

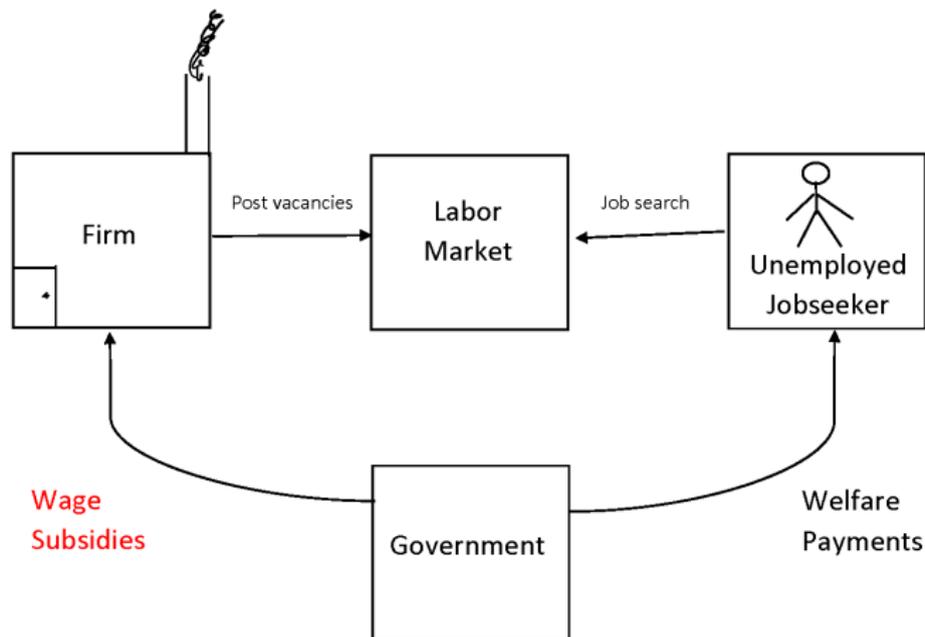
Wage subsidies and the reliance of youth on welfare payments

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What are wage subsidies?



- ▶ Subsidies are provided to firms.
- ▶ Example: 50% of wage subsidized for first 12 months.

Motivation

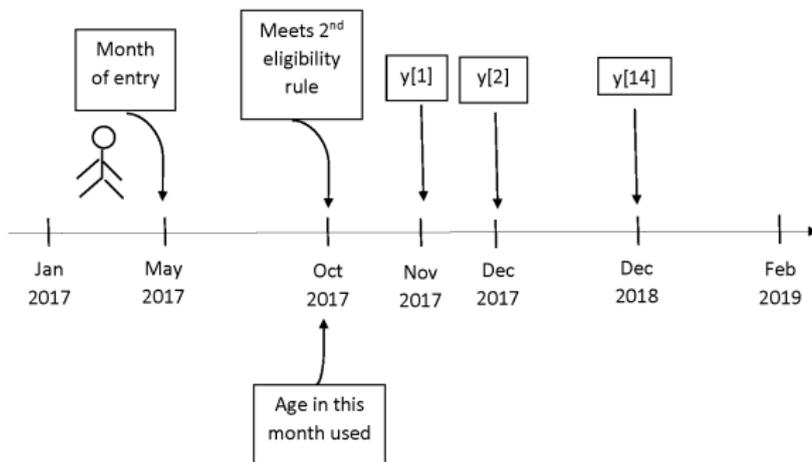
- ▶ Wage subsidies:
 - ▶ stimulate the economy during downturns (Jobkeeper, JobMaker, New Jobs Tax Credit).
 - ▶ can be targeted at disadvantaged groups (youth, parents returning to work, disabled).
 - ▶ can reduce inequality when targeted - distributional objectives.
 - ▶ can increase efficiency under certain circumstances.
- ▶ Youth:
 - ▶ Poor labor market outcomes in recent years (Borland & Coelli (2021), Kabátek (2020), Borland & Charlton (2020)).
 - ▶ Scarring effects (Borland, 2020).
 - ▶ Long-term benefits (Next 45 years).
- ▶ Question:
 - ▶ Can wage subsidies help unemployed youth get off income support payments?

