Medicaid Expansion Effects on Labor

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Background & Intro

The average health insurance premium cost for a single individual rose from $3,000 to $7,000 from 1999 to 2018. Over the same period, family coverage increased from $6000 to $20,000 per year [Health Affairs (2018)] (healthaffairs.org/doi/10.1377/hlthaff.2018.1001) . In 2010, the Affordable Care Act included provisions for expansion of Medicaid for low-income individuals up to 138% of the federal poverty line. Though not a perfect program, qualifying for medicaid, in a sense, represents a transfer of value to an individual or family, respectively, at no cost.

After clearing the initial Supreme Court challenges, 27 states expanded Medicaid on the first year of the program's availability with another 10 expanding over the following 7 years. 4 states are currently in the process of implementing their expansions.

Given the stark cutoff of eligibility and relatively large income transfer that the program represents, bunching around the eligibility cutoff would be expected. This would be consistent with Saez (2010). However, in Miller (2019) they find little evidence of the kind of bunching present around the EITC trapezoid vertices.

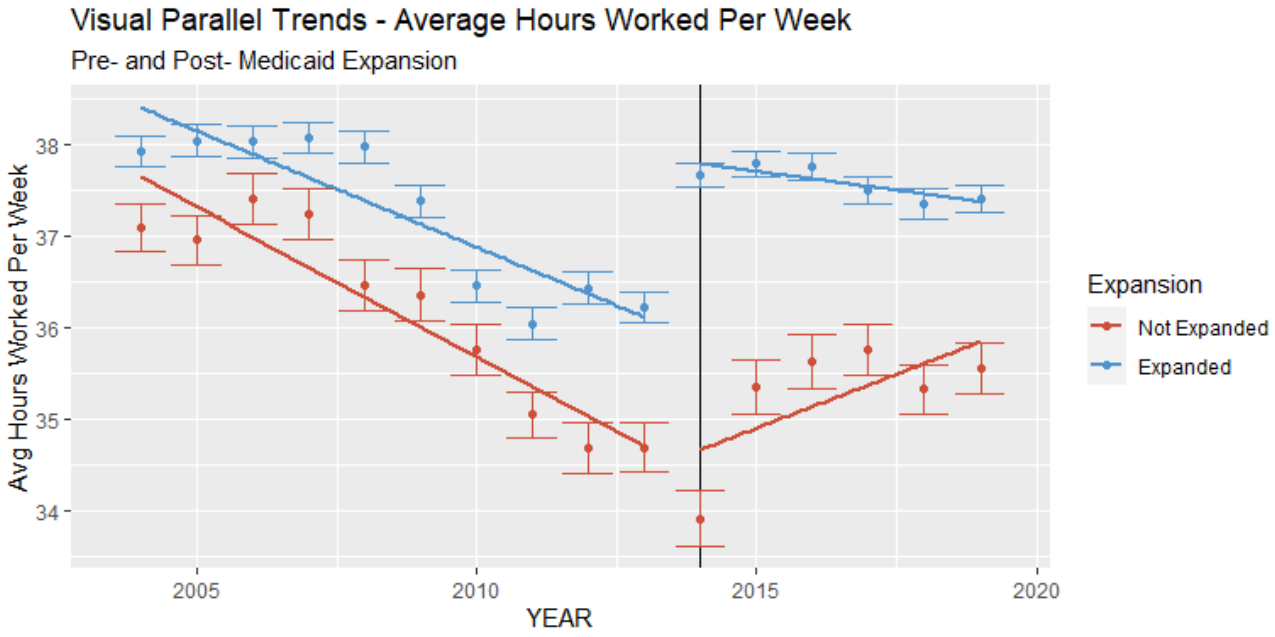
I confirm this analysis by post-hoc constructing medicaid eligibility using reported income and family size (based on marriage and number of children) and computing the difference by state-year FPL cutoffs going back to 2004. From here, all family incomes can be normalized around a 0 point (exactly eligible for Medicaid). Analysis from the Kaiser Family foundation found that removal of the asset test only resulted in a 3% increase in uptake.

