
General Purpose Reloadable Prepaid Cards: Penetration, Use, Fees, and Fraud Risks

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Prepaid card industry background

- Prepaid cards are the most rapidly growing payment instrument—their annual growth rate exceeds 20%
- Prepaid cards are available in many formats
- General purpose reloadable (GPR) prepaid cards are gaining traction among un- and underbanked consumers
- Policy issues: how to protect cardholders from fraudulent transactions on their cards and card issuer bankruptcy; efficiency gains by replacing paper-based payments with prepaid cards
- For businesses: prepaid cards are a less expensive alternative to checks for disbursing payroll and benefits
- For financial institutions: prepaid cards are new revenue sources (cardholder fees and interchange fees from retailers)



Purposes of our paper

- Examine how GPR prepaid cardholders actually use their cards
 - Market penetration
 - Account life span
 - Number and value of loads and spending
 - Composition of spending
 - Fees
 - Fraud rates
- Investigate which factors, if any, influence card use among GPR prepaid cardholders by conducting a regression model analysis to quantify the effects of account characteristics and zip-code-level sociodemographic characteristics



Data

Data provided by NetSpend, a leading prepaid card manager in the prepaid card industry

- **Account-level dataset**

- Contains all GPR prepaid accounts which were active between July 1, 2011 and June 30, 2012 (over 3 million observations)
- Includes:
 - Important dates
 - Load type
 - Program type
 - Card distributor
 - Number and value of loads, various debits and fees
 - Utilized services
 - Zip code
 - Account ID

- **Dataset on load transactions**

- All load transactions during June 2012
- Includes:
 - Amount
 - Location
 - Direct deposit/cash load
 - Account ID



Data

- **Transaction-level dataset**

- All ATM and purchase transactions during June 2012

- Includes:

- Amount
- ATM/PIN/Sig
- CP/CNP
- PIN purchase/cash back/PIN-less bill pay
- MCC
- Transaction ID

- **Dataset on fraud/disputed transactions**

- All fraud/disputed transactions

- Includes:

