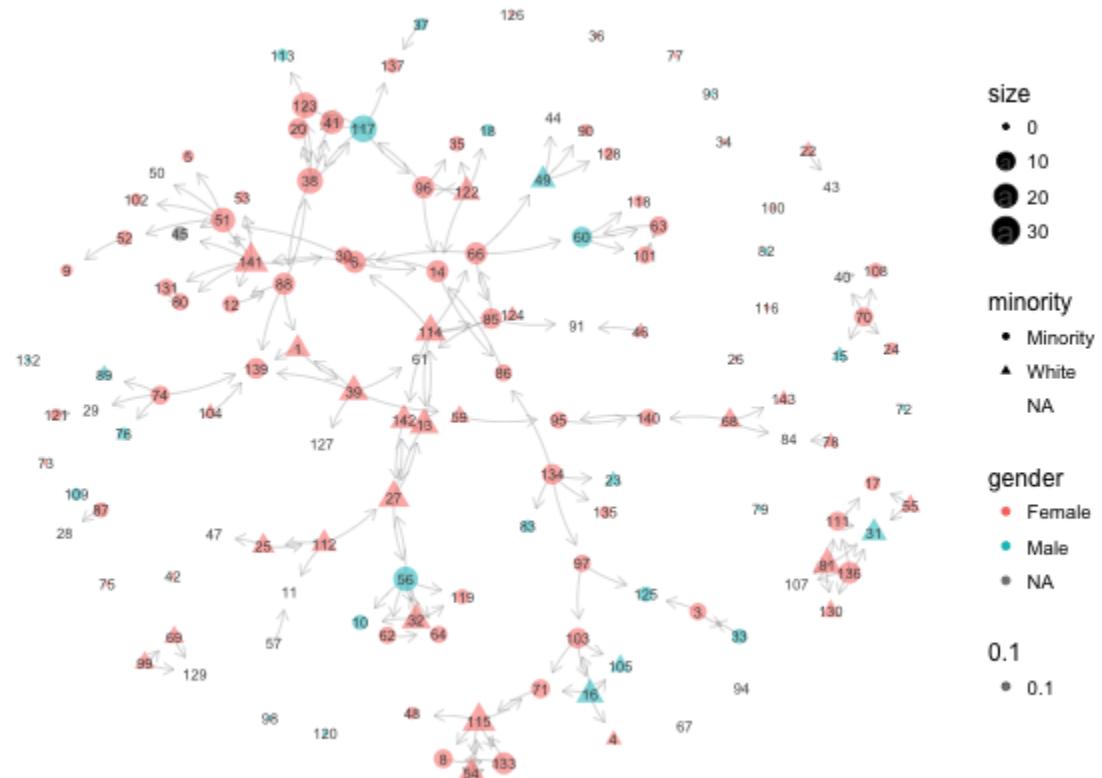
Study Network

While friendship is one major type of social relationships, it may ironically not reflect the actual ties; after all, everyone has different standards about who counts as friends. A more concrete network would be the study network (in which participants are asked to give the names of people who they study or do work for class together), because study partnership requires people to actually spend time together.

Start of the semester



End of the semester



What groups occupy more central positions within a closed network?

Friend network at the end of the semester

Study network at the end of the semester

What groups occupy more central positions within a closed network?

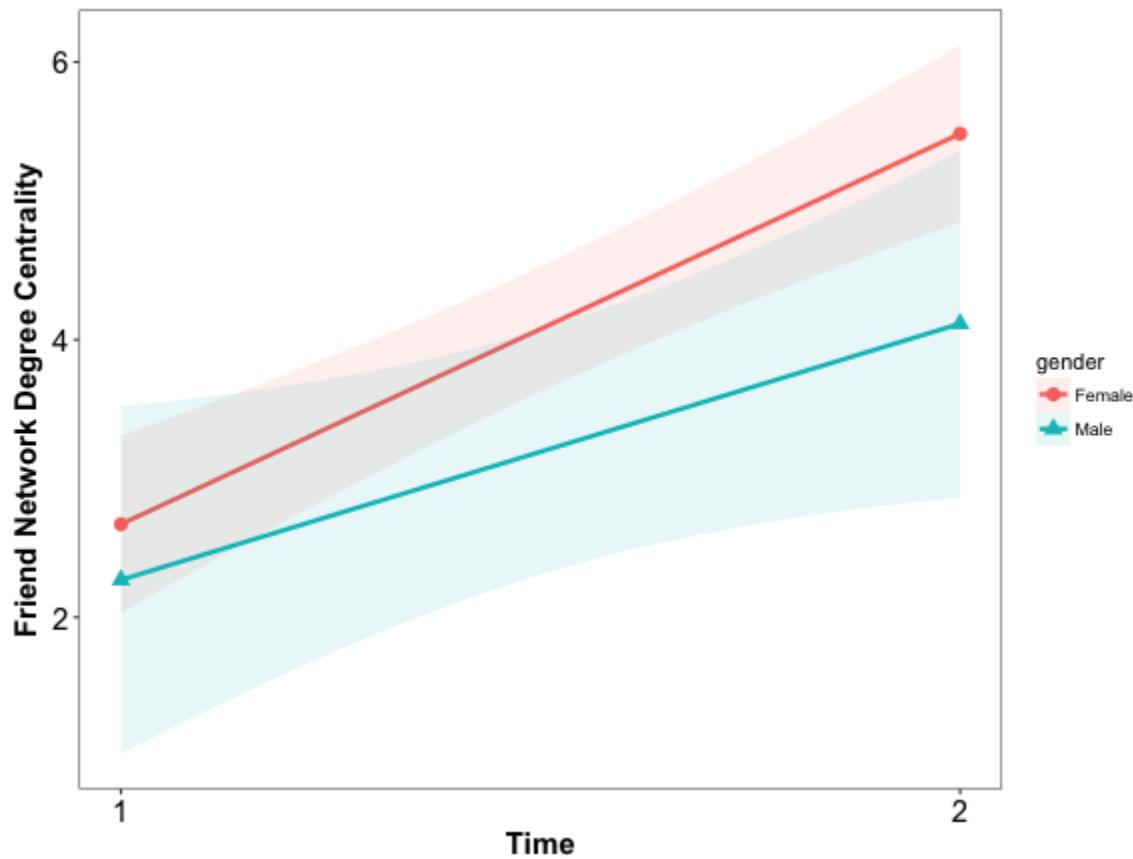
While the network visualizations provide some information, e.g. the size of the nodes indicating that women seem to be more central than men, simple ggplots that compare the means of different groups do a better job.

So let's look at them!

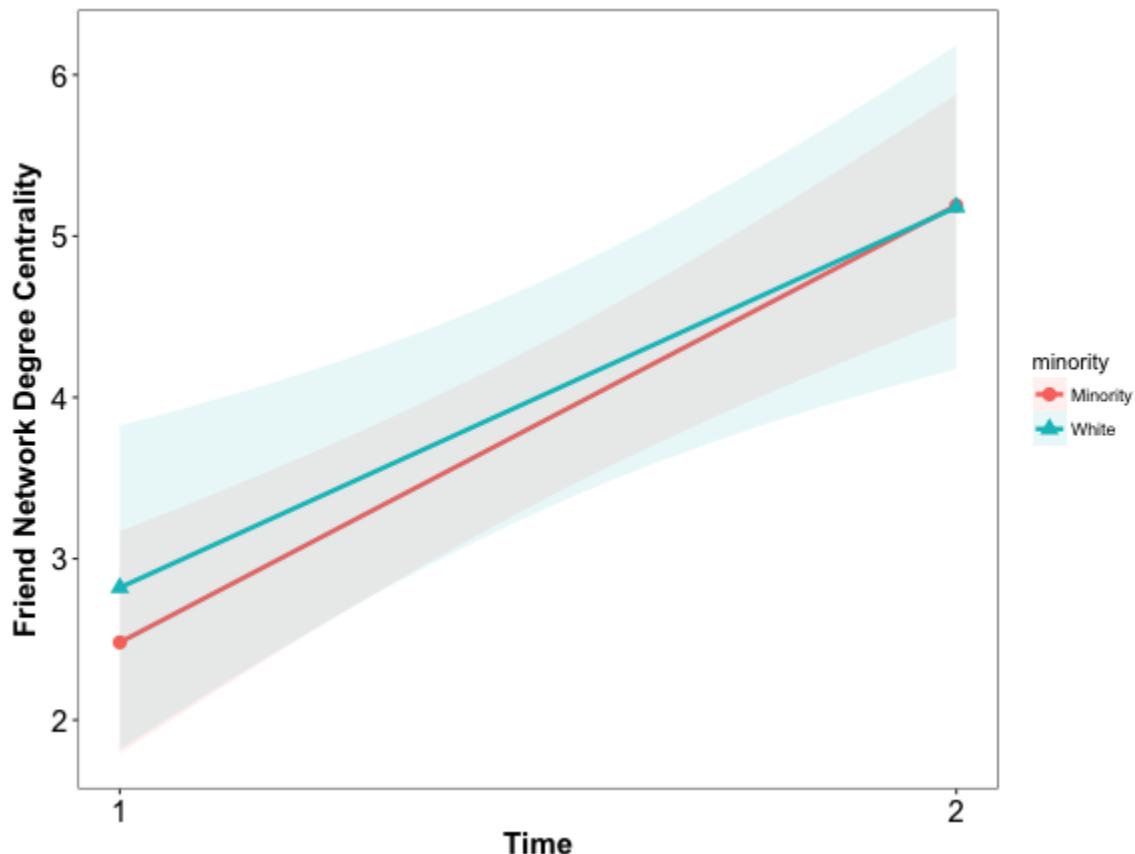
Let's first look at degree centrality - this is the total number of ties that each individual has, and is often considered as an index of direct influence.

