Welfare Programs, Eligibility Tightening, and Financial Distress: Evidence from Automating the Indiana Welfare System

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Abstract

In 2006 Indiana state awarded IBM a $1.3 billion contract, aiming to modernize their welfare system through automated application processing for TANF, food stamps, and Medicaid programs. However, the policy was rolled back in 2010, before the rollout could cover all counties, due to capacity issues. This paper investigates the impact of the failed automation policy, with a quasi-experimental framework, on crime and local household financial distress. The results suggest a significant adverse effect on the financial well-being of treated counties(increases in both collections and bankruptcies). Additionally, we find a significant increase in local crime driven by property crime.

Introduction

This paper contributes to 2 different areas.
- Provide further evidence on the link between public welfare and financial wellbeing.
  - To our knowledge, aside from Argys et al. (2020)[1], this is the only work to focus on the side of reducing access to welfare instead of increasing welfare access[2],[5],[7],[9].
  - The policy we evaluate curtailed access to all 3 state social welfare programs(TANF SNAP and Medicaid). Relying on the first stage outlined in Wu and Meyer (2021)[11], we focus on investigating if reduced access has effects on the real dimensions of financial distress and crime.
- Provide further evidence on link between welfare and local crime
  - Previous research has shown this link for different welfare programs [3],[6],[10].
  - Here our contribution comes from showing that the link is present even for short term shocks to access and that it also shows significant persistence.

Data

In This work we combine data from 3 sources.
- Financial Data comes from GIES Consumer Credit Panel dataset.
  - Sourced from one of the US credit reporting agencies, contains data on a representative 1% sample of US consumers.
  - Detailed financial reporting data with yearly frequency measured at the end of the first quarter of each year.
- Crime data comes from Uniform crime reporting program.
  - Compilation of crime statistics reported by local law-enforcement agencies across the United States to the FBI
  - We use yearly totals at the Agency level.
- For the link to the variation(at the county level), we rely on 2 sources:
  - Public record of the lawsuit of Indiana vs. International Business Machines corporation (IBM).
  - Cross checked with Wu and Meyer 2021 [11].

Empirical Strategy

- We use the timing of the policy change for different groups of counties in Indiana to define treatment.
- We focus only on Indiana counties where our main results rely on a differences-in-differences specification(For Financial data, which has individual level observations).

$$Y_{it} = \delta_{dd}(Treat_c \times Post) + \gamma X_i + \theta_t + \psi_c + \epsilon_{it}.$$

- Here δ_{dd} is the differences in differences parameter of interest.
- θ_t are year fixed effects and ψ_c are county fixed effects.
- Additionally, all results include time varying county level per capita income and employment rate.
- For the dynamic impact of the policy, and to check for pre trends we use the following specification

$$Y_{it} = \sum_{l=-n, l \neq -1}^{n} \delta_l(Treat_c \times year_t) + \gamma X_i + \theta_t + \psi_c + \epsilon_{it}.$$

- For crime data since our observations are at the reporting agency level we adapt these accordingly. All results show Standard errors clustered at county level.

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Financial Outcomes Results

Table 1: Effect on Indiana Welfare Automation on Financial health

	Total Bankruptcies	Total Collections	Balance In Collections	Credit Score
	(1)	(2)	(3)	(4)
Differences-in-Differences model				
Post × Treatment	0.025**	0.253***	100.368*	−1.713
	(0.012)	(0.072)	(54.791)	(1.138)
Mean outcome(Treated at t=2007)	0.262	1.80	777	671
Effect relative to mean	9.5%	14%	12.9%	–
N	474,320	523,133	523,228	523,228

