

Some Perspectives on Veterans' Old-Age Health

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Roadmap of today's talk

- A little bit about me: my perspectives and motivation
- Overview of research on health inequalities by rank
- New research on the timing of education and health
- Questions are welcome at any point!

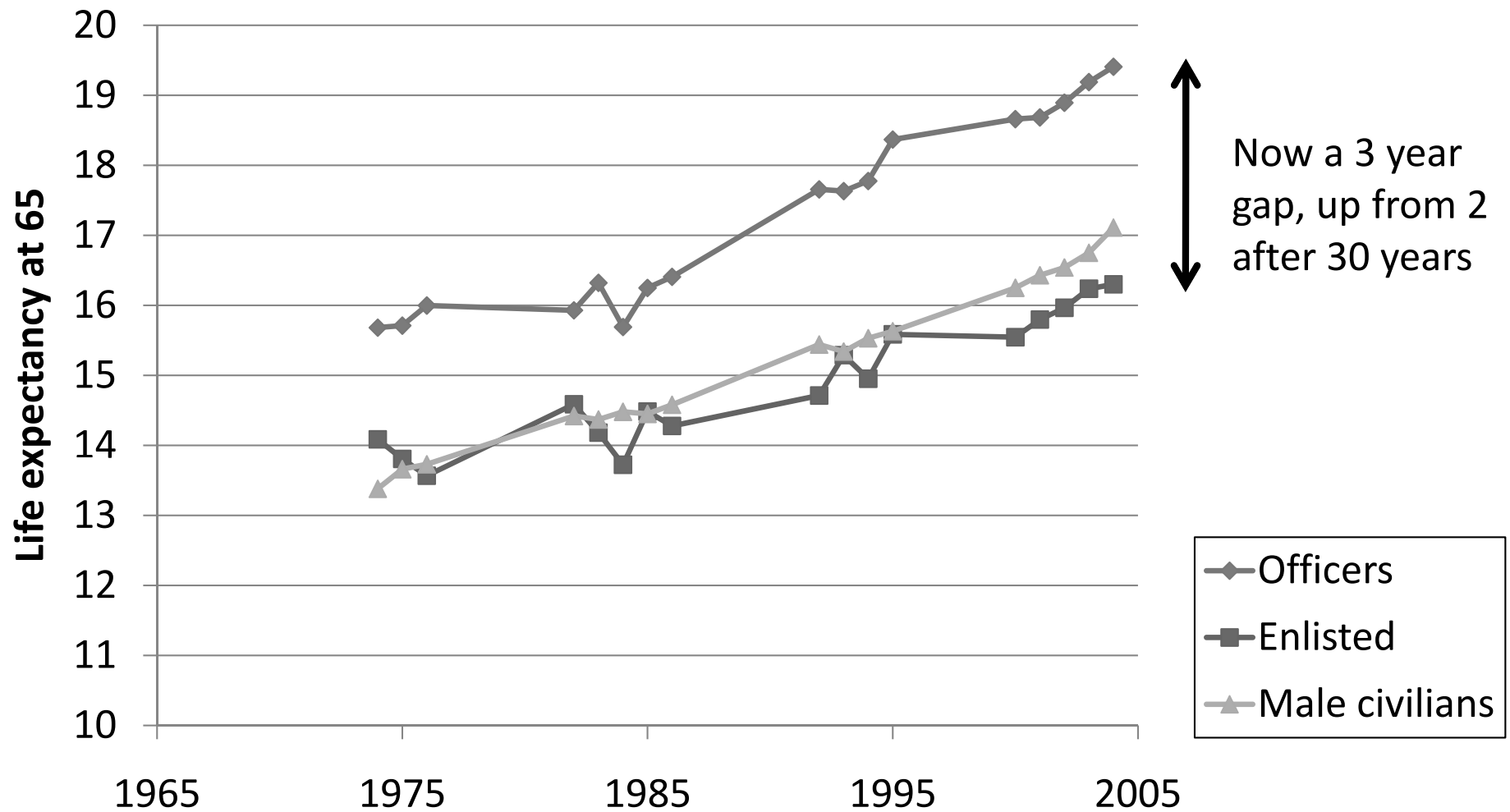
My background

- Ph.D in economics from Berkeley 2002
- Population studies postdoc
 - Stanford University 2002-2004
 - RAND Corp. 2004-2006
- At RAND, I was on a project to forecast TriCare for Life