Friend Network

Is there any difference in degree centrality by gender?

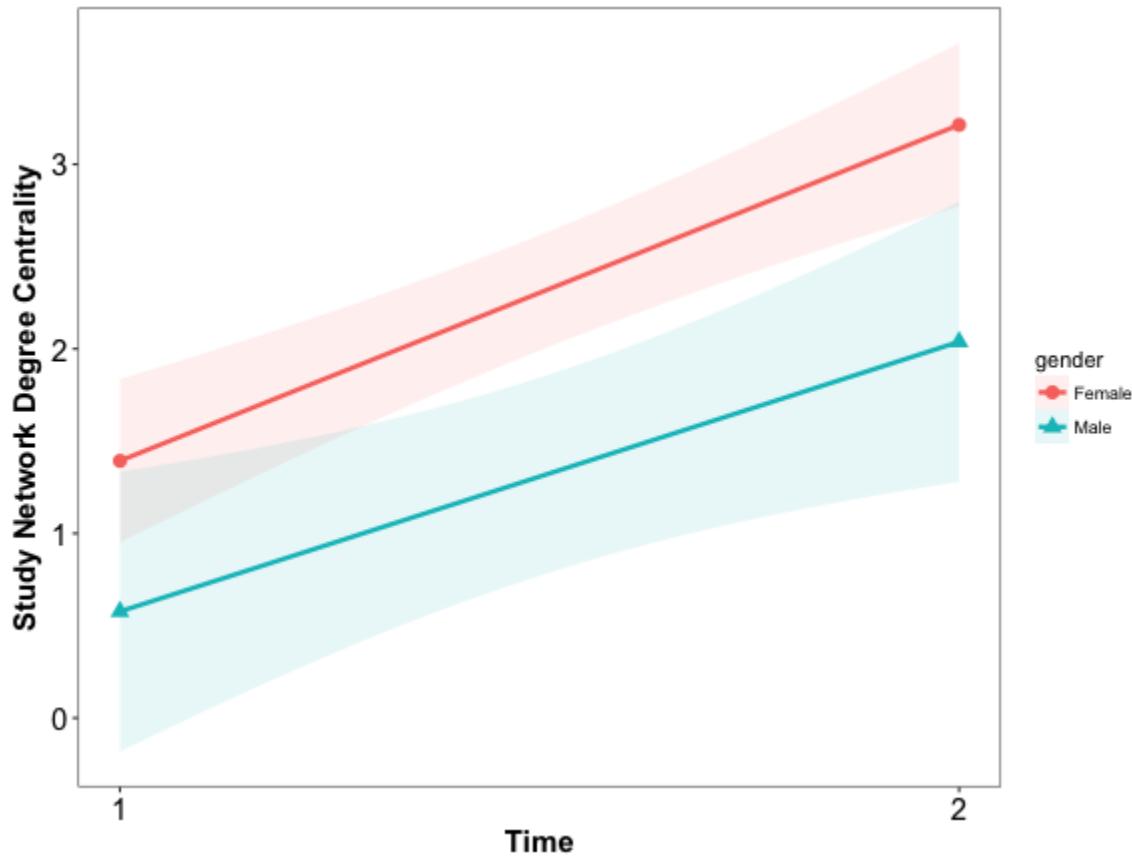


Is there any difference in degree centrality by minority status?