Clustered Standard errors reported in parenthasis   *p<0.1; **p<0.05; ***p<0.01

(a) Total Number of Bankruptcies per 1000 resident

(b) Number of Collections

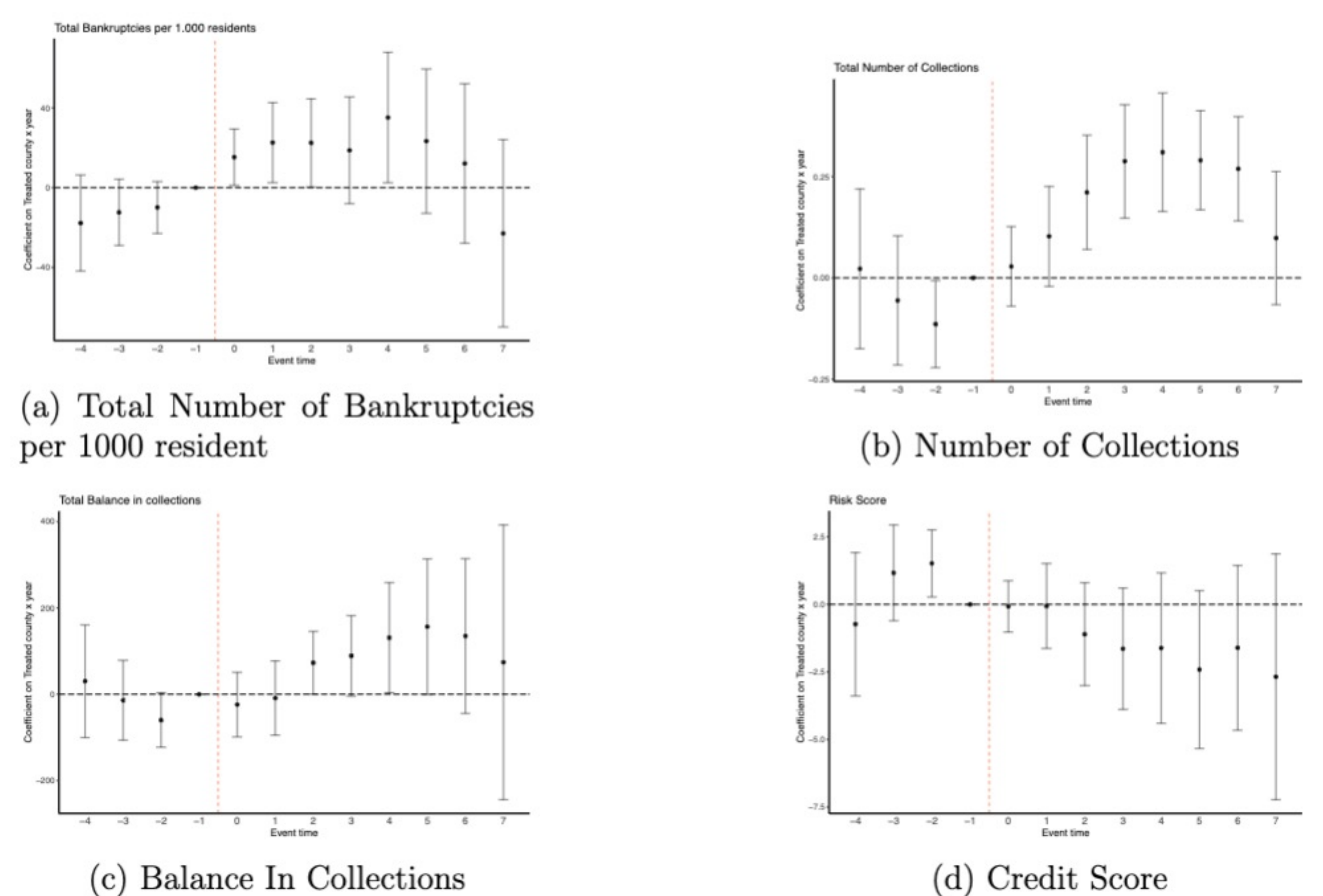(c) Balance In Collections

(d) Credit Score

Figure 4. : Dynamic Effects on Financial Outcomes

Local Crime results

Table 2: Effect on Indiana Welfare Automation on reported crime rates

	Total Crime	Property Crime	Violent Crime
	(1)	(2)	(3)
Differences-in-Differences model			
Post × Treatment	34.61***	26.44**	1.93
	(12.489)	(10.265)	(1.504)
Mean Baseline Rates	204.144	157.68	11.82
Effect relative to mean	17%	16.8%	16.32%
N	4,069	4,069	4,069