Programs evaluated: PaTH and YWS

- ▶ Youth Jobs PaTH has three components
 - ▶ Youth Bonus Wage Subsidy (YBWS). A\$10,000.
 - ▶ Internship.
 - ▶ Employability Skills Training (EST).
- ▶ Not necessary to complete all three PaTH components.
- ▶ Participation Numbers: 66800 commenced at least one component of PaTH.
 - ▶ 38,000 YBWS
 - ▶ 9,200 Internships
 - ▶ 52,000 EST
- ▶ Youth Wage Subsidy (YWS). A\$6,500. Uptake \approx 15,000.
- ▶ Age thresholds for program eligibility. Fig 1

Data

- ▶ Research and Evaluation Database (RED).
 - ▶ Admin data of the population of Australian government income support recipients.
 - ▶ Info used: benefit history, activity history, demographics.
- ▶ Construction of analysis sample
 - ▶ Two eligibility rule: age and duration of assistance received from employment services providers.



- ▶ Sample size: 466,700 individuals aged 15 to 34 (inclusive).

Methodology - Diff-in-Diff

- ▶ 2×2 DiD model:

$$y_{iT}[s] = (\alpha_s * T) + (\gamma_s * Eligible_i) + (\beta_s * T * Eligible_i) + \epsilon_{its}$$

where

- ▶ $T = 1$ if post-treatment period, $T = 0$ if pre-treatment period
- ▶ Three Eligible groups for three sets of estimates:
 - ▶ YWS vs control
 - ▶ PaTH vs control
 - ▶ PaTH vs YWS
- ▶ $y_{iT}[s] = 1$ if individual i in sample T is on welfare support s months after becoming eligible.
- ▶ Parameters of interest β_s - measure ITT effects.

Methodology - approximate ATET

- ▶ Effect of participation (p) on outcome (y):

$$y = \alpha + \beta p + \epsilon$$

- ▶ Reduced form: regress outcome (y) on eligibility (instrument z)

$$y = \gamma + \delta z + \mu$$

- ▶ First stage: regress participation (p) on eligibility (instrument z)

