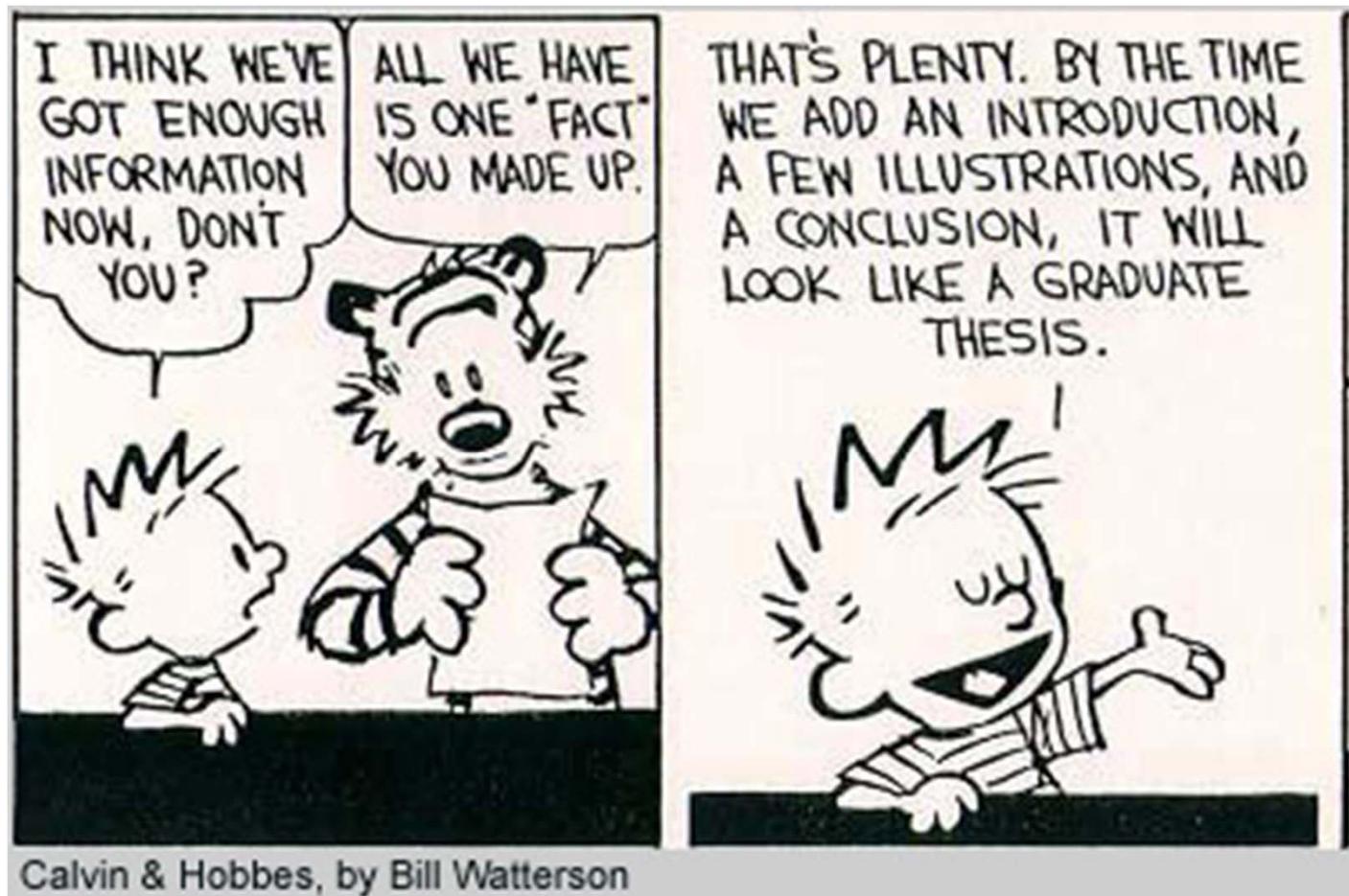


Soc 5: Evaluation of Evidence

Lecture 1: Introduction



Agenda

- Goal of the course
- Why we should care about methodology
- Your instructors
- Active Learning
- Course Logistics
- An Example

What is the goal of this course?

- To teach you to think like a sociologist.
- More specifically, to teach you how to interpret and gather data so you can determine:
 - whether a claim about the world is true
 - or how true a claim about the world is
 - or, if you have 2 competing claims, which one is (more) true.

Evaluate Empirical Research

- Concepts
- Measurement
- Research Design
- Data Collection
- Data Analysis

Do Some Social Science

- Data Analysis
- Questionnaire Design
- In-Depth Interviews

Why Methodology?

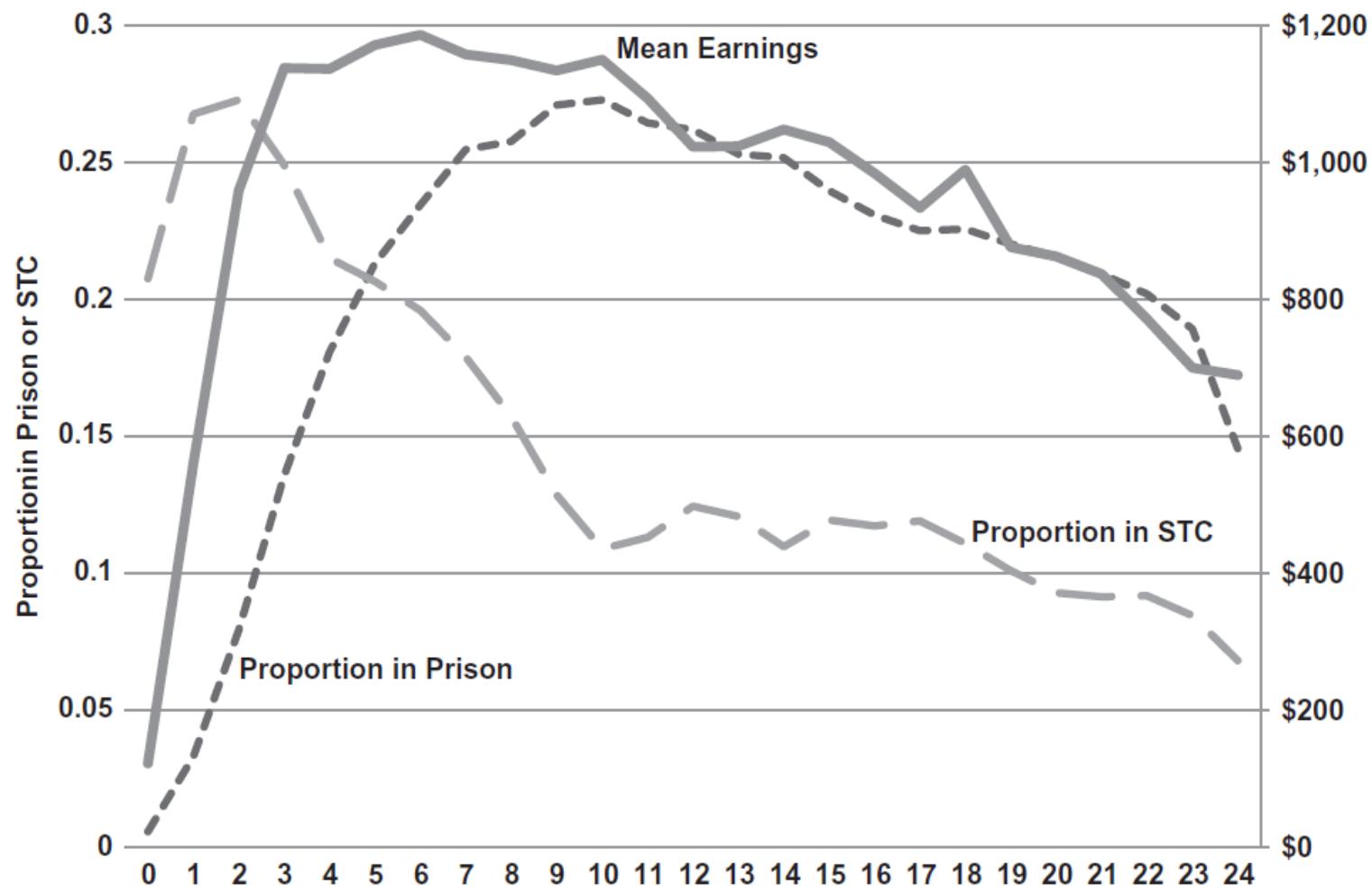
- Systematic Data Collection and Analysis are what make Sociology a Social Science
 - Qualitative or Quantitative
 - How we know is just as important as what we know
- General, but not universal, agreement on methodological standards is what allows for evaluation, improvement, and progress in our understanding of human behavior, culture, and institutions
- Replicability/Reproducibility

A little about me...

