

Chandler Zachary
ECON 7661 – STATA Methods Paper
Due: 13 March 2020

The following pages include my replicated tables 1 and 3-5. To follow my reasoning and procedure for cleaning and preparing the data and subsequently replicating the tables, the accompanying .do files should be read in the following order:

1. combinedata
2. mergedata
3. table1
4. table3
5. tables4-5

To remove any ambiguity regarding my data sources, I largely used the websites provided in the assignment. My 2010 census estimates were obtained from American Fact Finder, provided by the Census Bureau, where I used the “April 2010 census estimate” column. After downloading the SAPIE, SAHIE, and LAU data, there were rows in the Excel files that provided definitions and notes about the use of the data. I deleted these rows. Furthermore, I deleted some columns that seemed superfluous to me based upon my reading of the paper and its footnotes, although this seems immaterial in hindsight because I inevitably delete all columns from these data except for those required by the analysis (this is performed in the .do files). I then saved them as .csv files to be read by STATA and converted to .dat prior to merging. The FARS data was provided in a .csv format and required no formatting. The remaining detail is provided in combinedata.do and mergedata.do.

Despite providing what I believe to be a thorough justification for the use of -reghdfe- and the specification of the fixed effects, I shall attempt to remove any ambiguity in that area also. I wanted to specify the fixed effects such that states that did and did not expand medicaid had their respective time-invariant heterogeneity absorbed with respect to medicaid expansion. Within that distinction, I attempted to specify fixed effects so as to absorb time-invariant heterogeneity at the county, state, and time-period level. Based on my understanding of -reghdfe-, using absorb() in this way enables heterogeneous slopes for every county, state, and time-period combination possible. This much I endeavored to model and explain, although, as I state in my .do file, I am unsure how much I really was able to wrap my head around once I understood this capability was even possible.

Now, without further ado, the tables.

Table 1: The ACA and Proportion Insured

	(1)	(2)
Post	0.023 ^c (0.007)	
Post \times Medicaid expansion	0.011 (0.010)	
Post \times Uninsured		0.130 ^c (0.037)
Post \times Uninsured \times Medicaid expansion		0.096 ^c (0.032)
<i>Implied effects at mean pre-treatment uninsured rate:</i>		
ACA w/o Medicaid expansion	0.023 ^c (0.007)	0.017 ^c (0.037)
Medicaid expansion	0.011 (0.010)	0.013 ^c (0.032)
Full ACA (with Medicaid expansion)	0.034 ^c (0.006)	0.030 ^c (0.015)
Economic conditions	yes	yes
County fixed effects	yes	yes
State-year fixed effects	no	yes
Observations	14,660	14,660
Pre-period mean of dependent variable	0.826	0.826

Notes: OLS estimates from county-level regressions are shown. Data on insurance coverage rates are from the Small Area Health Insurance Estimates (SAHIE) program and cover the period 2010-2015. The dependent variable is the county rate of insurance coverage. Economic conditions include the unemployment rate, the poverty rate, and median household income, all measured at the county level. Unemployment data are from the Bureau of Labor Statistics (BLS). Poverty and income data are from the Small Area Poverty and Income Estimates (SAPIE). Standard errors, corrected for clustering at the state level, are in parentheses. Estimates are weighted by county population from the 2010 Census. Counties with populations less than 10,000 are excluded from the analysis.

^aStatistically significant at the 0.10 level.

^bat the 0.05 level.

^cat the 0.01 level.

Table 3: Descriptive Statistics

	Full Sample	Medicaid Expansion States	Non-Expansion States	Before ACA	After ACA
<i>Ambulance Timing</i>					
Time to Accident	10.010 (8.375)	9.508 (8.234)	10.666 ^b (8.512)	9.964 (8.215)	10.106 (8.702)
Slower than 4 minutes	0.792 (0.406)	0.765 (0.424)	0.828 ^b (0.377)	0.790 (0.407)	0.797 ^b (0.402)
Slower than 8 minutes	0.449 (0.497)	0.418 (0.457)	0.488 ^b (0.493)	0.447 (0.497)	0.452 ^b (0.498)
Slower than 13 minutes	0.215 (0.411)	0.194 (0.395)	0.243 ^b (0.429)	0.215 (0.411)	0.215 ^b (0.411)
Slower than 20 minutes	0.083 (0.276)	0.072 (0.259)	0.098 ^b (0.297)	0.083 (0.276)	0.084 ^b (0.277)
Time to Hospital	40.508 (75.268)	39.346 (74.402)	41.671 ^b (76.109)	40.721 (73.211)	40.094 (79.111)
<i>Weather Conditions</i>					
Rain	0.073 (0.260)	0.075 (0.263)	0.071 ^a (0.257)	0.071 (0.257)	0.077 ^a (0.266)
Sleet	0.004 (0.065)	0.004 (0.065)	0.004 (0.065)	0.004 (0.064)	0.004 (0.067)
Snow	0.017 (0.131)	0.023 (0.151)	0.010 ^b (0.097)	0.018 (0.135)	0.015 ^b (0.123)
Fog	0.011 (0.104)	0.011 (0.105)	0.011 (0.103)	0.011 (0.106)	0.010 (0.100)
Cloudy	0.174 (0.379)	0.159 (0.366)	0.194 ^b (0.395)	0.168 (0.374)	0.187 ^b (0.390)
Blowing Snow	0.001 (0.038)	0.002 (0.044)	0.001 ^b (0.028)	0.002 (0.039)	0.001 ^b (0.035)
Freezing Rain	0.001 (0.022)	0.001 (0.025)	0.000 (0.019)	0.000 (0.011)	0.001 (0.036)
Wind	0.002 (0.041)	0.002 (0.042)	0.002 [*] (0.041)	0.002 (0.044)	0.001 [*] (0.035)
Blowing Dirt	0.000 (0.020)	0.000 (0.022)	0.000 [*] (0.016)	0.000 (0.020)	0.000 [*] (0.020)
Other Inclement Weather	0.001 (0.038)	0.002 (0.041)	0.001 ^b (0.035)	0.001 (0.036)	0.002 ^b (0.043)
<i>Time of Accident</i>					
Nighttime Accident	0.457 (0.498)	0.457 (0.498)	0.457 ^b (0.498)	0.457 (0.498)	0.456 ^b (0.498)
Weekend Accident	0.339 (0.473)	0.337 (0.473)	0.342 ^b (0.474)	0.342 (0.474)	0.332 ^b (0.471)
Observations	85,406	48,411	36,995	57,894	27,512