- Amount
- Date
- Transaction code
- Fraud code
- MCC
- Transaction ID



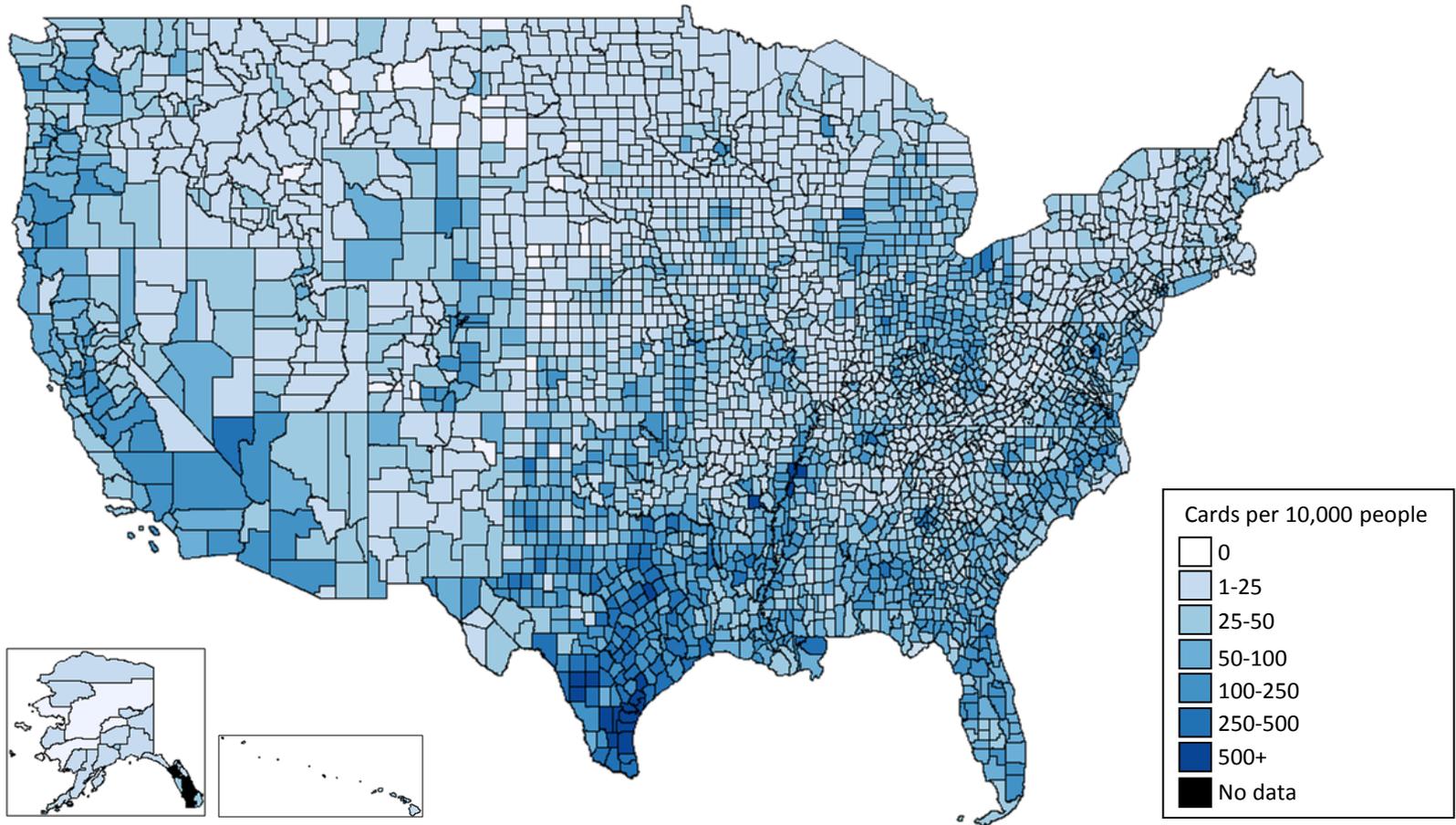
Data on sociodemographics

- County-level data to examine the penetration rate of NetSpend cards in each country
 - American Community Survey
 - Current Population Survey
 - US Census
 - FBI Uniform Crime Report
 - FDIC National Survey of Unbanked and Underbanked Households (state level)
- Census tract data (aggregated to the zip code level) to merge with NetSpend account-level data for regression analysis
 - Sociodemographic variables include sex, race, ethnicity, age, marital status, educational attainment, income, and violent and property crime rates (county level)