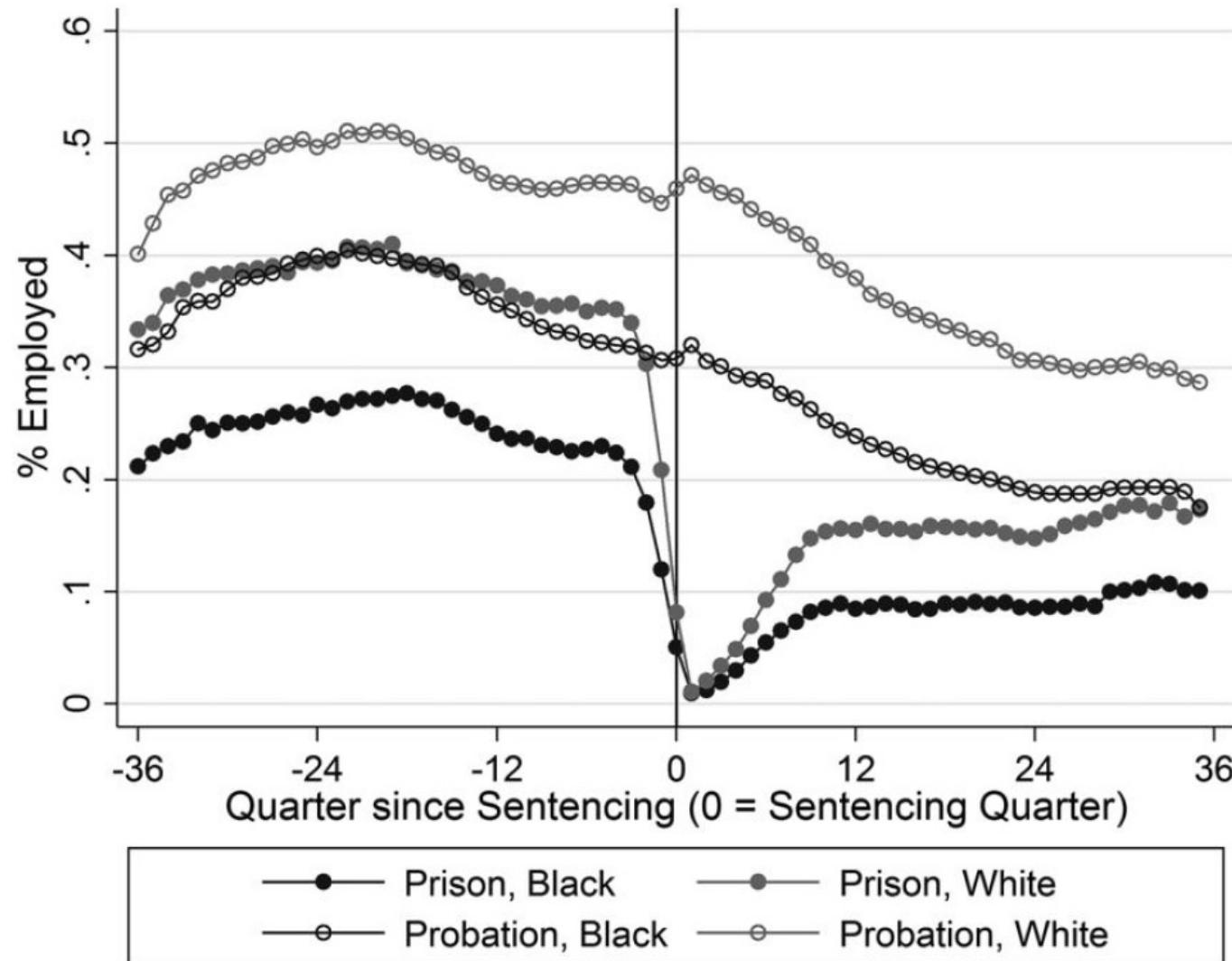
- PhD in Sociology and Social Policy, Harvard, 2005
- Faculty at University of Michigan 2006-2013
- At Berkeley Since 2013
- Poverty, Inequality, Social Contexts and Institutions
- Current Research (mostly): Prisoner Reentry and Effects of Incarceration
- Statistical/Quantitative, Qualitative Interviews, Mixed Methods

Short Term Custody During Parole

Figure 1. Mean earnings and proportion in prison and STC by quarter since release



Employment Before and After Prison



GSIs

- Carmen Brick (enrollment)
- Greg Fayard (DSP)
- Kelly Quinn
- Emily Ruppel
- Jasmine Sanders
- Mariah Wood

Attendance Time

tinyurl.com/soc5attend

- *available from now until end of lecture*
- *sign in using your berkeley.edu account*
- *you will receive email confirmation*

If this does not work for you, sign in on my yellow pad at the end of lecture

Active Learning

- What is active learning?
 - Engaging in higher order-thinking (application, extension, evaluation, problem-solving, debate)
- Key elements:
 - First exposure before class (readings and videos)
 - Incentive for preparation (quizzes!)
 - Assessing student learning
 - In-class activities that engage higher-order thinking skills (more fun!)
- You've probably done this before:
 - remember elementary school? (even a little?)



Why Active Learning?

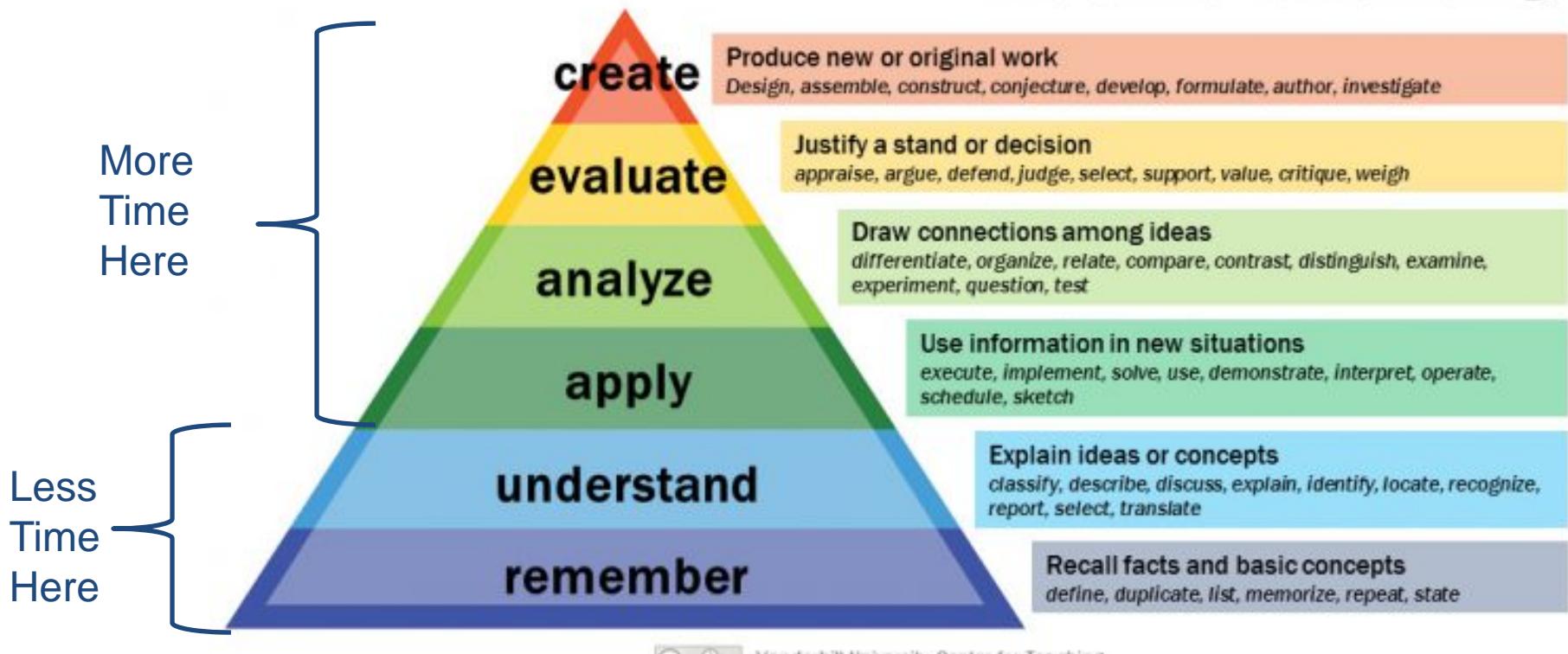


Listening to
Lectures is
BORING!

