



Analysis of the Effects of Medicaid Expansion and Economic Changes on Social Security Disability Insurance Enrollment Rates

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Background

- ▶ Over the past thirty years, non-elderly Social Security Disability Insurance (SSDI) enrollment rates have increased by over forty percent, though there has been a sudden and steady decrease in the annual number of people enrolling into the program throughout the mid to late 2010's
- ▶ Decrease started around the same time as the passage and enactment of the Patient Protection and Affordable Care Act (PPACA) which allowed for states to opt into federally assisted Medicaid program expansion
- ▶ SSDI beneficiaries are eligible for Medicare after a two year wait period

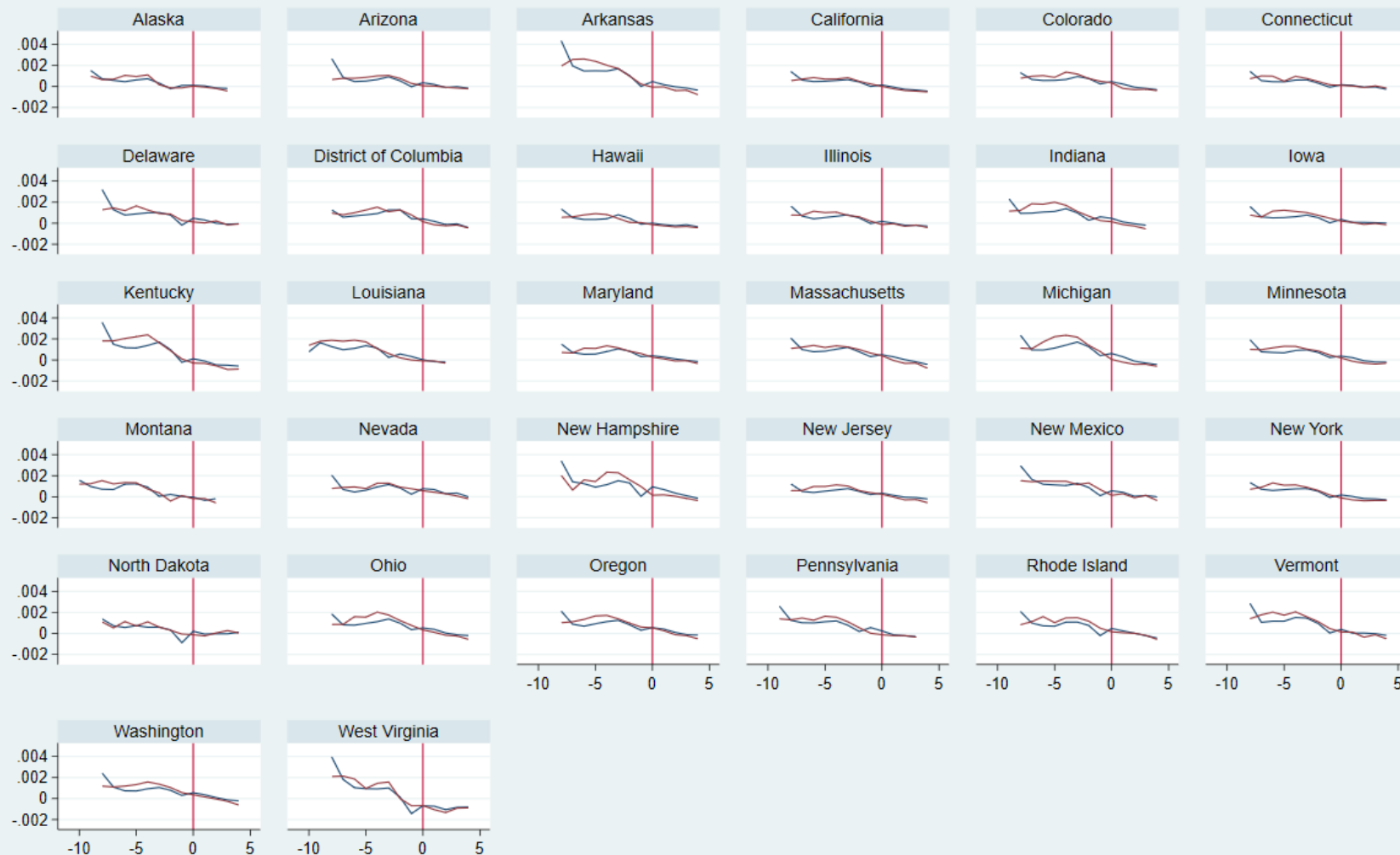
Project Objective

- ▶ We hypothesize that due to state-by-state Medicaid expansion that was outlined in the PPACA, enrollment rates for SSDI steadily dropped throughout the 2010's due to changes in economic incentives and health insurance availability
- ▶ Medicaid expansion allowed for states to offer their most in-need residents access to health insurance, thereby decreasing a potential enrollee's incentive to apply for SSDI in hopes of receiving Medicare benefits
- ▶ Evidenced by greater decreases in SSDI enrollment for states that expanded Medicaid

