

Is Evidence Credible? Education Research in Uncertain Times

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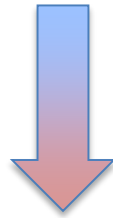
AERA/IEL

Washington

May 19, 2017

Making sense of turbulence in the world of research

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

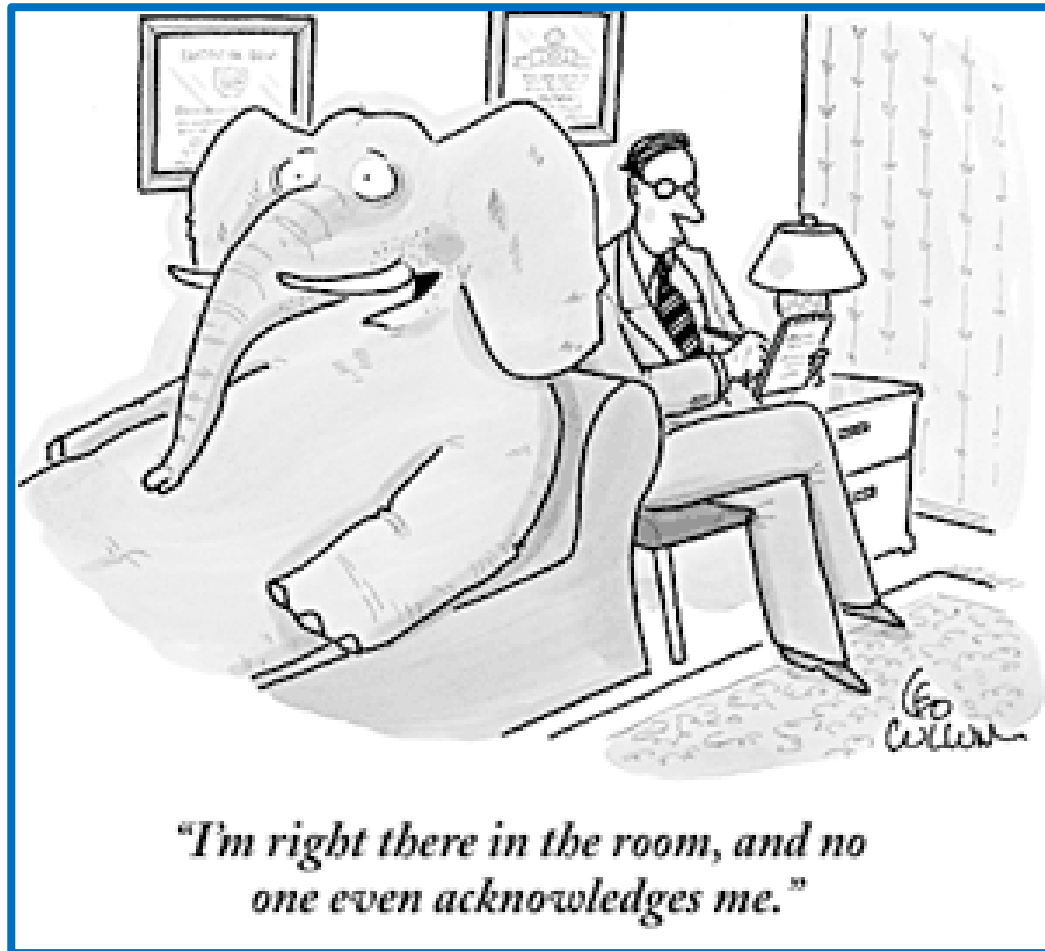


*Competition and its effects on the quality,
objectivity, and credibility of evidence*

Preview

- 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 ...



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.”



Pre and post (Nov 2016)