And just
about the
worst way to
learn,
according to
research

Why Active Learning?

Bloom's Taxonomy



Why Active Learning?

- Peer instruction
- Learning how to learn
- Immediate feedback
- Research says it works



Course Structure

- Required Course Materials
 - Carr et al. *Art and Science of Social Research (1st Edition)*
 - Moffit course reserves
 - Additional Readings: PDFs posted on bCourses
 - A device to take quizzes on (laptop, tablet, smartphone)
- Lectures
 - Active Learning Exercises building on assigned readings and videos.
 - Bring in material BEYOND the assigned readings.
 - Lecture slides available on bCourses before class.
 - (Almost) Daily Quizzes, graded starting in fifth lecture
- Sections
 - Discuss readings & lectures.
 - Do individual & group exercises to clarify readings.
 - Discuss projects.
 - Review midterm and final.

bCourses website: be sure to opt-in to received course announcements (check your settings ASAP)

Syllabus: It is your responsibility to read and understand the syllabus. Ask if something is unclear.

Course Outline

1. Sociology & Social Science Sept 3, 5, 10
2. Research Design Sept 12-26
3. MIDTERM – Review & In-Class Exam Oct 3 & 8
4. Ways to Gather and Analyze Data Oct 1, 10-Nov 26
5. Ethics Dec 3
6. Review Dec 5
7. FINAL EXAM Dec 17

Assignments and Grading

Assignment	% of Grade	Due Date
Quizzes and Exams		
Quizzes in lecture, drop lowest 4	12%	Take in class
Mid-term Exam	15%	In-class Exam Oct. 8
Final Exam	15%	In-class Exam Dec. 17
Research Projects		
Project 1: Identifying Dependent & Independent Variables	6%	September 24
Project 2: Designing a Survey	12%	October 29
Project 3: Data Analysis	12%	November 15
Project 4: Qualitative Interviewing	13%	December 5
Participation and Attendance	15%	Throughout semester

A Primer on In-Class Quizzes

- We will use google forms to take the quiz
 - Log in with your Calnet ID (same as attendance today)
 - Order of questions and responses is randomized
 - Also serves to record attendance
 - Honor Code applies
- Each quiz question will have 3-5 possible answers
 - You will have about 1 minute to answer each question.
- After all questions have been answered, I will show the distribution of results (data for us to evaluate!) and discuss the correct response.

Suggestions: How to Take a Multiple Choice Quiz

- Read each question through completely before answering.
- Cross out 1-2-3 answers that you are very sure are wrong.
- Compare the remaining answers. Which 1 is most likely?
Choose it.
 - If 2 seem equally likely and you have time before the quiz runs out, ponder the reading you did before class.
 - If 2 seem equally likely and time is about to run out, just choose 1 – you probably have a 50/50 chance of being right.

Sections

- Attendance in sections is MANDATORY.
- Participation in sections (based on attendance and active participation) is critical to your learning the materials presented in this course.
- Sections start:
 - Wednesday, Sept 11 for M/W sections
 - Thursday, Sept 12 for Tu/Th sections
- There will be NO section meetings until then.
- If you need to change sections, please fill out this form:

<https://forms.gle/gEeVm5Ta7tRhCa6m6>

(link is also on syllabus)

Clearing the Waitlist

- If you're enrolled and considering dropping:
 - Please do so quickly so students who are on the waitlist can get in.

- If you're enrolled and want to stay in the course...

OR

- if you're on the waitlist:
 - Attend this class and the next 2 classes.
 - I will drop students who do not attend ALL 3 lectures.
 - Course is locked – all additions will go through Carmen Brick (carmenbrick@berkeley.edu) and/or Soc Advisors

Example:

*Surprising mortality trends for non-Hispanic Whites in the United States
(Not on exam)*

The **Atlantic**

SUBSCRIBE SEARCH MENU≡

The Original Underclass

Poor white Americans' current crisis shouldn't have caught the rest of the country as off guard as it has.

8/27/2019

SOC 5 Lecture 1

Berkeley
UNIVERSITY OF CALIFORNIA

24

Donald Trump Is Winning Because White America Is Dying

Noam Chomsky says Trump's rise is partly due to deeply rooted — and potentially fatal — feelings of fear and anger.

02/25/2016 07:17 pm ET | Updated Feb 26, 2016



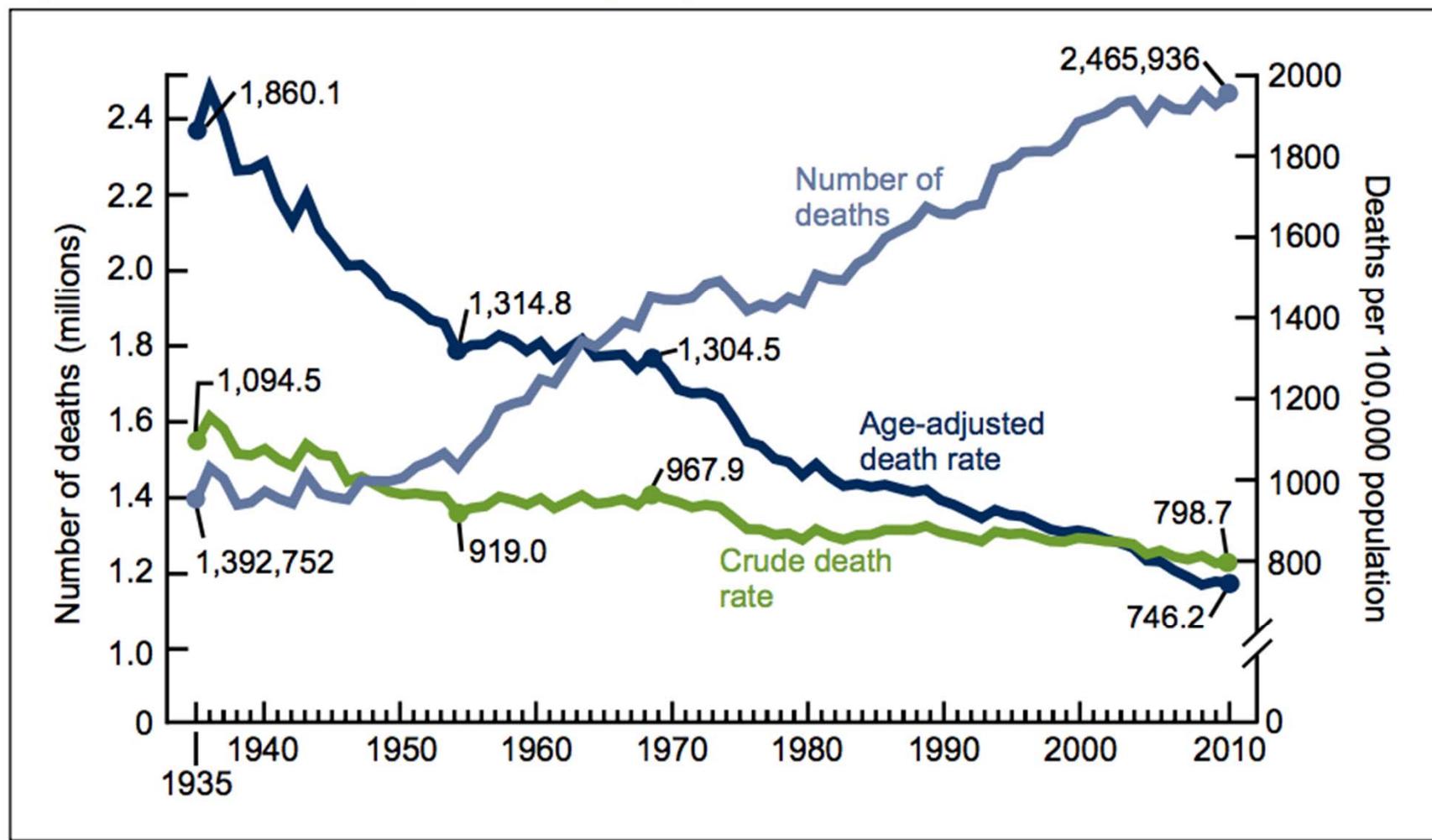
National Reporter, The Huffington Post

Noam Chomsky, the renowned scholar and MIT professor emeritus, says that the rise of Donald Trump in American politics is, in part, fueled by deeply rooted fear and hopelessness that may be caused by an alarming spike in mortality rates for a generation of poorly educated whites.

