Who Is Screened Out? Application Costs and Targeting of Disability Programs

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Motivation

- Question: how do social security application costs affect targeting?
  - What is the relative importance of different types of costs?
- Previous literature
  - Nichols and Zeckhauser (1982): costs may improve targeting by screening out high-ability individuals with high opportunity costs
    - Opposite result possible if costs negatively correlated with ability
  - Bertrand et al. (2004): hassles may discourage those most in
- Contribution
  - Estimate impact of change in application costs on screening and targeting efficiency when tag is difficult to observe (disability insurance)
  - Bring together administrative data and features of field offices to study channels for discouragement

Framework and Context

- Definition of improvement in targeting efficiency:

$$1 < \frac{Pr(R|A,\eta')}{Pr(R|A,\eta)} = \frac{\Delta_R + 1}{\Delta_A + 1}$$

  where Δ_R is % change in recipients resulting from closing, and Δ_A is % change in applicants resulting from closing
  - Underlying assumption: adjudicator's preferences for who is deserving reflects societal preferences, taking current screening technology as optimal

- Disability claims take up two-thirds of SSA's administrative budget $\Longrightarrow$ high screening costs
  - Most of the savings from field office closings are foregone rental costs

- SSA does not disclose method for deciding which offices to close
  - Evidence that *timing* of closings is random

Empirical Strategy

- DiD specification to estimate effects of closings:

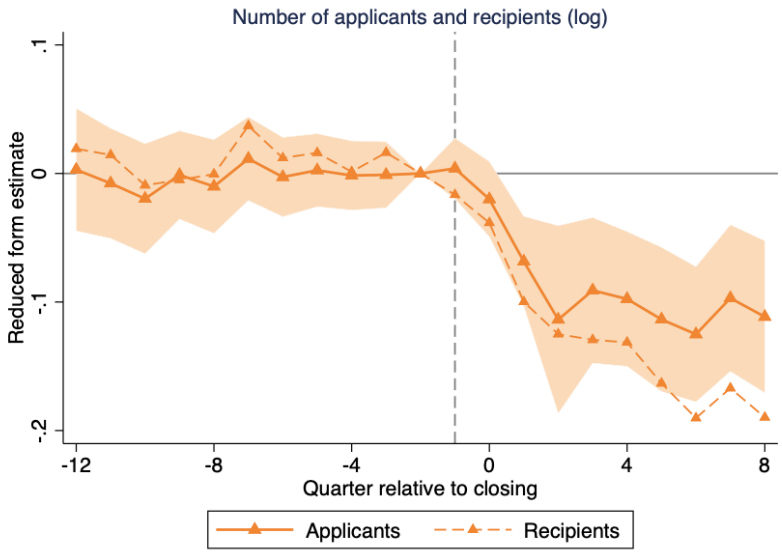
$$Y_{isct} = \alpha_i + \gamma_{st} + \delta_0 \, Treated_{ic} + \sum_{\tau} \delta_\tau \left(Treated_{ic} \times D^{\tau}_{ct} \right) + \varepsilon_{isct}$$

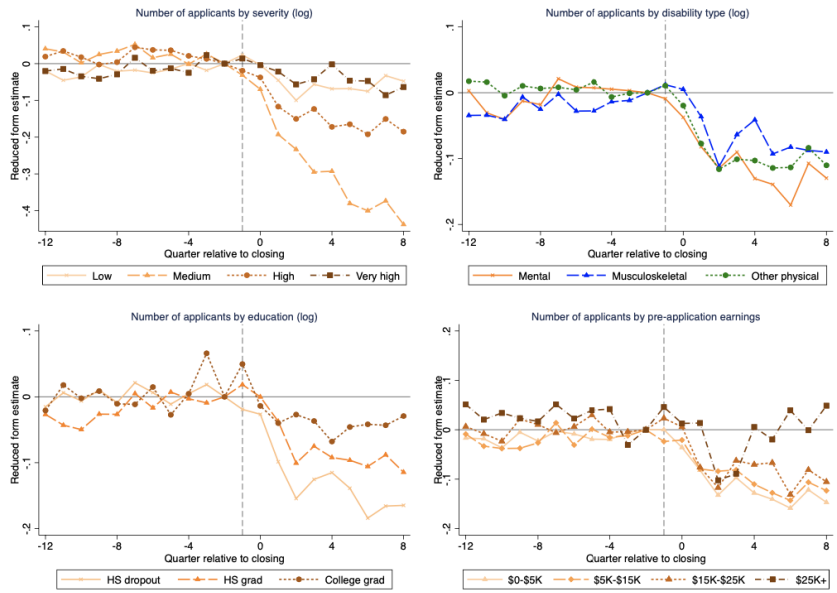
  where δ_τ represent difference between treated and control ZIPs in outcome Y, τ quarters after the closing
  - Identifying assumption: in the absence of closing, the number and characteristics of disability applicants and recipients would have evolved similarly in areas experiencing a closing today (treated) relative to areas experiencing a future closing (control)

- Model uses control group to eliminate event-time trends, i.e. the pre-trend in disability applications
  - Event study design would require both calendar and event time effects

Effects of Closings

- Closings lead to 16% fall in recipients and 10% in applications
- Targeting: larger effects for those with "medium" and "high" severity disabilities, mental conditions, lower education, lower earnings, and those who are younger





Channels for Closings Effects

- Closings cause longer walk-in wait and application processing times at neighboring offices, increase all travel cost measures, and stem a downward trend in call volumes to SSA's 800 number
- Decomposition of channels: use IVs to estimate structural equation

$$Y_{isct} = \alpha_i + \gamma_{st} + \beta\, Congestion_{ict} + \kappa Distance_{ict} + \delta\, NewOffice_{ict} + \varepsilon_{isct}$$

- Relative importance
  - Applicants: congestion (54%), switching (42%), driving distance (4%)
  - Recipients: switching (55%), congestion (43%), driving distance (2%)
  - Congestion seems to matter more for applicants who will be rejected

Conclusion

- Closings worsen targeting based on current eligibility standards

$$\frac{\Delta_R + 1}{\Delta_A + 1} = \frac{-0.155 + 1}{-0.100 + 1} < 1$$

- Welfare analysis: costs of closings outweigh benefits unless only those with "very high" severity disabilities are deserving
  - Extension: selection process for deciding closings better than random, but average closing cost more than double that of the lowest-closing-cost offices (more rural, smaller service area populations)

- Closings exacerbate the very inequality that disability programs are intended to mitigate, ***if*** intended to address economic inequality