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ST 599 Project 1

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Outline

Motivation

- In the US, Military service often happens immediately after high school or college.
- An interruption of the "normal" flow of life for an individual.
- Would be interesting to see if there were any differences between individuals with some military service vs those who had never served for some of the major life "markers" US society recognizes: Education, Wage and Health Insurance Coverage.

Data Information

- Public Use Microdata Samples (PUMS) for all States.
- Only the population records were considered.
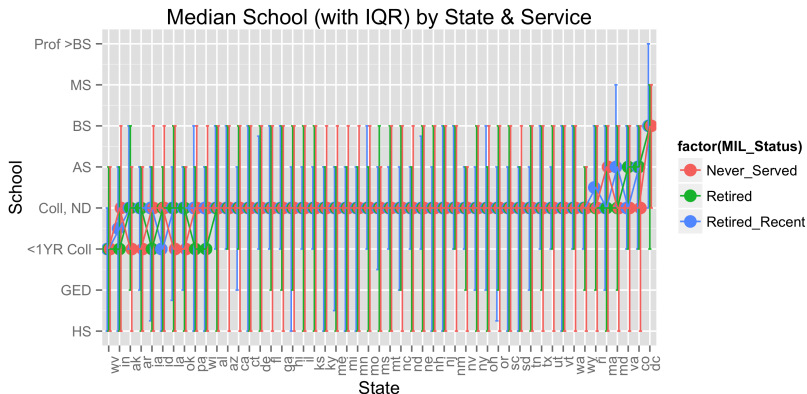- Used the 3-year data for Education and Wages, and the 5-year data for Health Insurance Coverage.

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Questions of Interest

1. Does prior military service affect, positively or negatively, the maximum amount of **schooling** received by an individual?

2. Does prior military service affect the **salary level** of an individual

3. Does prior military service affect whether or not the individual has **health insurance coverage**?

Military Service & Education

1. Military service does not seem to play a significant role.

2. Median education level is 18 (College, Non-Degree) for most state/service level combinations.

3. DC: median education level is BS, while most other states are College Non-degree.

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Military Service & Education

Median School (with IQR) by State & Service

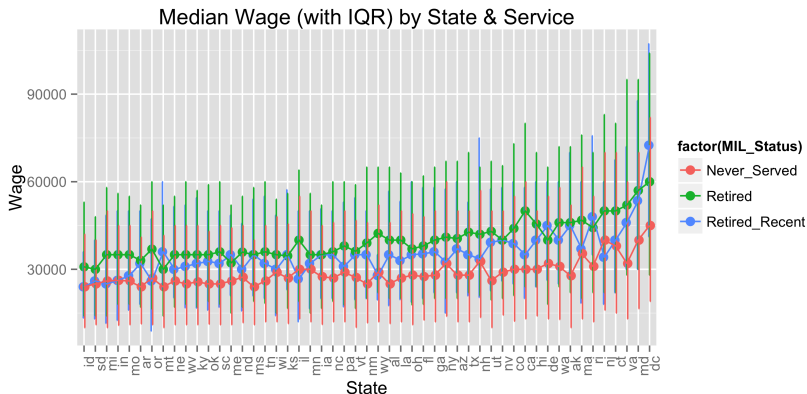factor(MIL_Status)
● Never_Served
● Retired
● Retired_Recent

Military Service & Salary

1. Surprisingly, those who Never Served had a lower median income overall than those who were retired from service.

2. Doubtful if there is a statistical difference as the IQR overlap for all categories.

3. DC seems like an outlier for both Retired and Recent Retired groups: government jobs?

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Military Service & Salary


Median Wage (with IQR) by State & Service

Military Service & Insurance

1. Overall, health insurance coverage is greater for those who have served or are on active duty.

2. For those who have served, coverage is highest in Massachusetts (98.5%) and lowest in Arizona (93.2%).

3. For those who haven't served, coverage is highest in Massachusetts (95.9%) and lowest in Texas (75.7%).

4. Odds ratio is greatest in California (5.3) and smallest in South Dakota (2.3).

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Military Service & Insurance
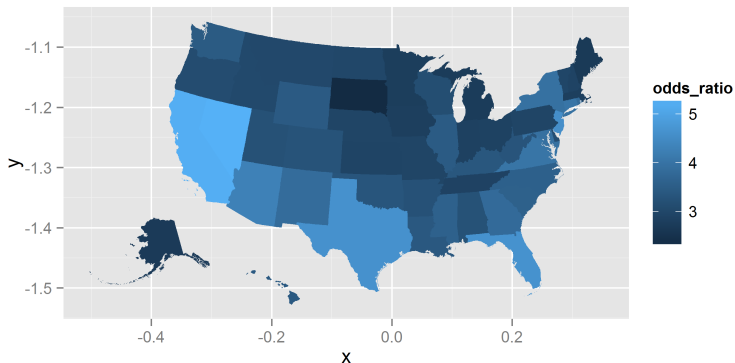

Map of Health Insurance Coverage Rate

United States 2008-2012
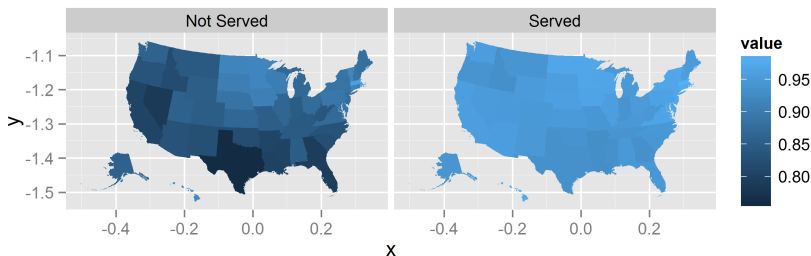
Military Service & Insurance

Odds Ratio of Health Insurance Coverage, Served vs. Not Served

United States 2008-2012

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1. Zero Wages

- Oregon alone: 44% of observations in "wages"
- Similar pattern for all other States
- Narrowed down to individuals who were earning a wage
- Trimmed all zeroes

2. Ordering of Multiple Categories

- Point charts do not seem to order observations based on just one category when multiple ones are present.

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3. Odds Ratio

- Multiple categories of Military Service status and Insurance
- Combined Military Service into Served/Not Served
- Combined Insurance into Have/Not Have

Future Work

- Further breakdown of income based on its source
  - How many individuals have other sources of income that contribute more than a Salary?

  - Is there a difference in these levels between prior-service and no-service individuals?

Future Work

- Consider time out of service
  - Variable "VPS": Veteran period of service. What's the last war you served during?

  - Investigate education level for different levels of VPS

Future Work

- Education: **Proportion** of people receiving higher education the same based on prior military service?

- Further breakdown of insurance based on its sources
  - Seven sources of health insurance