"He's evidently appealing to deep feelings of anger, fear, frustration, hopelessness, probably among sectors like those that are seeing an increase in mortality, something unheard of apart from war and catastrophe," Chomsky told The Huffington Post in an interview on Thursday.

Really?

Figure 1. Number of deaths, crude and age-adjusted death rates: United States, 1935–2010



NOTES: 2010 data are preliminary. Crude death rates on an annual basis are per 100,000 population; age-adjusted rates are per 100,000 U.S. standard population. Rates for 2001–2009 are revised and may differ from rates previously published.

SOURCE: CDC/NCHS, National Vital Statistics System, Mortality.

Rising morbidity and mortality in midlife among white non-Hispanic Americans in the 21st century

Anne Case¹ and Angus Deaton¹

Woodrow Wilson School of Public and International Affairs and Department of Economics, Princeton University, Princeton, NJ 08544



Death Rates Rising for Middle-Aged White Americans, Study Finds

By GINA KOLATA NOV. 2, 2015



The Economist

Topics ▾

Something startling is happening to middle-aged white Americans. Unlike every other age group, unlike every other racial and ethnic group, unlike their counterparts in

RELATED COVERAGE

Readers React to Rising Death Rates of Middle-Aged White Americans NOV. 4, 2015

White America's mid-life crisis

Unseen killer

White, middle-aged Americans

From the print edition | United States

Nov 7th 2015, 00:00

8/27/2019

THE AMERICAN PROSPECT

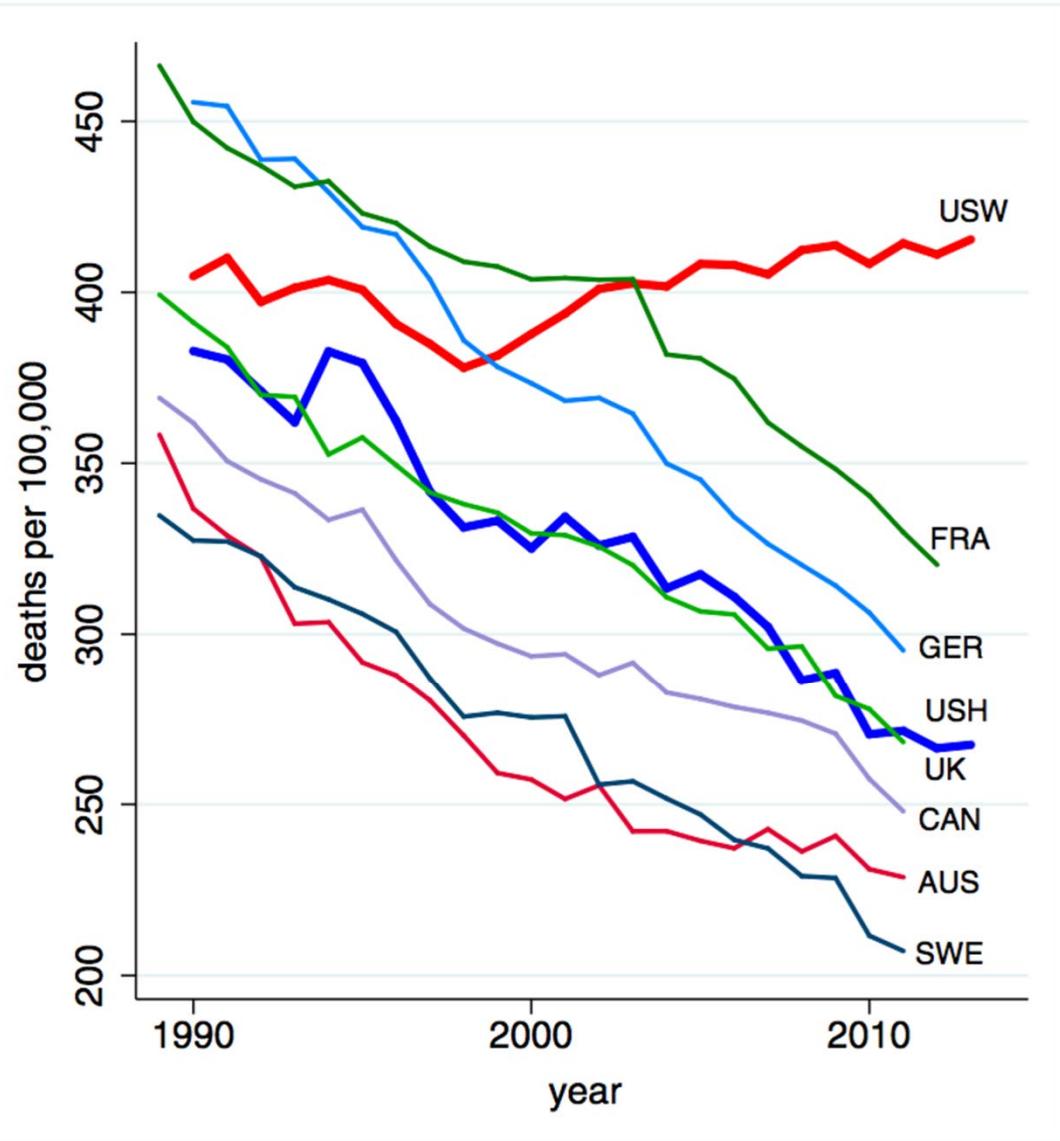
Home Magazine Blogs Voices Editors Picks Trickle Downers Site Map

A Shocking Rise in White Death Rates in Midlife -- and What It Says About American Society

PAUL STARR NOVEMBER 2, 2015

Drugs, alcohol, and suicide have taken an unparalleled toll on middle-aged whites, especially those with a high school degree or less.

28



All-Cause Mortality Ages 45-54 US White non- Hispanic (USW) vs. Other groups 1990-2013

Fig. 1. All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).