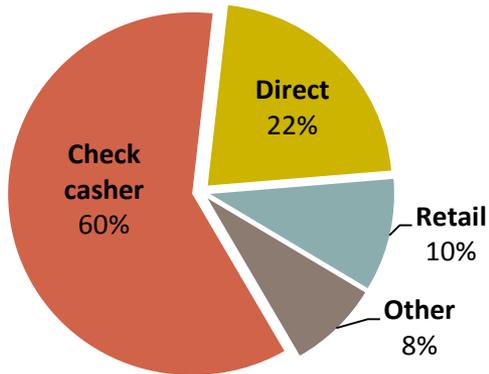
Market penetration of prepaid cards

- Number of active cards per 10,000 people by county

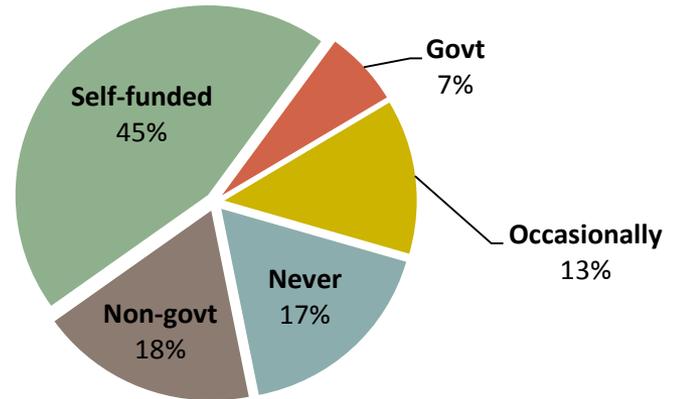


Account characteristics

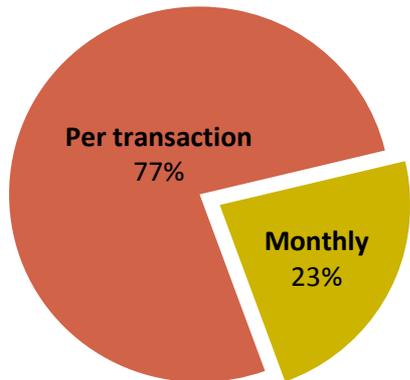
Card distributor



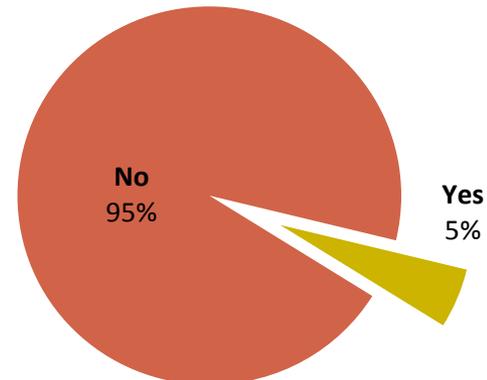
Reload status



Fee program

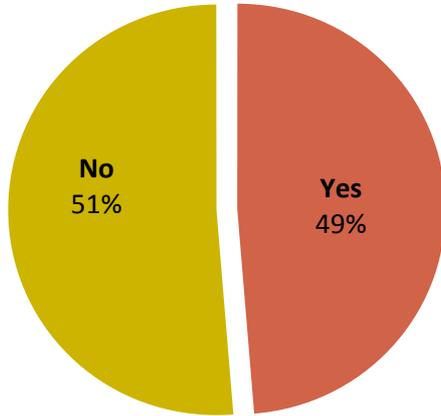


Overdraft

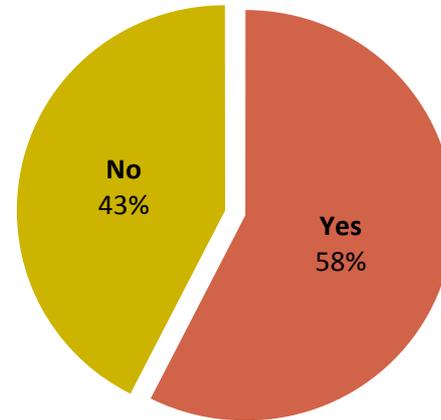


Account characteristics, cont.

