

## **Pre-Analysis Plan**

### **The Role of Universities**

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#### **1. Introduction**

Our study aims at investigating public views of the role of universities in society. Specifically, we are interested in gauging perceptions of the role of universities beyond their core mission of education and research and in relation to societal issues such as environmental sustainability, DEI (diversity, equity and inclusion) and free speech. We are interested in comparing how views differ across demographic groups (split according to gender, education level and political orientation) and in comparing the perceived role of universities relative to private corporations. We will conduct a study on Prolific with 2,000 respondents: 1,500 will answer a survey focusing on universities and 500 will answer a survey focused on corporations. Views will be elicited using non-incentivized questions (for both samples) and incentivized questions (Universities only).

#### **2. Research questions**

Our key research questions are the following:

- What roles does the general public expect universities to fulfill in society? Specifically, we are interested in views regarding their role in engaging in socially relevant initiatives that go beyond their core mission of education and research. We are interested in benchmarking these expectations relative to those for large corporations.
- How do expectations about these roles vary across socio-demographic groups (men/women, conservatives/liberals, college educated/non-college educated)?

#### **3. Research design**

##### **3.1. Sample**

The survey will be conducted with a sample of 2,000 individuals drawn from the platform Prolific, representative on the following dimensions: age, gender, and political affiliation

Inclusion criteria: US residency.

##### **3.2. Surveys**

We will conduct two separate surveys: Survey 1 will be focused on Universities and Survey 2 will be focused on large corporations (see attached documents)

The surveys will be structured as follows:

	<b>Survey 1</b> <b>Focus: Universities</b>	<b>Survey 2</b> <b>Focus: Large corporations</b>
<b>Part 1: Self-reported views on role of universities across different domains</b>	✓	✓
<b>Part 2: Incentivized allocation task experiment</b>	✓	
<b>Part 3: Self-reported views on role of institutions, views on societal issues (such as climate change) and Demographic information</b>	✓	✓

Part 2 allows us to elicit views on how much people value the performance of universities on different dimensions (academic performance, DEI, sustainability and free speech) in an incentivized manner, using publicly available information on rankings and scores. There is no comparable information available for corporations on the same dimensions, so we will implement this part for universities.

### 3.3. Randomization

1. In Part 2 of the University study, participants will be asked to make 5 incentivized allocation decisions, chosen among 28 possible scenarios involving 22 different combinations of pairs of universities (see attached document on scenarios). The participants will see the ranking of each of the university on each dimension and will also be informed about which university performs better on each dimension.

50 participants will be selected at random and one of their decisions will be selected at random to be implemented.

### 4. Outcomes of interest

#### Primary outcomes:

1. Self-reported views to the following questions asked in Part 1:
  - (1) Whether Universities/corporations should engage with various initiatives (listed)
  - (2) Whether Universities'/corporations' current engagement with various initiatives (listed and same as in (1)) is appropriate
2. Allocation decisions in the Allocation Task Experiment (for Universities only): Fraction of \$30 allocated to University A relative to University B

### 5. Analysis

1. Balancing tests

We will first report how the two samples (from Survey 1 and Survey 2) compare on the following demographics:

- Gender, education and political affiliation
- Age, state of residence, race, parental status, employment status, industry, occupation, religion, income (see survey for details on categorization)

Gender and Education dummies will be constructed based on answers to the relevant questions in Part 3.

We will construct two variables to measure 'political orientation'.

- The first variable will be based on the self-reported vote in the last election (question "iii. Who did you vote for in the Presidential elections in 2024? > Harris / Trump / Other / I did not vote.
- The second variable will be generated based on the following two questions:
  - i. On a scale from 1 to 7, where 1 means 'Strongly Conservative' and 7 means 'Strongly Liberal,' how would you describe your political orientation?
  - ii. Do you identify as Democrat / Republican / Independent

We will construct a dummy variable 'conservative', equal to 1 if:

- answer to i is 1, 2 or 3
- OR answer to ii is 'Republican'  
and 0 otherwise

We will construct a dummy variable 'liberal', equal to 1 if:

- answer to i is 5, 6 or 7
- OR answer to ii is 'Democrat'  
and 0 otherwise

We will report t-tests of equality of means across the two samples (Universities vs Companies). We expect 5% of these tests to be statistically significant.