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

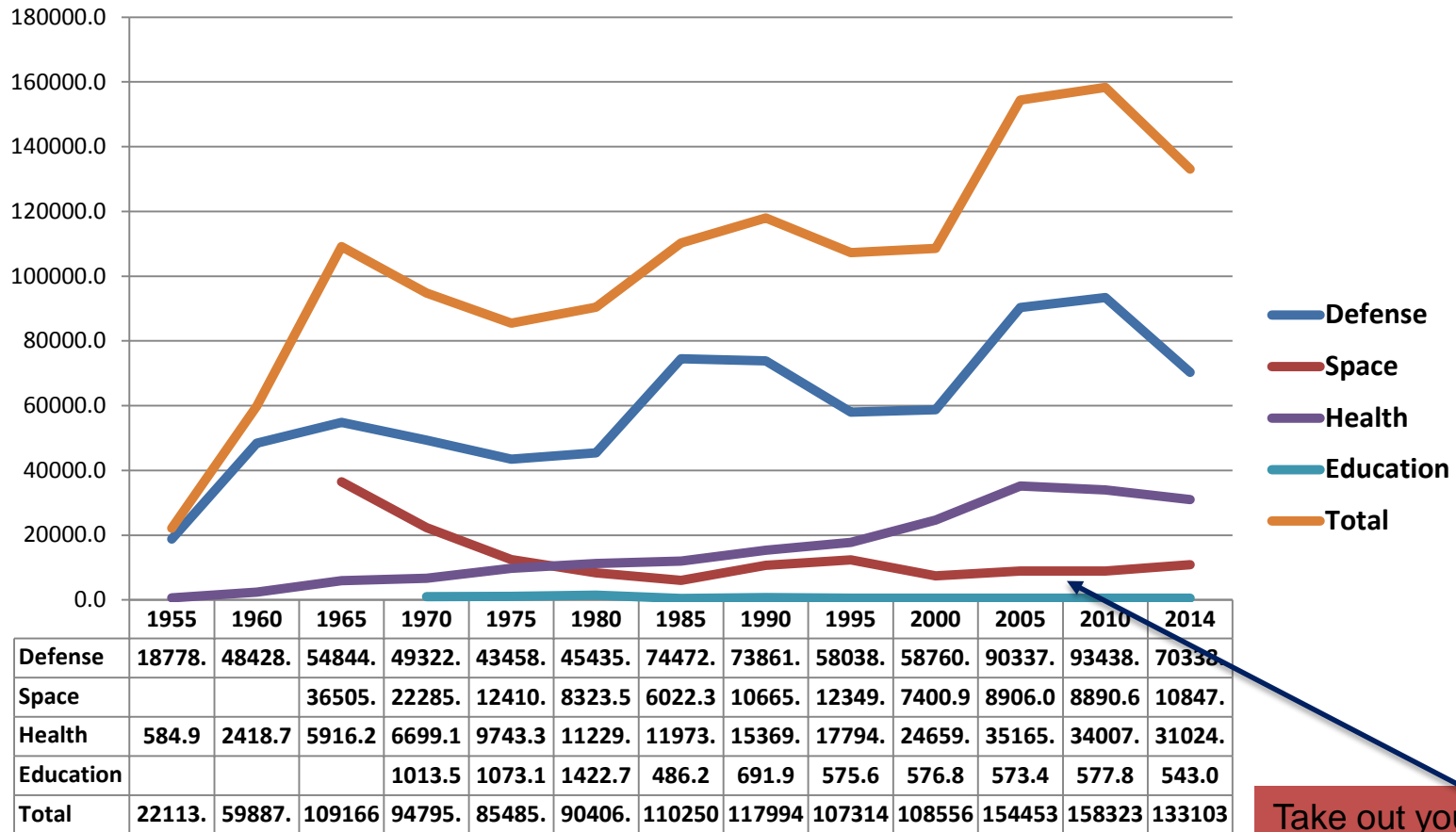


*Office of Acronym Control

Founding of the National Academy of Sciences, 1863

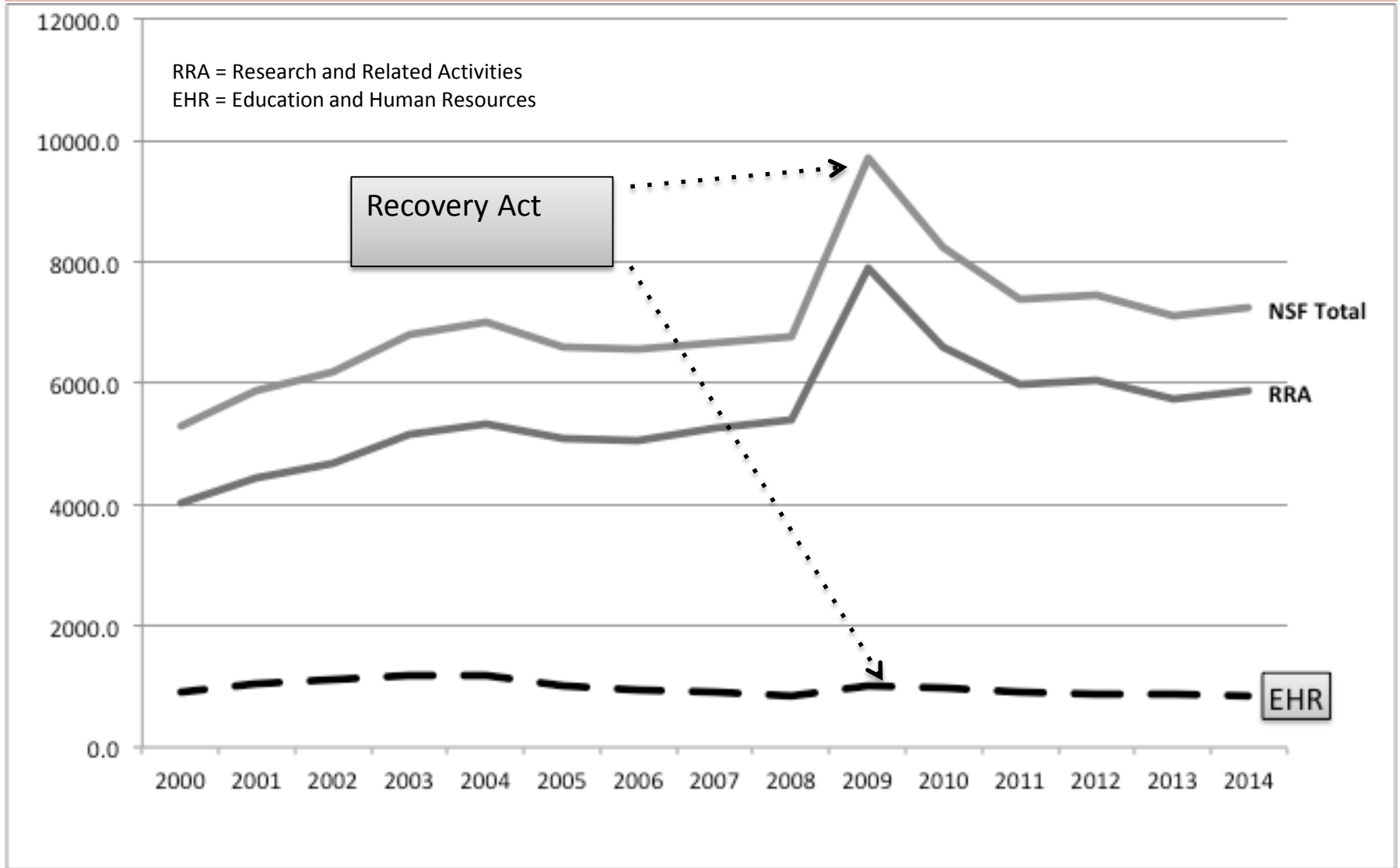


Federal Funding for R & D, selected categories, 1955-2014



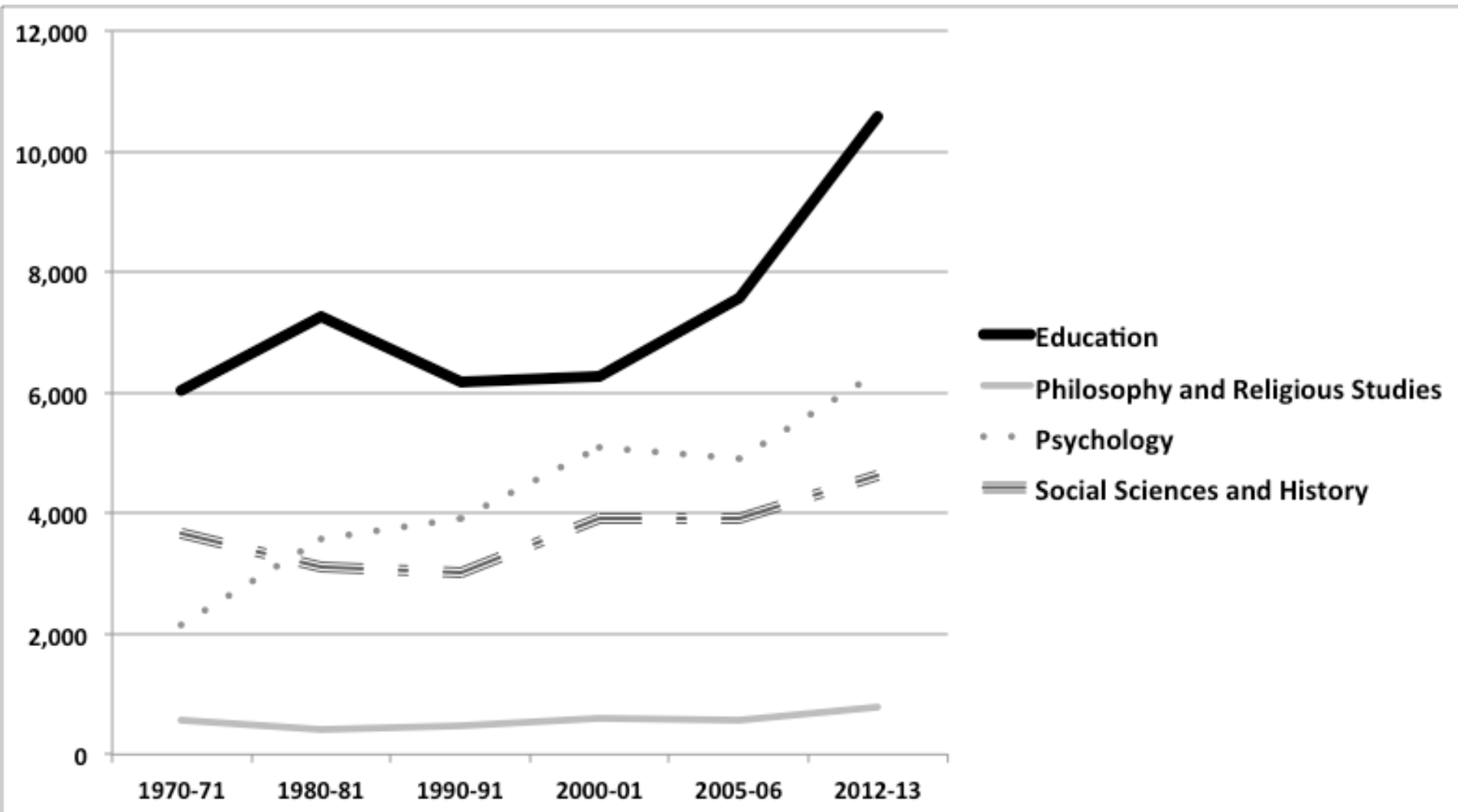
Take out your microscopes

NSF Funding, RRA and EHR, 2000-2014, in millions, 2015 constant dollars



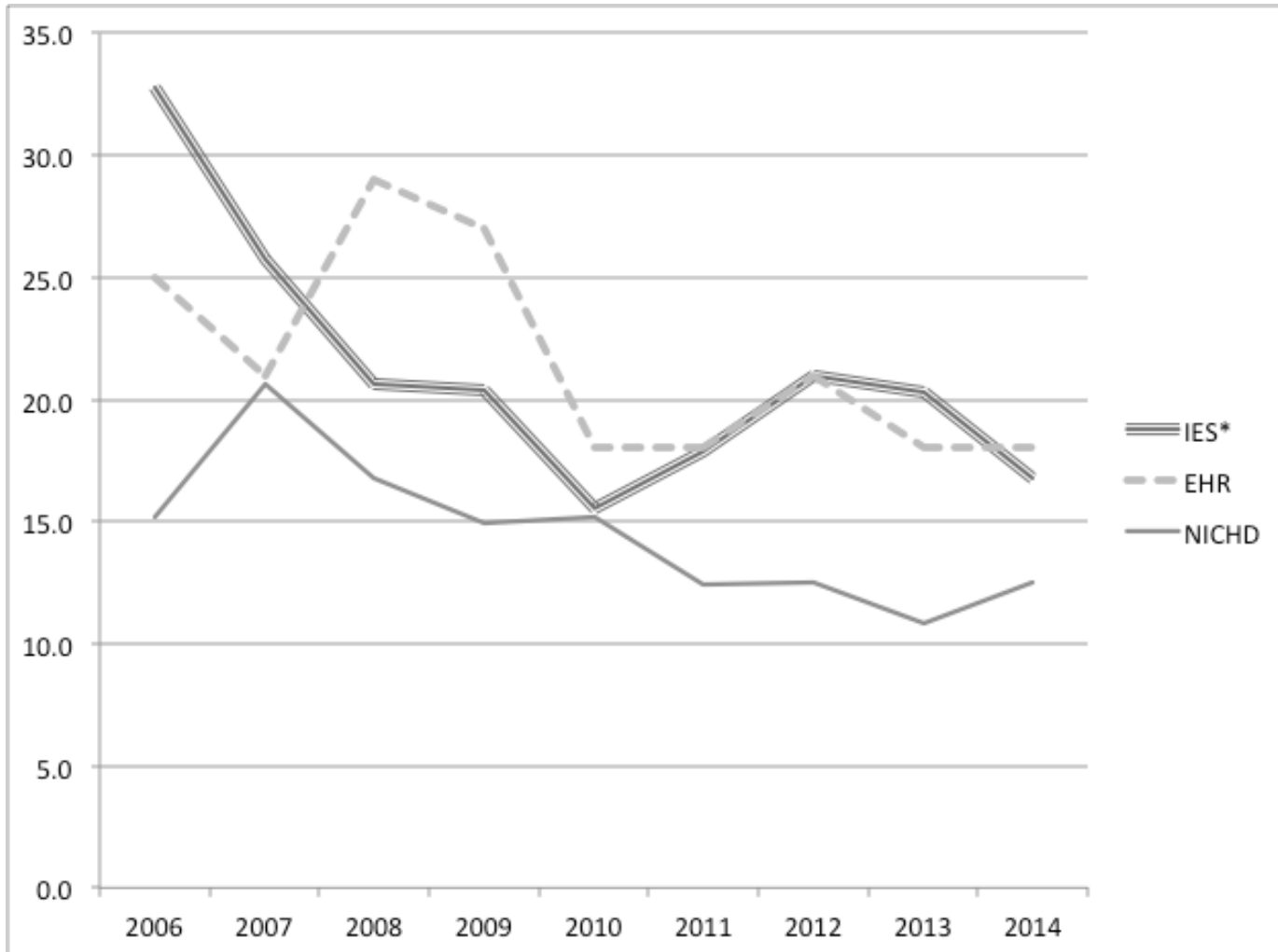
Source: National Science Foundation, NSF By Account FY Obligations, accessible at <http://dellweb.bfa.nsf.gov/NSFFundingbyAccountConstantDollars.pdf>

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



