Is Evidence Credible?
Education Research in Uncertain Times

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Making sense of turbulence in the world of research

“Strategic” philanthropy + uncertain science budgets + increased supply of researchers

Competition and its effects on the quality, objectivity, and credibility of evidence
<table>
<thead>
<tr>
<th>Preview</th>
</tr>
</thead>
</table>
| • US science policy  
  • 19th and 20th century innovations  
  • Recurrent battles: ideology + religion v. science |
| • Philanthropy in US political culture  
  • Brake and accelerator  
  • Concentrated wealth and its discontents |
| • Our appetite for knowledge  
  • Think tanks and their discontents  
  • What do policymakers need or want? |
| • Some modest proposals |
But first, a digression …

“I'm right there in the room, and no one even acknowledges me.”
What’s going on here?

Nate Silver:
“Clinton is a 71 percent favorite to win the election according to our polls-only model and a 72 percent favorite according to our polls-plus model…”
--November 8, 2016 10:41 am

Timothy Egan, NYT, Nov 11, 2016:
“… Read your horoscope; it’s far more likely to be accurate.”
The optimist (Feuer, Rising Price):
“Americans may flirt with stupidity but they buy knowledge.”

The new normal??

Scottie Nell Hughes (during the campaign): “People that say that facts are facts — they’re not really facts . . . there’s no such thing, unfortunately ...”

Kellyanne Conway, 2017 (January 22)
“Sean Spicer, our press secretary -- gave alternative facts..."
End of digression (for now at least)
I. The American approach to science

- APS, AAAS, AAAS, NAS, NAEd, OTA, OAC*
- Vannevar Bush, John Steelman
  - University-industry partnership

- Dual use of scientific knowledge:
  - public good &
  - the improvement of government

*Office of Acronym Control
Founding of the National Academy of Sciences, 1863
Federal Funding for R & D, selected categories, 1955-2014

Take out your microscopes
NSF Funding, RRA and EHR, 2000-2014, in millions, 2015 constant dollars

RRA = Research and Related Activities
EHR = Education and Human Resources

**Good news**: Doctoral Degrees Conferred, Selected Fields, 1970-2013

Behind every ray of sunshine, some clouds?
Award Rates, 2006-2014: EHR, NICHD, IES
II. On the private side

- Some reflections on wealth and altruism
- Andrew Carnegie and beyond
- Shifting stands
- Rhetoric and reaction
Charities Aid Foundation 2016

<table>
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<tr>
<th>Country</th>
<th>CAF World Giving Index ranking</th>
<th>CAF World Giving Index score (%)</th>
<th>Helping a stranger average (%)</th>
<th>Donating money average (%)</th>
<th>Volunteering time average (%)</th>
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Milestones in American philanthropy

- **1907**
  - Russell Sage, $10M

- **1911**
  - Carnegie Corporation, $130M

- **1913**
  - Rockefeller, $35M

- **1917**
  - *Charitable deduction*

**Since then**

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<tr>
<td>Ford</td>
<td>1936</td>
</tr>
<tr>
<td>Lily</td>
<td>1937</td>
</tr>
<tr>
<td>Packard</td>
<td>1964</td>
</tr>
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<td>Buffett</td>
<td>1964</td>
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<td>Hewlett</td>
<td>1966</td>
</tr>
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<td>Mellon</td>
<td>1969</td>
</tr>
<tr>
<td>MacArthur</td>
<td>1970</td>
</tr>
<tr>
<td>Walton</td>
<td>1987</td>
</tr>
<tr>
<td>Broad</td>
<td>1999</td>
</tr>
<tr>
<td>Gates</td>
<td>2000</td>
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</table>
Turbulence + growth = increasingly competitive sector

Growth rate of number of large US foundations, 50-year trend

New “large” foundations established in the 1990’s: 8,139 (Fleishman)

Total number of large foundations (assets > $1M), by end of 1990’s: ~22,000
Number of family foundations: ~41,000
Largest foundation today: Gates, ~$44B
  Second largest: Ford, ~$12B
Gates spending on education, 2002-2012: ~$2.3B
An interesting research question: does the diffusion of wealth reduce the downside risks of excessive concentration?
Top Ten Foundations by Spending on Education, 2002, in millions*

Bill & Melinda Gates Foundation: $394.6
Lilly Endowment Inc.: $389.6
Annenberg Foundation: $355.2
Carnegie Corporation of New York: $118.8
Robert W. Woodruff Foundation, Inc.: $117.7
The Andrew W. Mellon Foundation: $96.8
Ford Foundation: $85.8
Mississippi Common Fund Trust: $84.9
Walton Family Foundation, Inc.: $75.6
F. W. Olin Foundation, Inc.: $64.8

* 2012 inflation-adjusted dollars

Source: author's computations based on data from the Foundation Center, 2015.
Top Ten Foundations by Spending on Education, in millions, 2012

Foundations with *diamonds added* to top-10 between 2002 and 2012.

Total spending on education by top-10 foundations in 2012: $1.08B
The greatest contribution of America’s private foundations, therefore, is in continually empowering widely diverse individuals and groups, holding a rainbow of views on every conceivable matter of social policy and civic concern, to organize themselves, to make their views heard, and to transform their ideas and dreams into reality.