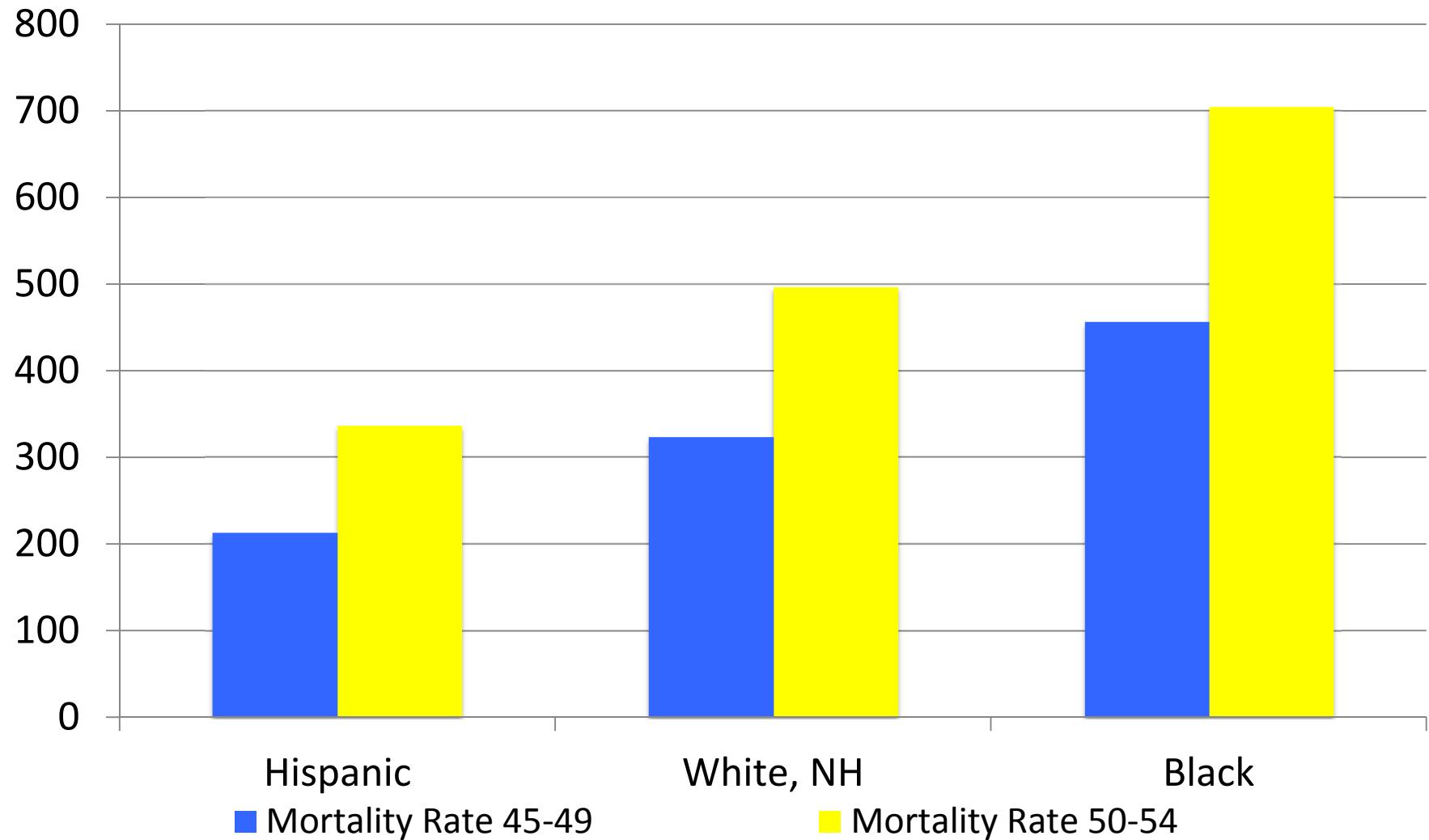
8/27/2019

SOC 5 Lecture 1

Variation by Education and Race (age 45-54)

	All-cause mortality
White non-Hispanics (WNH)	33.9 (415.4)
Black non-Hispanics	-214.8 (581.9)
Hispanics	-63.6 (269.6)
WNH by education class	
1. Less than high school or HS degree only	134.4 (735.8)
2. Some college, no BA	-3.33 (287.8)
3. BA degree or more	-57.0 (178.1)
Ratios of rates groups 1–3	
1999	2.6
2013	4.1

(vs. Levels of Mortality)



What's going on?

What is causing this rise?

Why would mortality be increasing for this group?

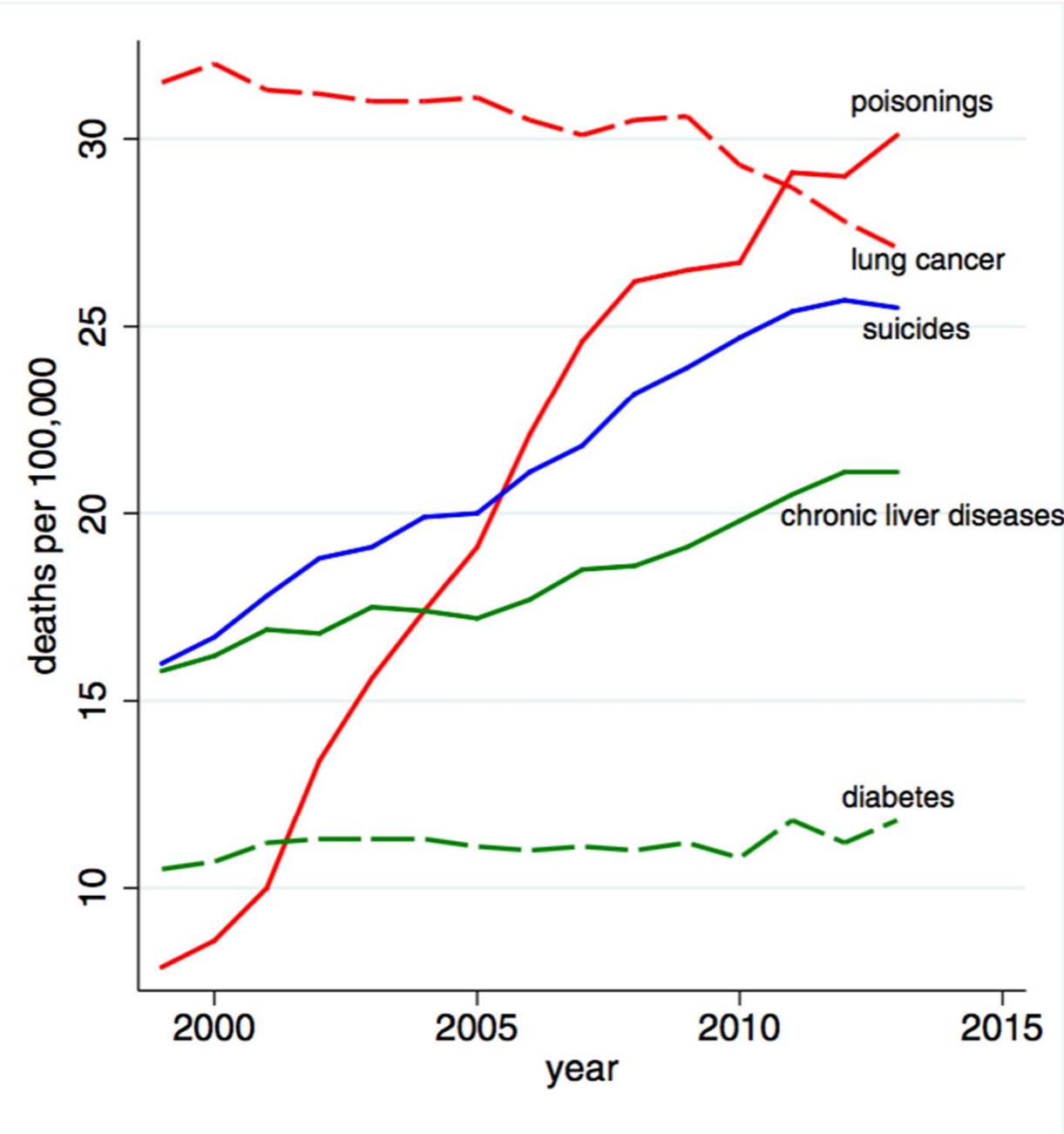


Fig. 2. Mortality by cause, white non-Hispanics ages 45–54.

Mortality by
cause
White, Non-
Hispanic
Age 45-54
1999- 2013

How do Case & Deaton Explain it?

- “An epidemic of pain”
- “Ties to economic insecurity are possible...”
- “Future financial insecurity may weigh more heavily on US workers”

C&D's Conclusions:

- US white non-Hispanic mortality rose by half a percent a year.
- Patterns are similar for men and women when analyzed separately
- Other rich countries' mortality rates continued to decline by 2% a year
- The mortality reversal was confined to white non-Hispanics; Hispanic Americans had mortality declines indistinguishable from the British (1.8% per year), and black non-Hispanic mortality for ages 45–54 declined by 2.6% per year over the period.

Everybody's a critic...