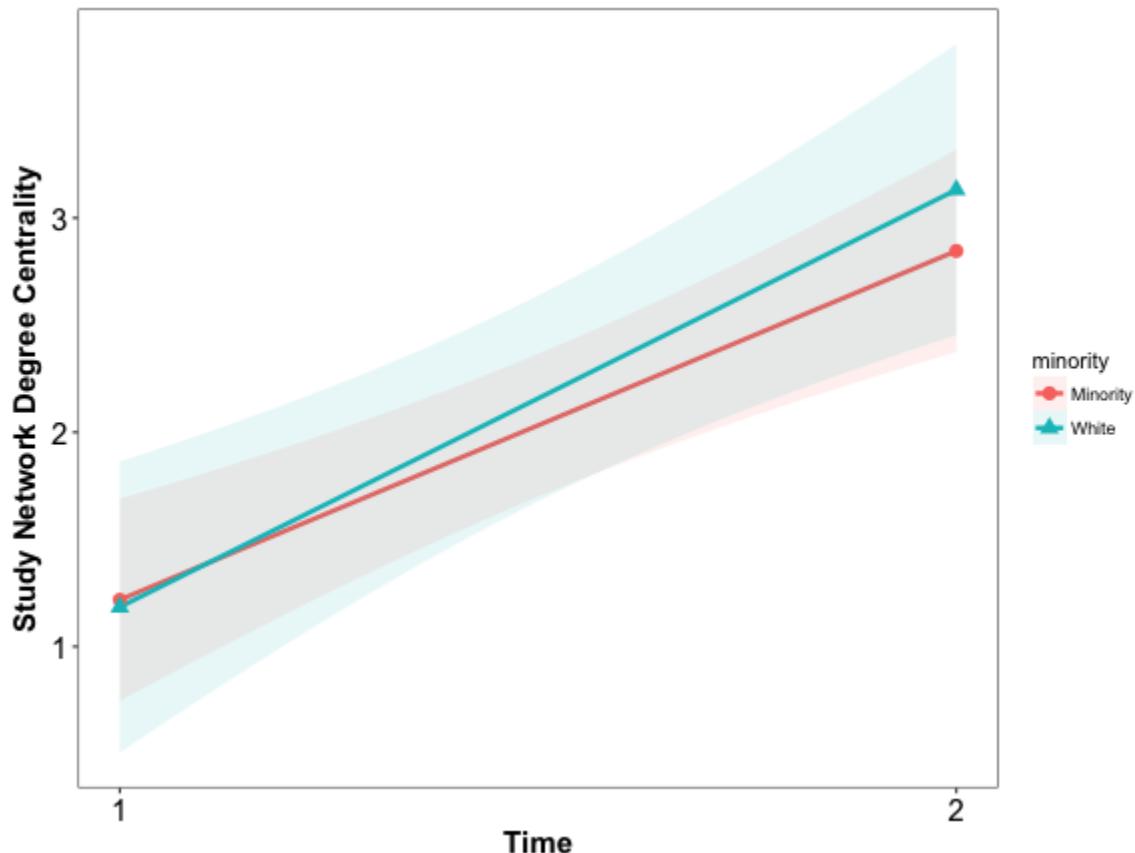


Study Network

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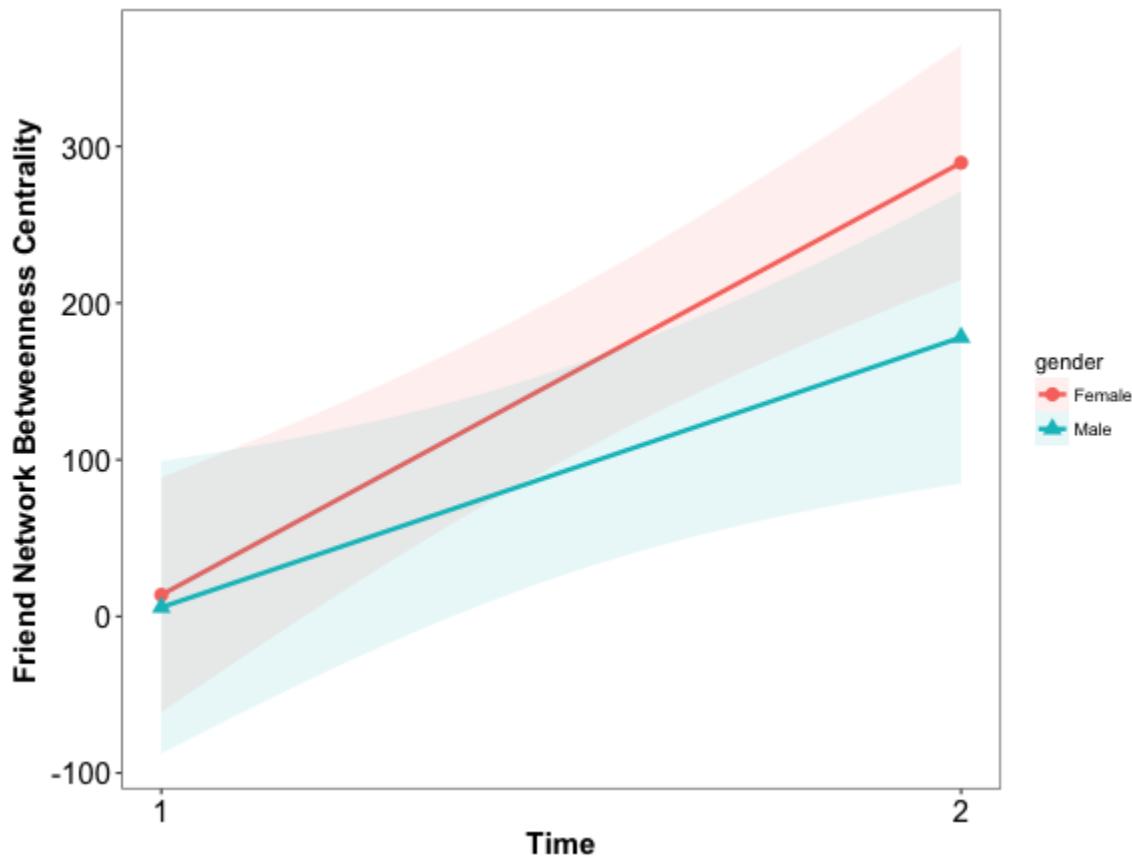
Okay, women tend to be more central in terms of degree centrality.

What if we use a different measure of network centrality? Do results change?

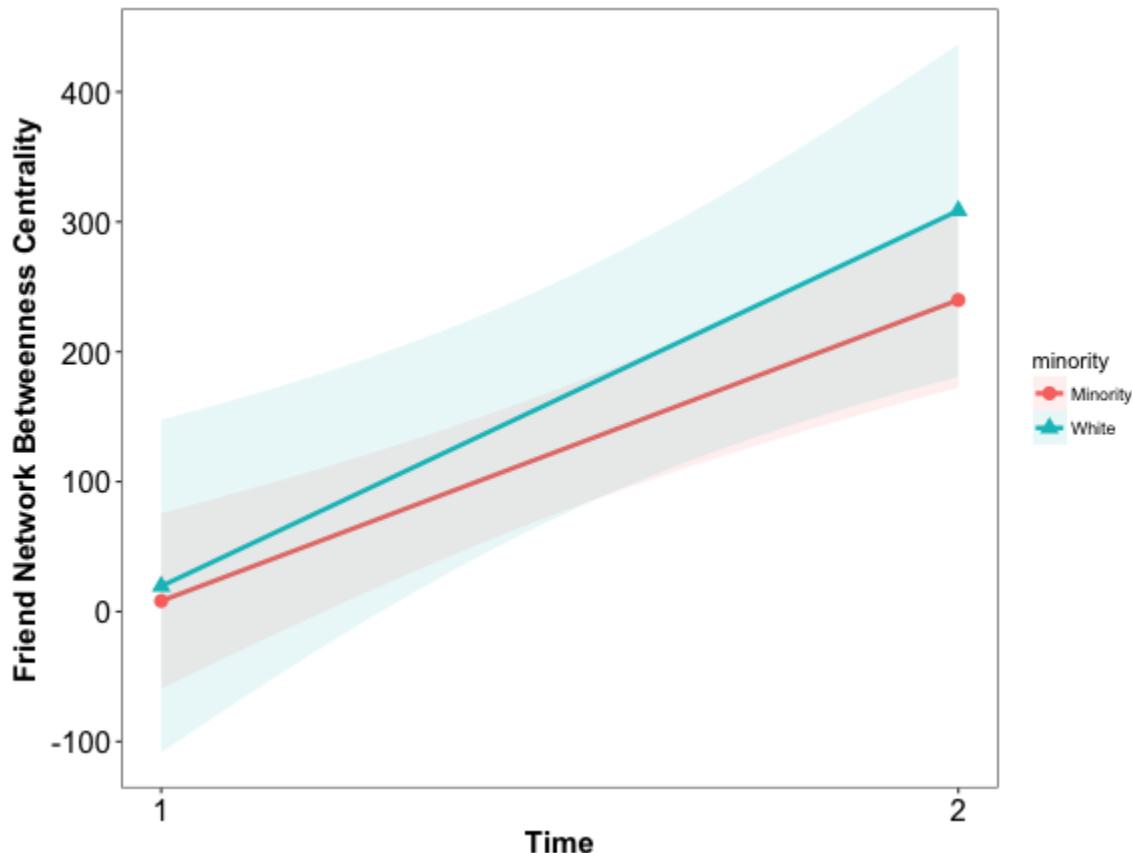
Betweenness centrality quantifies how often each participant sits on the shortest path between two other individuals in the network, and is often thought of as a measure of the ability to control information flow through the network.

Friend Network

Is there any difference in betweenness centrality by gender?