Source: author's computations based on data from NCES Digest of Education Statistics, http://nces.ed.gov/programs/digest/d14/tables/dt14_324.10.asp

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

More good news: American generosity

Charities Aid Foundation
2016

	 CAF World Giving Index ranking	 CAF World Giving Index score (%)	 Helping a stranger average (%)	 Donating money average (%)	 Volunteering time average (%)
Myanmar	1	70	63	91	55
United States of America	2	61	73	63	46
Australia	3	60	68	73	40
New Zealand	4	59	61	71	44
Sri Lanka	5	57	61	61	49
Canada	6	56	65	65	38
Indonesia	7	56	43	75	50
United Kingdom	8	54	61	69	33
Ireland	9	54	56	66	40
United Arab Emirates	10	53	75	63	21
Uzbekistan	11	52	67	62	27
Kenya	12	52	70	44	42
Netherlands	13	52	55	66	33
Norway	14	50	52	67	31
Turkmenistan	15	50	49	40	60
Malta	16	49	47	73	28
Iceland	17	49	52	70	26
Bhutan	18	49	52	56	39
Kuwait	19	48	78	48	17
Denmark	20	47	54	62	23

Milestones in American philanthropy

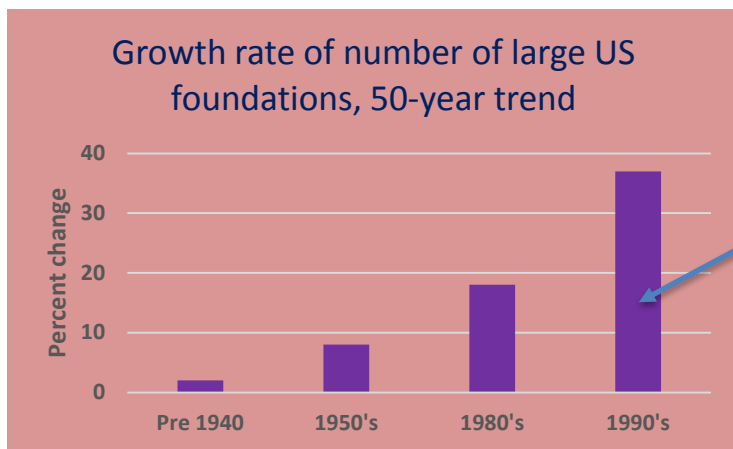
- 1907
 - Russell Sage, \$10M
- 1911
 - Carnegie Corporation, \$ 130M
- 1913
 - Rockefeller, \$35M
- 1917
 - *Charitable deduction*

Since then



Kellogg	1930
Ford	1936
Lily	1937
Packard	1964
Buffett	1964
Hewlett	1966
Mellon	1969
MacArthur	1970
Walton	1987
Broad	1999
Gates	2000