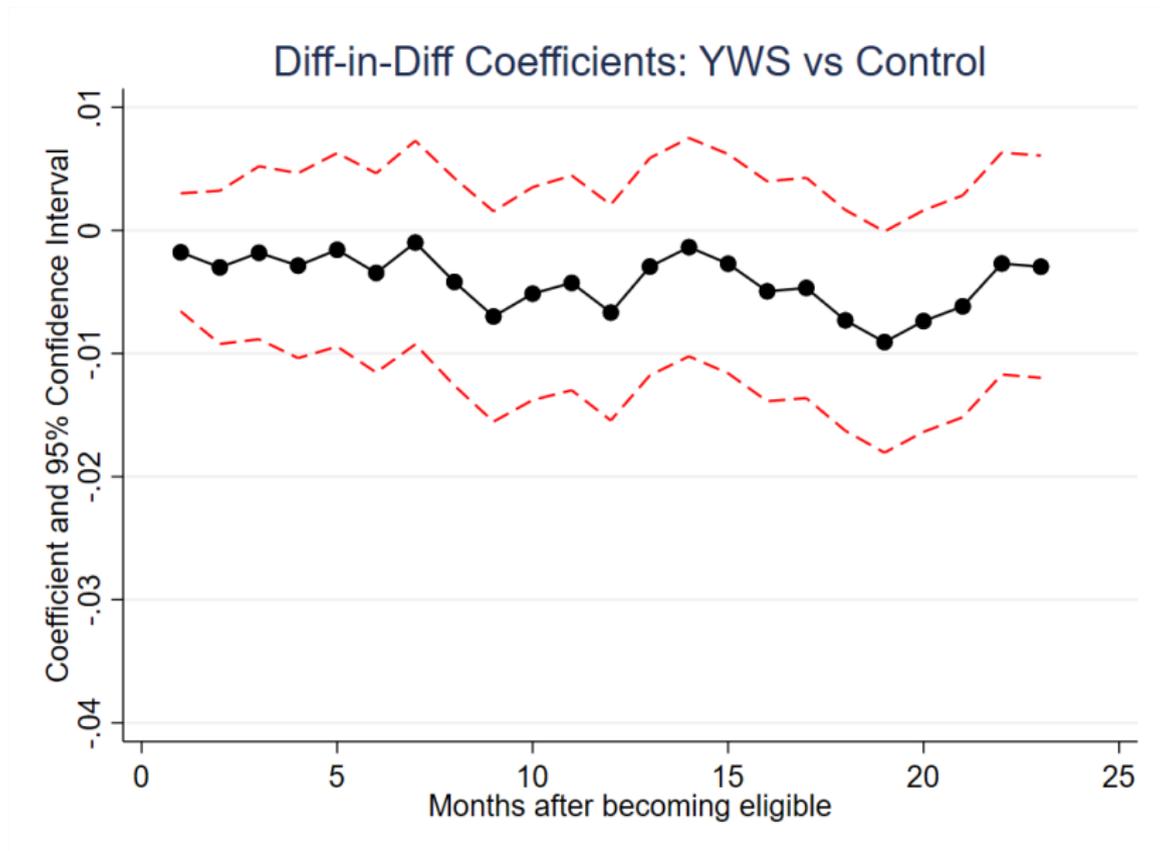
$$p = \rho + \pi z + \eta$$

- ▶ Parameter of interest:

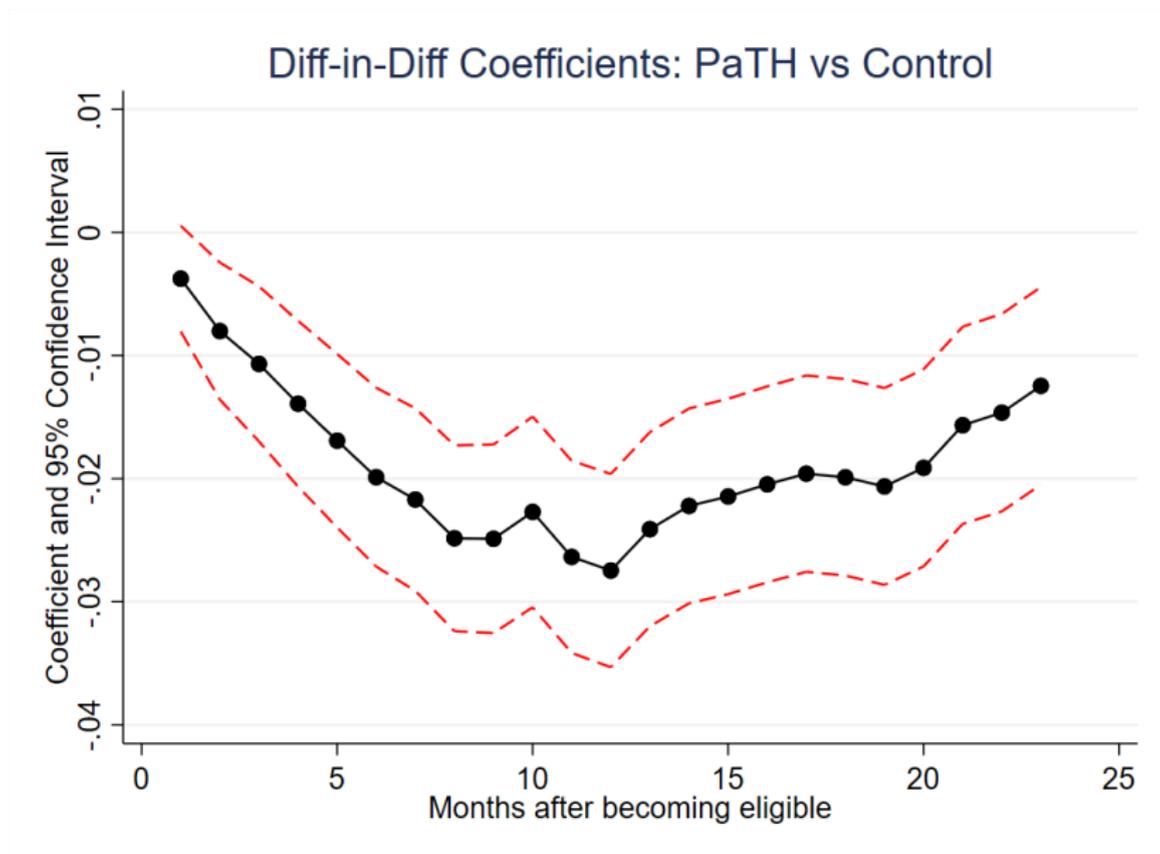
$$\beta = \frac{\delta}{\pi} = \text{ITT} / (\text{Part rate elig} - \text{Part rate inelig})$$

