# FLS 6441 - Methods III: Explanation and Causation

## Week 4 - Survey and Lab Experiments

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# Survey and Lab Experiments

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  - Treatments we cannot administer in reality
  - Random treatment assignment not permitted in reality
  - Outcome measurements that are hard to take in reality
  - Reduce variation in context and noise in data
  - To generalize beyond specific situations to abstract behaviour

Section 1

# Lab Experiments

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- **Treatment**: Not a manipulation of real world political or economic processes, but establishing controlled 'lab' conditions
  - The advantage: Control over context helps isolate mechanisms
  - The disadvantage: Can we generalize to the real world?

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  - **Hawthorne effect**: Lab context influences behaviour, social desirability bias
  - **Context effects**: The real-world always provides more information, more history
  - **Process effects**: People care *how* decisions are made
  - **Selection effects**: Actors in specific roles are rarely representative samples, 'WEIRD' or pro-social lab subjects

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  - The degree of anonymity

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  - Scrutiny alters who wants to make a decision as well as the decision they make
  - Subjets use cues (heuristics) to draw on ’similar’ situations from the real world

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- Lab experiments may be generalizable where norms/morality is less important (???)

# Lab-in-the-Field Experiments

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- In a natural setting with the target population
- Standardized, artificial treatment and measurement

# Section 2

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  - Not a lab experiment: People not brought to a single location or interacting

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- And outcome measurement normally takes place immediately

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  4. What is at stake in the answer? Are there any actual consequences? Will they have to defend their answer in the community later? 'Cheap talk'

# Section 3

# Psychological Considerations

# Psychology of Surveys

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- These are a threat to identifying causal effects
- But we can also use these biases to our advantage

1. Priming
2. Framing
3. Anchoring
4. Contamination

# 1. Priming

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- Eg. We remind half of respondents about national Independence Day
- Then ask what they think about immigration
- Allowing us to measure the effect of ’nationalism’ on migration attitudes

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- Usually affects all respondents equally
- But survey experiments that vary across respondents might change *ALL* subsequent responses

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  - More problematic is contamination

# Survey Experiments

1. Vignettes -
2. List Experiments - reduce social desirability bias
3. Conjoint Experiments - measure preferences

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- Gonzalez-Ocantos et al (2010) - list experiment on vote-buying

# List Experiments

Im going to hand you a card that mentions various activities, and I would like for you to tell me if they were carried out by candidates or activists during the last electoral campaign. Please, do not tell me which ones, only HOW MANY:

- they put up campaign posters or signs in your neighborhood/city;
- they visited your home;
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- **List experiment**:
  - Just the difference in mean responses between treatment and control lists
  - 24% = 2.31 - 2.06

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- Bias towards a 'reasonable'/central number?

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- Also a problem of social desirability bias in which characteristics matter

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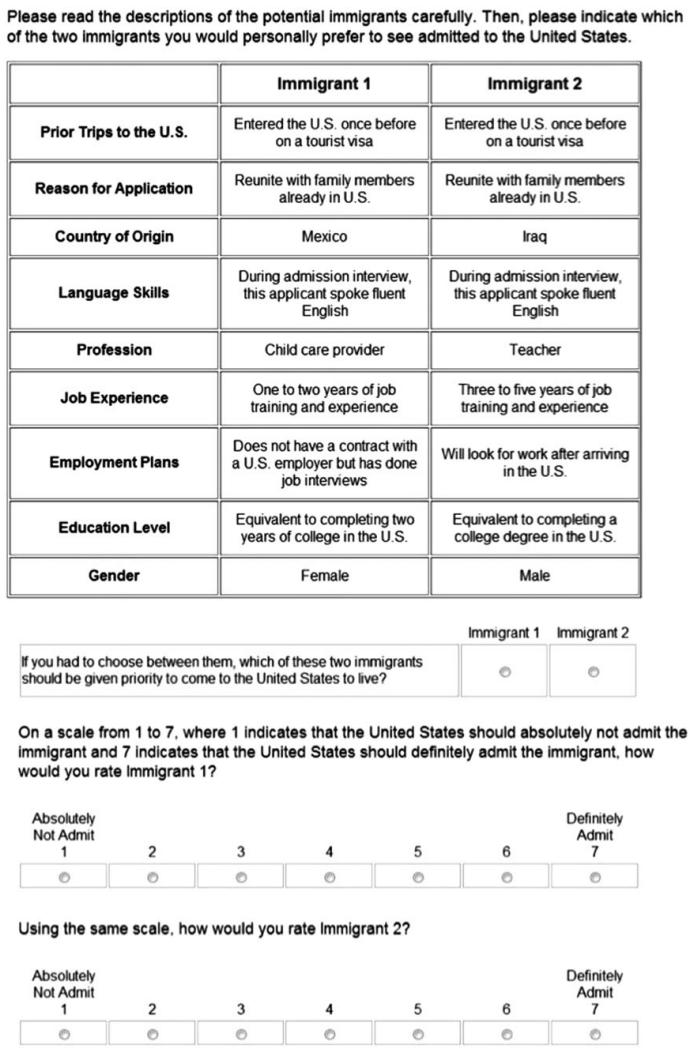
- Randomize attribute order to prevent bias
- Treatment is the **combination** of attributes the respondent sees
- Millions of possible treatments



