Outline

1. Empirical Economics II: Media Bias

2. Empirical Economics III: Discrimination

3. (Unsolicited) Advice
1 Empirical Economics II

• Last time.

• **Methodology I.** Consumers choose in a menu of options
  
  – Choice among options reveals preferences
  
  – Ex.: Health club paper (DellaVigna and Malmendier, 2002)
  
  – Ex. Choice of deductibles (Sydnor, 2004)
  
  – Ex.: Effect of firm size on stock returns
  
  – Fields:
    
    * Consumption decisions
    
    * IO
    
    * Finance
Methodology II. Differences-in-differences

- Consider effect of a change in variable $x$ on variable $y$
  
  - Ex.: Minimum wage ($x$) and employment ($y$) (Card and Krueger, 1991)
  
  - Ex.: AIDS death of parent ($x$) and education of child ($y$) (Evans and Miguel, 2004)
  
  - Ex.: Fox News Exposure ($x$) and voting behavior ($y$) (DellaVigna and Kaplan, 2004)

- Fields:
  * Labor Economics
  * Health Economics
• Fox News example:

  – Does it matter if media are biased?

  – Fox News is to the right of all other TV news channels (CNN, ABC, CBS, NBC)

  – Does exposure to Fox News before elections change voting behavior in 2000 election?

• Building pieces:

1. Fast expansion of Fox News in cable markets

   – October 1996: Fox News created

   – June 2000: 17 percent of US population listens regularly to Fox News (Pew)
2. Geographical differentiation in expansion
   - Cable markets: Local monopolies with capacity constraints
   - Town-level variation in exposure to Fox News
   - 9,000 towns with variation even within a county

3. Conservative content
   - Unique right-wing TV channel (Groseclose and Milyo, 2004)
   - Clear differentiation of content
   - Substantial effect on average information exposure
• Strategy:
  
  – Data town-by-town
  
  – Compare:
    
    * Town $F$ that offers Fox News in 2000
    
    * Town $N$ that does not offer Fox News in 2000
  
  – Analyze effect on Republican vote share in 2000 $v_{j}^{2000}$

• Simple one-difference regression:
  
  $$v_{j}^{2000} = \alpha + \beta d_{F} + \varepsilon$$

• $d_{F} = 1$ if town offers Fox News
• Problem:
  
  – $F$ towns may differ from $N$ towns (may be more Republican to start with)
  
  – Consider different objective variable: change in vote share $v_{j}^{2000} - v_{j}^{1996}$
  
  – Simple difference-in-difference regression:
    $$v_{j}^{2000} - v_{j}^{1996} = \alpha + \beta d_{F} + \varepsilon$$

• Difference in difference because:
  
  1. Difference over location
  2. Difference over time
Figure 2. Adjusted ADA Scores of Politicians and Media Outlets, Sentences as Observations

- Bill Frist (R-TN)
- Average Republican
- Nathan Deal (D-GA)
- Al D'Amato (R-NY)
- Charles Stenholm (D-TX)
- Olympia Snowe (R-ME)
- House Median
- Ernest Hollings (D-SC)
- Constance Morella (R-MD)
- Joe Lieberman (D-CN)
- Joe Biden (D-DE)
- Tom Daschle (D-SD)
- Average Democrat
- Ted Kennedy (D-MA)
- ABC World News Tonight
- NBC Nightly News
- Drudge Report
- Los Angeles Times
- New York Times
- USA Today
- CBS Evening News
- Fox News: Special Report
### Table 3. The Effect of Fox News on the 2000 & 1996 Presidential Election Vote Share

<table>
<thead>
<tr>
<th></th>
<th>Two-Party Vote Share</th>
<th>All-Party Vote Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.0875</td>
<td>0.128</td>
</tr>
<tr>
<td></td>
<td>(0.0032)**</td>
<td>(0.0084)**</td>
</tr>
<tr>
<td>Fox News 2000</td>
<td>-0.01</td>
<td>0.0023</td>
</tr>
<tr>
<td></td>
<td>(0.0014)**</td>
<td>(0.0015)</td>
</tr>
<tr>
<td>CNN News 2000</td>
<td>-0.0168</td>
<td>-0.0035</td>
</tr>
<tr>
<td></td>
<td>(0.0032)**</td>
<td>(0.0032)</td>
</tr>
<tr>
<td>Controls for Population, No. of Channel, Subscribers</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>State Fixed Effects</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>District Fixed Effects</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>County Fixed Effects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.0091</td>
<td>0.3159</td>
</tr>
<tr>
<td>N</td>
<td>N = 8927</td>
<td>N = 8927</td>
</tr>
</tbody>
</table>
• Results:

  – No effect of Fox News on voting

  – Can reject that Fox News affected more than 250,000 votes nationally in 2000 election

  – Fox News convinced at most 2% of its audience to switch to voting Republican

  – Surprised?