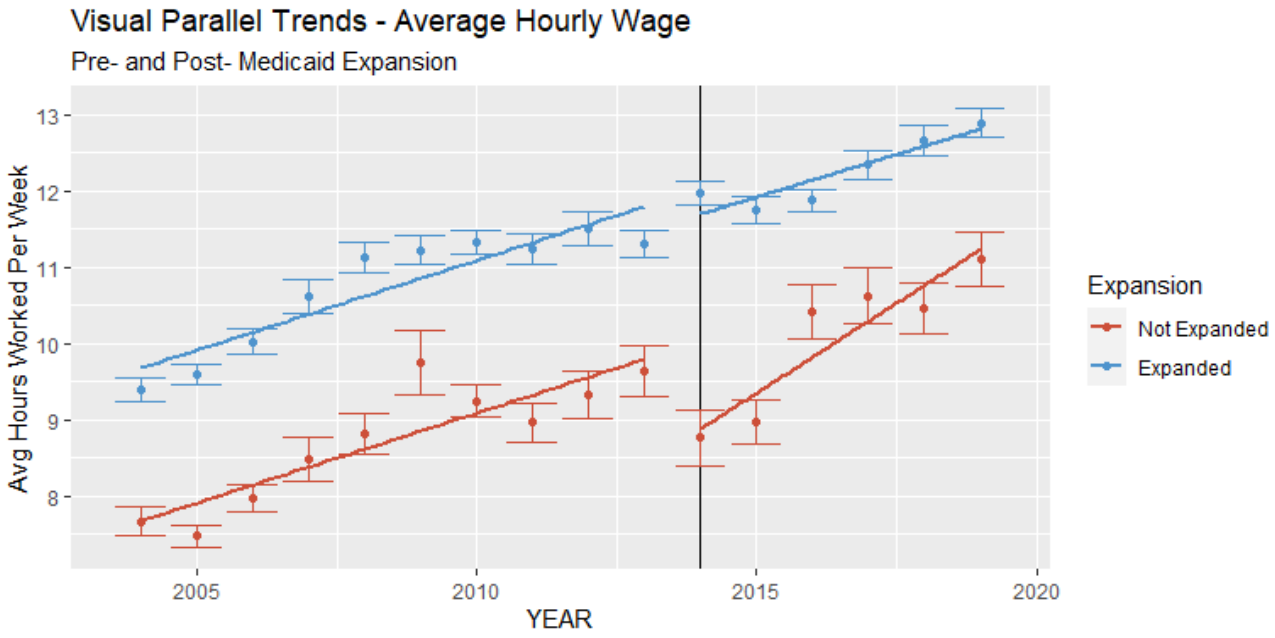
Definition of Population of Interest

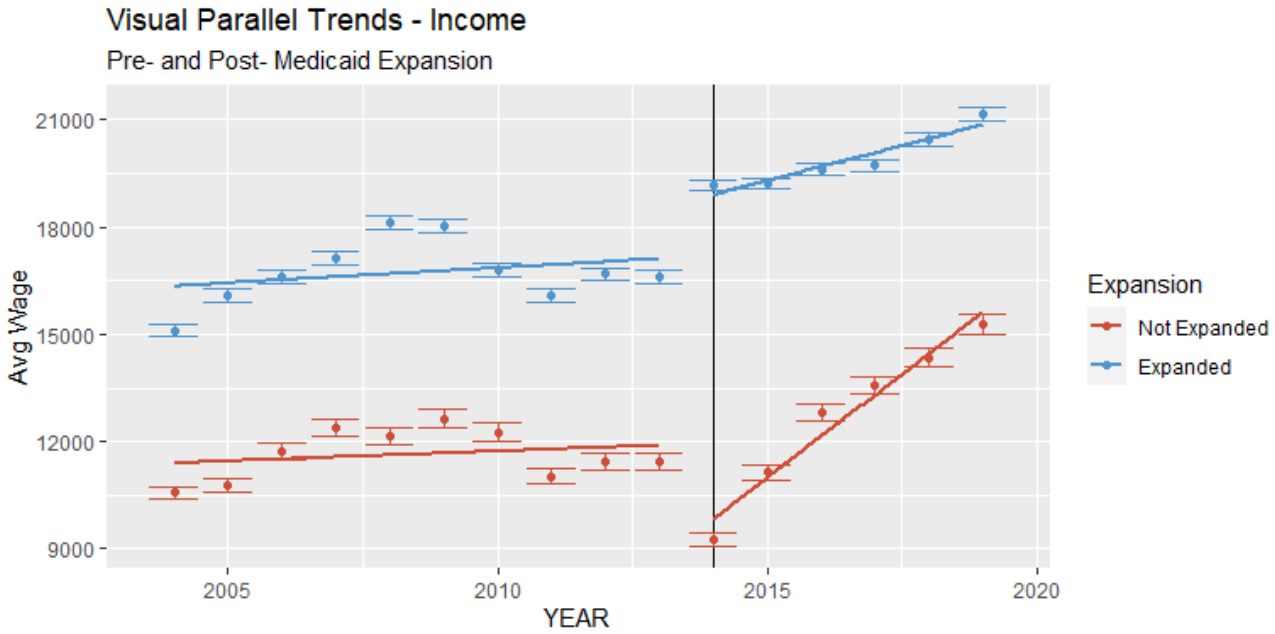
This study specifically analyzes the population of families within $10,000 of medicaid coverage in either direction. This is the rough estimate of the "medicaid gap" which conceptually developed alongside the ACA's implementation but existed before as well.

The population of interest is workers age 26-64. This population represents those most closely on the margin of the Medicaid cutoff. By the same logic other studies cut off health outcomes at the near-Medicare cohort, this study rather focuses on those for whom

exogenous health effects may play less of a role in labor decisions. The lower bound of 26 is chosen due to the ACA's rule allowing children to stay on parent's health insurance policy until 26, which would distort estimates. I further limit the data to those who worked within the past year to focus on marginal hours and wages rather than entering the labor force.