Notes: Counties with populations less than 10,000 are excluded from the analysis. Means are shown with standard deviations in parentheses.

*Difference of means test with previous column is statistically significant at the 0.10 level.

^aat the 0.05 level.

^bat the 0.01 level.

Table 4: The ACA and Ambulance Response Times in Minutes

	(1)	(2)
Post \times Uninsured	2.452 (1.643)	1.038 (1.933)
Post \times Uninsured \times Medicaid expansion	5.097 ^b (2.179)	3.892 ^a (2.158)
<i>Implied effects at mean pre-treatment uninsured rate:</i>		
ACA w/o Medicaid expansion	0.329 (1.643)	0.139 (1.933)
Medicaid expansion	0.683 ^b (2.179)	0.521 ^a (2.158)
Full ACA (with Medicaid expansion)	1.011 ^c (1.443)	0.661 ^c (1.300)
Economic conditions		yes
Weather indicators		yes
County-quarter fixed effects	yes	yes
State-year-quarter fixed effects	yes	yes
Observations	85,404	80,772
Pre-period mean of dependent variable	9.98	9.98

Notes: OLS estimates from accident-level regressions are shown. Data are from the Fatality Analysis Reporting System (FARS) for the period 2010-2015. The dependent variable is the time between notification of the accident and ambulance arrival on scene in minutes. Standard errors, corrected for clustering at the state level, are in parentheses. Economic conditions include the county-level unemployment rate, poverty rate, and median household income. The weather, night, and weekend indicators are listed in Table 3. Accidents that occurred in counties with populations less than 10,000 are excluded from the analysis.

^aStatistically significant at the 0.10 level.

^bat the 0.05 level.

^cat the 0.01 level.

Table 5: The ACA and Ambulance Response Time Cutoffs

	> 4 minutes	> 8 minutes	> 13 minutes	> 20 minutes
Post \times Uninsured	-0.031 (0.051)	0.016 (0.095)	0.021 (0.094)	0.022 (0.067)
Post \times Uninsured \times Medicaid expansion	0.119 (0.086)	0.180 (0.113)	0.231 ^b (0.102)	0.111 (0.069)
<i>Implied effects at mean pre-treatment uninsured rate:</i>				
ACA w/o Medicaid expansion	-0.004 (0.051)	0.002 (0.095)	0.003 (0.094)	0.003 (0.067)
Medicaid expansion	0.016 (0.086)	0.024 (0.113)	0.031 ^b (0.102)	0.015 (0.069)
Full ACA (with Medicaid expansion)	0.012 (0.069)	0.026 ^b (0.084)	0.034 ^c (0.064)	0.018 ^c (0.041)
Economic conditions	yes	yes	yes	yes
Weather indicators	yes	yes	yes	yes
County-quarter fixed effects	yes	yes	yes	yes
State-year-quarter fixed effects	yes	yes	yes	yes
Observations	80,772	80,772	80,772	80,772
Pre-period mean of dependent variable	0.896	0.725	0.609	0.544

Notes: OLS estimates from accident-level regressions are shown. Data are from the Fatality Analysis Reporting System (FARS) for the period 2010-2015. The dependent variable is the time between notification of the accident and ambulance arrival on scene, sectioned into indicators for cutoff times greater than 4, 8, 13, and 20 minutes. Standard errors, corrected for clustering at the state level, are in parentheses. Economic conditions include the county-level unemployment rate, poverty rate, and median household income. Accidents in counties with populations less than 10,000 are excluded from the analysis.

^aStatistically significant at the 0.10 level.

^bat the 0.05 level.

^cat the 0.01 level.