
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

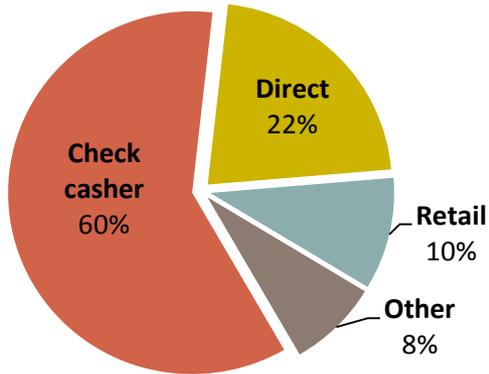
Data provided by NetSpend, a leading prepaid card manager in the prepaid card industry

- **Account-level dataset**
 - Contains all GPR prepaid accounts which were active between July 1, 2011 and June 30, 2012 (over 3 million observations)
- **Transaction-level dataset**
 - All ATM and purchase transactions during June 2012
- **Dataset on load transactions**
 - All load transactions during June 2012
- **Dataset on fraud/disputed transactions**
 - All fraud/disputed transactions
- **County and census tract sociodemographic data** (aggregated to the zip code level) to merge with NetSpend account-level data for regression analysis

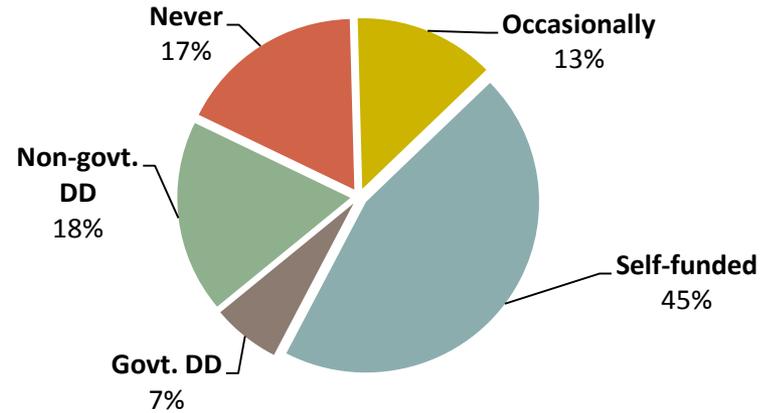


Account characteristics

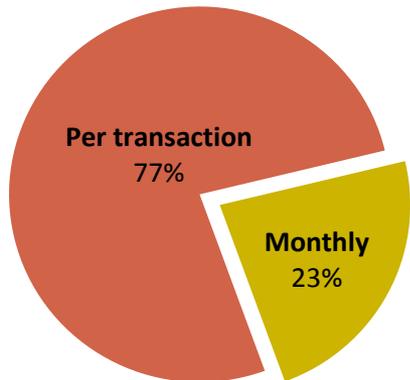
Card distributor



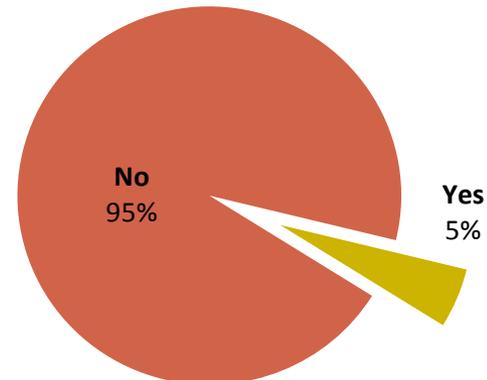
Reload status



Fee program

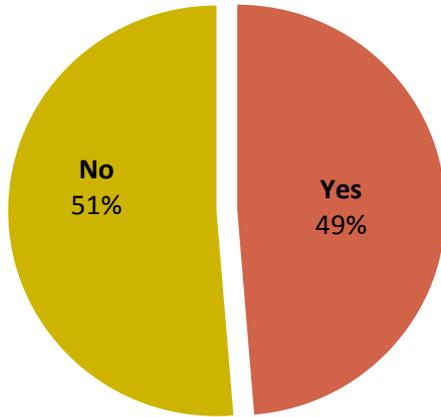


Overdraft

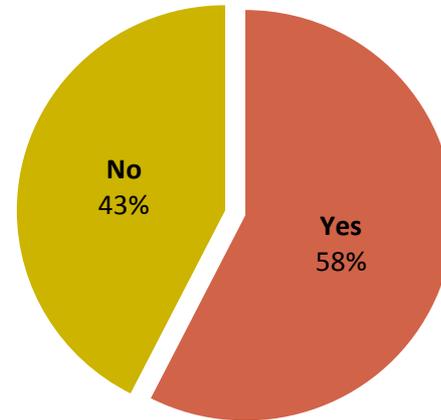


Account characteristics, cont.