TriCare for Life (TFL)

- Subpopulation is primarily military retirees over 65, typically with 20 years active duty
- After 2001, a very generous health benefit: full coverage of anything Medicare does not cover
- Cost to individual = just Medicare Part B premiums
- Key element in cost forecast: **longevity**

Retired officers enjoy a widening advantage in remaining life expectancy



Source: Edwards (Soc Sci Med, 2008), from DMDC's retired pay file

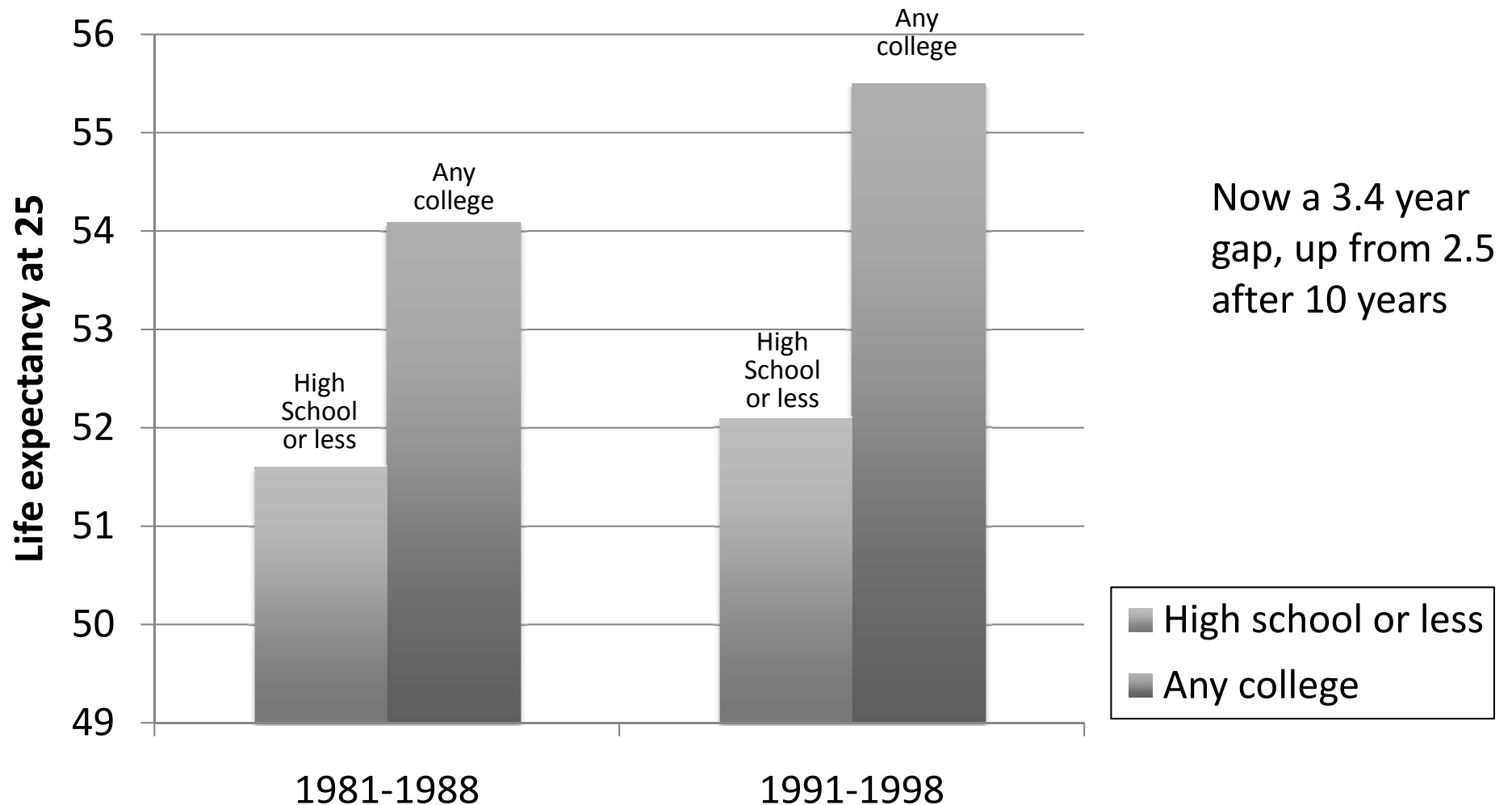
Implications

- Like Social Security or Medicare, higher status folks may be costlier to the system b/c they live longer*
- If they are indeed costlier, divergent trends in longevity will matter for cost forecasts
- Although TFL wasn't expanded until 2001, it is surprising there are stark health inequalities among military retirees
- This suggests health inequalities may predate most health care interventions, reflecting earlier influences

Health inequalities

- Can be related to or distinct from inequalities in longevity
 - At ages over 65, lengthening life seems roughly to reflect lengthening healthy life*
 - At younger ages, type-2 diabetes & obesity, rising disability?
 - Among veterans, vast inequalities in disability due to combat
- Health inequalities are present in many subpopulations, not just military retirees or veterans
- Recent trends: No clear trend in black-white, but educational or income inequalities are widening

Health inequalities by education are widening



Source: Meara, Richards, and Cutler (Health Affairs, 2008), from the Nat'l Longitudinal Mortality Study

Does rank just reflect education?

- Officers are almost always required to have a college degree; enlisted men often sign up after high school
- (But *final education* in old age may be very different!)
- The payroll data don't tell us education
- Instead, we examined self-reported health status in four cross-sectional surveys