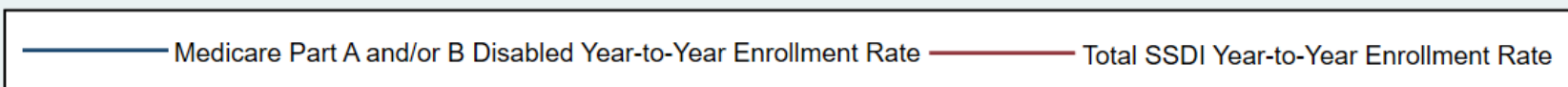
Methods

- ▶ Annual state-by-state program enrollment data from the Social Security Administration and Centers for Medicare and Medicaid, with annual state-by-state unemployment data from the Federal Reserve Economic Research website
- ▶ Merged into a single master data file that was used to build a statistical model in data analysis software Stata S/E
- ▶ $Enrollment\ Rate = \frac{Enrolled\ Persons_{Year\ n} - Enrolled\ Persons_{Year\ n-1}}{State\ Population_{Year\ n-1}}$
- ▶ Ran a series of regressions to evaluate Medicaid expansion's statistical significance

Change in Medicare/SSDI Enrollment Rate



Number of Years Before/After State Medicaid Expansion (Indicated by Year 0)



Graphs by State

```
. xtreg totalrate expansion urratescaled year, fe cluster(stateid)
```

Fixed-effects (within) regression
Group variable: `stateid`

Number of obs = 663
Number of groups = 51

R-sq:

within = 0.7091
between = 0.0512
overall = 0.6691

Obs per group:

min = 13
avg = 13.0
max = 13

corr(u_i, Xb) = -0.0029

F(3,50) = 129.37
Prob > F = 0.0000

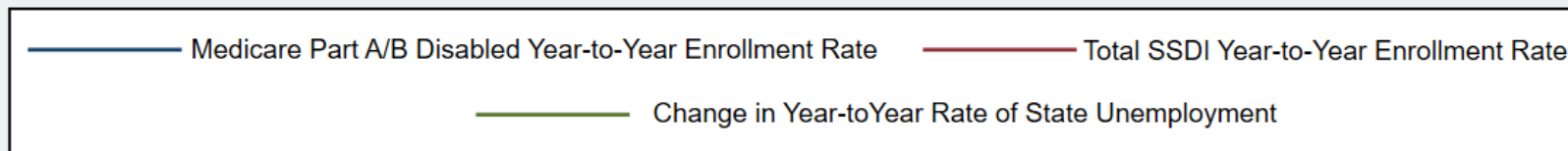
(Std. Err. adjusted for 51 clusters in stateid)

totalrate	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
expansion	-.0002824	.0000903	-3.13	0.003	-.0004638	-.000101
urratescaled	.0075052	.0013755	5.46	0.000	.0047425	.0102679
year	-.0001392	.0000101	-13.74	0.000	-.0001595	-.0001188
_cons	.28079	.0203736	13.78	0.000	.2398684	.3217115
sigma_u	.00018883					
sigma_e	.00042483					
rho	.16498024	(fraction of variance due to u_i)				

Change in Medicare/SSDI Enrollment Rate



Change in Unemployment Rate



Graphs by State

Conclusions

- ▶ Generally found that a state's expansion of Medicaid had a statistically significant impact on SSDI enrollment
- ▶ Important to also state that unemployment rates may also impact SSDI enrollment
- ▶ NOTE: Our most unrestricted regression specification produced results not supporting this conclusion

Further Discussion

- ▶ It is possible that the mentioned government programs are overburdened due to their lack of accessibility to those who require their services and assistance
- ▶ Recommend that supplementary research use micro-level survey data to gain a more in-depth understanding of individual incentives
- ▶ Policy reform and a greater understanding of how government programs affect individuals is of the utmost importance to ensure that the needs of the United States' most at-risk citizens are not ignored

Acknowledgements

- ▶ We would like to thank the University of Missouri Honors College and the Cherng Summer Scholars Program for their funding and support for this project