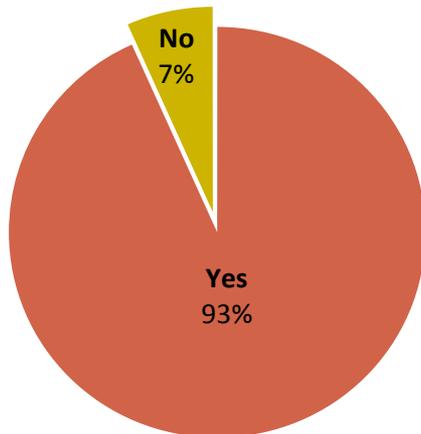
Alert



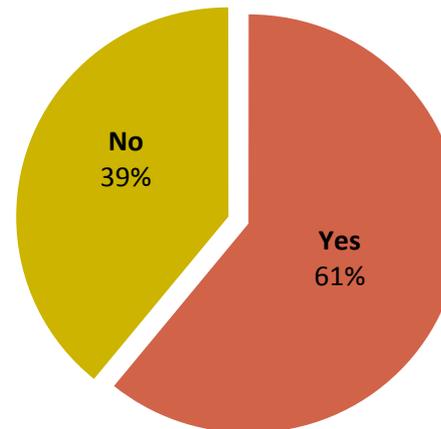
Email



Customer service calls



Web users

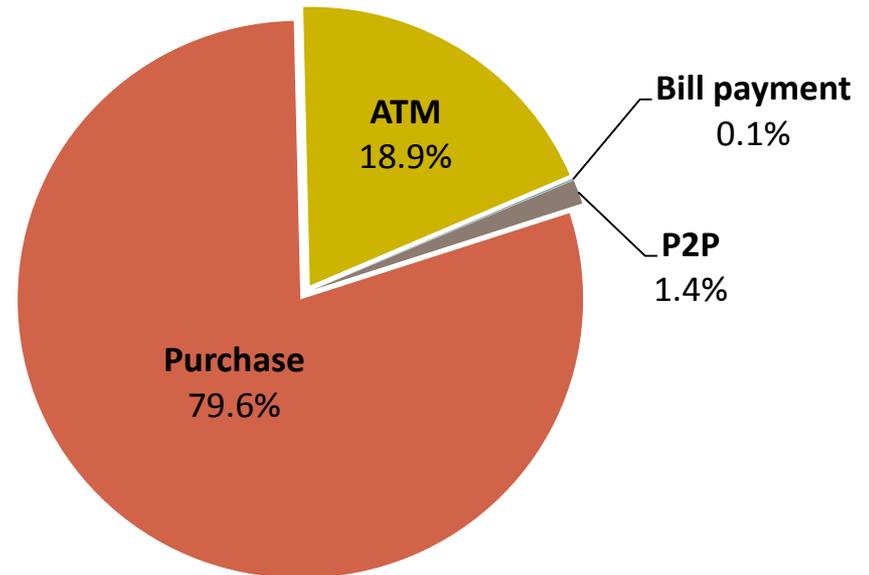


Card use “on average”

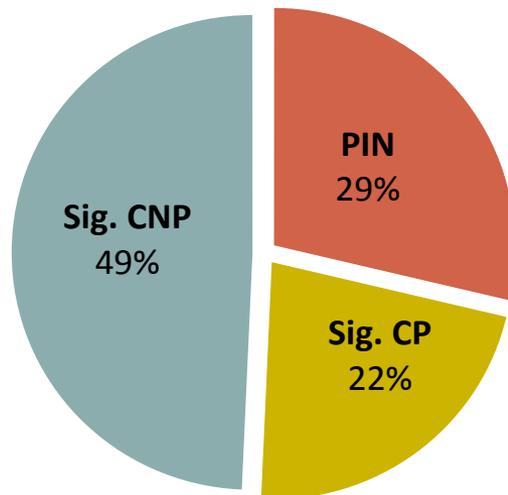
Monthly loads, debits, and lifespan

	N	\$
Loads	1.8	\$516
Debits	8.2	\$452
Lifespan	347 days	

Shares of debit transactions (\$)



Shares of purchase transactions (\$)