MacLean and Edwards (AF&S, forthcoming)

- Alair MacLean = sociologist at WA State, former RAND postdoc with me, and a “full-blood” veterans researcher
- Studies show self-reported health status (a 5-point scale from “excellent” to “poor”) predicts mortality
- We examined self-reported fair/poor health vs. rank in
 - Two large-scale military surveys: 2003 Survey of Retired Military, and 2001 National Survey of Veterans
 - Two civilian (panel) datasets that also measure rank among their veteran subpopulations: 1994/2001 waves of the PSID, 2003 wave of the Wisconsin Longitudinal Study
 - In all the data, these are veterans who may or may not be in the VA

Results (1 of 2)

- In a multivariate regression setting, officer status tends to be independently* protective against fair/poor health
- Officer status lowers odds of fair/poor health maybe 40%, in the same ballpark as the college degree effect
- We interpret this as a health disparity by rank

Results (2 of 2)

- Estimates of the net effect of military service:
 - In the PSID samples with nonveterans, the officer effect and the nonveteran effect are about the same size
 - One (completely unproven) interpretation: Military service may be bad for health *only if you're an enlisted man**
- Robustness of the officer effect
 - Strongest in large-scale military surveys, weaker in civilian data, maybe because of small N
 - Seems to be stronger with **longer service**

Length of service

- If military service represents a **treatment**, longer service should affect health more strongly
- Why would there be differential treatment by rank?
 - Combat exposure appears relatively orthogonal to rank
 - But there's a difference between issuing & receiving orders!
 - Other candidates: smoking, drinking, access to care
- But there is also **selection** at work, and it may vary systematically by rank when length of service matters