Clustered standard errors reported in parentheses   *** p<0.01, ** p<0.05, * p<0.1

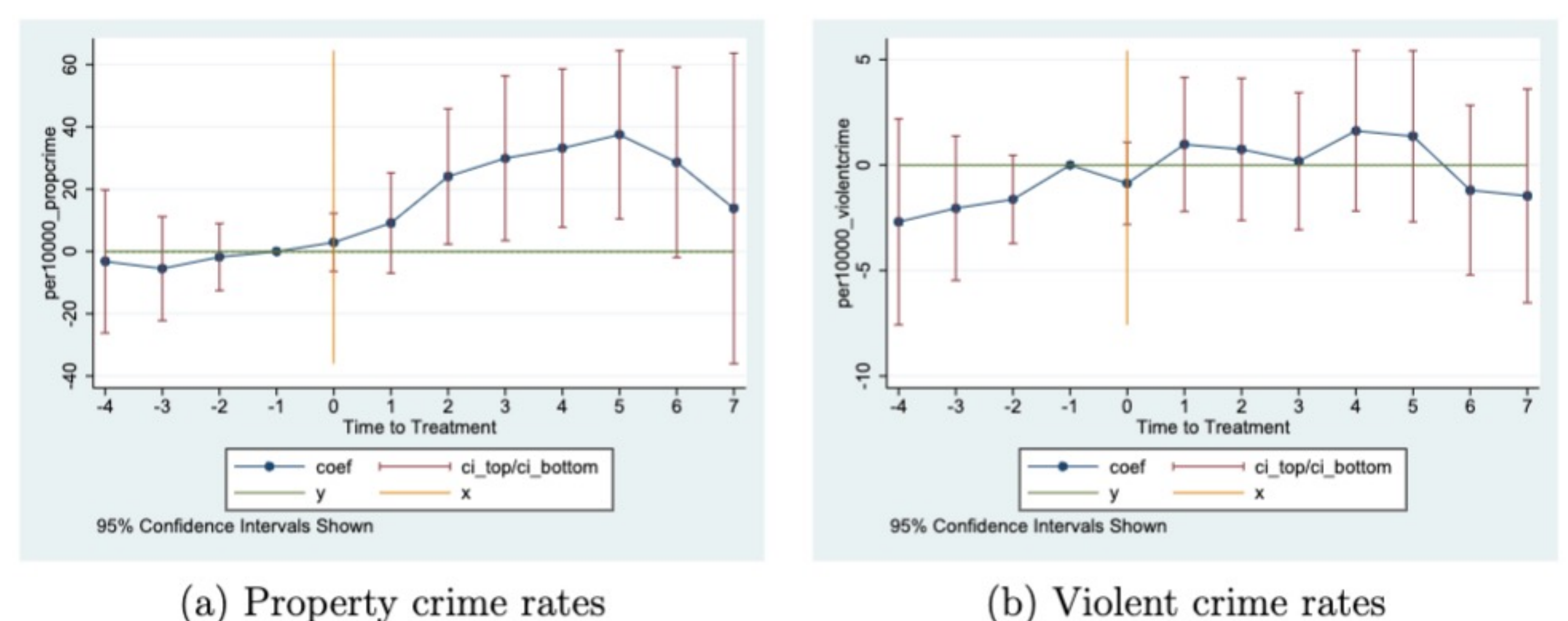(a) Property crime rates

(b) Violent crime rates

Figure 6. : Effect on Indiana Welfare Automation on Property and Violent crime rates

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