Turbulence + growth = increasingly competitive sector



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

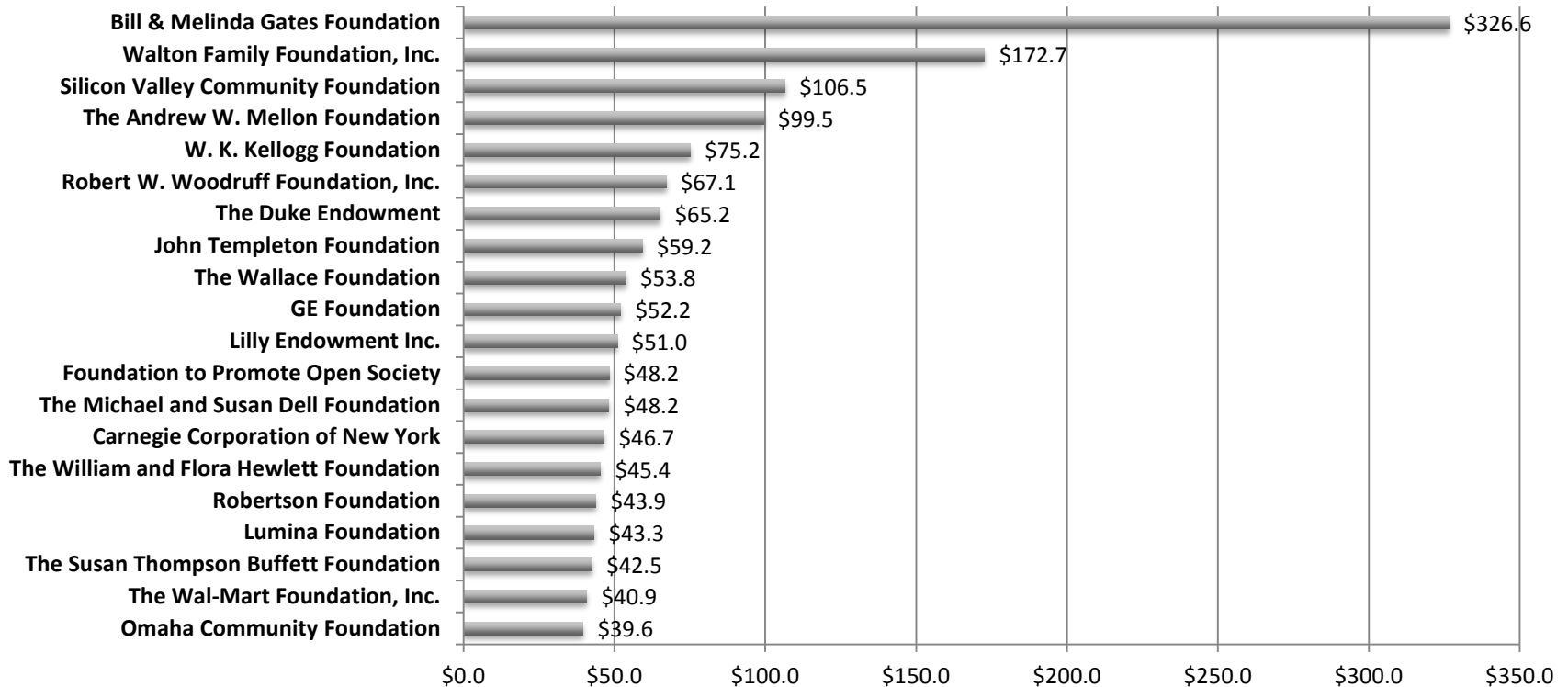
Largest foundation today: Gates, ~\$44B

Second largest: Ford, ~\$12B

Gates spending on education, 2002-2012: ~\$2.3B

Today's crowded scene

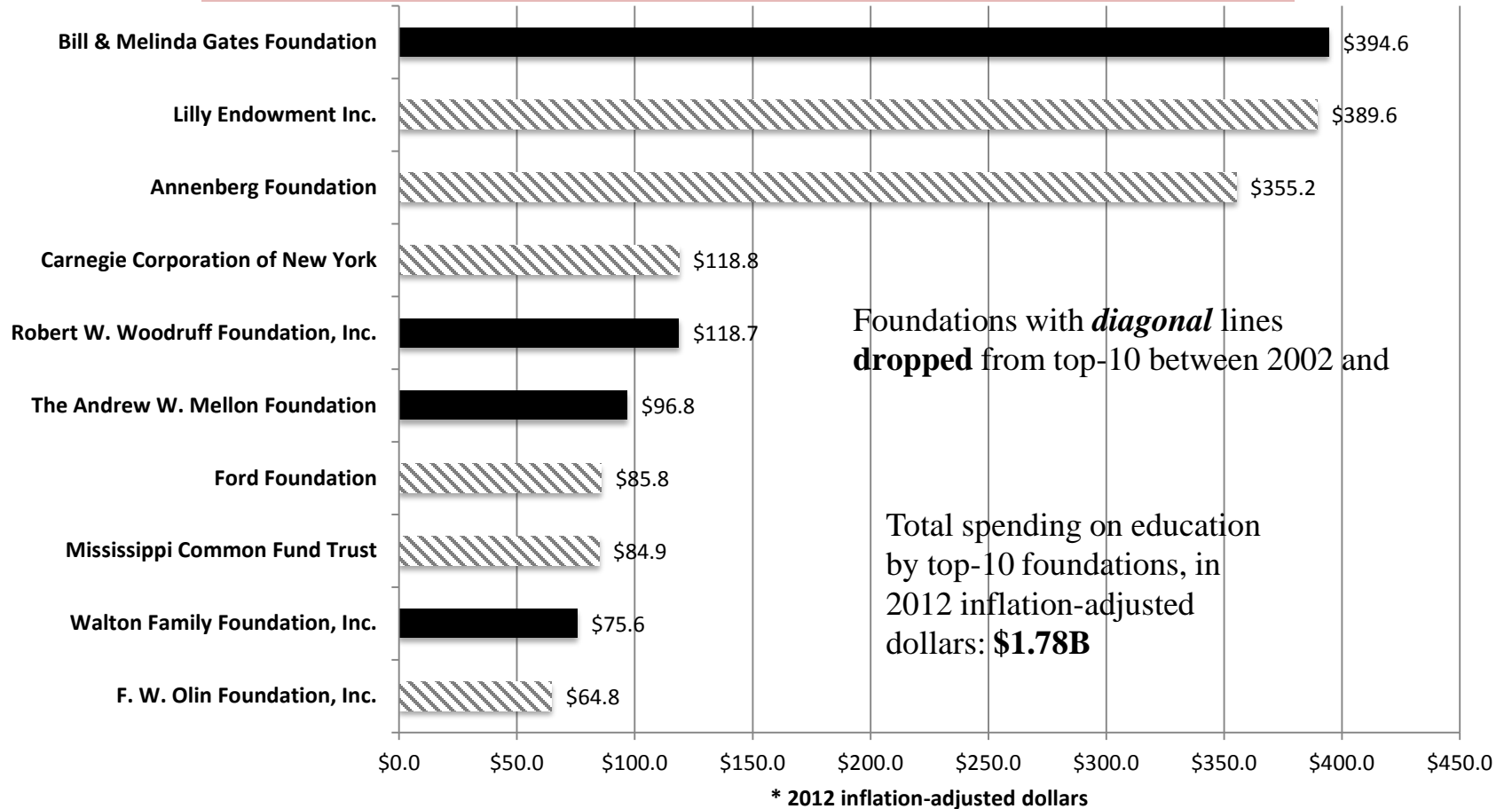
Top Twenty Foundations by Spending on Education, 2012, in millions