The above three charts visually represent a break in parallel trends for the variables of interest. The clearest break is in reported hours-per-week, which just visually shows a dramatic ~2hr increase relative to “parallel trend” in this sample. This represents a 5-10% increase in hours per week.

The other two key measurements show a less dramatic visual difference. Hourly wage is far less marginally adjustable by workers, so the relatively stable trend between expansion and non-expansion states is expected. Wage income is reported as a separate variable but could also be constructed using CPS data.

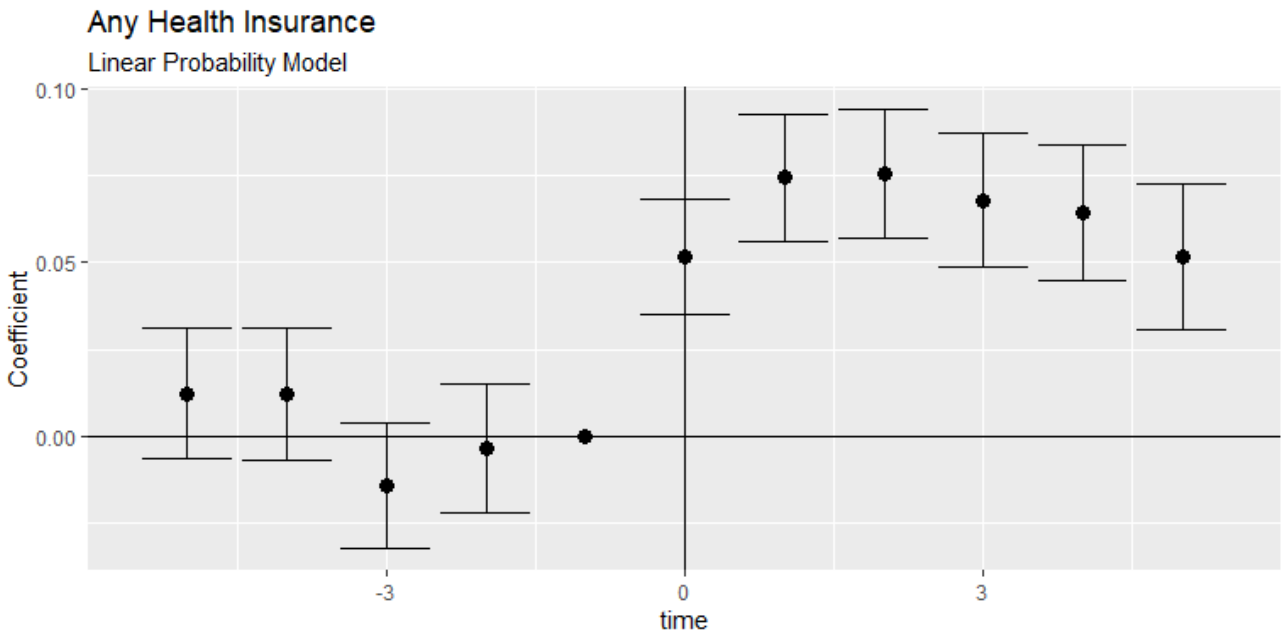
For the purposes of this study, reported wage income is used, since it reduces respondent bias. Multiplying reported hours per week, weeks worked, and hourly wage would each be subject to a whole number bias respectively, while wage income is only subject once.