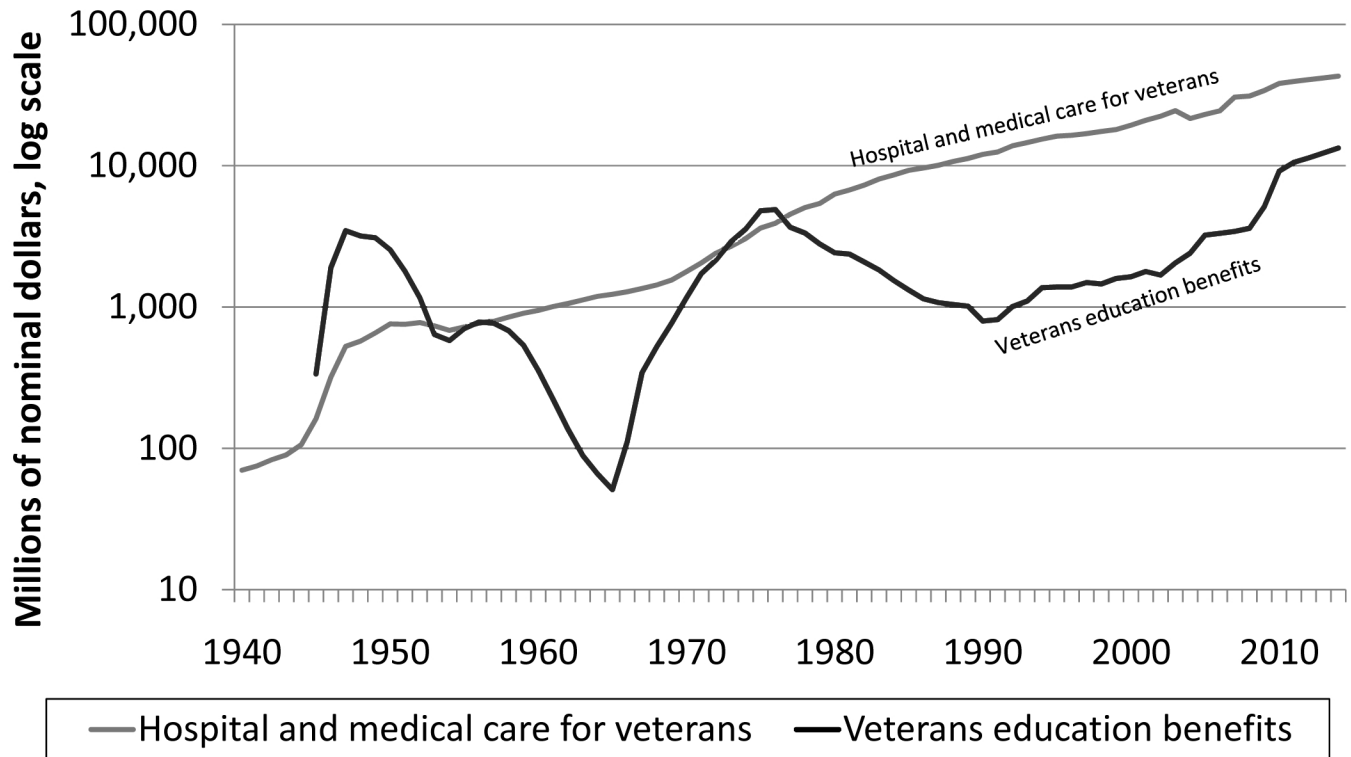
Disparities by rank in other health measures?

- Few datasets measure rank & health with large N
- In the National Survey of Veterans:
 - Evidence that diagnosed conditions are lower among officers
- In the PSID:
 - Officers are 10% less likely to have ever smoked or be smoking currently than enlisted veterans
 - No clear differential in drinking
 - Officers may have 0.8 less BMI, about 6 lbs, but imprecise
 - Officers are 10% less likely to report **sadness**

Directions for this research

- Data limitations are problematic
- We added combat exposure and rank to the core of the Health and Retirement Study starting with 2008
- I discovered *no significant independent relationship* between self-reported health and rank in the HRS!
- We have not yet used the rich data to expand our left-hand side health variables or our covariates
- But it could be that rank is only interesting for long-servers

