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Hello,

I am a fourth-year PhD student in economics at Columbia University, where I am advised by Ebonya Washington. My work is supported by the National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP). My research interests lie in the intersection of behavioral, public, and health economics, with a particular focus on social media. Therefore, I am incredibly excited to apply to attend the Digital Economics and AI Tutorial.

Course of Study: As a fourth-year PhD student, I have already completed two years of graduate coursework. I primarily completed coursework in two fields: applied microeconomics[1] and political economy. I chose to complete the political economy field because both political economy courses I took included units on media, including social media. Furthermore, one of my political economy courses included a unit on how to use AI tools to analyze images. This was fascinating to me, and I hope to develop my skills in this area further. I supplemented my coursework in applied microeconomics and political economy with a course in behavioral economics and a course in microeconometrics.

Research Projects in Progress:

Title: ***Social Media, Body Image, and Economic Decisions (with Nancy Wang)***
Motivation: Body image concerns are pervasive among girls and women of all ages. These concerns can be related to mental health, disordered eating, and low self-esteem. Social media platforms, such as TikTok, may exacerbate these issues by prioritizing showing beautiful, thin creators (sometimes with subtle filters). This may encourage negative upward visual social comparisons which may be damaging to mental health. We are interested in whether the content people see on social media affects their beauty ideals and potentially their view of themselves and others (given weight discrimination in the labor market).
Research Questions:

- Do the body types women see on social media influence their beauty standards?
- If so, how does this in turn affect their:
    - (View of Self) Body image, mental health, demand for products related to weight loss and beauty, and other related behaviors
    - (View of Others) Attitudes toward overweight people, treatment of others of varying weights in lab games, willingness-to-accept to repost body positive content on social media

Experimental Design:

- Recruitment Survey (Week 0): The recruitment survey will screen participants for eligibility for the main study.

[1] The applied microeconomics field included a course in Public Finance and a course in Labor Economics.

- Baseline Survey (Week 1): One week after the recruitment survey, eligible participants will be invited to complete the baseline survey. The purpose of this survey is to take pre-treatment baseline measures of outcomes.
- Midline 1 Survey and Randomization (Week 3): Participants who completed the baseline survey will be invited back to complete the Midline 1 survey. In this survey, participants will be randomized into one of three groups:
    - Treatment: 50% of our sample will receive a TikTok account seeded with mid- and plus-size fashion influencers.
    - Active Control: 25% of our sample will receive a TikTok account seeded with (thin) fashion influencers.
    - Passive Control: 25% of our sample will be given a new TikTok account that has not been seeded with any particular type of content ("unseeded").

  Participants will be incentivized to scroll through their new TikTok feed for 30 minutes. Immediately following the period of incentivized scrolling, outcomes will be collected.
- Period of Incentivized Scrolling: For two weeks following the Midline 1 survey, participants will be lightly incentivized to use their randomly assigned account. The incentive is designed to increase uptake of the new TikTok accounts without obscuring differences between participants in demand for body positivity.
- Midline 2 Survey (Week 5): Immediately following the period of incentivized scrolling, participants will be invited to complete the Midline 2 survey, which collects outcomes. The purpose of this survey is to measure the treatment effects of longer exposure to mid- and plus-size creators. After, the incentives for using the researcher-created TikTok account will be removed, but participants will still have access to the account should they choose to use it.
- Endline Survey (Week 7): Participants will be invited to complete the Endline survey, which will measure outcomes. The purpose of this survey is to measure the persistence of treatment effects, after exposure is no longer incentivized.
- TikTok Data Purchase: At the end of the experiment, we will purchase participants' personal TikTok data. In earlier pilots on MIT students, we found that 58% of students were willing to sell their data for $5 or $10.

Outcome Data: Data on outcomes will come from two sources: (a) survey data and (b) the administrative TikTok data associated with the researcher-created accounts. This data includes links to every video shown to the participant, how much time they spent watching the video, likes, comments, shares, etc. For a subset of participants, we will also have this data for their personal account.
Next Steps: This fall we conducted a successful pilot experiment where we were able to successfully seed TikTok accounts with different types of content and saw promising results in body appreciation and generosity toward larger individuals in lab games. We have secured funding ($50k) for the full experiment from JPAL and are currently running it.

This tutorial is well-timed for us as we will have most of the data by February and have a lot to learn in terms of how to analyze it.

Title: ***How Effective are Consent Search Restrictions in Reducing Racial Disparities in Motor Vehicle Searches?***

Description: Previous literature in economics documents both race (Feigenberg and Miller, 2022) and class (Feigenberg and Miller, 2023) disparities in who police officers choose to search following a traffic stop. Many of these searches are "consent" searches. In a consent search, the driver gives consent to be searched as an alternative to the police officer establishing probable cause to perform the search. However, low-income and minority drivers may be less comfortable refusing to give consent to police officers. Consent searches may exacerbate racial and class disparities in searches, which may exacerbate disparities in downstream interaction with the criminal justice system (e.g., arrests, incarceration). However, consent searches may allow police officers to recover contraband from drivers that they otherwise would not have if the officer needed to establish probable cause. In this project, I explore two research questions: (1) How do restrictions on consent searches affect racial disparities in motor vehicle searches? (2) How do restrictions on consent searches affect police productivity (as measured by the rate at which officers find contraband)? I leverage a Connecticut law that prevented police officers from asking drivers for their consent to search them. I use the share of pre-policy searches by different officers that were consent searches as a measure of how "exposed" different officers were to the policy. The idea is that some officers performed relatively few consent searches so the policy had a limited effect on those officers, while other officers performed many consent searches pre-policy and were greatly affected by the policy. I am in the process of producing initial results for this project.

Eventually, I would be interested in using AI tools to analyze the audio from police officer body cams to potentially explore mechanisms.

As I consider how to move these projects forward (especially how to analyze the administrative TikTok data), I would relish the opportunity to learn from leaders in the digital economics field, as well as network with other students at the NBER Digital Economics and AI Tutorial.

Sincerely,
Hannah Solheim