Source: Author's computations based on data from Foundation Center, 2015

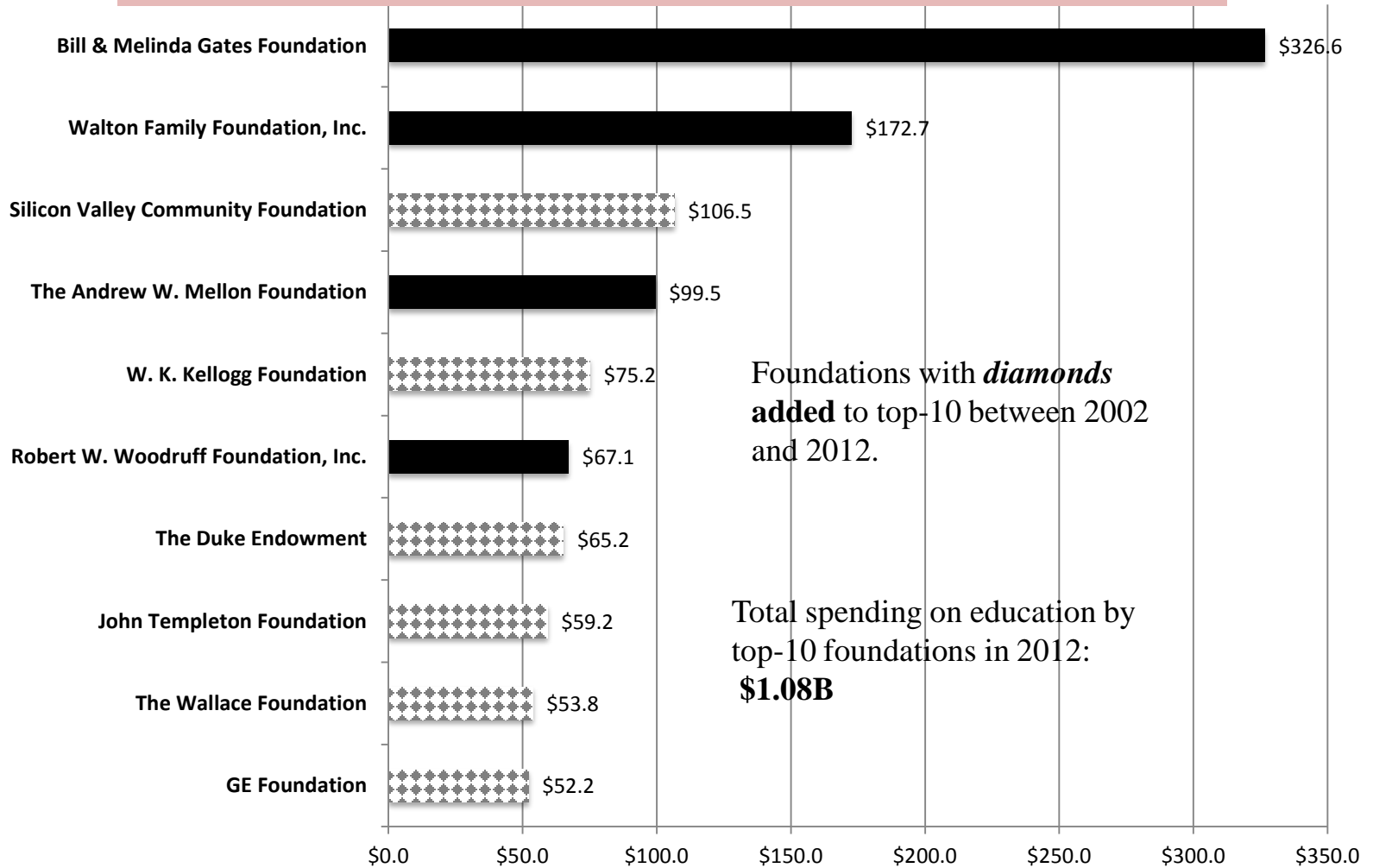
An interesting research question: does the diffusion of wealth reduce the downside risks of excessive concentration?