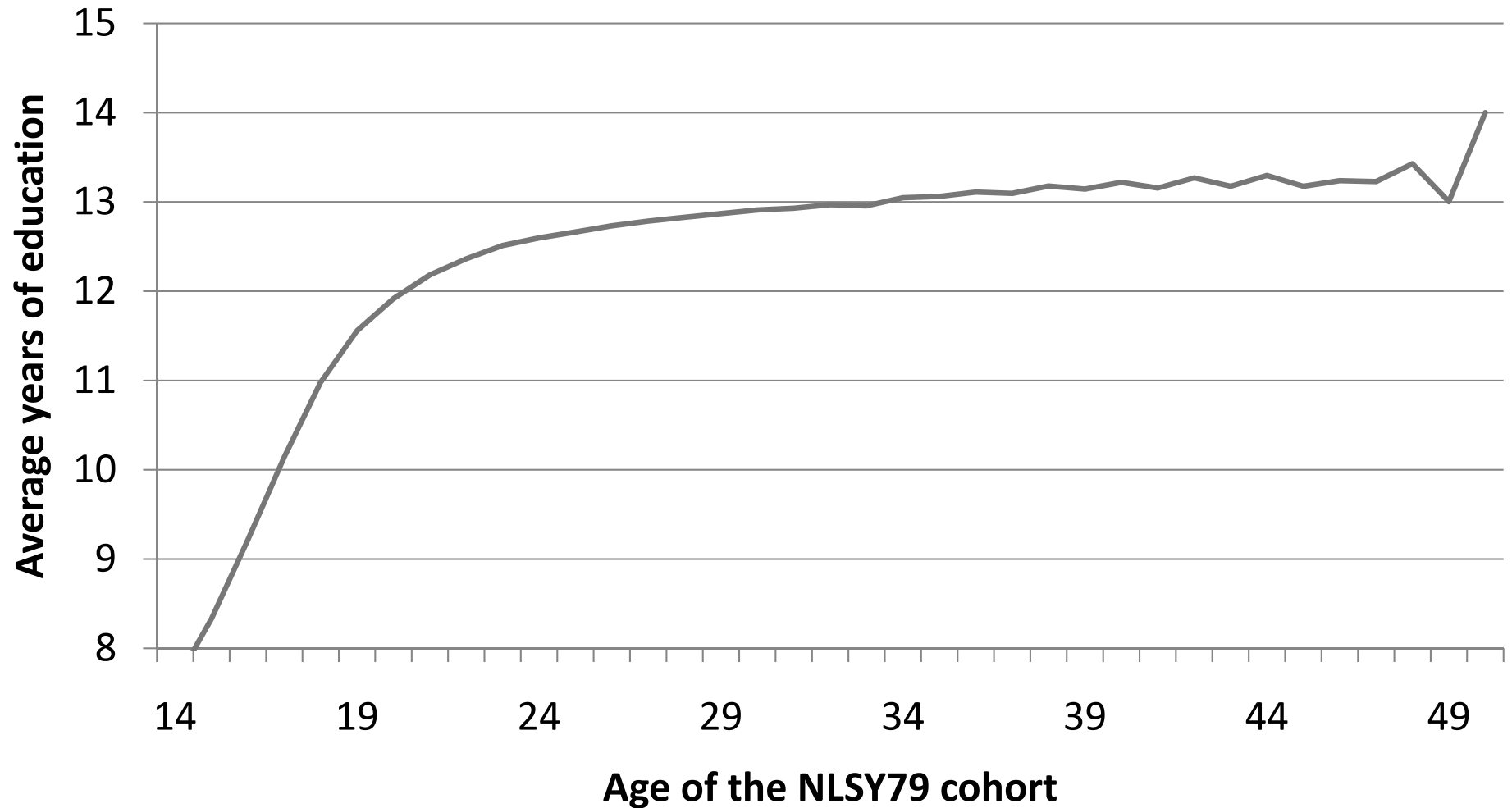
Patterns in veterans' education are also interesting