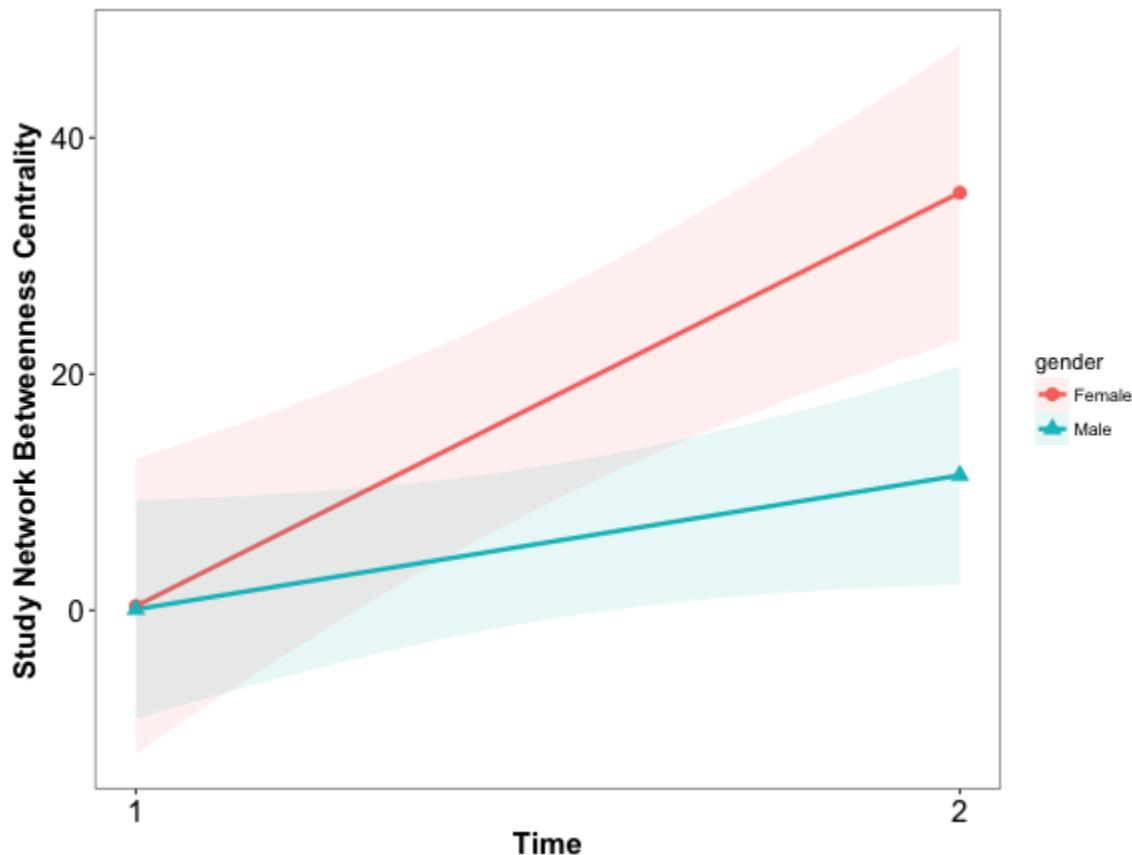


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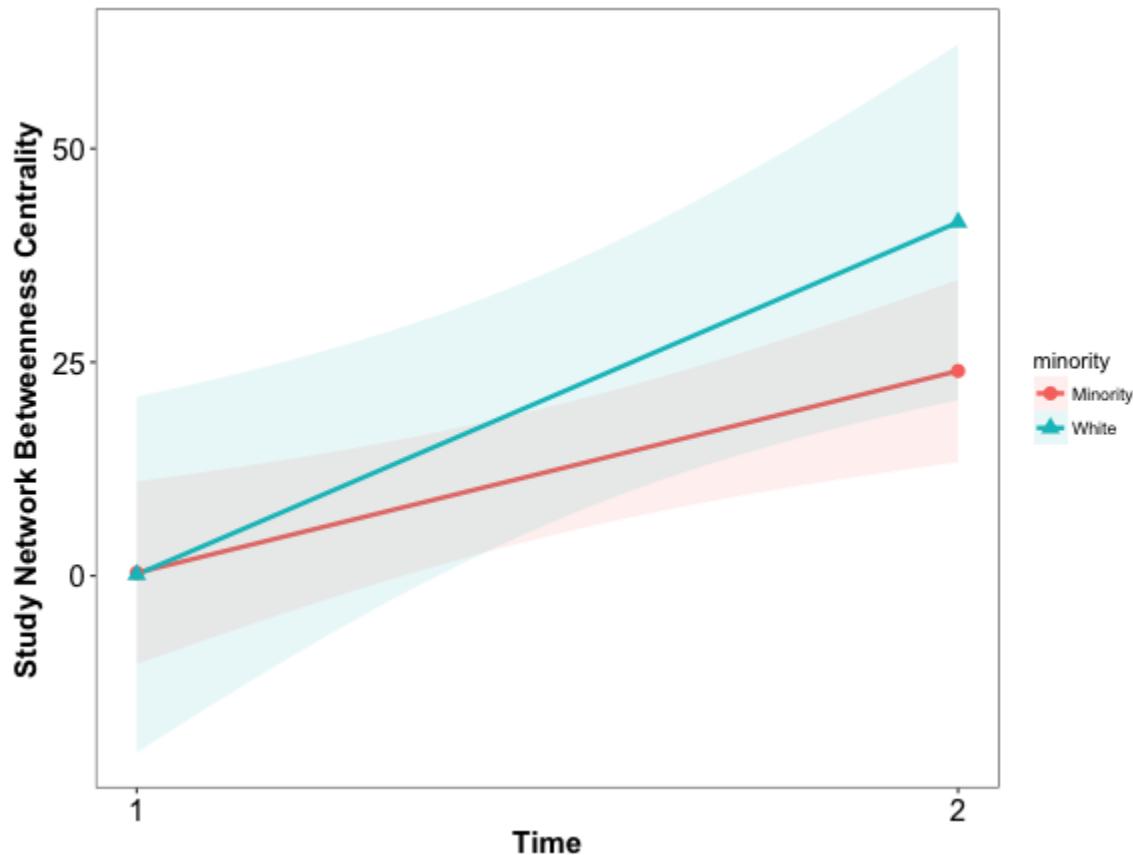


Study Network

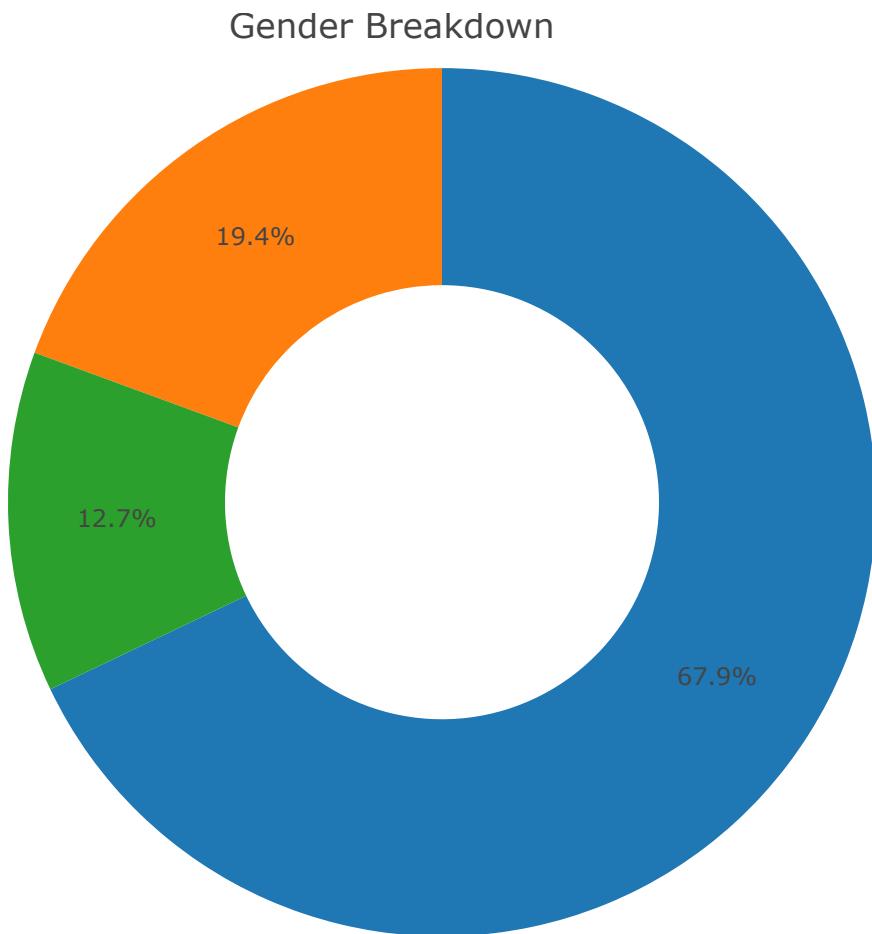
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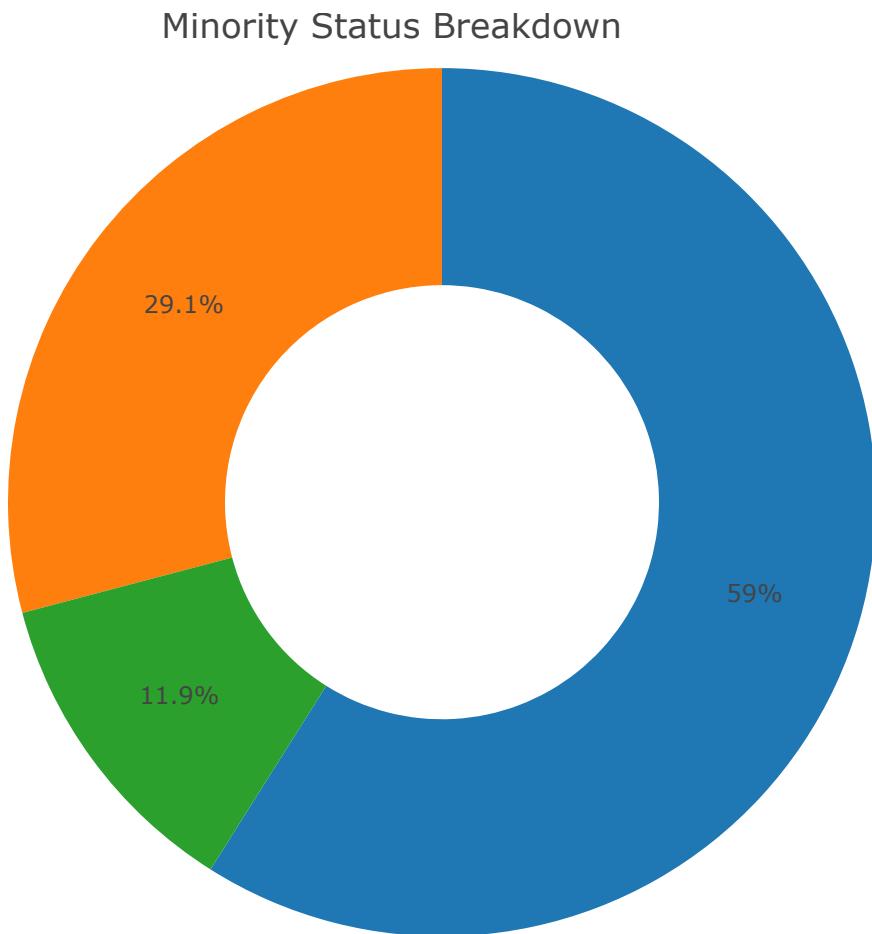
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Does this have to do with demographic composition of the class?