Please read the descriptions of the potential immigrants carefully. Then, please indicate which of the two immigrants you would personally prefer to see admitted to the United States.

| | Immigrant 1 | Immigrant 2 |
|---|---|---|
| Prior Trips to the U.S. | Entered the U.S. once before on a tourist visa | Entered the U.S. once before on a tourist visa |
| Reason for Application | Reunite with family members already in U.S. | Reunite with family members already in U.S. |
| Country of Origin | Mexico | Iraq |
| Language Skills | During admission interview, this applicant spoke fluent English | During admission interview, this applicant spoke fluent English |
| Profession | Child care provider | Teacher |
| Job Experience | One to two years of job training and experience | Three to five years of job training and experience |
| Employment Plans | Does not have a contract with a U.S. employer but has done job interviews | Will look for work after arriving in the U.S. |
| Education Level | Equivalent to completing two years of college in the U.S. | Equivalent to completing a college degree in the U.S. |
| Gender | Female | Male |



**Fig. 1** Experimental design: Immigration conjoint. This figure illustrates the experimental design for the conjoint analysis that examines immigrant admission to the United States.

*choice outcomes* hereafter. Second, in "rating-based conjoint analysis," respondents give a numerical rating to each profile which represents their degree of preference for the profile. This format is preferred by some analysts who contend that such ratings provide more direct, finely grained information about respondents' preferences. We call this latter type of outcome a *rating outcome*.

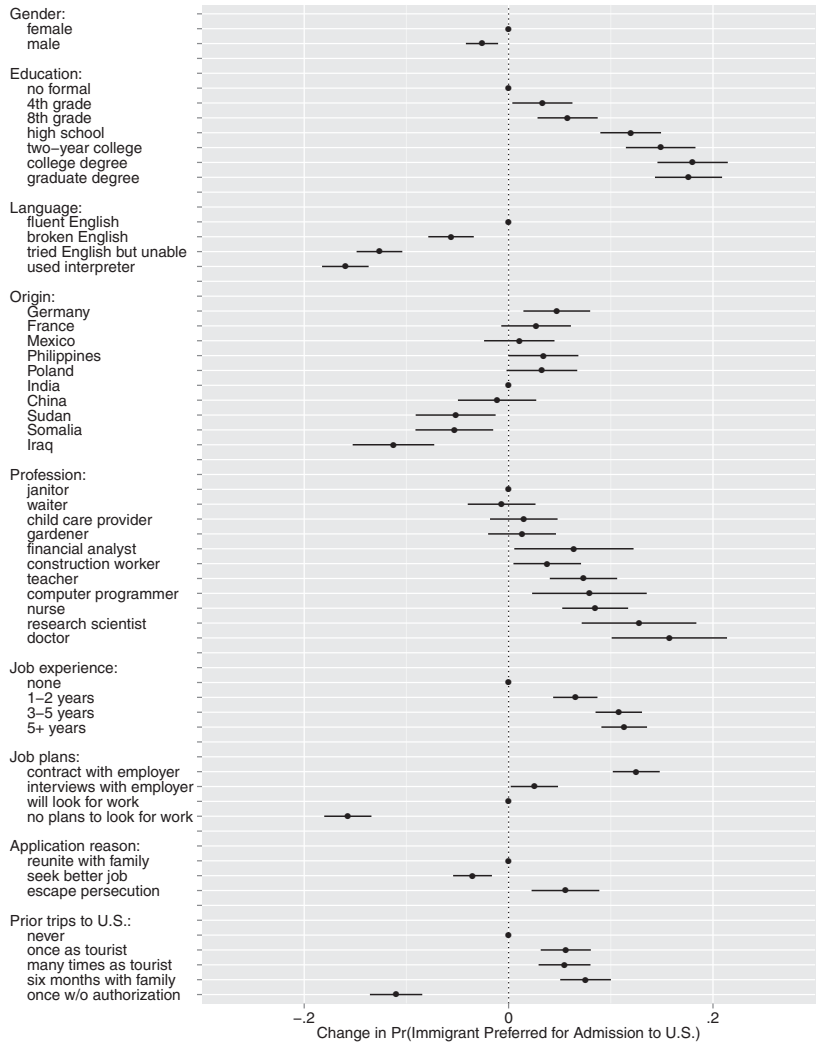



**Fig. 3** Effects of immigrant attributes on preference for admission. This plot shows estimates of the effects of the randomly assigned immigrant attributes on the probability of being preferred for admission to the United States. Estimates are based on the regression estimators with clustered standard errors; bars represent 95% confidence intervals. The points without horizontal bars denote the attribute value that is the reference category for each attribute.