- ▶ Heterogeneous effects + LATE theorem + one sided noncompliance: $\text{LATE} = \text{ATET} = \text{ITT} / (\text{participation rate in eligible group})$
- ▶ Numerator and denominator comes from two different sources.

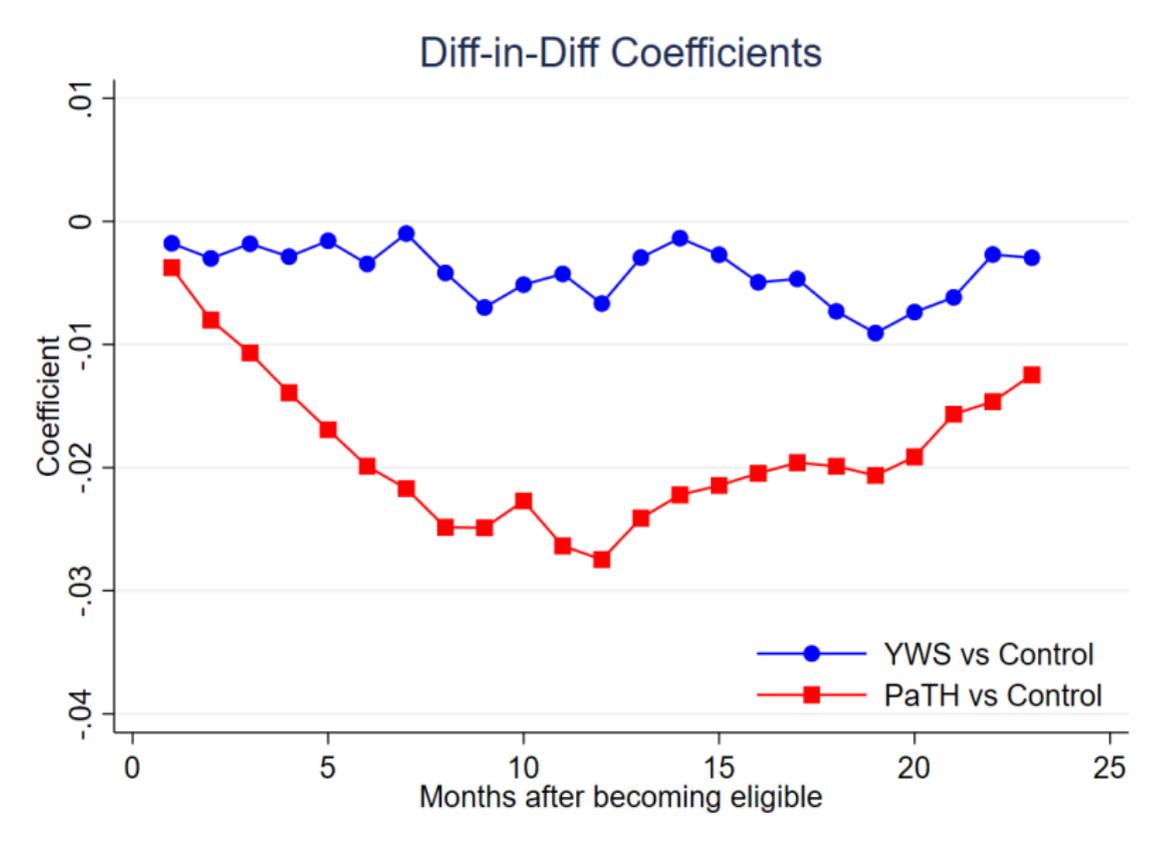
Result 1: YWS vs no intervention (control)