Top Ten Foundations by Spending on Education, 2002, in millions*



Source: author's computations based on data from the Foundation Center, 2015.

Top Ten Foundations by Spending on Education, in millions, 2012



Perspectives

Joel
Fleishman

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.

Diane
Ravitch

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...

Joanne
Barkan

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...

Rob Reich

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

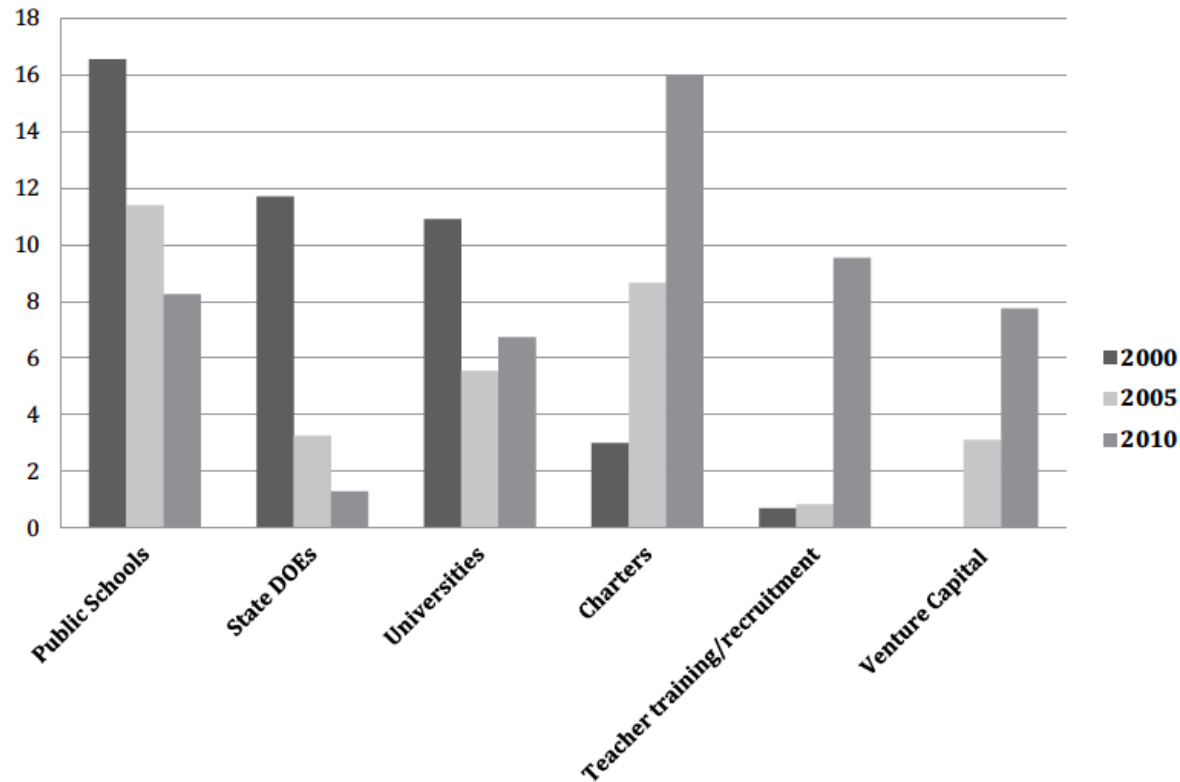


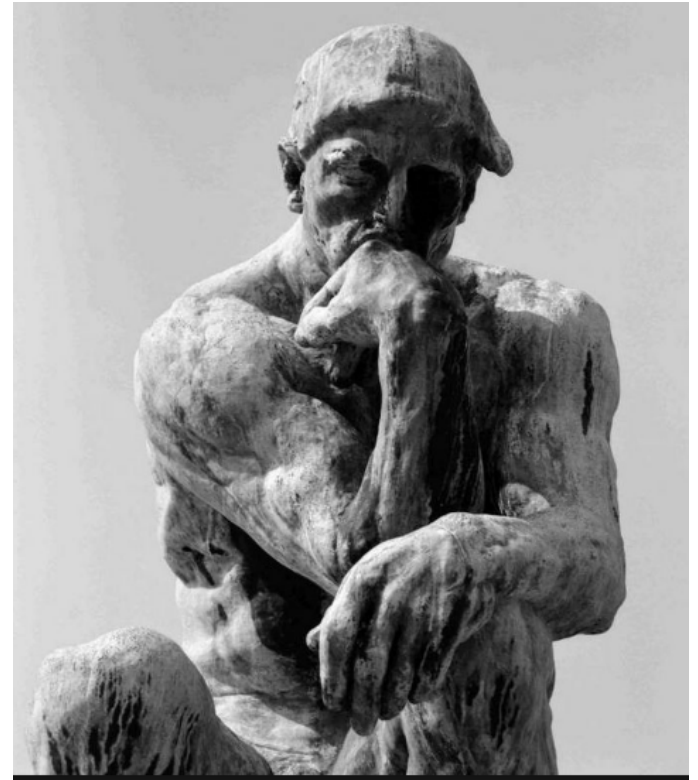
FIGURE 1. *Percent of major foundation grant dollars in traditional institutions versus jurisdictional challengers, 2000-2010*