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  - It is an **Average Marginal Component Effect**
  - Eg. the effect of gender averaging across all possibilities of age, language, etc.

# Conjoint Survey Experiments

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- The ordering of attributes and profiles does not matter

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- Citizens voted on specific naturalization applicants (Really!)

Figure S11: Effects of Applicant Attributes on Opposition to Naturalization Request (Unweighted Survey Sample)

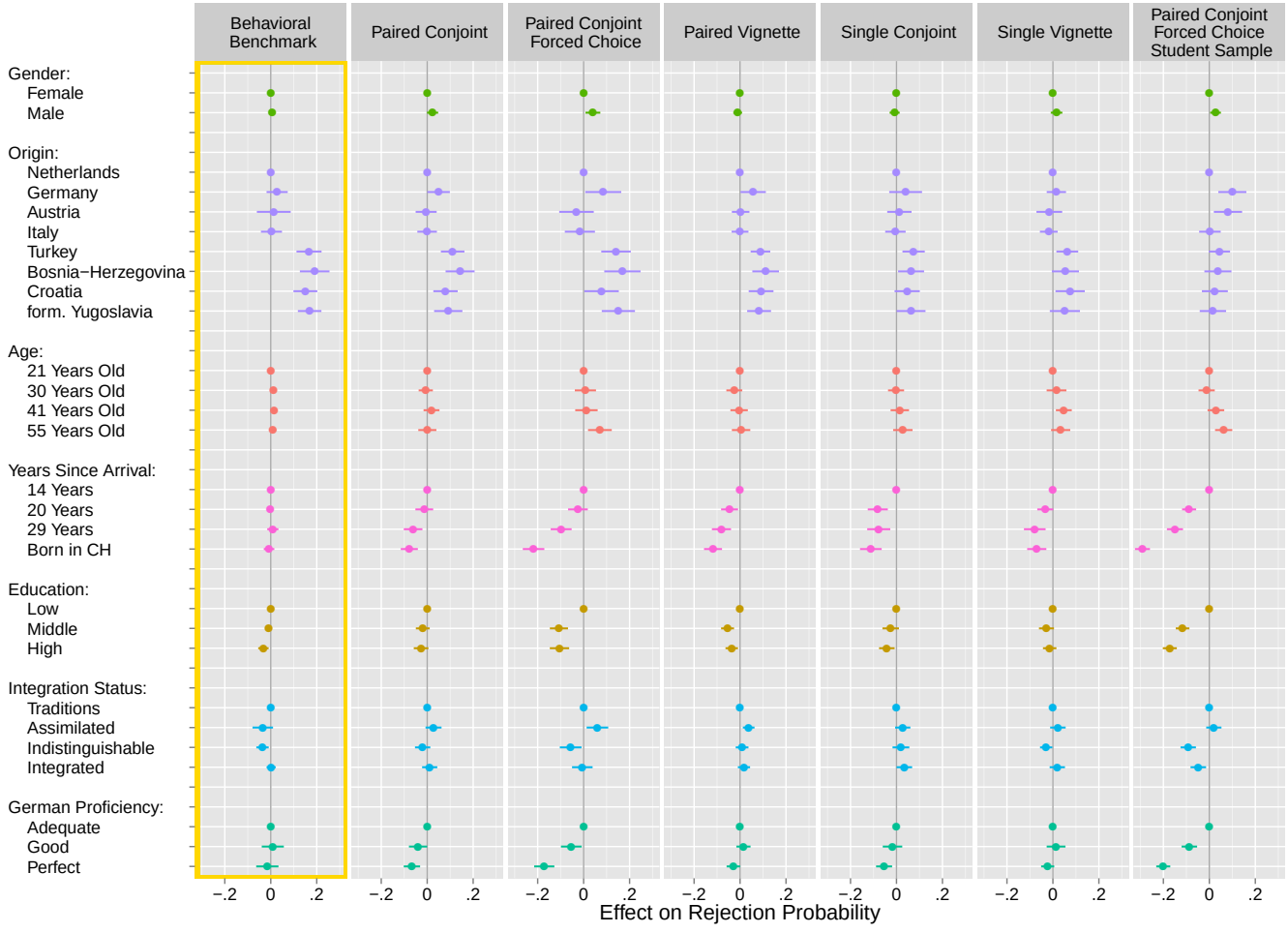


Figure shows point estimates (dots) and corresponding, cluster-robust 95 % confidence intervals (horizontal lines) from ordinary least squares regressions. The dots on the zero line without confidence intervals denote the reference category for each applicant attribute.

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- But note the conjoint method still hugely under-estimated the overall rejection rate
- 21% versus 37% in reality