Education and health

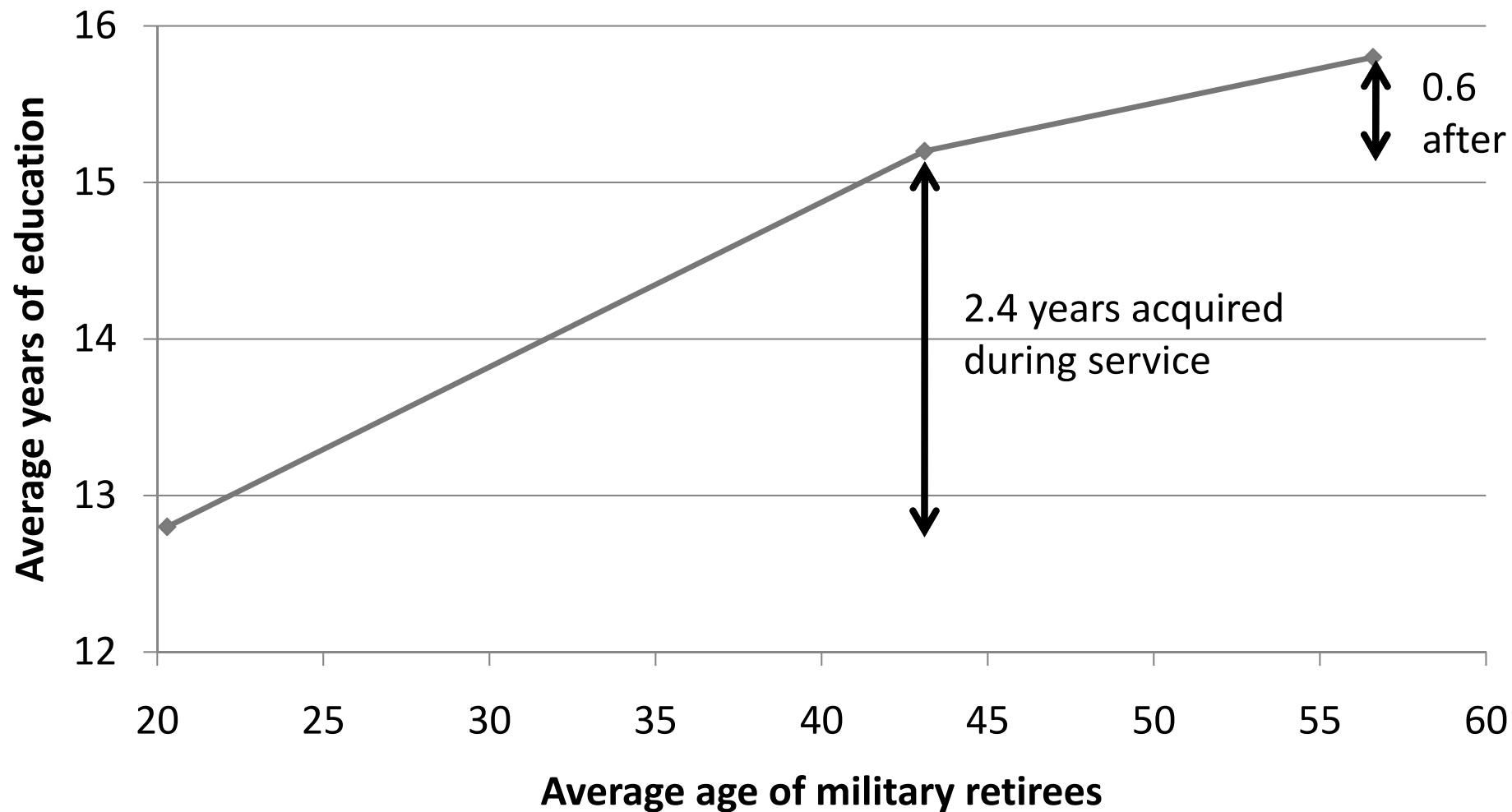
- There is a large and robust correlation between educational attainment and adult health
- At least some of it is believed to represent causality running from education into health
- Veterans are interesting because they often acquire education later in life
- While many have studied the effect of the timing of education on **earnings**, nobody has examined health

