Consumption, Credit, and the Missing Young

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What is this paper about?

The Credit Card Accountability Responsibility and Disclosure (CARD) Act of 2009-10 may have had **unintended consequences for the young**.

- Credit cards triggered the creation of consumer credit records more frequently than any other product (Brevoort et al., 2015).
- Title 3 of the act made it **harder for individuals younger than 21 to obtain a credit card** (need co-signer or proven income), delaying entry into credit bureau records.
- Proportionally less young people appear in credit bureau data today than in the past—the **missing young** (MY).
- We document a **negative correlation between consumption growth and MY** using state-level consumption data.

  If MY remained at 2010 (pre-CARD Act) levels,
  we would have had 20 basis point higher consumption growth in 2018.

- Our analysis indicates the CARD Act is partially responsible for the uncovered correlation.

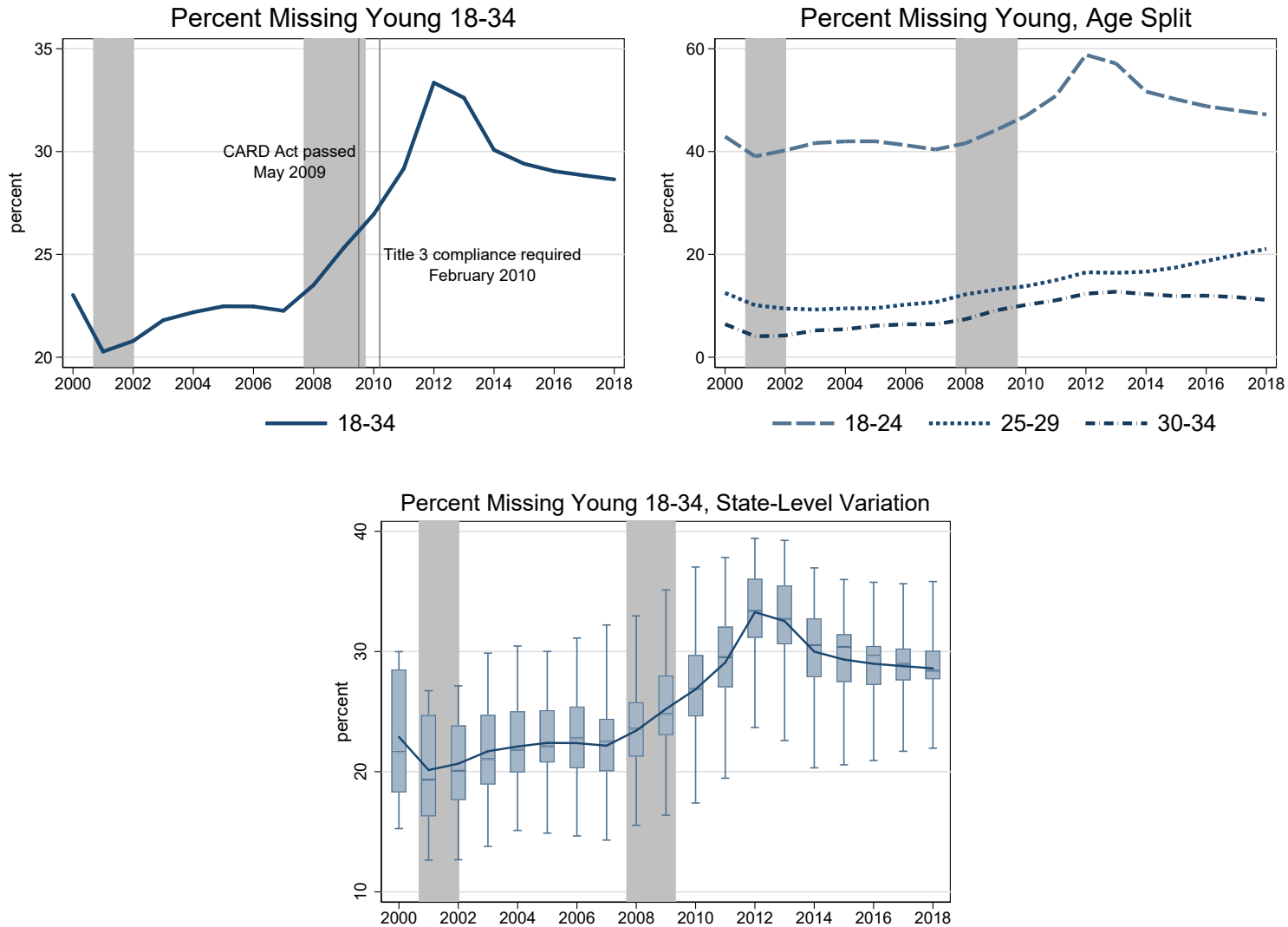
Data sources

- **Credit bureau data** from the NY Fed CCP provided by Equifax.
  - Longitudinal, nationally representative, 5 percent random sample of individuals 18+ with credit records in the United States.
  - Detailed information on individuals' debt holdings and credit scores. Also, birth year and geographical location.
  - Unlike previous studies (e.g., Debbaut et al., 2016), our focus is on individuals who are **not in the data**.
  - We calculate the percent of individuals in age group *a* (18–34) missing altogether or unscored in the CCP, in state *i* in a give year *t*:

$$\text{Percent MY}_{it}^{a} = \left(1 - \frac{N_{it}^{\text{ccp},a}}{N_{it}^{\text{census},a}}\right) \times 100$$

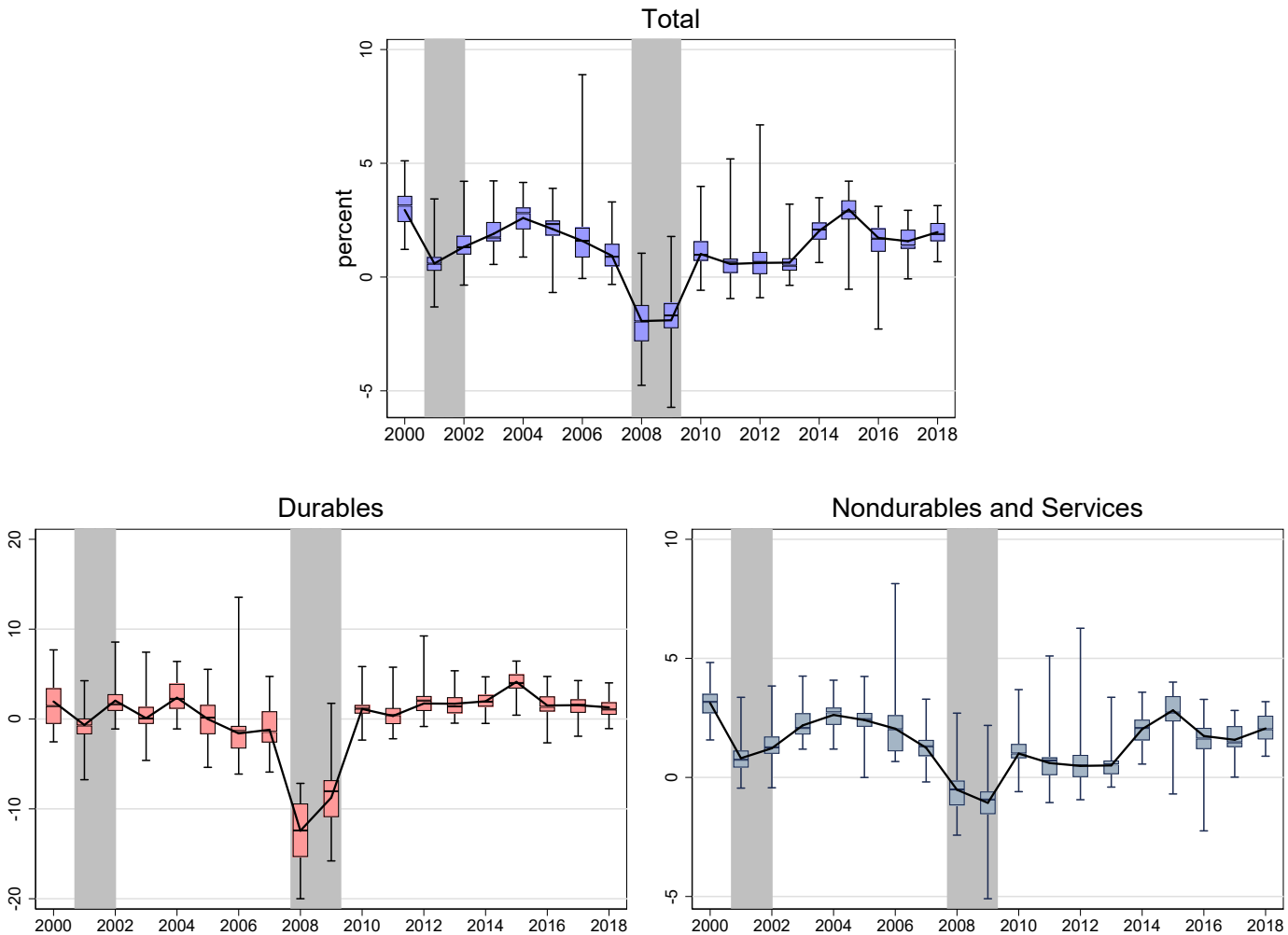
- State-level **consumption data** (total, durables, nondurables & services) from the BEA.