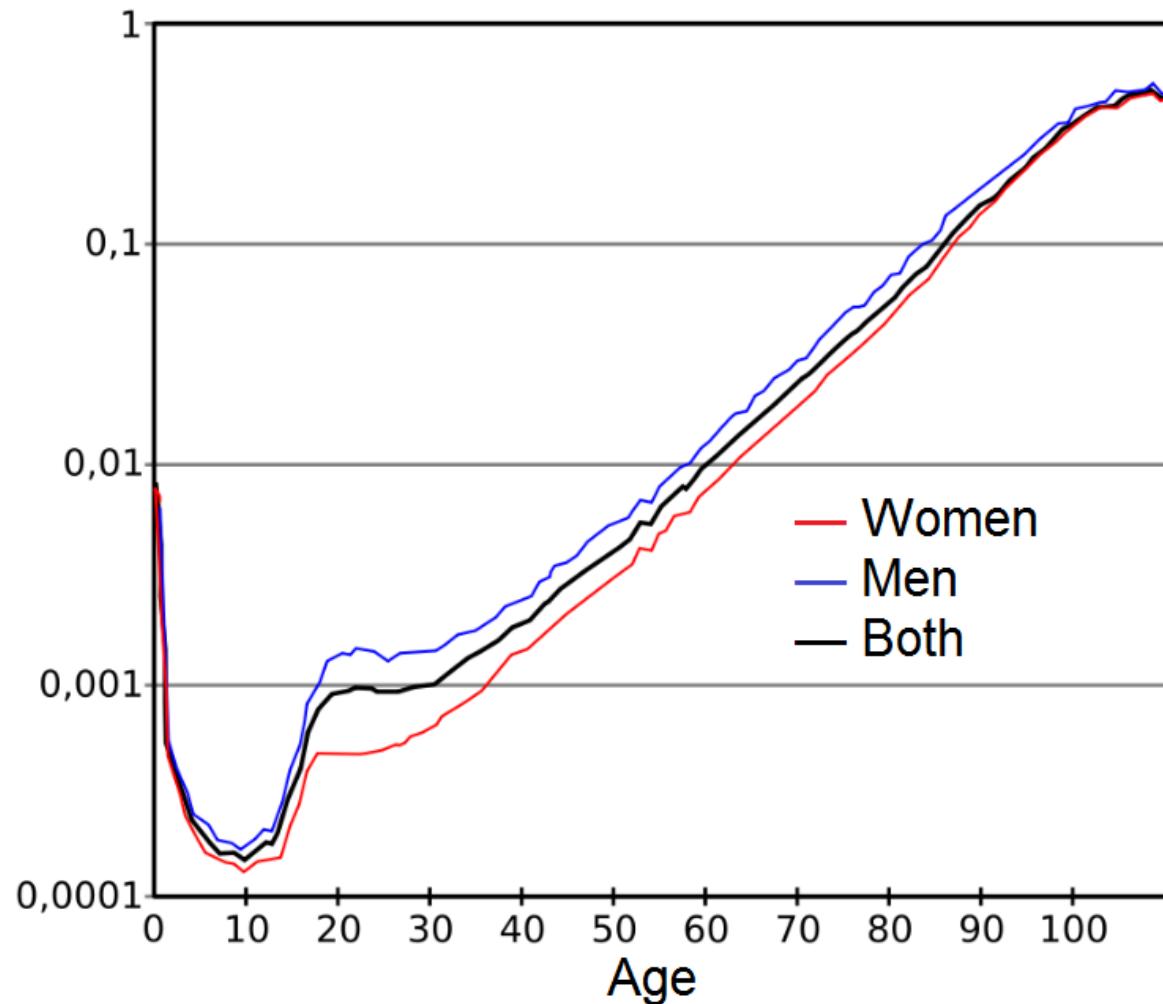


Phil Cohen

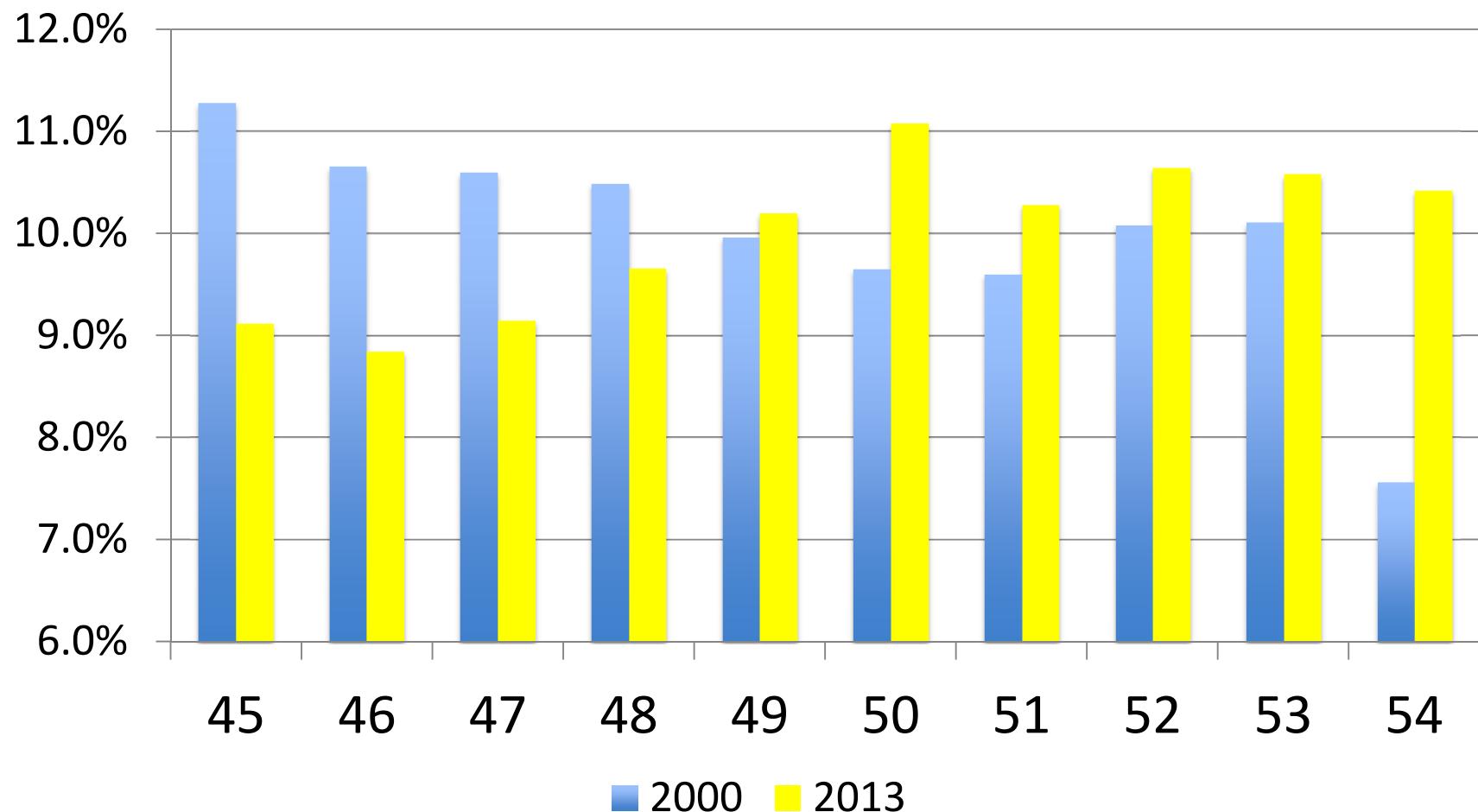


Andrew Gelman

How does the risk of death change with age?



Age of those 45-54 in 2000 and 2013



Gelman:

- Probability of death increases by about 8% for each year of age
- Average age of those 45-54 increased by about 0.6 years between 2000 and 2013
- So.... $0.6 \times 8\% = 5\%$

So, one could rewrite the Case and Deaton abstract to something like this:

This paper documents a marked increase flattening in the all-cause mortality of middle-aged white non-Hispanic men and women in the United States between 1999 and 2013. This change reversed decades of progress in mortality and was unique to the United States; no other rich country saw a similar turnaround stasis.

Cohen:

So I can say this: if age and sex composition had stayed the same between 2000 and 2013, there would have been 3,443 fewer deaths among non-Hispanic Whites in the ages 45-54.

Here is what Case and Deacon say:

If the white mortality rate for ages 45–54 had held at their 1998 value, 96,000 deaths would have been avoided from 1999–2013, 7,000 in 2013 alone.

