

Discussion of Herkenhoff Philips Cohen-Cole (2016)
“The Impact of Consumer Credit Access on
Employment, Earnings, and Entrepreneurship”

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Interesting paper!

- ① **Policy Relevant Question:** How does bankruptcy flag removal affect employment, earnings, and entrepreneurship?
- ② **Big data lift:** link individual credit data to LEHD employment and earnings & ILBD firm ownership
- ③ **Clever idea:** Exploit timing of bankruptcy flag removal
- ④ **Interesting Results:**
 - Small impacts on employment rate, earnings, ownership rate
 - Despite small impacts on stocks, larger flows into and out of self-employment and ownership

- ① Effect size: embrace the zero
- ② Identify economic determinants of impacts by using treatment intensity and/or initial characteristics to isolate demand shocks
- ③ Restrict focus to key “stock” outcomes (or directly motivate “flows”)
- ④ Exploit richness of data and design to address pre-trend concerns

1. Effect size: how big are the (“stock”) effects?

① Sizable first stage

- Credit score increases approx 50 units

② Small Impacts on Employment, Earnings, Entrepreneurship

- Formal employment rate increases 0.3 p.p. (base 78.7%)
- Zero impact on self-employment rate
- Earnings *fall* \$700 and have pre-trends [in appendix B!] (base \$33K)
- Firm ownership increases roughly 0.04 pp (base 0.3 %)

My take: small effects are interesting, policy-relevant

2. Economic determinants of small impacts

① Why are there small impacts?

- Offsetting labor supply and demand effects?
- Labor demand increases (“credit-check” effect)
- Labor supply decreases (“credit-access” effect)

② How big are the supply shocks?

- What does 50 units of credit score mean for predicted default rates or borrowing limits?

③ Isolate demand shocks

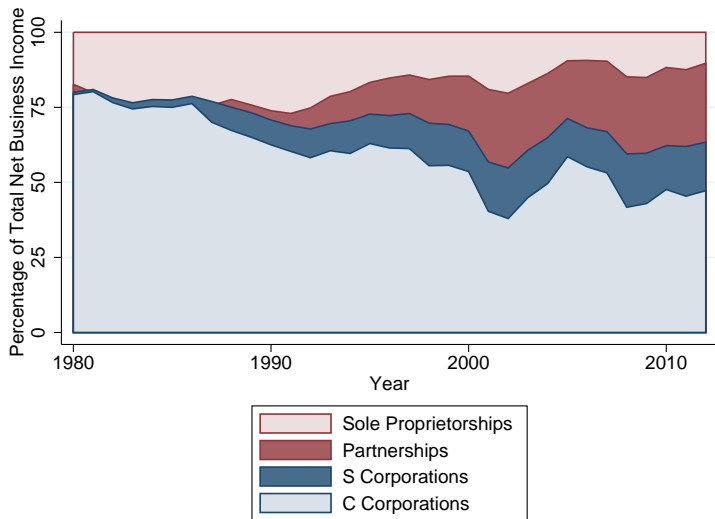
- **Pre-treatment borrowing capacity:** estimate impacts for those who were below credit limits (and thus not credit supply constrained)
- **Treatment intensity:** do those who had small impacts on credit score and borrowing (and thus had small credit supply change) have similar labor market outcomes?

3. Outcome selection

Second half of paper focuses on flows

- 1 Would help to clarify specific motivation and policy relevance of flows
- 2 **Missing Entrepreneurs?** If we are missing substantial opportunities, wouldn't we see big gains in employment growth and wagebill?
Can't reject zero impact; sole prop income increases \$1K
- 3 **Misallocation?** If there is sizable misallocation, wouldn't we see big wage (earnings) impacts?
Earnings increase \$1.7K, but some concern about pre-trends and cohort effects

3a. Schedule C income is small share of business income



Source: CMPPSYZZ (2016)

3b. Concern about pre-trends in earnings

Table 14: Baseline Earnings

	(1) Real Annual Labor Earnings	(2) Real Annual Self- Employed Net Income	(3) Real Annual Total In- come (SE and Non- SE)
2 Years Before Removal (d)	-27.08 (44.66)	28.92 (22.31)	1.843 (47.87)
1 Year Before Removal (d)	-147.2** (61.80)	-9.304 (29.40)	-156.5** (65.46)
Year of Removal (d)	-259.9*** (78.12)	4.096 (36.81)	-255.8*** (82.51)
1+ Years After Removal (d)	-662.4*** (96.31)	-37.86 (44.82)	-700.3*** (101.5)
Individual Fixed Effects	Y	Y	Y
Year Fixed Effects	Y	Y	Y
Age and Tenure Controls	Y	Y	Y
R-squared	0.121	0.003	0.097
Indiv.-Yr Obs.	1.500e+06	1.500e+06	1.500e+06
No. of Indiv.	220000	220000	220000
Sig Diff 1+Yr & -2Yr at 10%	Y	Y	Y
Sig Diff 0Yr & -2Yr at 10%	Y	N	Y

Notes: SE in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Age and Tenure controls include quadratics in age and tenure. Fixed Effects include individual fixed effects and year dummies. Real Annual Total Income is the sum of Real Annual Labor Earnings and Real Annual Self-Employed Net Income.

4. Exploit richness of data and setting

Suppose $Earnings = 30 + .5t + 2 \times Treat + \varepsilon$

Calendar Year	All	Flag removed in:		
		2002	2004	2006
1998	30.0	30.0	30.0	30.0
1999	30.5	30.5	30.5	30.5
2000	31.0	31.0	31.0	31.0
2001	31.5	31.5	31.5	31.5
2002	32.0	34.0	32.0	32.0
2003	32.5	34.5	32.5	32.5
2004	33.0	35.0	35.0	33.0
2005	33.5	35.5	35.5	33.5
2006	34.0	36.0	36.0	36.0
2007	34.5	36.5	36.5	36.5
2008	35.0	37.0	37.0	37.0
2009	35.5	37.5	37.5	37.5
2010	36.0	38.0	38.0	38.0

4. Exploit richness of data and setting

Showing means by cohort year:

- shows pre-trends more transparently
- clarifies exactly which groups you are comparing
- provides different control groups for subsamples of interest (e.g. those transitioning into self-employment)
- enables within-bankruptcy-year-cohort comparisons by doing this type of table for Chapter 13 (who get flags removed after 7 years) vs Chapter 7

Can use this setup and minimum distance to estimate treatment effects

Conclusion

- 1 Interesting question with interesting results: evidence seems consistent with small impacts on labor market outcomes
- 2 Can focus more on policy-relevant outcomes and economic determinants
- 3 Exploit richness of data and design by looking at specific cohorts and comparing outcomes for 7 vs 10 year flag removal to try to address pre-trend concerns