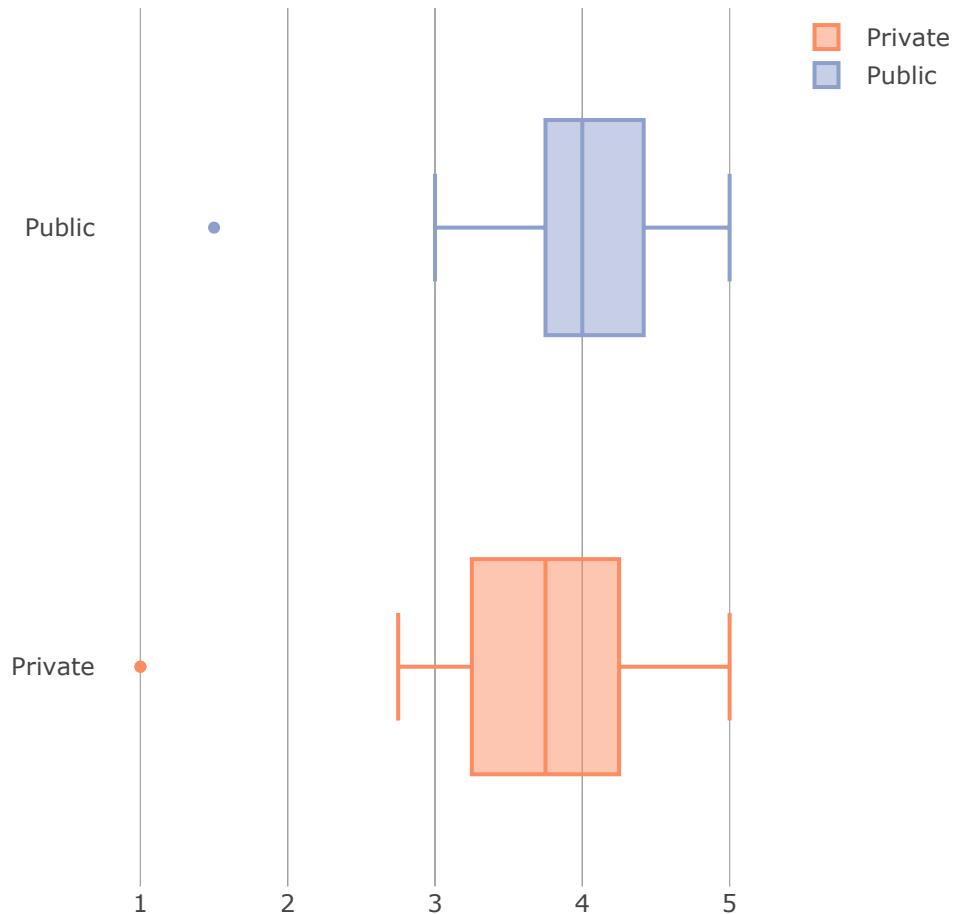
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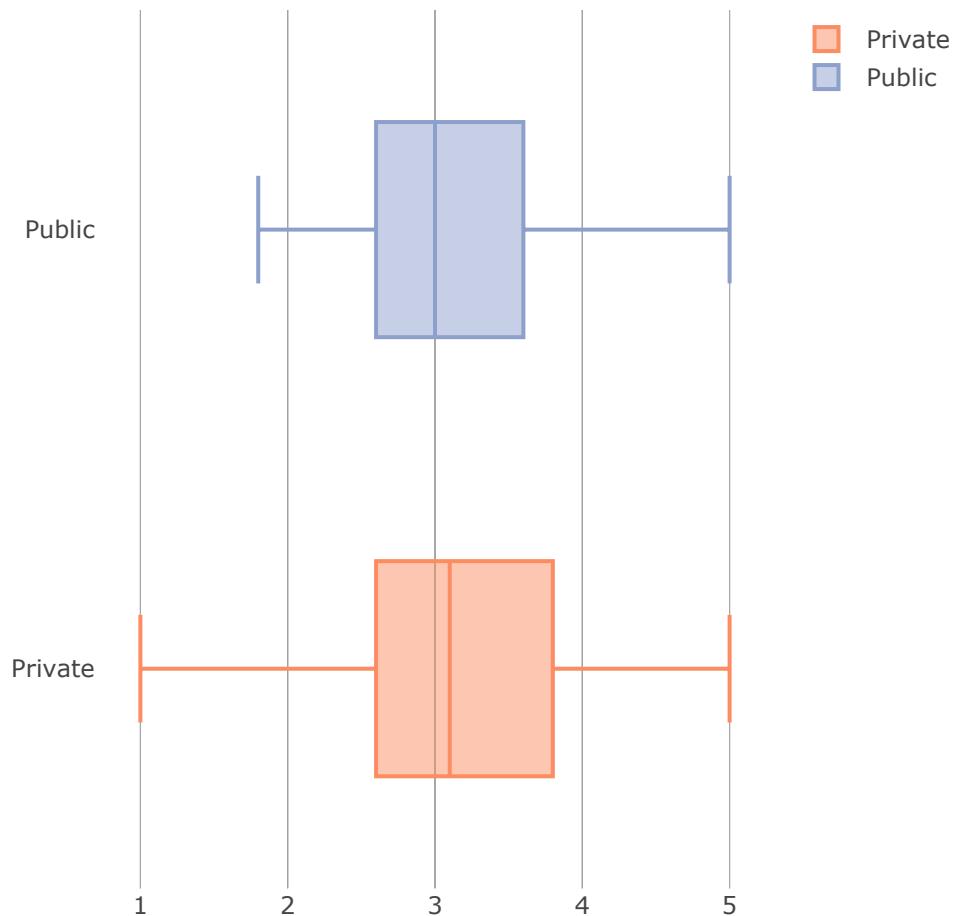
Now we know who are more central in the network!

But we want to delve deeper into the network composition. Who are people friends with?

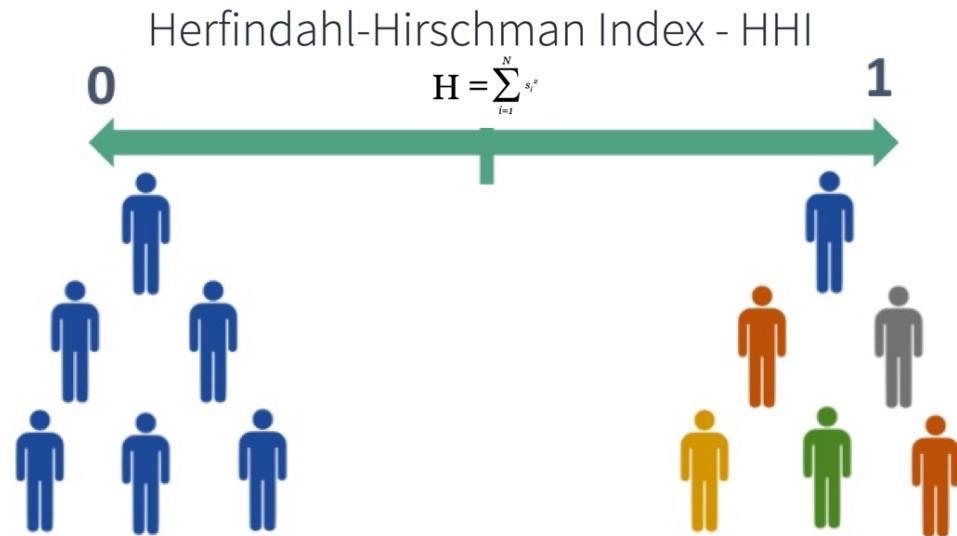
Who is multicultural?



Who is colorblind?