  – We were too!

• Now look at:

  – Campaign contributions to parties

  – Non-response rate to Census questions
2 Empirical Economics III

• Problems with strategy II

  – Never quite know that towns $F$ and $N$ are comparable

  – Towns adopting Fox News may have had different trends in vote share

  – This may invalidate some of the results in these specifications

  – Solution: Run a real field experiment
• **Methodology III.** Consumers choose in a menu of options
  
  – Do randomized experiment
  
  – Ex.: Effect of reemployment subsidies
  
  – Ex.: Effect of interest rate on borrowing (Ausubel, 2002)
  
  – Ex.: Effect of name on job application (Bertrand and Mullainathan, 2004)
  
  – Fields:
    * Labor Economics
    * Marketing
    * (Medicine)
• My favorite example: Names and Discrimination

• Real CVs with randomly picked name sent to a number of different employers

• Randomization of:
  – Black/white names (Emily vs. Aisha)
  – Male/Female names

• Outcome: rate of interview requests $r_j$ at some (fake) telephone number
• Methodology:

\[ r_j = \alpha + \beta d_B + \varepsilon \]

• \( d_B = 1 \) if name is black.

• Basically, compare averages for whites and blacks

• Result:

  – Large effects for white/black names
  – No effect for male/female names
<table>
<thead>
<tr>
<th>Sample:</th>
<th>Callback Rate for White Names</th>
<th>Callback Rate for African American Names</th>
<th>Ratio</th>
<th>Difference (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All sent resumes</td>
<td>9.65%</td>
<td>6.45%</td>
<td>1.50</td>
<td>3.20%</td>
</tr>
<tr>
<td></td>
<td>[2435]</td>
<td>[2435]</td>
<td></td>
<td>(0.0000)</td>
</tr>
<tr>
<td>Chicago</td>
<td>8.06%</td>
<td>5.40%</td>
<td>1.49</td>
<td>2.66%</td>
</tr>
<tr>
<td></td>
<td>[1352]</td>
<td>[1352]</td>
<td></td>
<td>(0.0057)</td>
</tr>
<tr>
<td>Boston</td>
<td>11.63%</td>
<td>7.76%</td>
<td>1.50</td>
<td>4.05%</td>
</tr>
<tr>
<td></td>
<td>[1083]</td>
<td>[1083]</td>
<td></td>
<td>(0.0023)</td>
</tr>
<tr>
<td>Females</td>
<td>9.89%</td>
<td>6.63%</td>
<td>1.49</td>
<td>3.26%</td>
</tr>
<tr>
<td></td>
<td>[1860]</td>
<td>[1886]</td>
<td></td>
<td>(0.0003)</td>
</tr>
<tr>
<td>Females in administrative jobs</td>
<td>10.46%</td>
<td>6.55%</td>
<td>1.60</td>
<td>3.91%</td>
</tr>
<tr>
<td></td>
<td>[1358]</td>
<td>[1359]</td>
<td></td>
<td>(0.0003)</td>
</tr>
<tr>
<td>Females in sales jobs</td>
<td>8.37%</td>
<td>6.83%</td>
<td>1.22</td>
<td>1.54%</td>
</tr>
<tr>
<td></td>
<td>[502]</td>
<td>[527]</td>
<td></td>
<td>(0.3523)</td>
</tr>
<tr>
<td>Males</td>
<td>8.87%</td>
<td>5.83%</td>
<td>1.52</td>
<td>3.04%</td>
</tr>
<tr>
<td></td>
<td>[575]</td>
<td>[549]</td>
<td></td>
<td>(0.0513)</td>
</tr>
</tbody>
</table>

*Notes:*

1. The table reports, for the entire sample and different subsamples of sent resumes, the callback rates for applicants with a White sounding name (column 1) and an African American sounding name (column 2), as well as the ratio (column 3) and difference (column 4) of these callback rates. In brackets in each cell is the number of resumes sent in that cell.

2. Column 4 also reports the p-value for a test of proportion testing the null hypothesis that the callback rates are equal across racial groups.
3 Advice

1. Listen to your heart

2. Trust yourself
3. Take ‘good’ risks:

   (a) hard courses

   (b) internship opportunities

   (c) (graduate classes?)

4. Learn to be curious, critical, and frank
5. Be nice to others! (nothing in economics tells you otherwise)