## 2. Comparison of views between universities and corporations

We will compare the distribution of self-reported views elicited in Part 1 described above (i.e., whether unies/companies should engage in a certain initiative, and whether the current level of engagement is appropriate) between universities and corporations for each of the 10 initiatives listed. We will adjust for multiple hypotheses testing and test whether they differ significantly or not.

Analysis: Comparison of distributions (using tests of equality of distributions) and comparison of means (using t-test)

## 3. Comparison of views across socio-demographic groups

We will compare the distribution of self-reported views elicited in Part 1 described above across socio-demographic groups, focusing on the following characteristics: gender (male/female), education (college degree, no college degree), political affiliation (conservative/liberal and Trump/Harris voter), and examine whether they differ significantly or not.

Analysis:

- a) Comparison of distributions (using tests of equality of distributions) and comparison of means (using t-test)
- b) Regression analysis (separate for Universities and for Corporations)
  - Model: OLS regression (rank-ordered logit as robustness)
  - Dependent variable: Ordinal responses to questions in Part 1
  - Independent variables:
    - Dummies for gender, education and political affiliation
    - Additional controls: Age, state of residence, race, parental status, employment status, industry, occupation, religion, income (see survey for details on categorization)

4. Assessing the valuations of performance of universities on different dimensions, overall and across socio-demographic groups

We will evaluate the relative importance of different dimensions of performance (academic, environmental sustainability, DEI, and Free Speech) in determining the allocation of \$30 between two (anonymous) universities (Part 2). Here is an example of one of the tables that is presented to the subjects:

	Academic performance (out of 187)	Environmental sustainability (out of 208)	Diversity, equity, and inclusion (out of 197)	Free speech (out of 251)
University A	91 <sup>st</sup>	110 <sup>th</sup>	170 <sup>th</sup>	17 <sup>th</sup>
University B	109 <sup>th</sup>	50 <sup>th</sup>	128 <sup>th</sup>	34 <sup>th</sup>
University performing better	A	B	B	A

Below we provide details on how the performance rankings have been computed:

The performance indicators used for each dimension were constructed as follows:

- Academic performance: The ranks for academic performance were taken from <https://www.shanghairanking.com/rankings/arwu/2023> from the regional rank. The middle rank was taken if there was no single rank and the higher number was taken if there was no clear middle.
- Environmental sustainability: The ranks for environmental sustainability were taken from <https://www.topuniversities.com/sustainability-rankings> based on the overall score for environmental impact. Filters for Year: 2024, Region: North America, Country/Territory: United States
- DEI (Diversity, Equity and Inclusion): The ranks for DEI were calculated using two different rankings: (1) the Equality ranks based on <https://www.topuniversities.com/sustainability-rankings> (Filters for Year: 2024, Region: North America, Country/Territory: United States) and (2) the SMI taken from <https://www.socialmobilityindex.org>. Only the universities appearing

in both rankings were taken into account. Both ranks of each university were added together and ranked.

- Free Speech: The ranks for free speech were taken from <https://rankings.thefire.org/rank>.

If there was an equality in rank, we ranked based on alphabetical order.

Analysis:

Regression analysis:

- Model: OLS regression with s.e. clustered at the individual level
- Dependent variable: Amount given to University A
- Independent variables:
  - Difference in performance indicators between University A and University B on each of the following dimensions: Academic performance, Environmental sustainability, DEI (Diversity, Equity and Inclusion), and Free Speech
    - First model will be based on 4 dummies indicating whether the difference is positive for each of the 4 dimensions
    - Second model will be based on the values of the differences

The model with dummies may be more precise if people pay most attention to the order. The second model may be more precise if people are using the cardinal information in their decisions. We will report both sets of results.

- On entire sample
- Separate samples:
  - men/women
  - college/no college degree
  - Trump/Harris
  - Liberal/conservative

## 6. Power Calculations for the Analysis of the allocation task experiment

We calculated the sample required to estimate a minimum effect in model 1 (model with dummies). A pilot with 50 participants showed that the standard deviation of the allocation is between \$6 and \$7. To be able to identify a minimum effect size (of the performance dummy) of 0.2 standard deviation (i.e. 1.2\$) in a two-sided test with 95% confidence and 80% power, we calculate that the minimum sample size must be at least 197.

Since we are interested in multiple comparisons of groups (8 subsamples in total), with some subsamples likely to be very close to each other (those defined on the two political orientation variables), we target a sample of 1,500 people.