The missing young in the CCP



Notes: The bottom panel shows state-level variation. The box and whiskers show the interquartile range, median, minimum, and maximum percent missing young across states, and the solid line depicts the (population-weighted) average across states.

State-level variation in consumption growth



Notes: The box and whiskers show the interquartile range, median, minimum, and maximum growth in the plotted series across states. The line depicts the (population-weighted) average across states.

Empirical strategy

We relate consumption growth to available resources, measures of uncertainty, and access to credit:

$$\begin{aligned}\Delta \log(c_{it}) \quad = \quad & \alpha_i + \mu_t + \beta_y \, \Delta \log(y_{it}) + \beta_h \, \Delta \log(h_{it}) \\ & + \beta_u \, \Delta u_{it} + \beta_{cf} \, \Delta \text{conf}_{rt} + \beta_{cs} \, \text{cs}_{it} + \beta_{\textbf{my}} \, \text{my}_{\textbf{it}} + \varepsilon_{it},\end{aligned}$$

- **c:** (real) consumption; **y:** disposable income; **h:** house prices; **u:** unemp. rate
  conf: CB consumer expectations confidence index (regional);
  cs: average credit score; **my:** missing young.
- State (α_i) and time (μ_t) FE.
- Sample: 2000–2018.
- Regressions weighted by state population.
- Standard errors clustered by state.

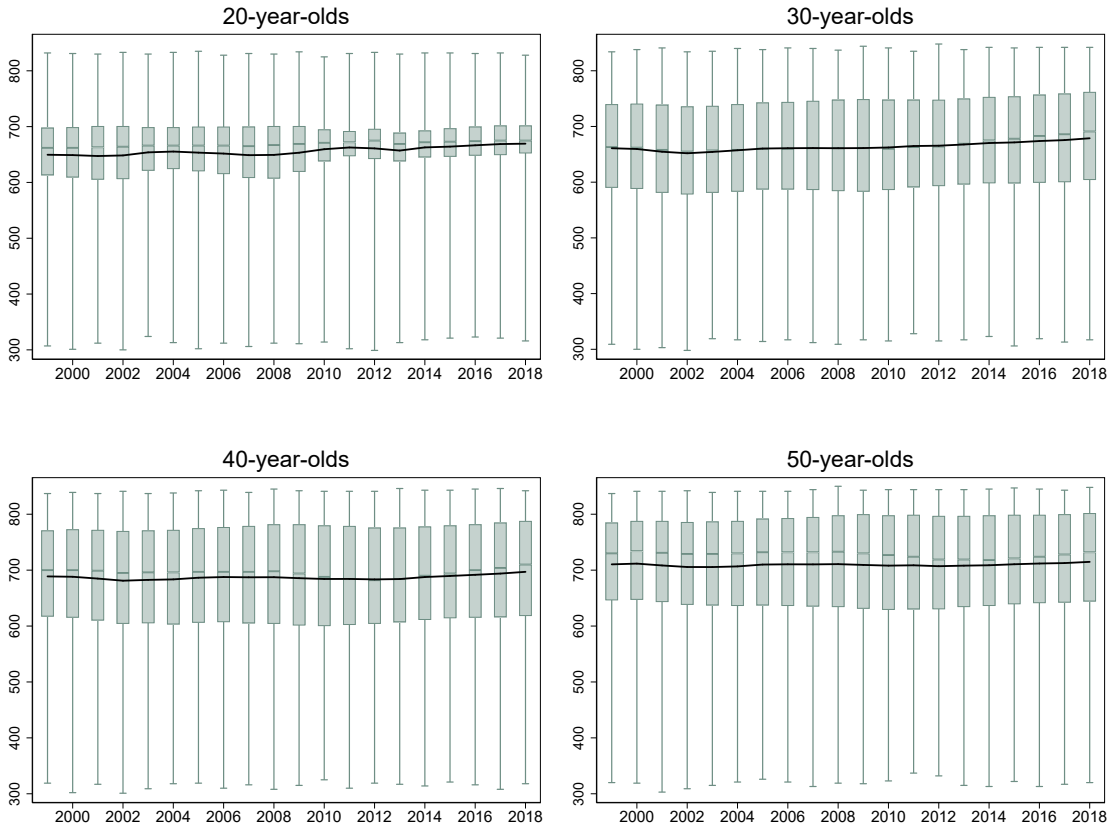
OLS regressions initially; later IV for **my**.