Among all civilians, education is often acquired early in life, but not always



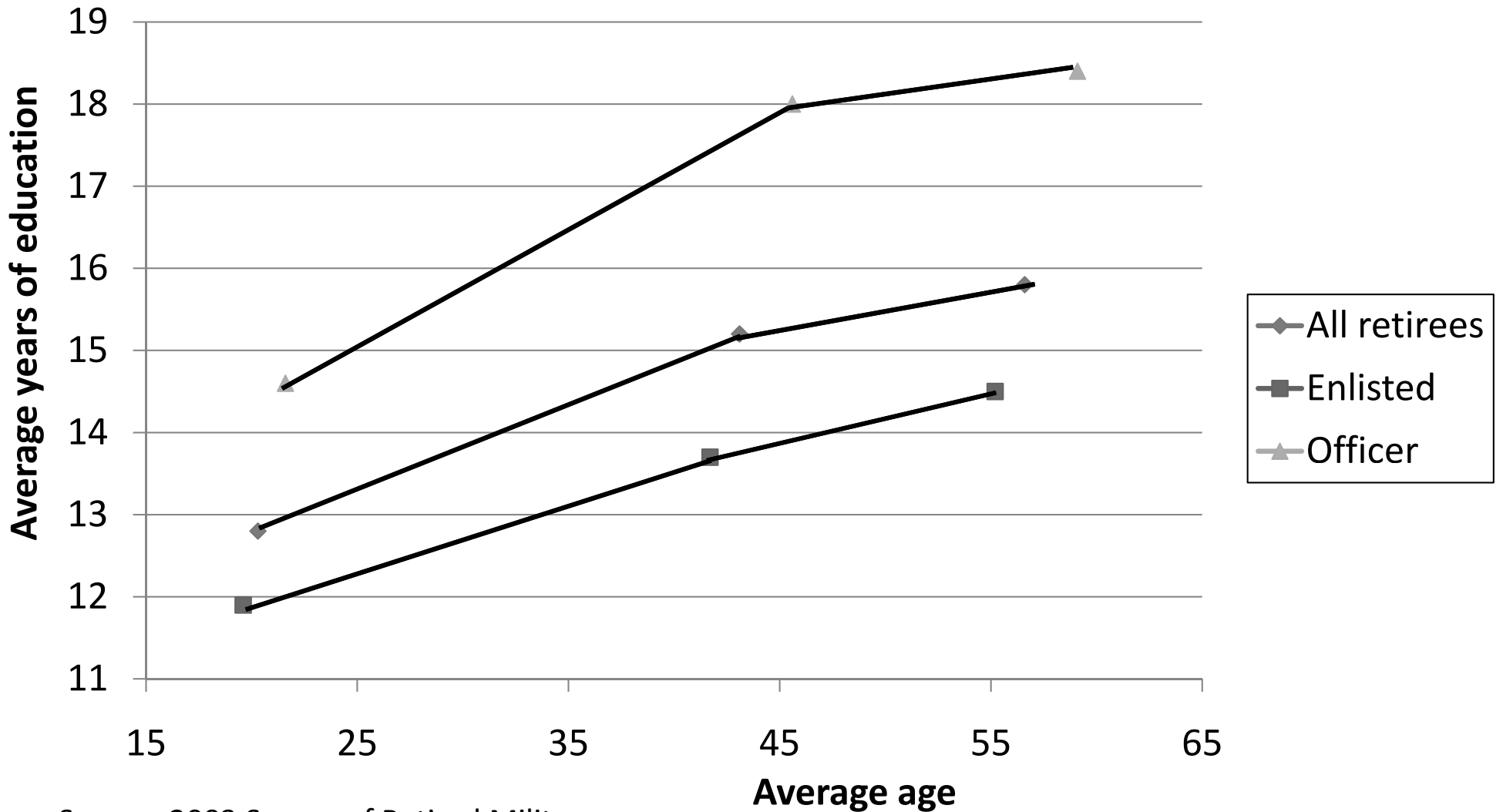
Source: National Longitudinal Survey of Youth 1979

Military retirees acquire much education during and after service



Source: 2003 Survey of Retired Military

Officers have more and get more education earlier but still go back even after service



Source: 2003 Survey of Retired Military

Why do we see these patterns?

- Education is **heavily** subsidized for most veteran cohorts through the G.I. Bill and other programs
- \$10,000 per 9-month academic year
- Veterans may find the transition to civilian occupations difficult without retraining
- It is not the case that only healthy, nondisabled vets acquire education, so probably no reverse causality

How does education timing affect health?

- I examine variation in the timing of education among military retirees, with no nonveterans present
- Basic multivariate regression results suggest that health benefits are strongly declining in the length of delay
- Each year of education
 - Before entering military: –2.5% probability fair/poor health at 55
 - During military service: –1.6% probability fair/poor health at 55
 - After military service: –0.6% probability fair/poor health at 55
- The earlier you get education, the healthier you are later

Interpreting these results

- There could be problems with selection
 - Those who return may have low ability/human capital/health?
 - But training *during military service* might be wholly exogenous
 - If retraining programs were exogenous, they could help with this
- But the basic result seems reasonable
 - Education probably improves health via enhancing the **stocks** of knowledge or habituated healthy behavior
 - Not by enhancing **flows** like raised earnings
 - There is a “negative depreciation rate” on education in health production, perhaps because it increases earlier health investments

Implications

- The G.I. Bill: still a good idea, but possibly not as good for well-being as are subsidies to young college students
- Differential rates of educational acquisition by rank may be important for explaining health disparities by rank