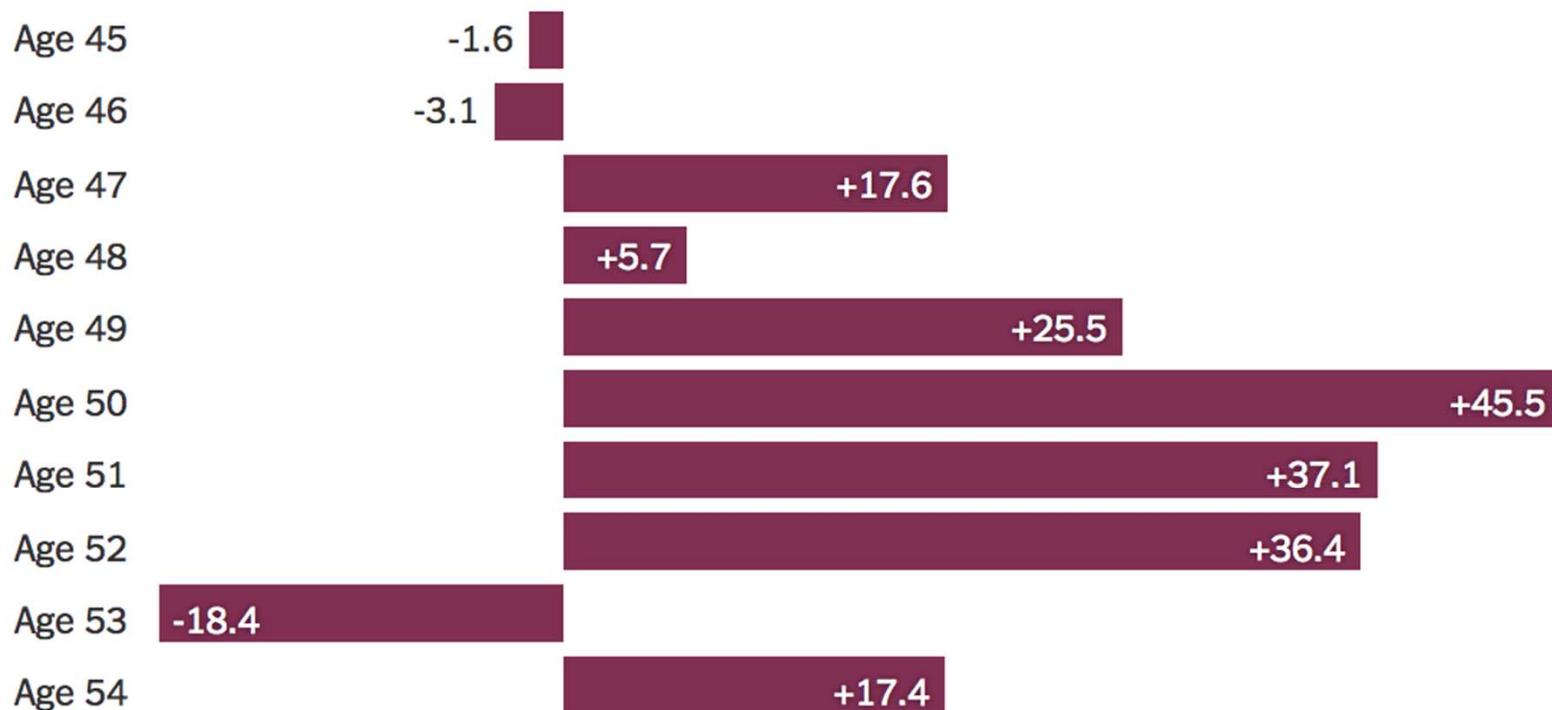
So, it looks to me like age composition change accounts for about half of the rise in mortality they report. They really should have adjusted for age.

Re-Joinder:

Rising Mortality Among Middle-Aged Whites

The mortality rate for most single-year ages between 45 and 54 rose from 1999 to 2013.

Change in deaths per 100,000 white people



Source: Anne Case and Angus Deaton

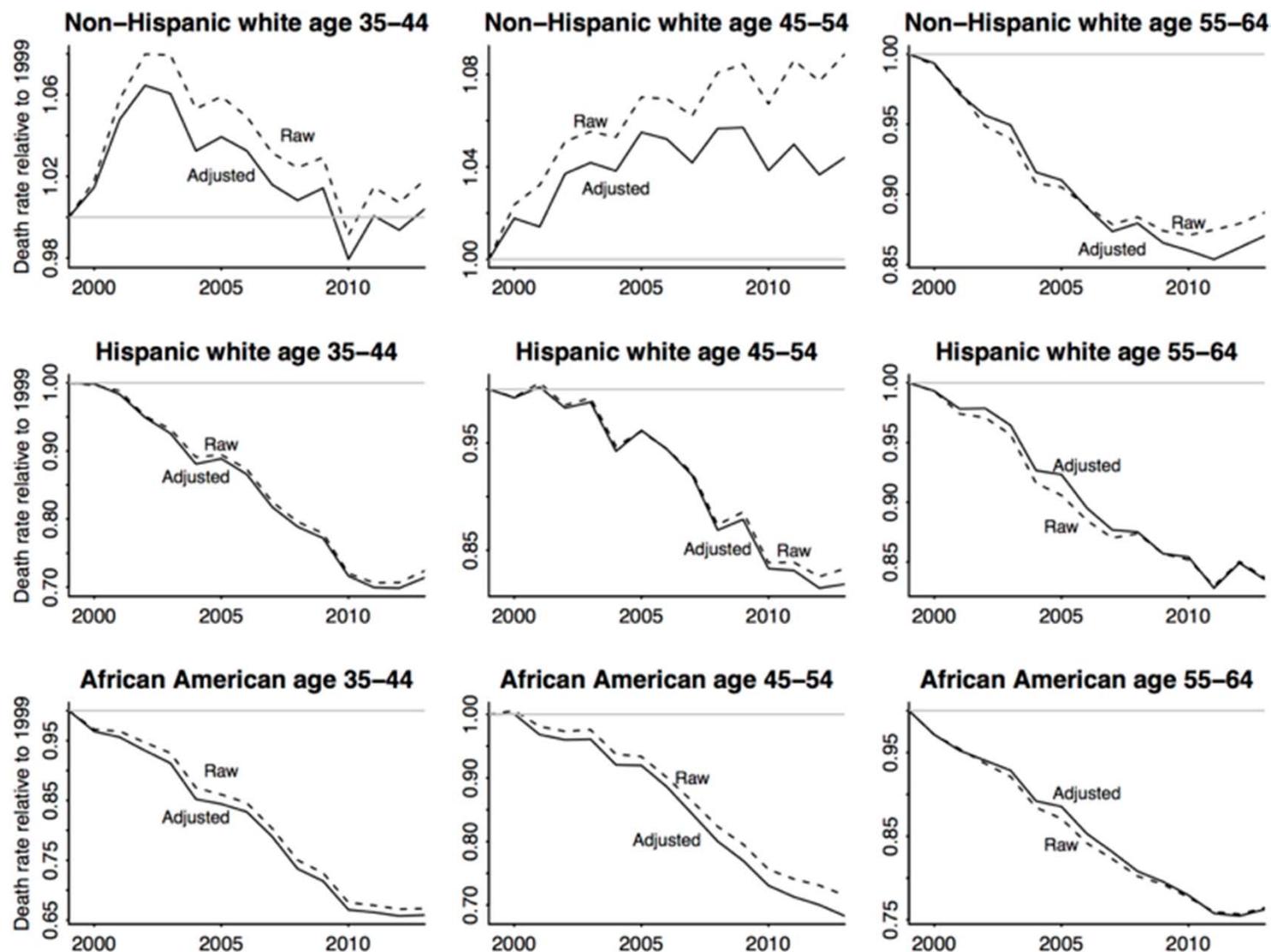
And Also...

“We spent a year working on this paper, sweating out every number, sweating out over what we were doing, and then to see people blogging about it in real time — that’s not the way science really gets done. And so it’s a little hard for us to respond to all of the blog posts that are coming out.”