Does missing young predict consumption growth?

	Total	Nondurables + Services	Durables
Income Growth	0.16***	0.14***	0.28***
	(0.03)	(0.02)	(0.05)
House-Price Growth	0.04***	0.01	0.20***
	(0.01)	(0.01)	(0.03)
Change in Unemployment	–0.26***	–0.18**	–0.85***
	(0.09)	(0.08)	(0.22)
Change in Confidence	0.00	–0.01	0.04*
	(0.01)	(0.01)	(0.02)
Avg. Credit Score	0.05***	0.06***	–0.01
	(0.01)	(0.01)	(0.03)
Missing Young, 18–34	–0.05**	–0.06**	0.01
	(0.02)	(0.03)	(0.05)
State FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
R-squared	0.30	0.24	0.36
Observations	969	969	969

Reduced access to credit for the young, or something else?

Compression of risk scores of the young **in** credit bureau data



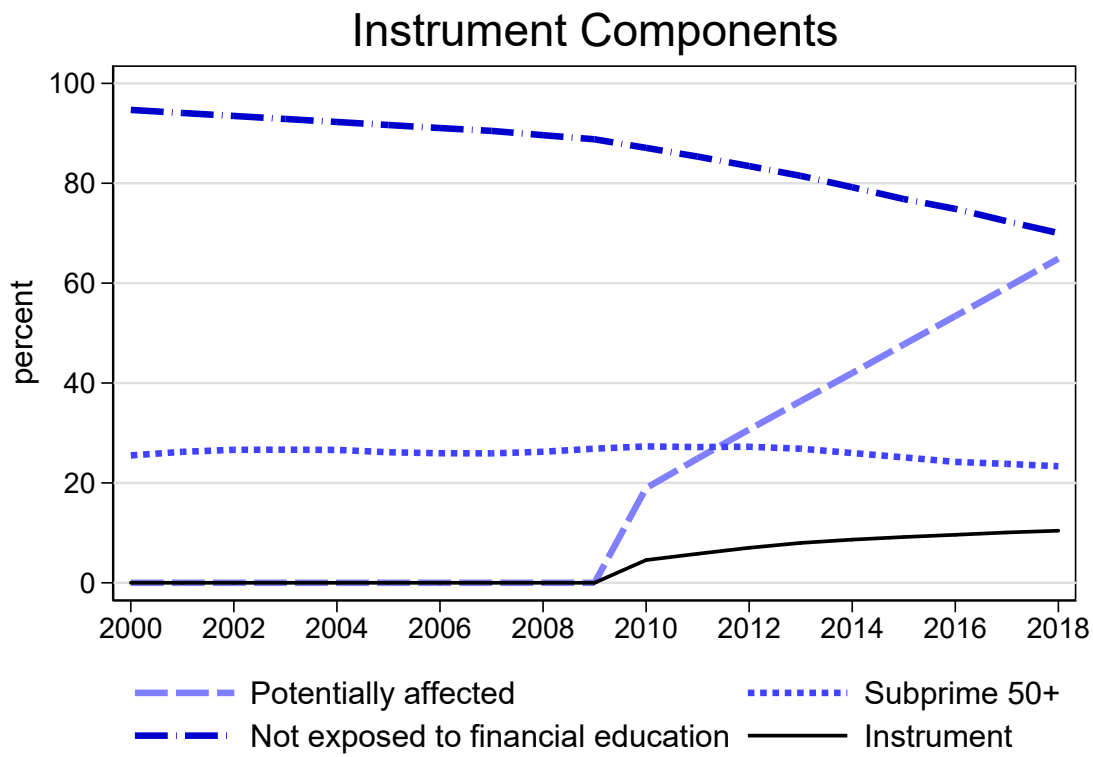
Notes: The CCP contains a generic credit score (Equifax Risk Score) much like others available in the credit bureau marketplace. The box and whiskers show the interquartile range, median, minimum, and maximum. The line depicts the average.