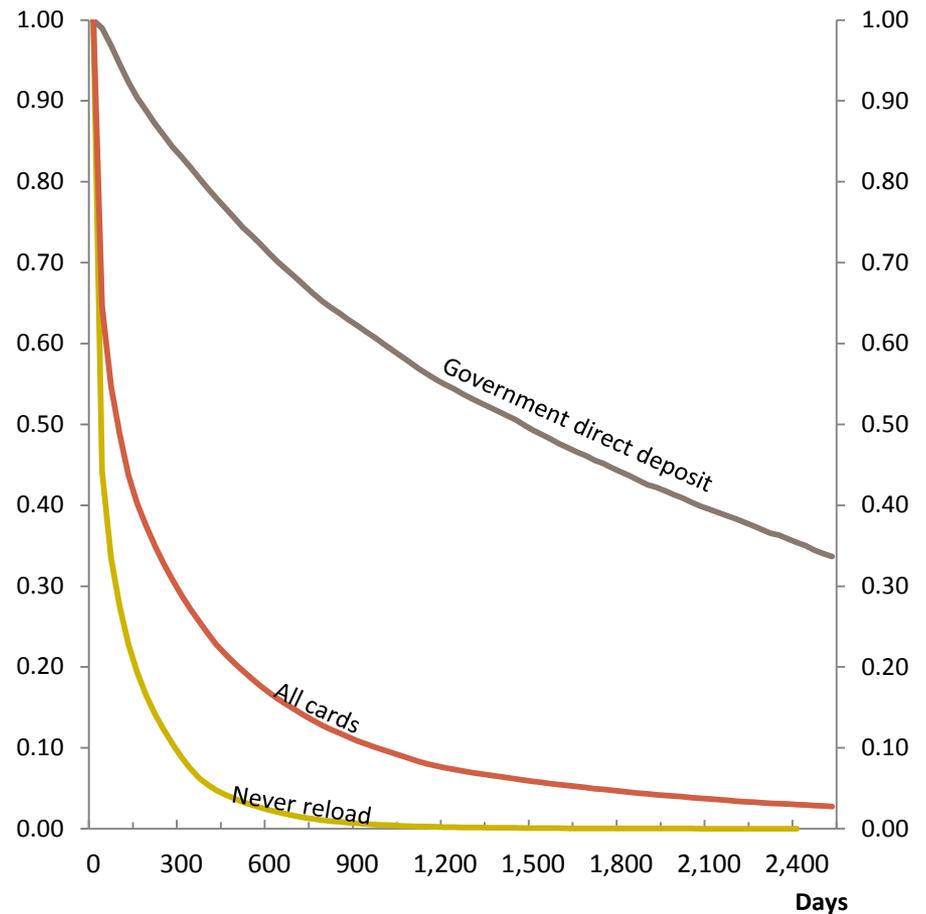


How card use varies by account characteristic?

Account characteristics that affect lifespan of accounts positively

- Periodic reloads (direct deposit)
- Monthly fee plan enrollment
- At least one overdraft
- Email
- Customer service call
- Web
- Alerts

Survival rates, by reload status

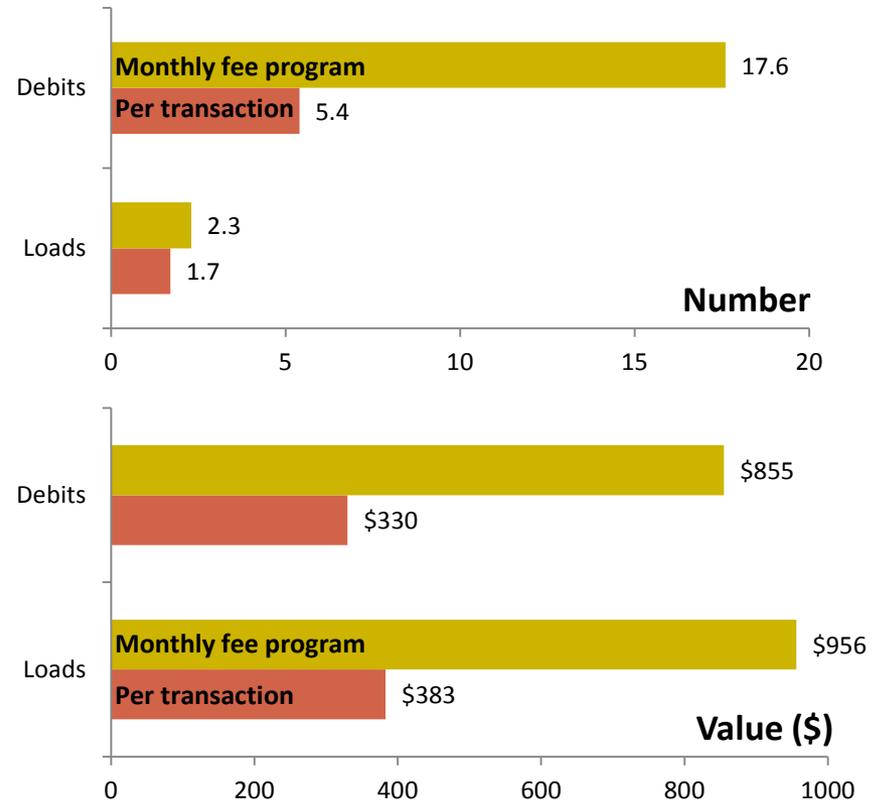


How card use varies by account characteristic?

Account characteristics that positively affect load and debit behavior

- Periodic reloads
- Monthly fee plan enrollment
- At least one overdraft
- Email
- Customer service call
- Web
- Alerts
- Greater share of cash withdrawals, bill payments, and P2P transfers

Average monthly debits and loads, by fee program



How card use varies by account characteristic?