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

III. The evidence movement

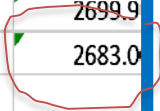
Think tanks as of end of 2014

- 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

	FHI	SRI	RAND	AIR	WestEd	Brookings	Urban	NBER	AEI	Cato	CAP	NAS	Total
2009	390.9	419.4	286.7	314.7	123.4	100.8	75.0	41.4	29.1	24.6	34.7	321.9	2162.9
2010	514.5	464.1	289.9	287.8	118.9	95.9	69.8	39.2	31.6	26.2	37.1	342.7	2317.7
2011	755.4	646.2	298.5	279.3	134.8	100.6	78.1	40.7	34.2	23.5	36.4	369.6	2797.4
2012	680.2	630.3	286.0	308.9	139.6	100.9	78.0	37.4	33.3	27.0	35.4	342.9	2699.9
2013	658.9	612.8	288.7	342.7	147.8	102.0	79.6	36.7	35.7	25.5	38.8	313.9	2683.0



Source: IRS Form 990; for WestEd audited financial statements provided

Threats to the credibility of evidence

NYT Sept 2014

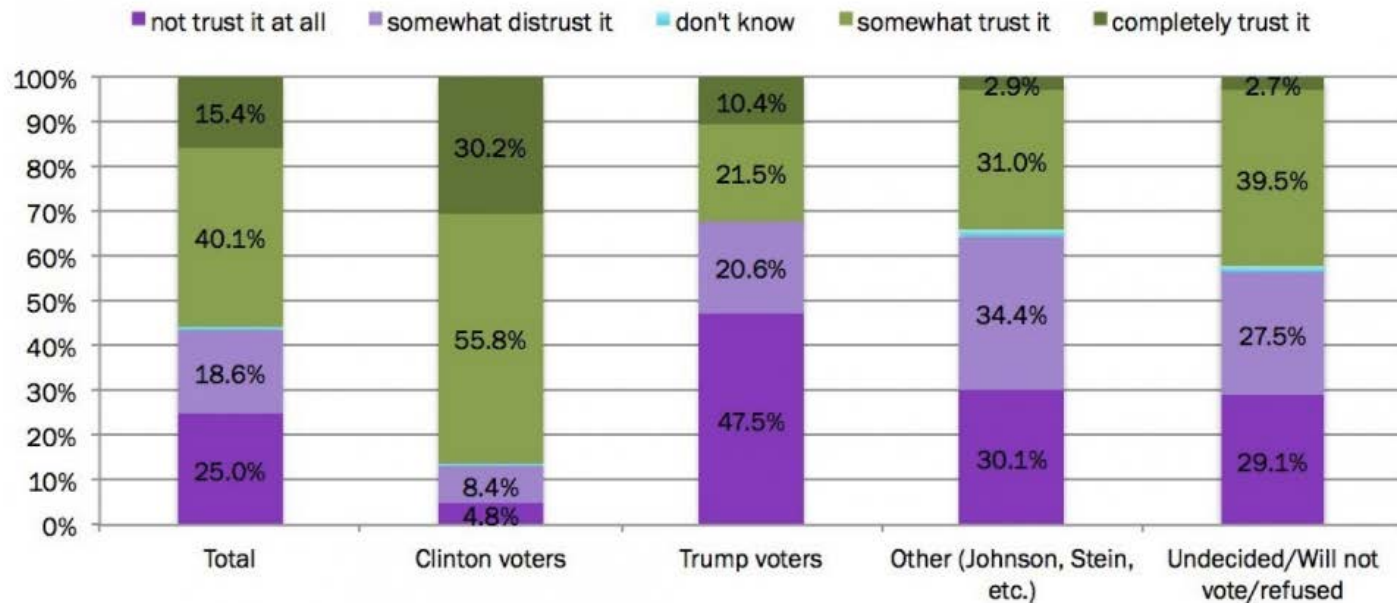
***“Foreign Powers Buy
Influence at Think Tanks”***

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...?



cited by Catherine Rampell, WP, Oct 17

IV. Review and action



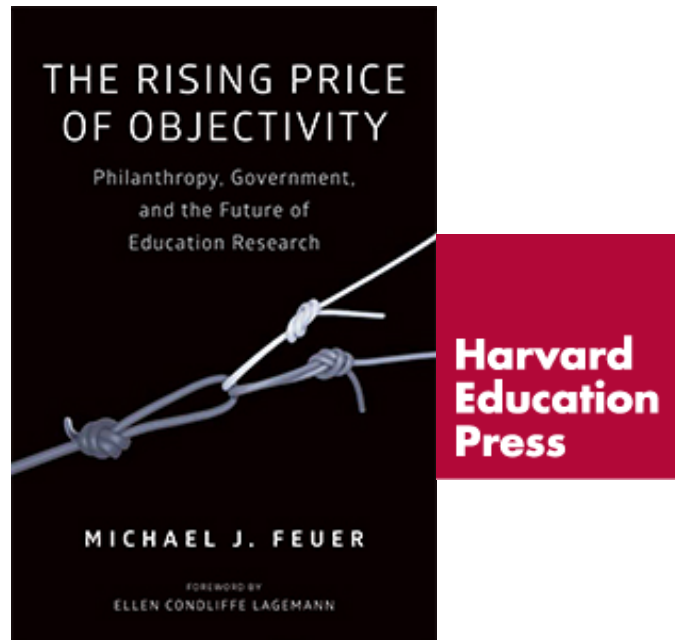
What to do?



Policy option	+	-	Probability of adoption
Tweak the tax	Improved accountability	Where to set the dial?	.3
Vertical integration	Increased specificity in education advice	Will Congress be interested?	.00001
Accounting for science	Collaboration and dialog	Who will pay?	.2
Advisers' Summit	New approach to indicators	Collective action is costly	.5



For more...



Thank you

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