

# The Role of Credit Cards for Unemployed Households in the Great Recession

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## Research questions:

- To what extent does a temporary unemployment spell increase unsecured debt?
- Among which borrowers?

Prior research using data from 1996 - 2003 finds unemployment borrowing is concentrated among those households at the margin of credit worthiness—2nd-3rd deciles of wealth, low-income, low-asset (Sullivan 2008).

Figure 1: Unemployment Rate, 1996-2013

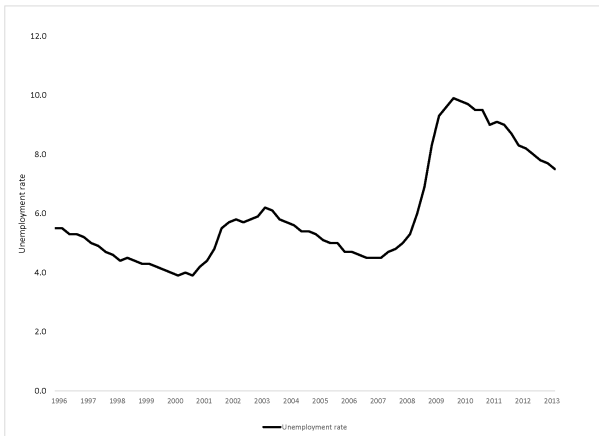
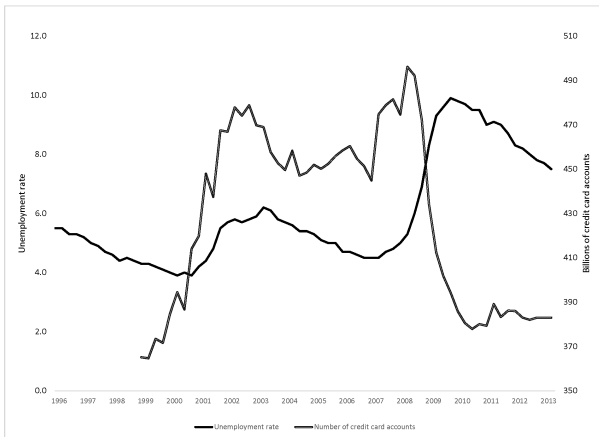


Figure 1: Unemployment Rate and Total Number of Credit Cards, 1996-2013



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- Among which borrowers?
- Do either of these change during the most recent recession?
  - ▶ Changing composition of unemployed
  - ▶ Changing tightness in credit market

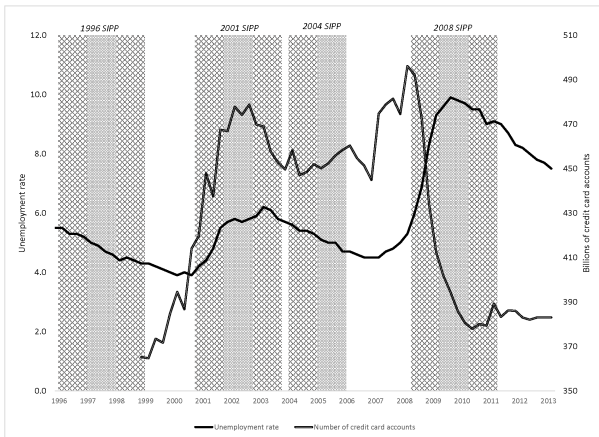
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## Method:

- Regress the change in household unsecured debt levels on head's temporary unemployment spell using the four most recent Surveys of Income and Program Participation and the Federal Reserve Bank of New York/Equifax Consumer Credit Panel.

Figure 1: Unemployment Rate and Total Number of Credit Cards, 1996-2013, with SIPP panels



1996 Panel -

- Unemployment rate is falling; trend in credit not directly observed

2001 Panel -

- Unemployment rate is rising; total available credit is rising

2004 Panel -

- Unemployment rate is falling; total available credit is stable

2008 Panel -

- Unemployment rate is rising; total available credit is falling



## Federal Reserve Bank of New York/Equifax Consumer Credit Panel: State-by-quarter averages, 1999 - 2015

1. Credit Card Limit
2. Number of Inquiries
3. Credit Score
4. Number of Open Accounts

## Survey of Income and Program Participation (SIPP):

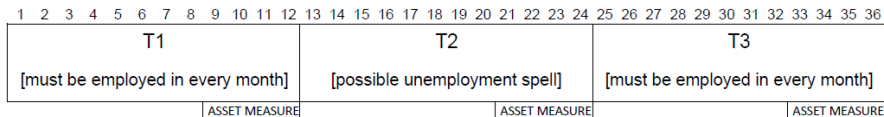
- Panels of 2-4 years in length
- Four-month interviews produce monthly observations on demographics and employment
- Annual topical modules on Asset and Liabilities provide wealth snapshot

## Analytical Sample

- Analytical sample - 20-62 year-old household heads observed for 36 months and working consistently in the first and last year of the analytical observation window