Account characteristics that positively affect PIN and Sig. CNP share

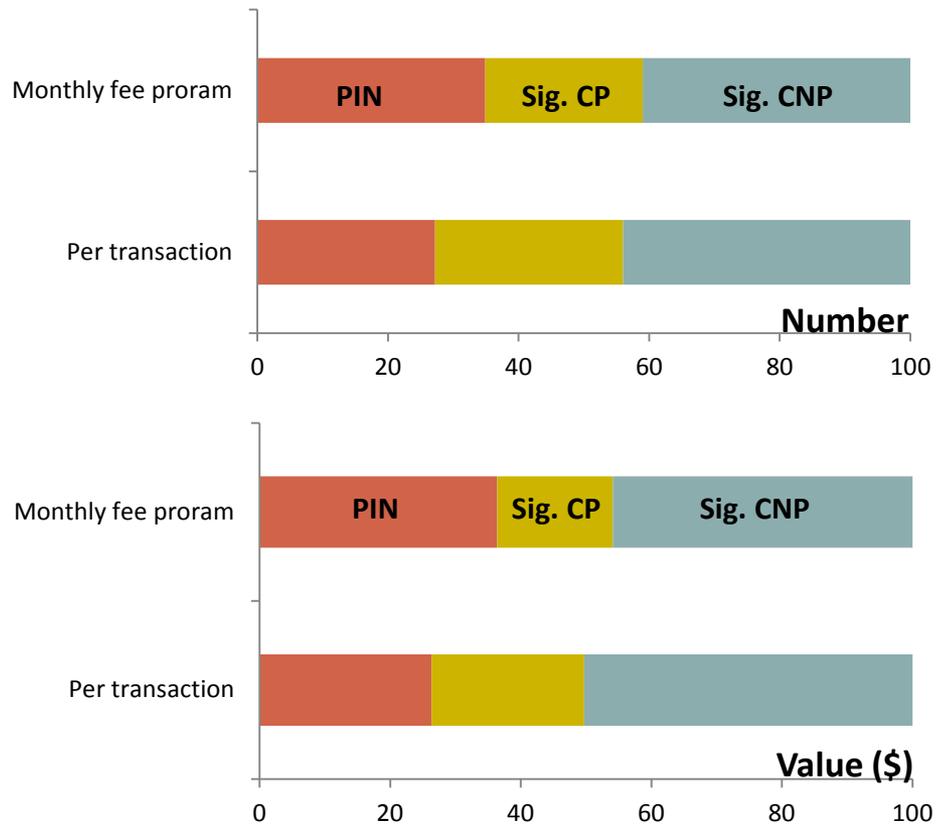
PIN share

- Periodic reloads
- Monthly fee plan enrollment
- Tax
- Never overdraft
- Customer service call
- Alerts
- Average value of ATM per month

Sig. CNP share

- Self funded
- Per transaction
- Retail
- Overdraft
- Email
- Customer service call
- Web

Share PIN, Sig. CP, and Sig. CNP, by fee program



How card use varies by local sociodemographic characteristics?

Black

- Increased account lifespan
- Fewer monthly debits
- Higher ATM share (lower purchase share)
- Higher Sig. CNP share
- Lower PIN share
- Higher fee burden

Age

- Older consumers keep accounts active longer
- Higher ATM share among older consumers (lower purchase share)
- Younger consumers make relatively fewer Sig. CNP purchases
- Older consumers have a relatively higher fee burden

Female

- Decreased account lifespan
- No effect on monthly debits
- Higher ATM share (lower purchase share)
- Higher PIN share
- No effect on Sig. CNP
- Slightly lower fee burden

Crime

Where violent crime high:

- Decreased account lifespan
- Higher ATM share

Where property crime high:

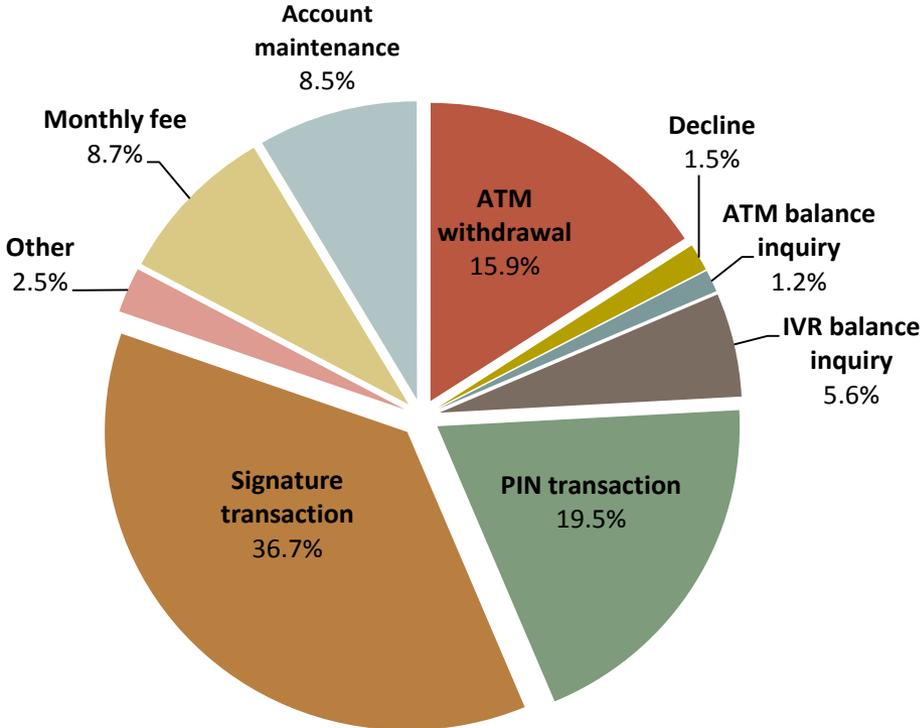
- Increased account lifespan
- Higher purchase share



Monthly fees “on average”

Monthly fee burden on consumers

	Number	Value
Card issuer fees	6.8	\$11
ATM surcharge fees	1.2	\$2.80
Reload fees	0.8	\$1-\$3
Total	8.8	\$15-\$17