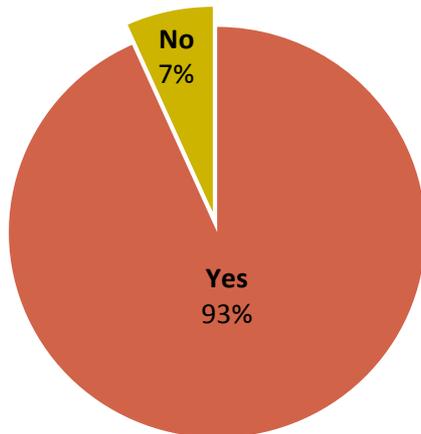
Alert



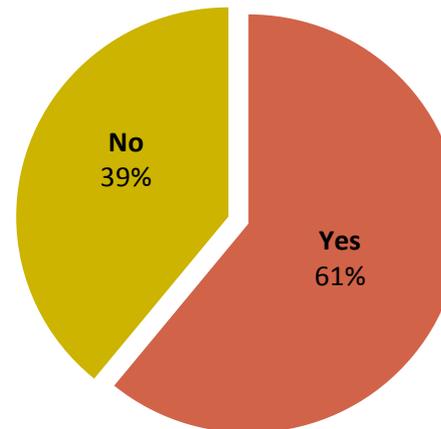
Email



Customer service calls

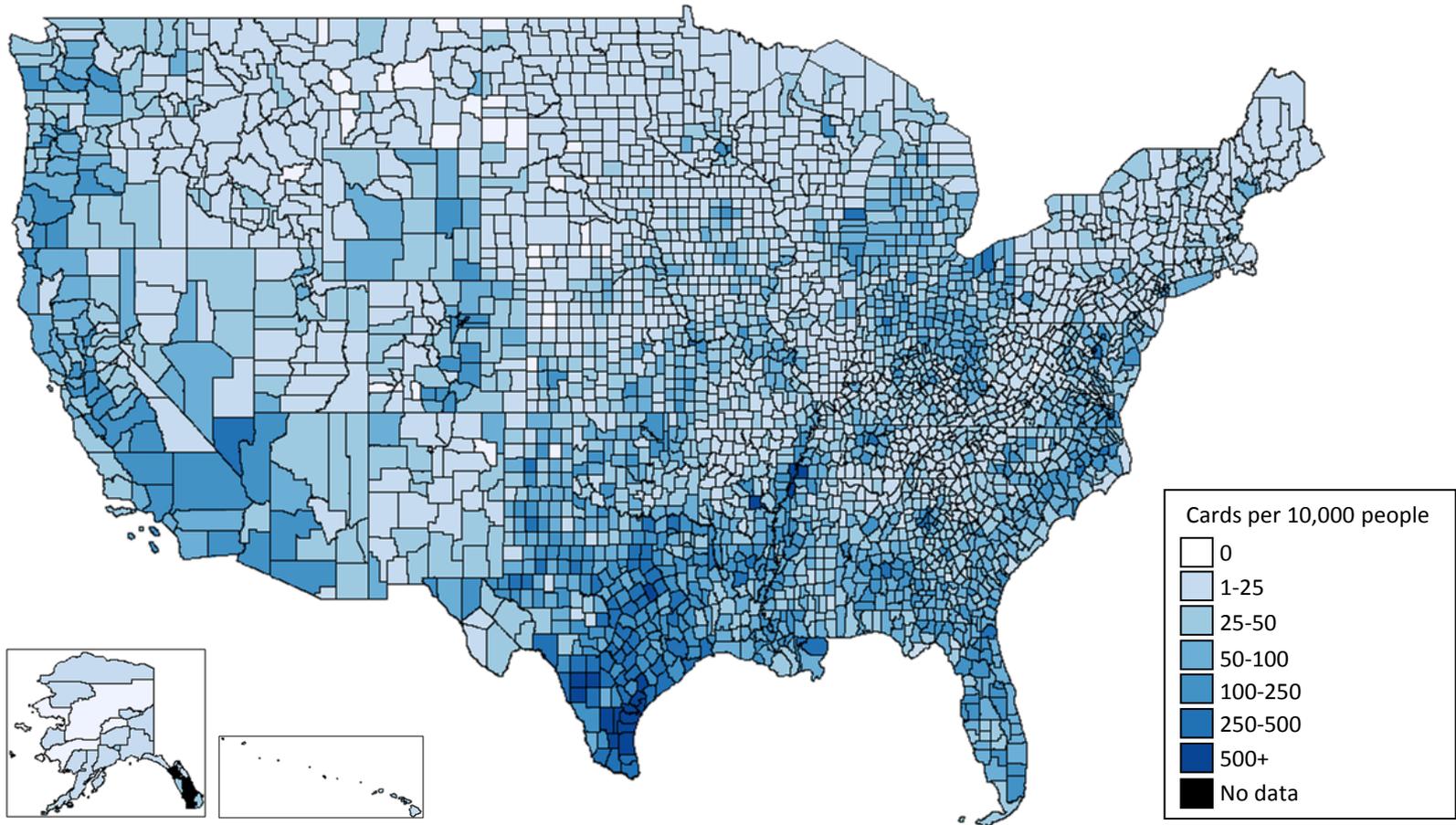


Web users



Market penetration of prepaid cards

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