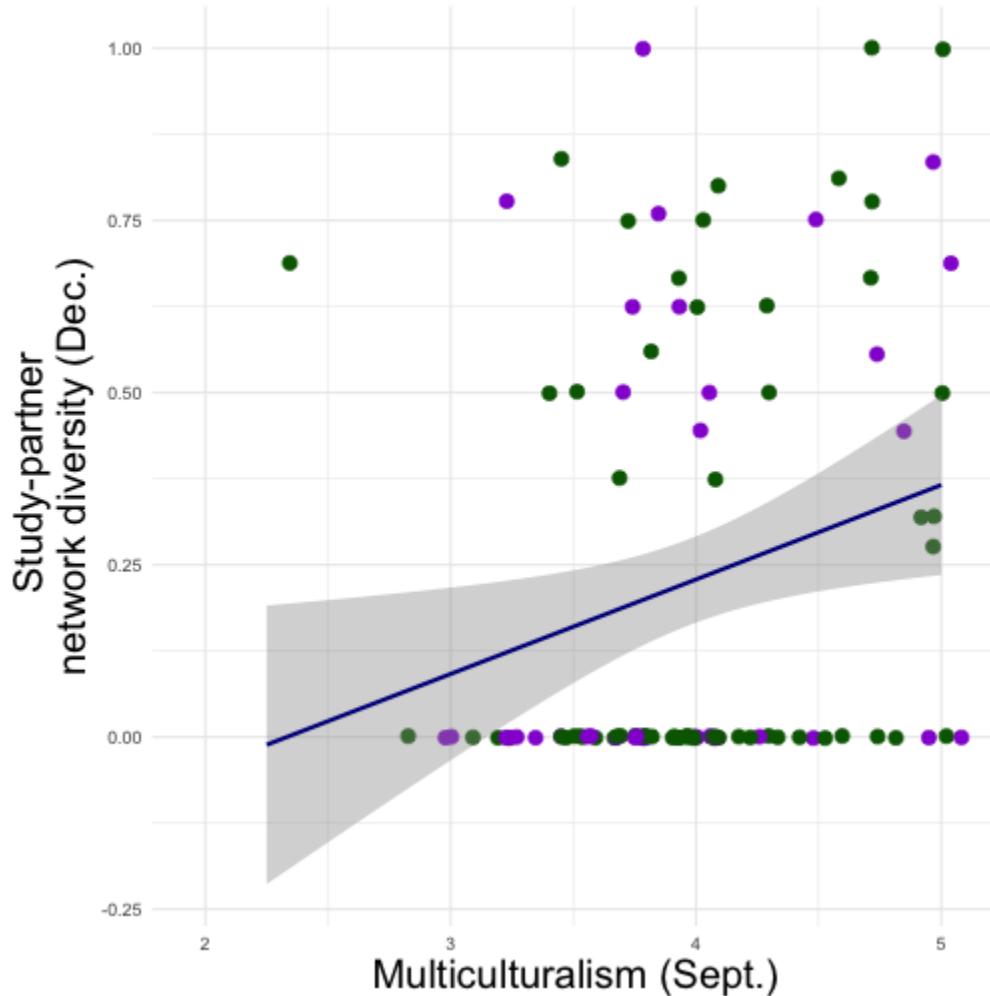


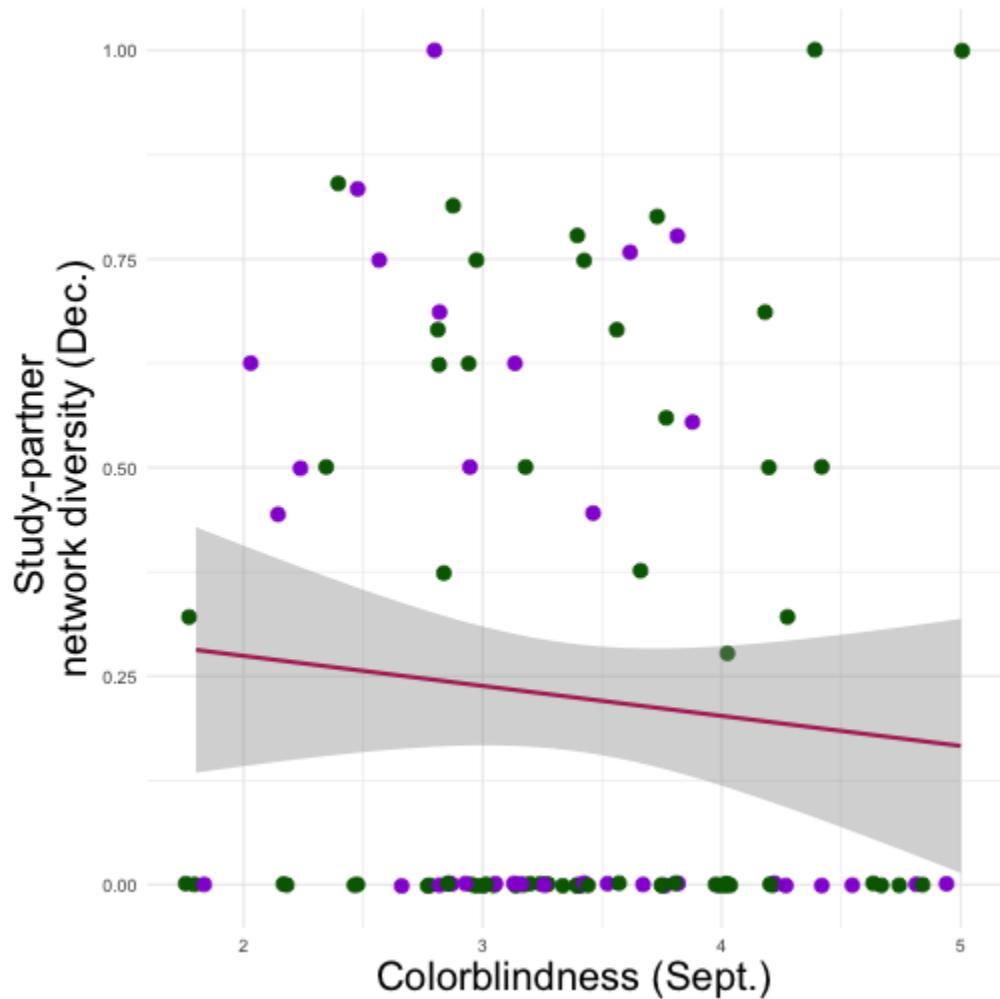
Social network diversity



At a school that promotes diversity, what does diversity mean to students?

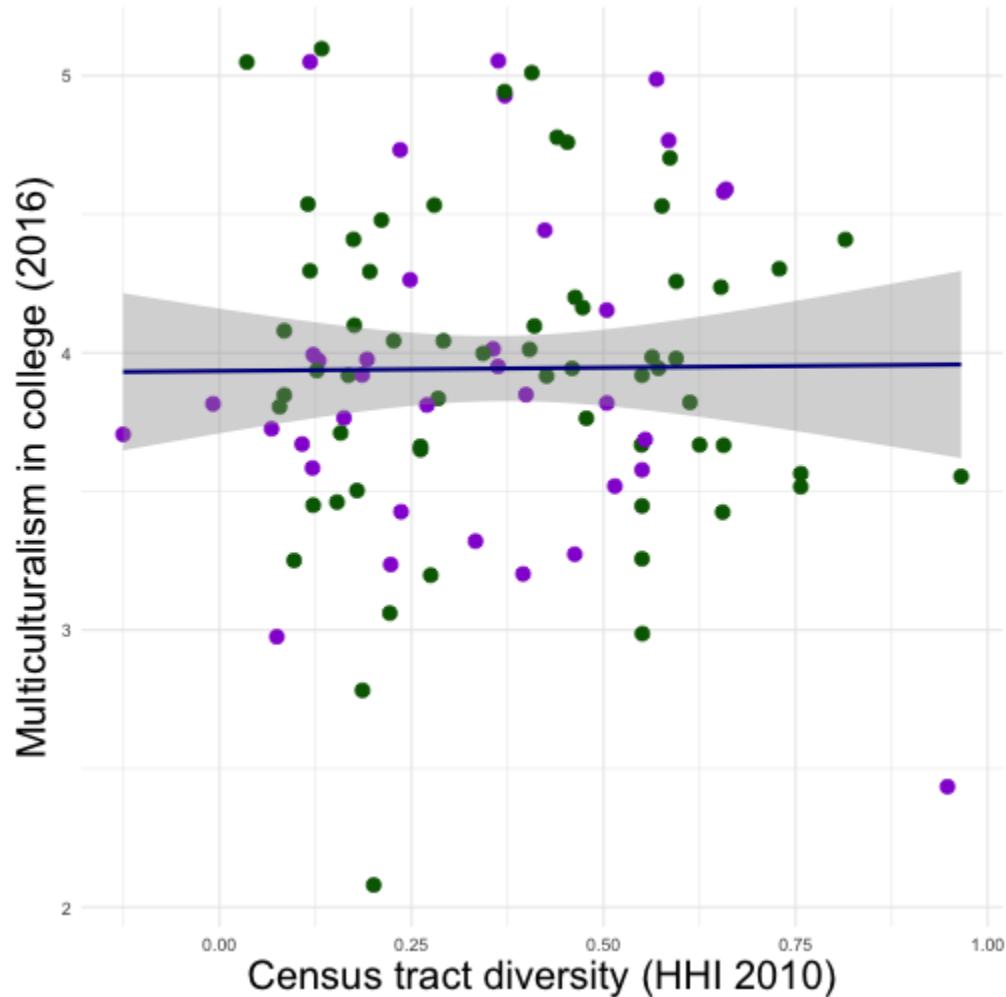
How do attitudes toward diversity affect students' real-world relationships?