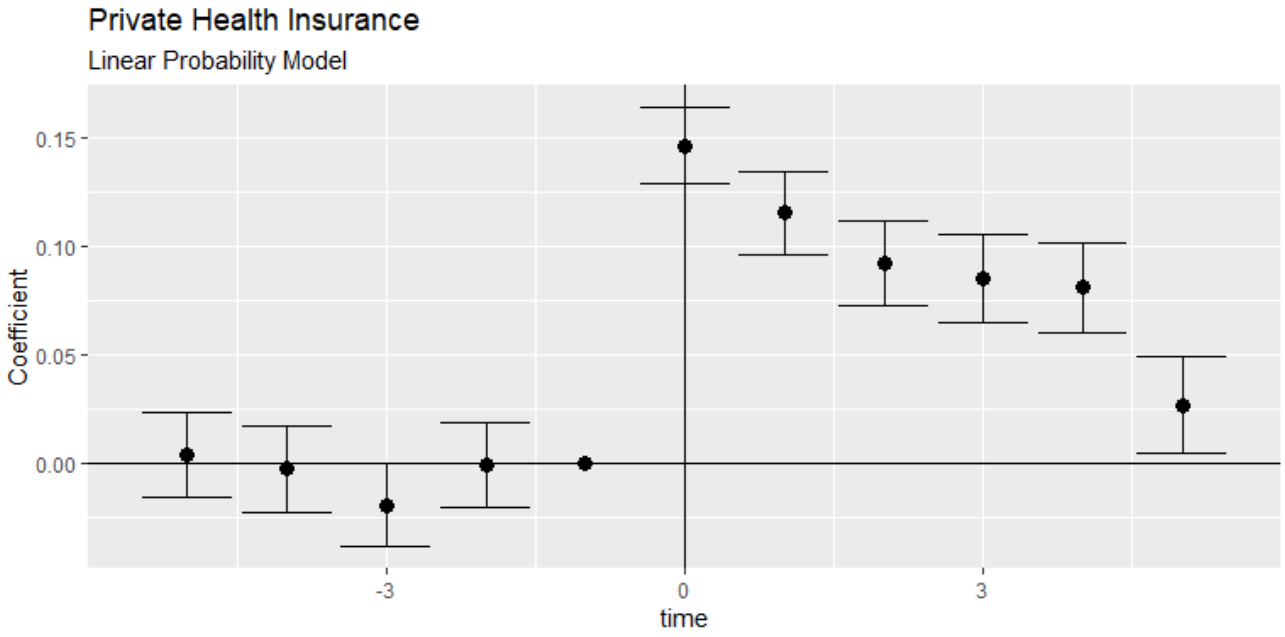
The next step is to statistically define these parallel trends using an event-study methodology to ensure there are measurable differences in the treated population over this time period for our variable of interest (Medicaid eligibility).