If young individuals start their credit histories later, the 20 year-olds we see in credit bureau data look "better." More evidence in the paper points to a compositional change, with some individuals possibly excluded from traditional credit channels.

Creating an instrument for MY

$$\text{Treat}_{it} = \text{PA}_{it} \times \text{SP}_{it} \times \text{NoF}_{it}.$$

- The number of 18-34 years-olds potentially affected by the act varies over time.
- Individuals without parents who can co-sign, more likely treated (subprime 50+).
- Individuals without financial education, more likely treated (no financial education in high school; Urban and Schmeiser, 2015).



Missing young and consumption growth instrumenting for MY

	(1) OLS	(2) Reduced-Form IV	(3) IV	(4) OLS	(5) Reduced-Form IV	(6) IV
Missing Young, 18–34	–0.05**	–0.03***	–0.12***			
	(0.02)	(0.01)	(0.03)			
Missing Young, 18–24				0.01		
				(0.03)		
Missing Young, 25–29				–0.04***	–0.03***	–0.15***
				(0.01)	(0.01)	(0.05)
Missing Young, 30–34				–0.02		
				(0.02)		
State FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
F excl. instrument			26.98			9.19
R-squared	0.28	0.28	0.26	0.29	0.28	0.15
Observations	969	969	969	969	969	969

Notes: Regression: $\Delta \log(c_{it}) = \alpha_i + \mu_t + \beta_y \Delta \log(y_{it}) + \beta_h \Delta \log(h_{it}) + \beta_u \Delta u_{it} + \beta_{cf} \Delta \text{conf}_{rt} + \beta_{cs} \text{cs}_{it} + \beta_{my} \text{my}_{it} + \varepsilon_{it}$. All regressions are population weighted at state level. Sample period: 2000–2018. Standard errors clustered by state in parenthesis. 6

- Our estimates (IV, column 3) imply that consumption growth would have been 0.20 percent higher in 2018 if MY remained at its 2010 level; 2.2% instead of 2%.
- Possible mechanisms: **direct** (not being able to borrow via credit card debt); **indirect** (no credit record, harder to get other loans).

Addressing remaining concerns about identification

The CARD Act was passed at the end of the Great Recession.

- Negative effects on earnings for individuals entering the labor market in a recession that can be long lasting.
  - The persistence is lower for those without a college degree (more likely treated by the act), and our sample period extends well beyond the end of the GR.
  - Regressions include a rich set of controls.
  - Results robust to adding interactions of young share and time period to the regressions.
- Scarred consumption via changes in risk aversion and/or negative income expectations.
  - Results robust to adding "unemployment experience" as in Malmendier and Shen (2018).

Takeaways

- The CARD Act has affected young adults' access to credit.
- More young adults are missing from credit bureau data today than before the Great Recession, which acts as a drag on consumption growth.
- Consumers with limited credit histories face challenges accessing credit markets.
- Our research highlights the need to continue to find ways for young adults to more easily signal their creditworthiness.
- Financial education is also important in helping consumers build credit histories, but more research is needed to determine whether financial education alone is enough under the current regulatory setting.