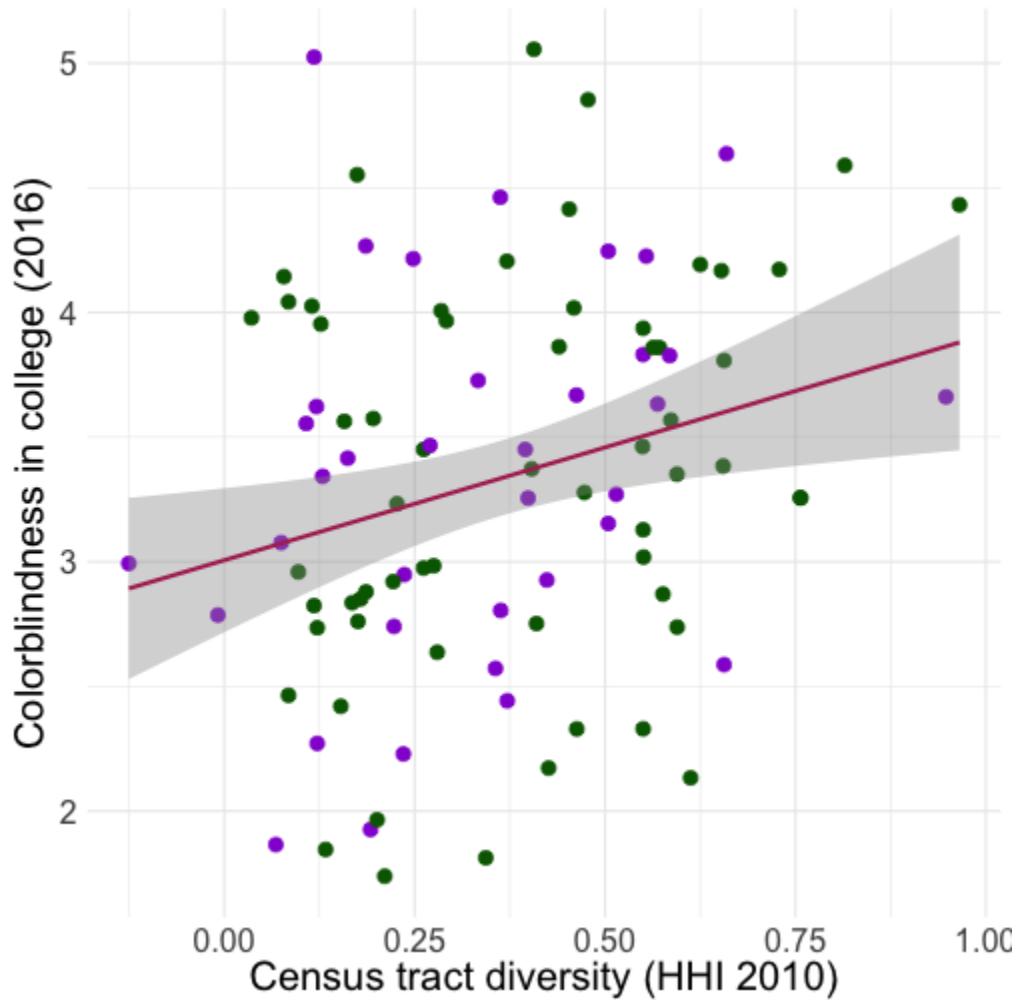




But what are the developmental antecedents to these attitudes?

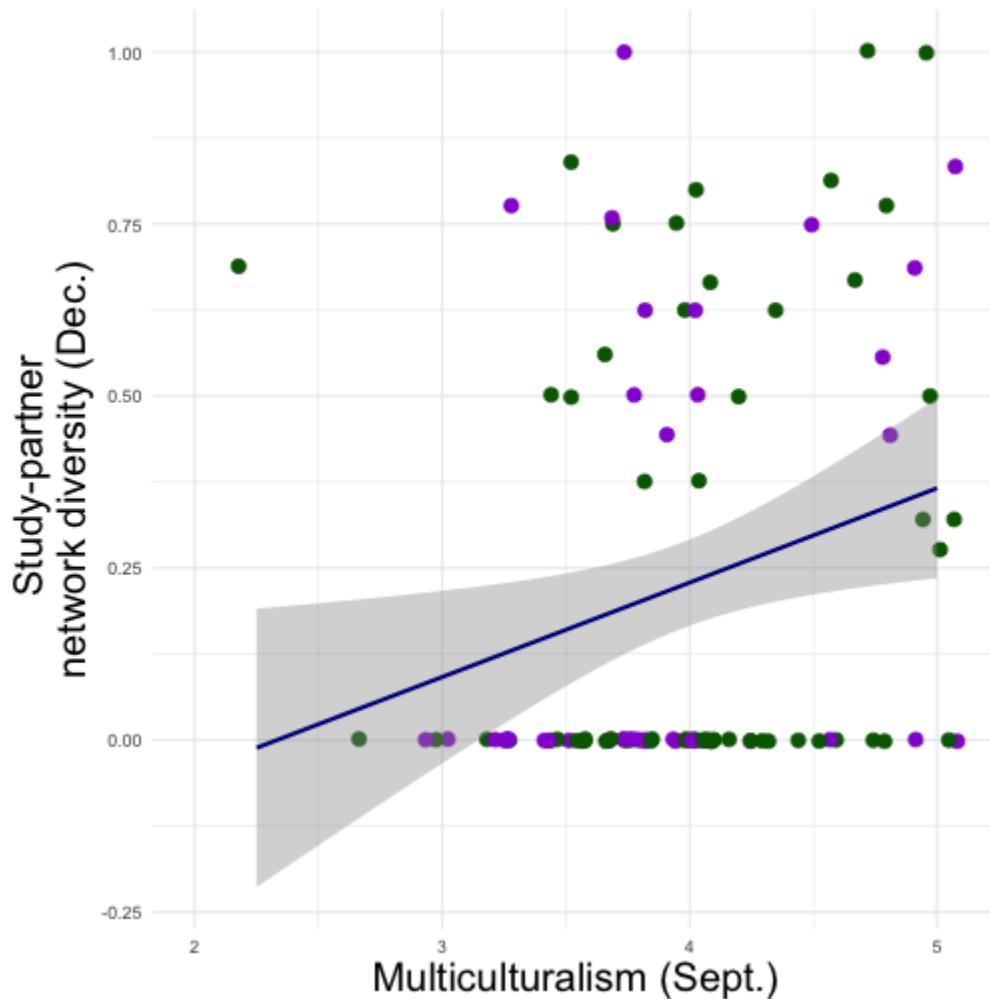
Do we know what stimulates multicultural attitudes?