Methodology & Establishing Causal Baseline

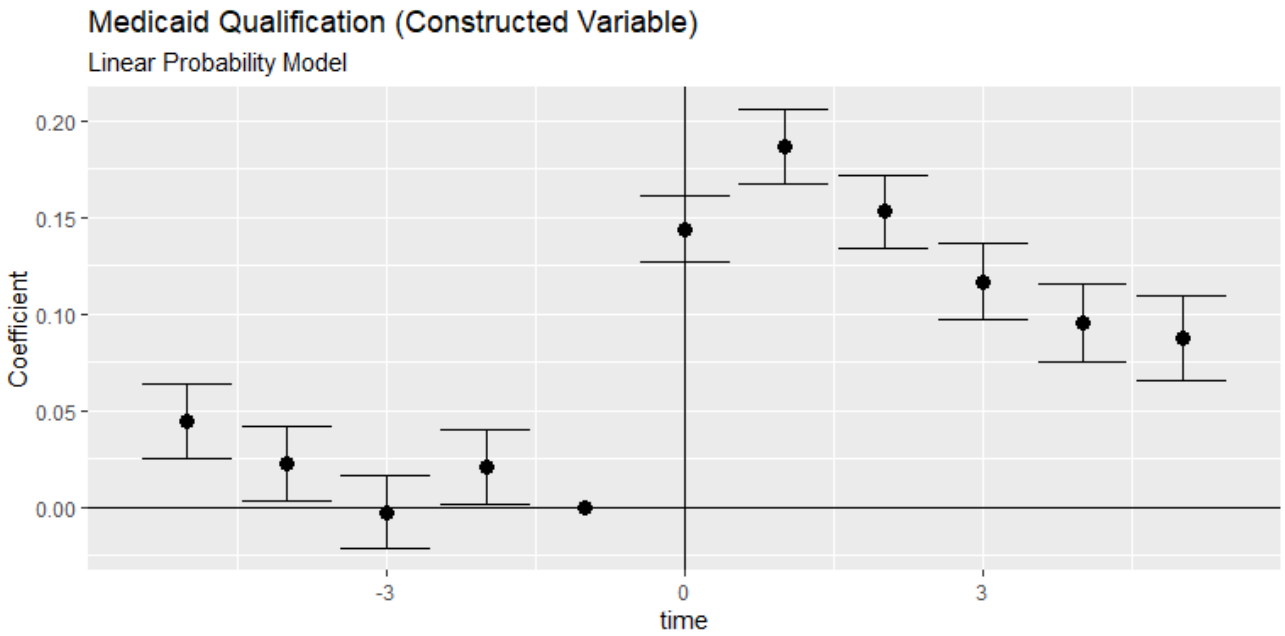
The intention of the study is to focus on a more narrow question. For those near the Medicaid eligibility cutoff, did the “shock” of the ACA cause those around the cutoff to increase their economic output, as measured by hours and wages.

The study design is based, in part, off of Miller (2019) which similarly uses non-linked CPS data with an eligibility construction. Under a non-linked circumstance, the only means for analysis are in aggregate and by-cohort.





This one is interesting, because we find an increase in private health insurance uptake. This is partially explained by the ACA subsidies which brought down the cost of private insurance for households and the upper side of this population's income distribution may qualify depending on the number of children in their family and state-level health insurance arrangement.



For the population of interest, we find that treatment had a dramatic effect on insurance rate. This is consistent with Miller 2019, both reaffirming the eligibility construction and giving a basis to move forward with analysis.

NEEDS

1. Establish theoretical relationship between eligibility and hours worked, wages, etc. Marginal hours of work, gap.
2. Causal baseline, parallel trends
3. Basic difference in difference estimator
4. Break out by cohorts
5. Placebo test against those with incomes higher. Split on qual > 0 (assuming people won't drop down to qualify)

NEED (other errata notes for myself)

1. Motivate narrowing the dataset within $10000 of the mcaid cutoff
2. Analysis around the running variable for an RDD design?
3. For those to the left of the gap, did state-wide hours or income increase with mcaid expansion
4. To those to the right of the gap, did hrs/wages decrease with mcaid expansion