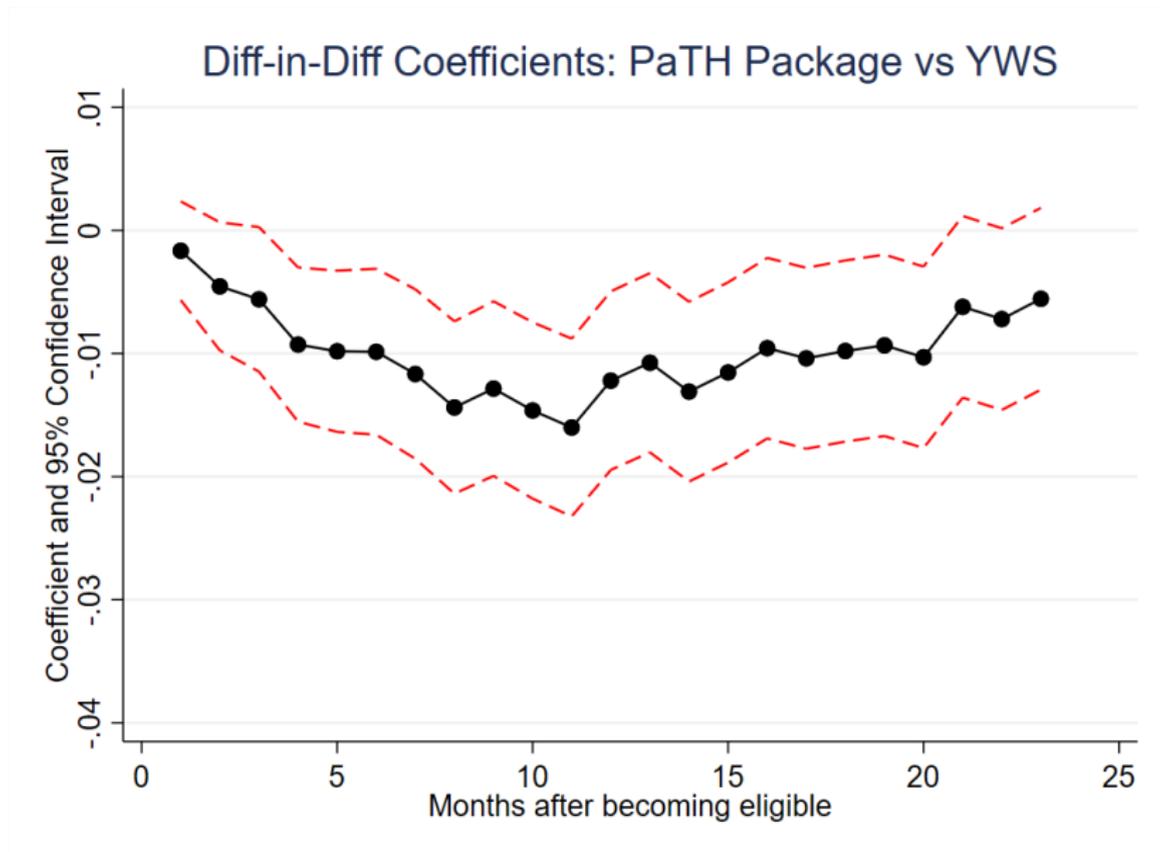
Result 2: PaTH vs no intervention (control)