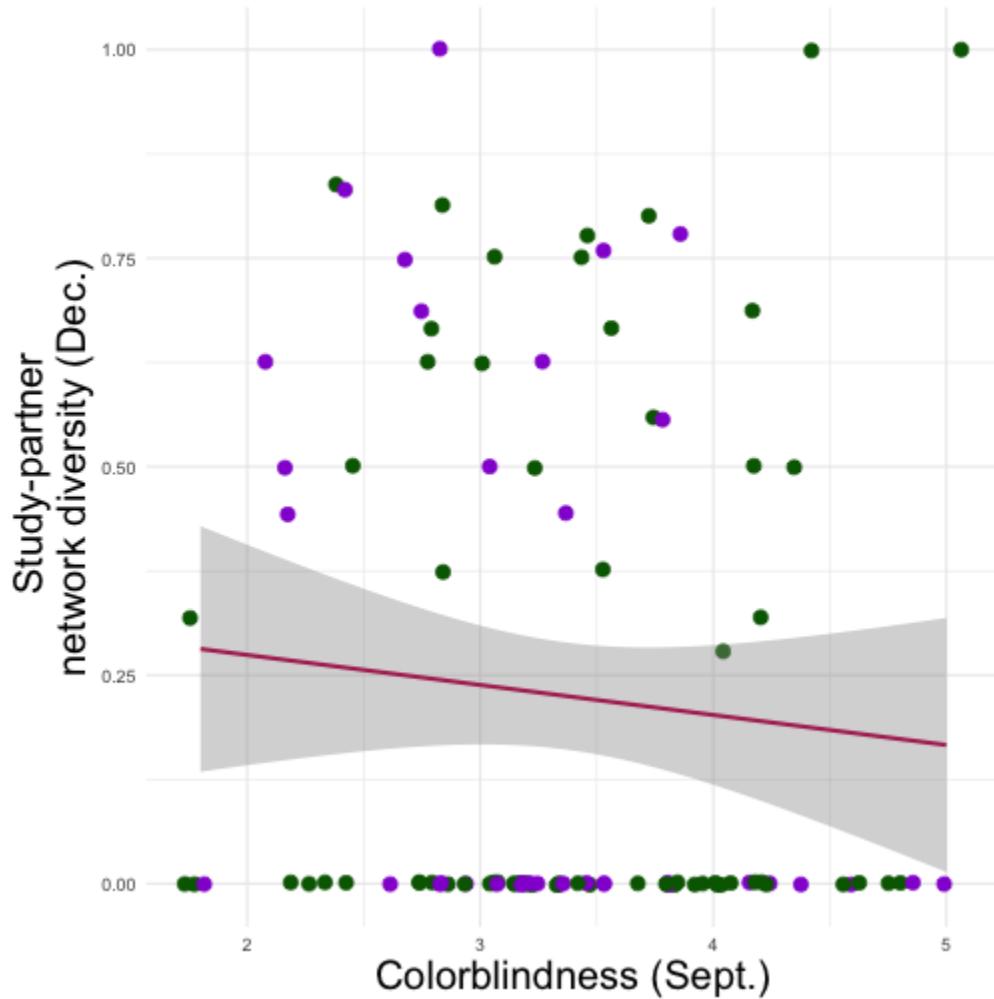




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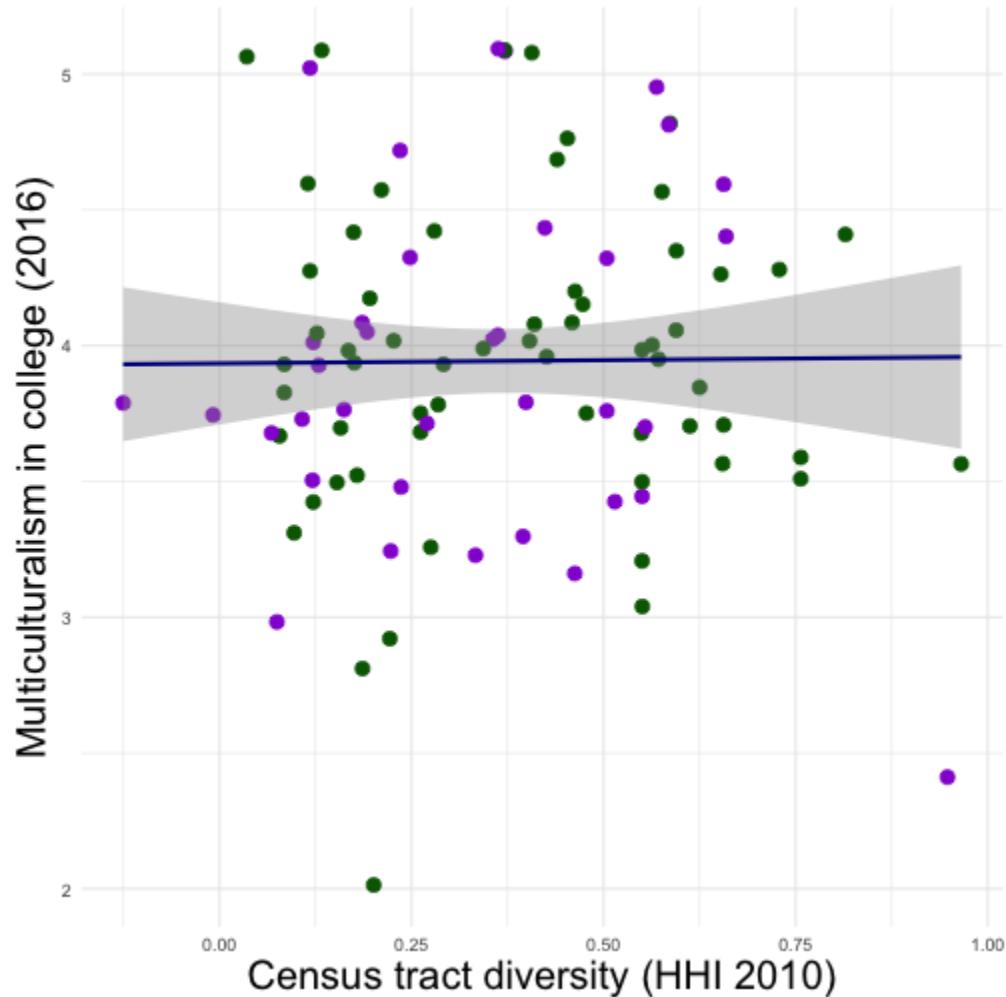
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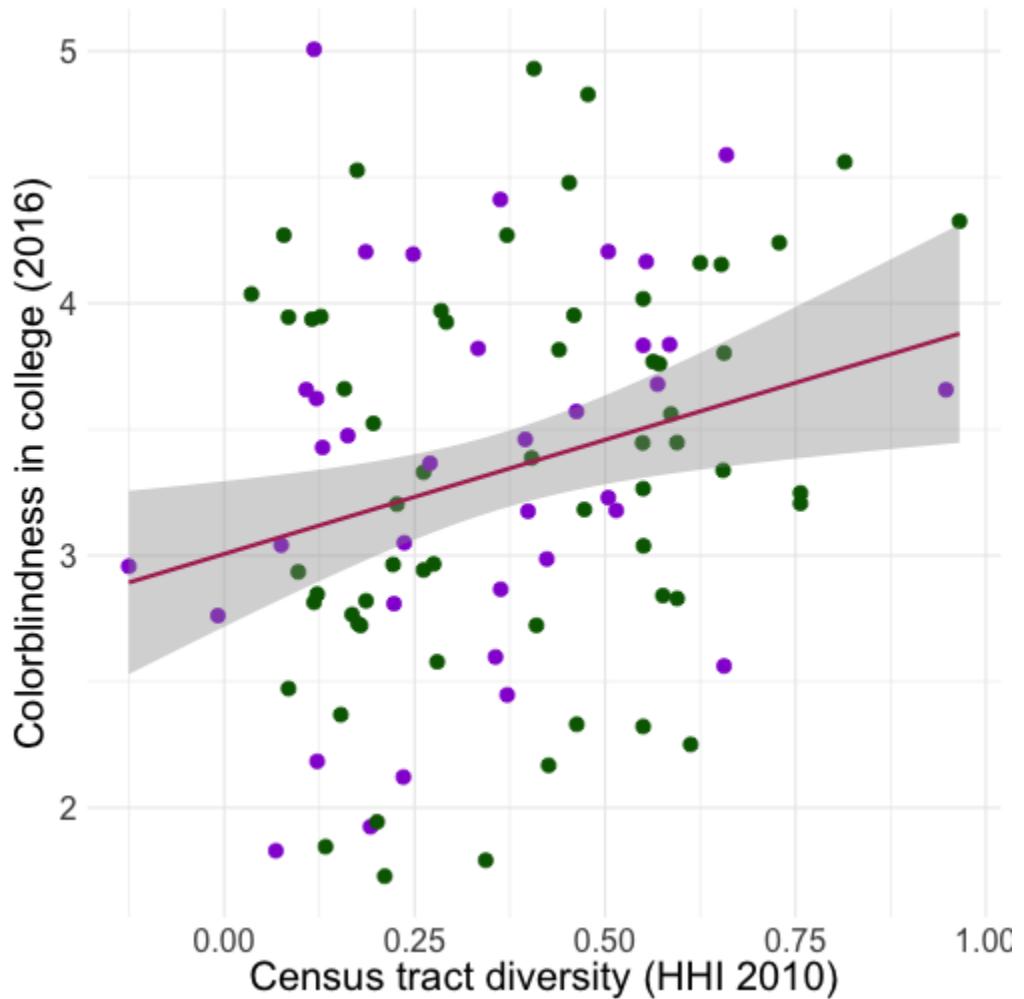




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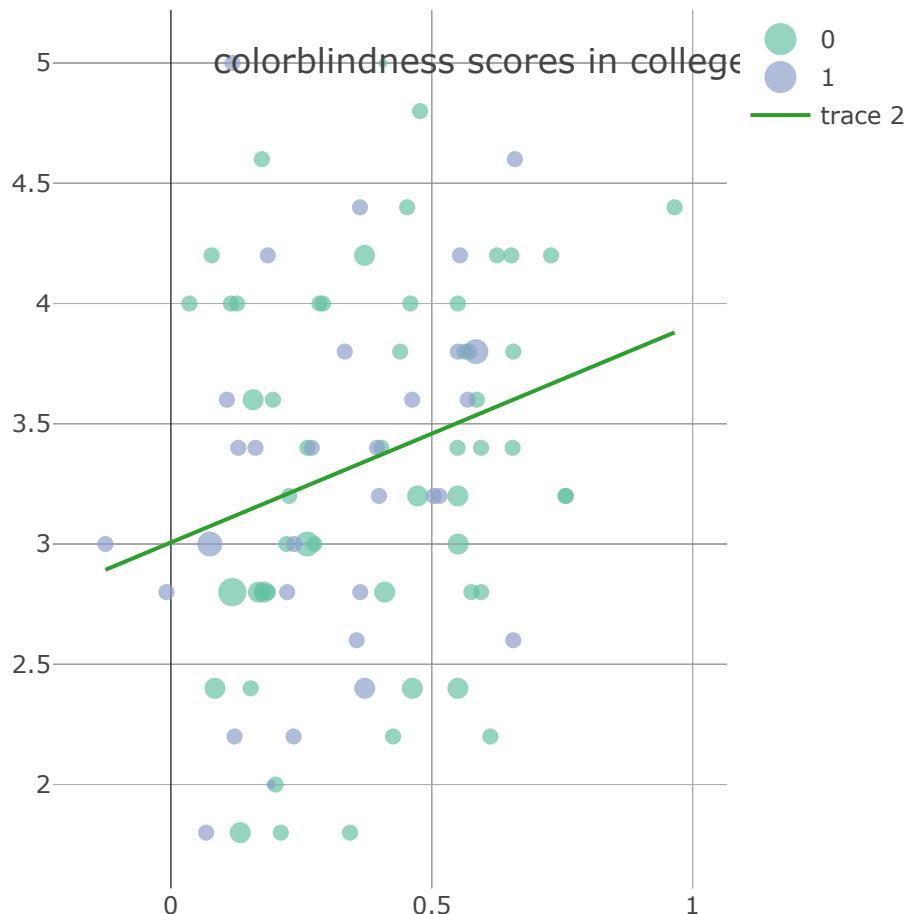
Do we know what stimulates multicultural attitudes?





Here, you can have a look at this plot in a more nuanced (and interactive) way!

Higher census tract diversity predicts higher



Thank you and happy summer!!!