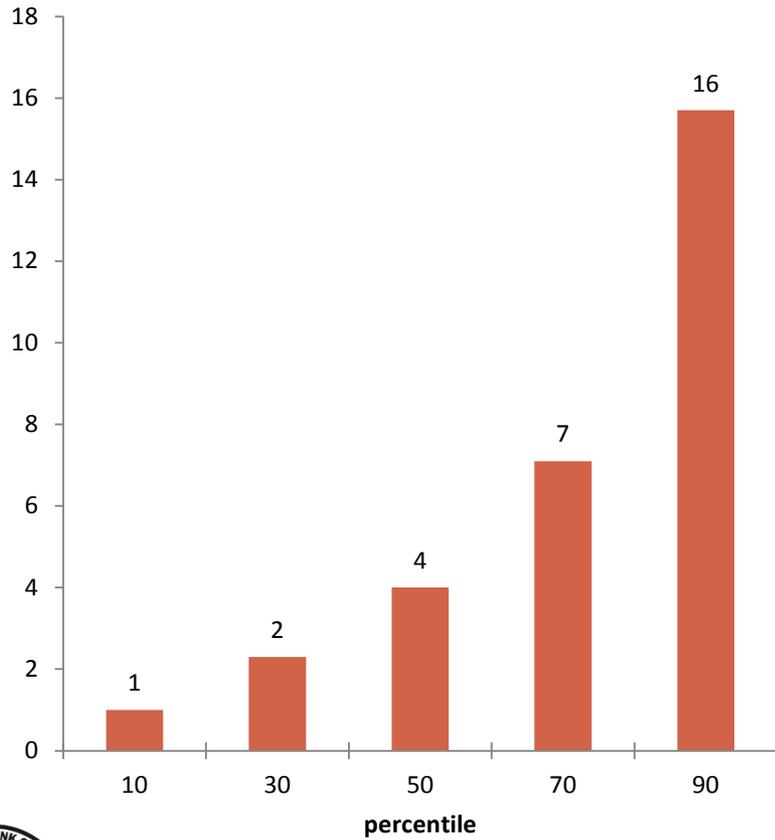


Breakdown of card issuer fees

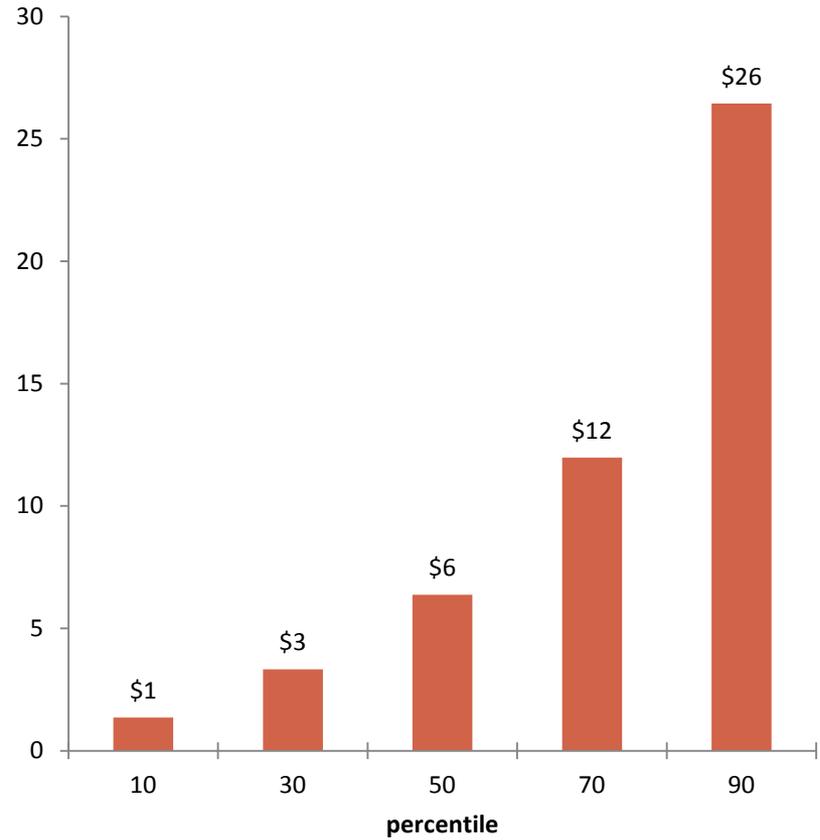


Variation of fees paid to card issuers

Monthly volume



Monthly value (\$)



Relative monthly fees per debit transaction

Relative monthly fees vary by account and sociodemographic characteristic:

	Incur higher relative monthly fees	Incur lower relative monthly fees
Account	<ul style="list-style-type: none"> Never reload Occasional reload Government direct deposit Per transaction fee program Check casher distributor Higher ATM share of debit transactions Higher PIN share of purchases Higher Sig CNP share of purchases 	<ul style="list-style-type: none"> Non-government direct deposit Overdraft Email Web
Socio - demographic	<ul style="list-style-type: none"> Black 15 years old and under Widowed Relatively more educated Higher violent crime 	<ul style="list-style-type: none"> Female Higher property crime



Fraud rates

	Fraud rate (bps)	
	#	\$
Cash withdrawals	9.60	9.22
Purchase transactions	5.39	9.80
PIN	2.54	3.83
Signature	6.95	14.20
Card present	3.98	11.96
Card not present	12.65	15.69
Total	5.93	9.60



Fraud rates, by fraud reasons

		Fraud rate (bps)	
		#	\$
PIN	Counterfeit	0.9	1.7
	Lost/Stolen	1.61	2.09
	Unauthorized	0.03	0.03
Signature CP	Counterfeit	1.71	5.39
	Lost/Stolen	2.22	6.43
	Unauthorized	0.05	0.14
Signature CNP	Counterfeit	10.7	13.47
	Lost/Stolen	1.54	1.34
	Unauthorized	0.41	0.87



Fraud – among largest merchant categories

	Fraud rate (bps)		Share in # within category (%)	
	#	\$	Sig CNP	PIN
Direct marketing	22.9	25.3	98.6	1.4
Misc. business services	20.4	15.6	90.2	3.3
Misc. professional services	9.7	15.5	98.0	0.6
Specialty retail	9.1	15.8	33.4	24.2
Cable	8.8	18.2	79.8	19.8
Telecommunication	8.5	9.1	61.9	34.0
Clothing	8.0	18.1	11.9	56.1
Misc. & specialty retail	7.6	10.4	24.0	42.1
Gas station	4.0	8.0	1.4	45.1
Restaurant	3.7	6.1	9.9	1.5
Discount	3.5	8.1	1.6	92.4
Insurance	3.3	3.5	77.7	20.0
Grocery	3.2	5.8	0.3	83.9
Utility	3.0	3.5	57.7	40.7
Auto services	2.9	3.5	13.5	36.4
Drug	2.9	5.4	2.1	75.4
Fast food restaurant	2.1	2.5	3.0	2.3



Questions?

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