We have never in the history of the United States had foundations with the wealth of the Gates Foundation and some of the other billionaire foundations … committed now to charter schools and to evaluating teachers by test scores…

A few billion dollars in private foundation money, strategically invested every year for a decade, has sufficed to … sustain a crusade for a set of mostly ill-conceived reforms…

The diversity of goods supplied by foundation grantees helps to create an ever evolving, contestatory, and diverse arena of civil society. Such decentralization tempers government orthodoxy…
Concentrated wealth…
and the public good

- Governments & Gates Foundation Finance the Fight to Eradicate Polio

- The Kate B. Reynolds Charitable Trust has committed to giving up to $3 million to its Great Expectations initiative, which “works to ensure that all children living in Forsyth County enter kindergarten ready to learn and leave set for success in school and life.”

- A collaboration between HHMI and the AP is backing two year-long projects to bolster science coverage

- Chinese Authorities Partners with Gates Foundation in Poverty-Relief

- With a grant from the William and Flora Hewlett Foundation, OER Commons opened as a digital library and intermediary for openly licensed and freely available content.

- The Silicon Valley Community Foundation’s board voted unanimously to give its full support to Senate Bill 6, the Due Process for All Act, which provides public funding for legal services for immigrants facing deportation.

- Bill & Melinda Gates Foundation Commits $50 Million to Support Emergency Response to Ebola
On the other hand…danger signs ahead

FIGURE 1. Percent of major foundation grant dollars in traditional institutions versus jurisdictional challengers, 2000-2010

Source: Sarah Reckhow and Jeffrey W. Snyder, The Expanding Role of Philanthropy in Education Politics, EDUCATIONAL RESEARCHER 2014
III. The evidence movement

- N. America: 1,989
- USA: 1,830
  - 1/3 established 1981-1990
  - 91% established since 1951
- In DC: 40%
- Globally: >6,000
A hearty appetite for independent knowledge

<table>
<thead>
<tr>
<th></th>
<th>FHI</th>
<th>SRI</th>
<th>RAND</th>
<th>AIR</th>
<th>WestEd</th>
<th>Brookings</th>
<th>Urban</th>
<th>NBER</th>
<th>AEI</th>
<th>Cato</th>
<th>CAP</th>
<th>NAS</th>
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<td>390.9</td>
<td>419.4</td>
<td>286.7</td>
<td>314.7</td>
<td>123.4</td>
<td>100.8</td>
<td>75.0</td>
<td>41.4</td>
<td>29.1</td>
<td>24.6</td>
<td>34.7</td>
<td>321.9</td>
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<tr>
<td>2010</td>
<td>514.5</td>
<td>464.1</td>
<td>289.9</td>
<td>287.8</td>
<td>118.9</td>
<td>95.9</td>
<td>69.8</td>
<td>39.2</td>
<td>31.6</td>
<td>26.2</td>
<td>37.1</td>
<td>342.7</td>
<td>2317.7</td>
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<tr>
<td>2011</td>
<td>755.4</td>
<td>646.2</td>
<td>298.5</td>
<td>279.3</td>
<td>134.8</td>
<td>100.6</td>
<td>78.1</td>
<td>40.7</td>
<td>34.2</td>
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<td>2012</td>
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<td>342.7</td>
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<td>79.6</td>
<td>36.7</td>
<td>35.7</td>
<td>25.5</td>
<td>38.8</td>
<td>313.9</td>
<td>2683.0</td>
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</table>

Source: IRS Form 990; for WestEd audited financial statements provided
Threats to the credibility of evidence

NYT Sept 2014
“Foreign Powers Buy Influence at Think Tanks”

NYT Aug 2016
“Think tanks are seen as independent, but their scholars often push donors’ agendas, amplifying a culture of corporate influence in Washington”
Erosion of trust?

How much do you trust the data about the economy that is reported by the federal government? Do you...

- not trust it at all
- somewhat distrust it
- don't know
- somewhat trust it
- completely trust it

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Clinton voters</th>
<th>Trump voters</th>
<th>Other (Johnson, Stein, etc.)</th>
<th>Undecided/Will not vote/refused</th>
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<tbody>
<tr>
<td>not trust</td>
<td>15.4%</td>
<td>40.1%</td>
<td>18.6%</td>
<td>25.0%</td>
<td>27.5%</td>
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<tr>
<td>somewhat distr</td>
<td>30.2%</td>
<td>55.8%</td>
<td>47.5%</td>
<td>8.4%</td>
<td>29.1%</td>
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<tr>
<td>don't know</td>
<td>10.4%</td>
<td>21.5%</td>
<td>34.4%</td>
<td>4.8%</td>
<td>30.1%</td>
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<tr>
<td>somewhat trust</td>
<td>2.9%</td>
<td></td>
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<tr>
<td>completely</td>
<td>2.7%</td>
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(cited by Catherine Rampell, WP, Oct 17)
IV. Review and action
## What to do?

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<td>Tweak the tax</td>
<td>Improved accountability</td>
<td>Where to set the dial?</td>
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<tr>
<td>Vertical integration</td>
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<td>Will Congress be interested?</td>
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<td>Collaboration and dialog</td>
<td>Who will pay?</td>
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<tr>
<td>Advisers’ Summit</td>
<td>New approach to indicators</td>
<td>Collective action is costly</td>
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For more...

Thank you

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