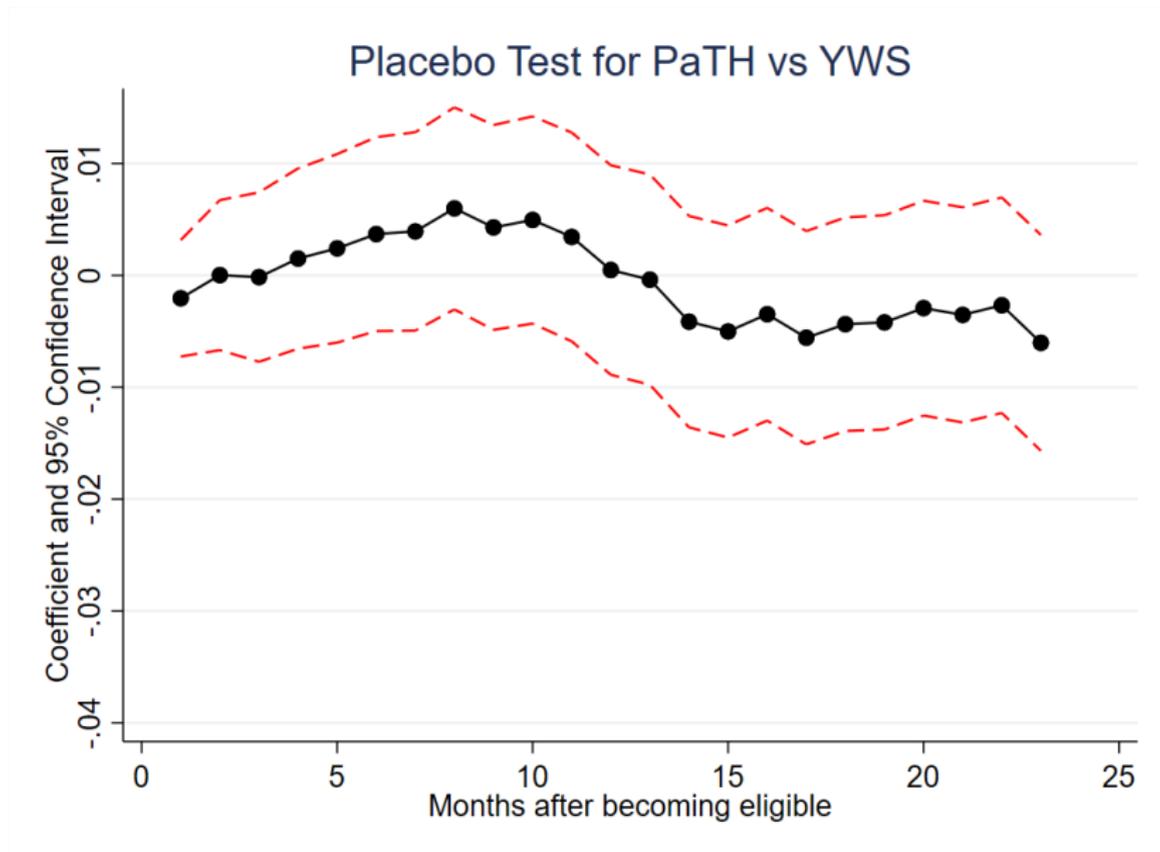
Result 3: PaTH vs YWS (indirect)