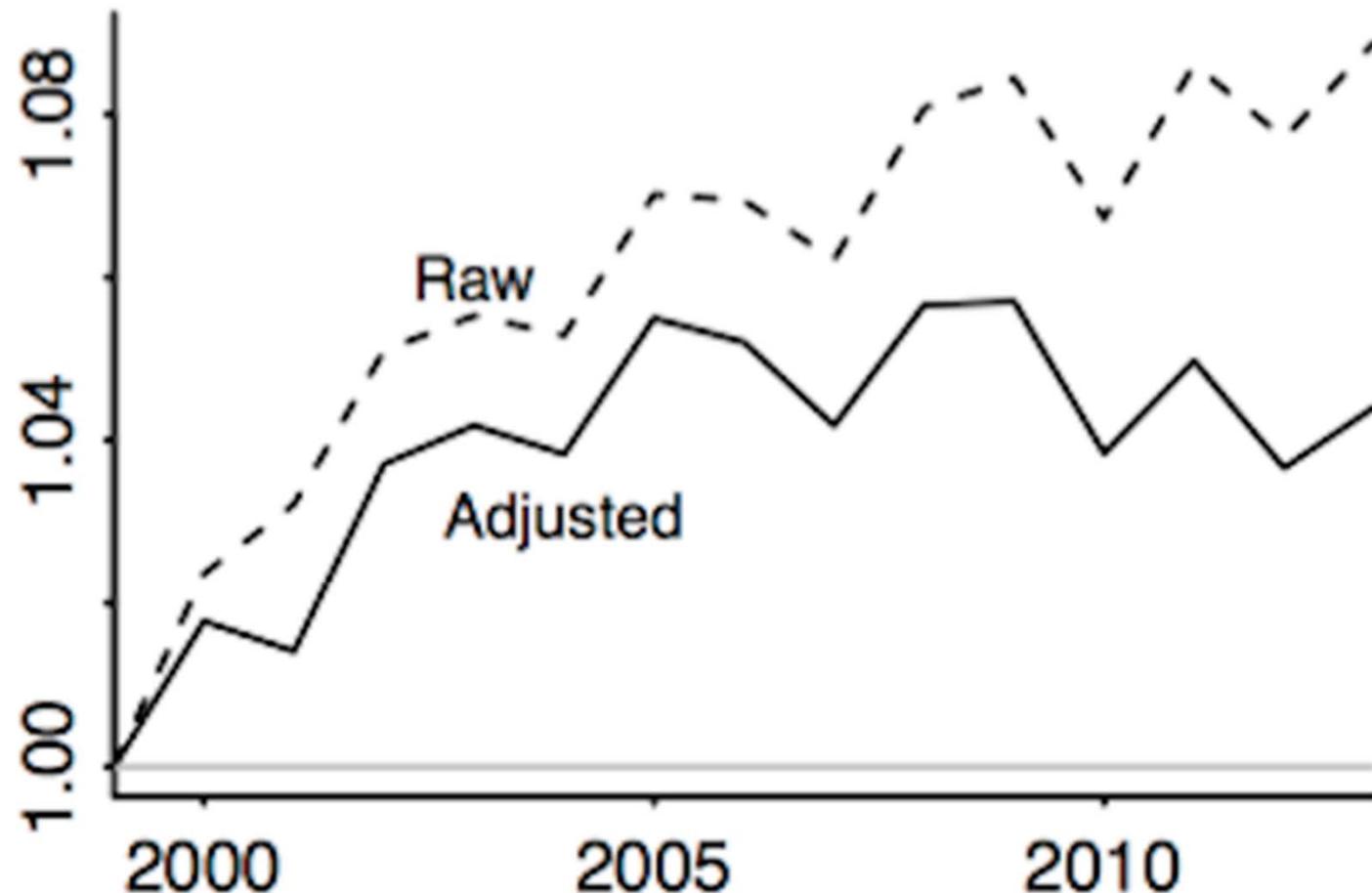
- Anne Case

Re-Re-Joinder

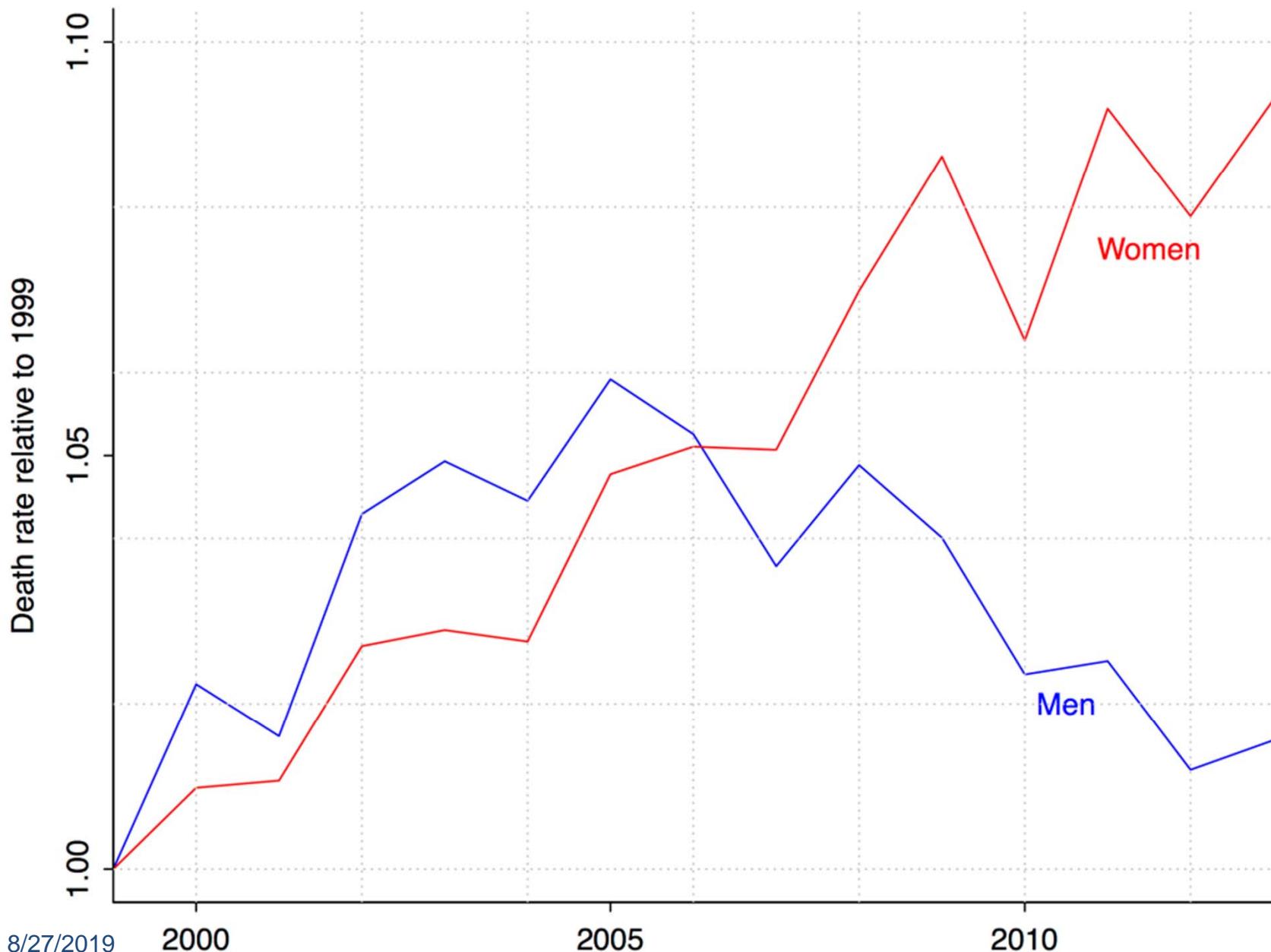
Effects of age adjustment on trends in death rates by decade of age
(Note: these graphs are on different scales)



Non-Hispanic white age 45–54



Age-adjusted death rates for non-Hispanic whites aged 45–54: Trends for women and men



Re-Re-Joinder

- Properly correcting for the age-composition problem explains about two-thirds of the apparent increase in mortality between 1999 and 2013
- Further, all of the rise in mortality took place between 1999 and 2005
- Mortality rates have been basically flat for whites age 45-54 since 2005
- Notable increase in mortality among white, non-Hispanic women age 35-52 over the whole period 1999 - 2013

And Also...

Post-publication review is a wonderful thing. A blog commenter alerted me to the possibility of age-aggregation bias, Angus Deaton pointed me to the relevant CDC website, and I was able to dive into the data, perform some calculations, and make some graphs. The classical peer-review system is painfully inefficient: Once an article appears in a journal, I could submit a letter of correction, that letter would have to go through a review process and would be severely limited in length, then the original authors could reply, and so on. All at the speed of the U.S. mail circa 1775. Real-time feedback gets us there much faster.

I think it would be ludicrous to ask people to wait however long it takes for me to publish a letter of correction. Why keep age adjustment a secret? Why keep the diverging patterns for men and women a secret? Because Anne Case thinks this isn't "how science gets done"? That's not a good enough reason for me!

- Andrew Gelman

Conclusions

- Science is hard!
- Measurement matters a great deal
- We need to think really carefully about how we analyze data and threats to our conclusions
- Critique and exchange is ultimately productive

For Next Class

- Reading: Textbook, Chapter 1

For those of you on the waitlist (who therefore don't want to buy the textbook yet), this is on bCourses under "files" in "readings."

Attendance Reminder

tinyurl.com/soc5attend

- *available from now until end of lecture*
- *sign in using your berkeley.edu account*
- *you will receive email confirmation*

If this does not work for you, sign in on my yellow pad at the end of lecture