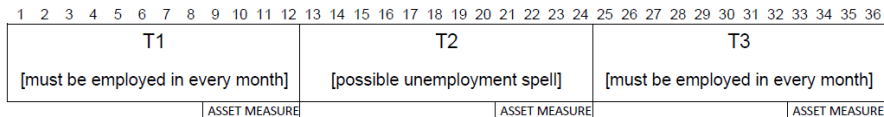
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- N=15,000 - 30,000; 800 - 1000 spells

$$\Delta Y_i = \alpha + \beta U_i + \gamma \mathbf{X}_i + \lambda_s + \tau_t + \epsilon_i \quad (1)$$

- $\Delta Y_i$  - change in unsecured debt between T1-T2, T1-T3  
→ Unsecured debt in SIPP: credit cards, consumer debt, signature loans, installment loans, student loans, medical collections, other collections.
- $U_i$  - unemployment spell in T2
- $X_{it}$  - gender, age cubic, race, marital status, family size, highest quarterly wage in T1, high debt load indicator, educational attainment, weekly unemployment benefit amount, wealth groupings.
- $\lambda, \tau$  - state and year fixed effects

$$\Delta Y_i = \alpha + \beta U_i + \gamma \mathbf{X}_i + \lambda_s + \tau_t + \epsilon_i$$

$$\Delta Y_i = \alpha + \beta U_i + \gamma \mathbf{X}_i + \rho \mathbf{Credit}_s + \lambda_s + \tau_t + \epsilon_i \quad (2)$$

- *Credit<sub>s</sub>* - variables measuring state-by-quarter credit means and state homestead exemption laws

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**U<sub>i</sub>:**

1. By panel - 1996, 2001, 2004, 2008
2. By wealth levels - Low (1st-3rd decile), Middle (4th-6th), High (7th-10th)
3. By race - white, black, Hispanic, other
4. By panel \* wealth

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## Finding 1: Unemployment incurred unsecured debt is persistent

	Change in Debt, T1-T2	
	(1)	(2)
Unemployed	1589.476* (911.632)	2851.244** (1005.595)
Less than HS	500.180 (1181.041)	146.665 (1366.582)
High School+	2928.8256* (1232.057)	1565.4936* (817.322)
Male	-2605.222 (1823.844)	-1707.4316* (693.596)
Non-white	-1190.390 (721.058)	-305.563 (726.511)
Never Married	-378.915 (697.458)	-889.390 (762.592)
Fam Size	674.501 (547.280)	191.607 (248.910)
Other covariates	Y	Y
All panels	Y	N
Credit controls	N	Y
N	30075	20194

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	Change in Debt, T1-T3	
	(1)	(2)
Unemployed	2728.904** (816.027)	3435.616** (1068.484)
Other covariates	Y	Y
All panels	Y	N
Credit controls	N	Y
N	25804	15923

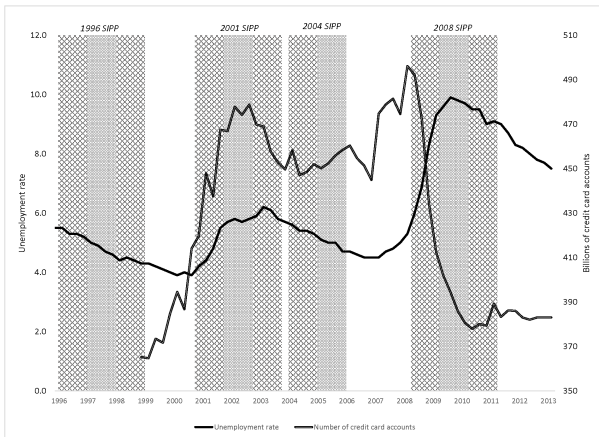
## Finding 2: Unsecured debt increases during recessions, but not expansions

	Change in Debt, T1-T2	
	(1)	(2)
Unemployed in 1996 Panel	-2071.461 (2384.130)	
Unemployed in 2001 Panel	2282.055 (1517.046)	2137.152* (1460.958)
Unemployed in 2004 Panel	-1634.485 (2149.690)	-2152.062 (2022.111)
Unemployed in 2008 Panel	5644.970** (1772.516)	5788.713** (1676.000)
Other covariates	Y	Y
All panels	Y	N
Credit controls	N	Y
N	30075	20194

### Finding 3: Increases in unsecured debt during the 2008 recession were driven by middle-wealth borrowers

	Change in Debt, T1-T2	
	(1)	(2)
Low wealth, Unemp 2008	5049.991* (2090.255)	4876.335** (1849.121)
Middle wealth, Unemp 2008	10006.003** (3845.716)	10323.659** (3563.655)
High wealth, Unemp 2008	1662.090 (3393.506)	2149.543 (3437.443)
Other covariates	Y	Y
All panels	Y	N
Credit controls	N	Y
N	30075	20194

Figure 1: Unemployment Rate and Total Number of Credit Cards, 1996-2013, with SIPP panels



Going forward, we will investigate further:

- Measurable outcomes related to long-term unsecured debt.
- Characterization of unemployment spells and income shocks in recessions versus expansions.
- Wealth, assets, and secured debt changes for middle-wealth families during the most recent recession.