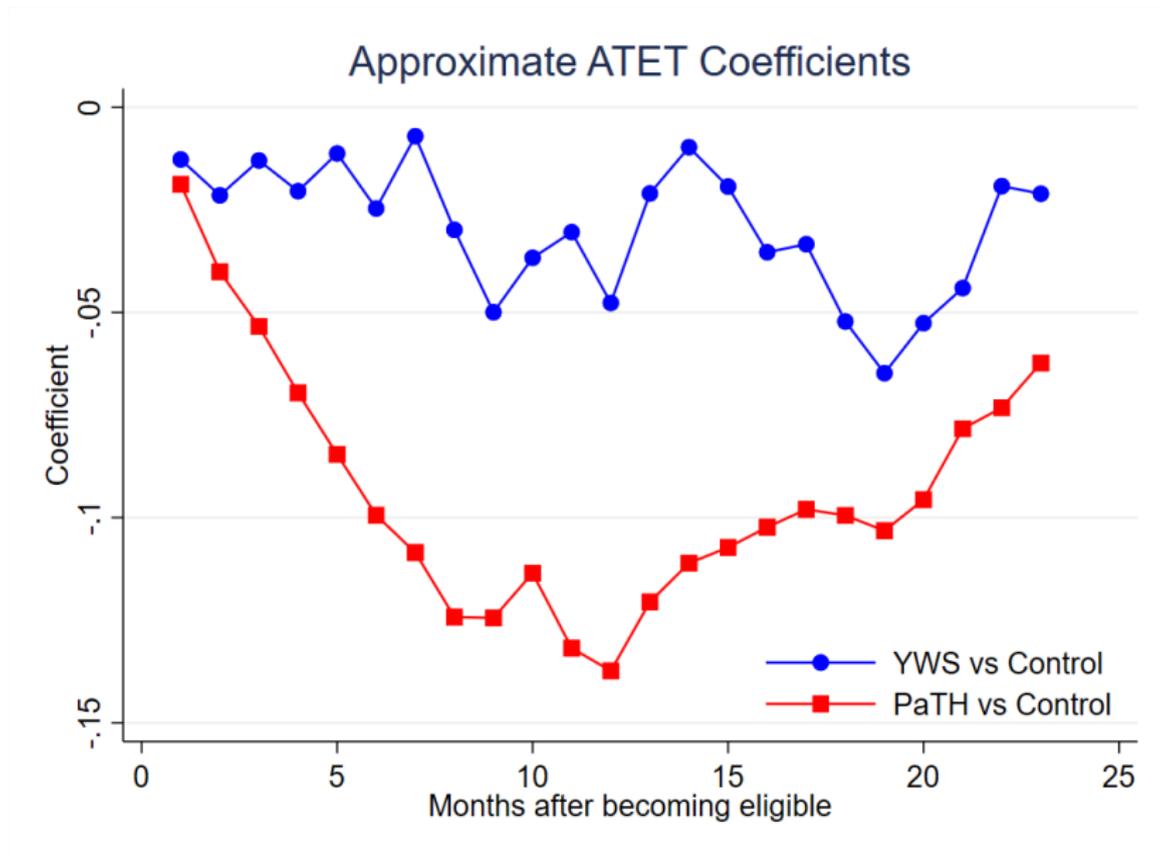
Result 3: PaTH vs YWS (direct)



Result 3: PaTH vs YWS (Placebo test)



Results 4 and 5: Effect of Participation in PaTH and YWS



Robustness Checks

- ▶ Model specifications for Diff-in-Diff.
 - ▶ Flexible time trends
 - ▶ Demographic controls
 - ▶ Different bandwidths around threshold age
 - ▶ Doughnut Diff-in-Diff
- ▶ Regression Discontinuity Design

Conclusion

- ▶ Eligibility for YWS and participating in it has a small (-0.5 and -3.0 pp) and statistically insignificant impact on the probability of leaving welfare payments.
- ▶ Eligibility for PaTH and participating in it has a economically meaningful (-2.0 and -9.4 pp) impact on the probability of leaving welfare payments.
- ▶ The treatment effect of PaTH is 3 to 4 times larger than for YWS.
- ▶ Policy Implications: Cost-Benefit Analysis of PaTH; Cost of PaTH vs YWS
- ▶ Future plans for project
 - ▶ New outcomes: welfare amount, welfare type, relapse.
 - ▶ New project using linked employer-employee administrative dataset.

Thank you!

Age thresholds for program eligibility

Fig 1