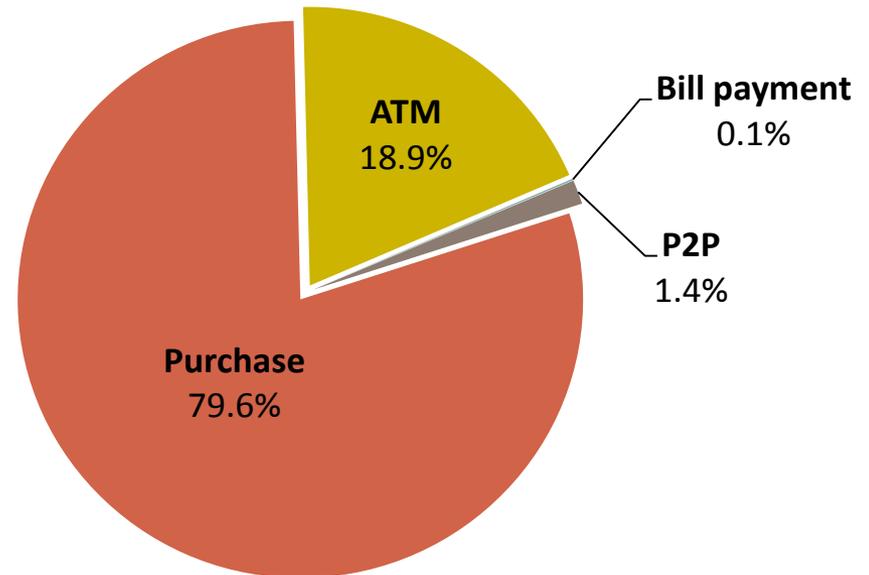


Card use “on average”

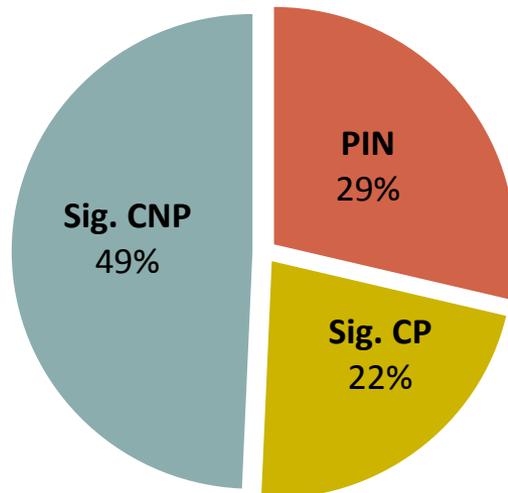
Monthly loads, debits, and lifespan

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

Shares of debit transactions (\$)



Shares of purchase transactions (\$)



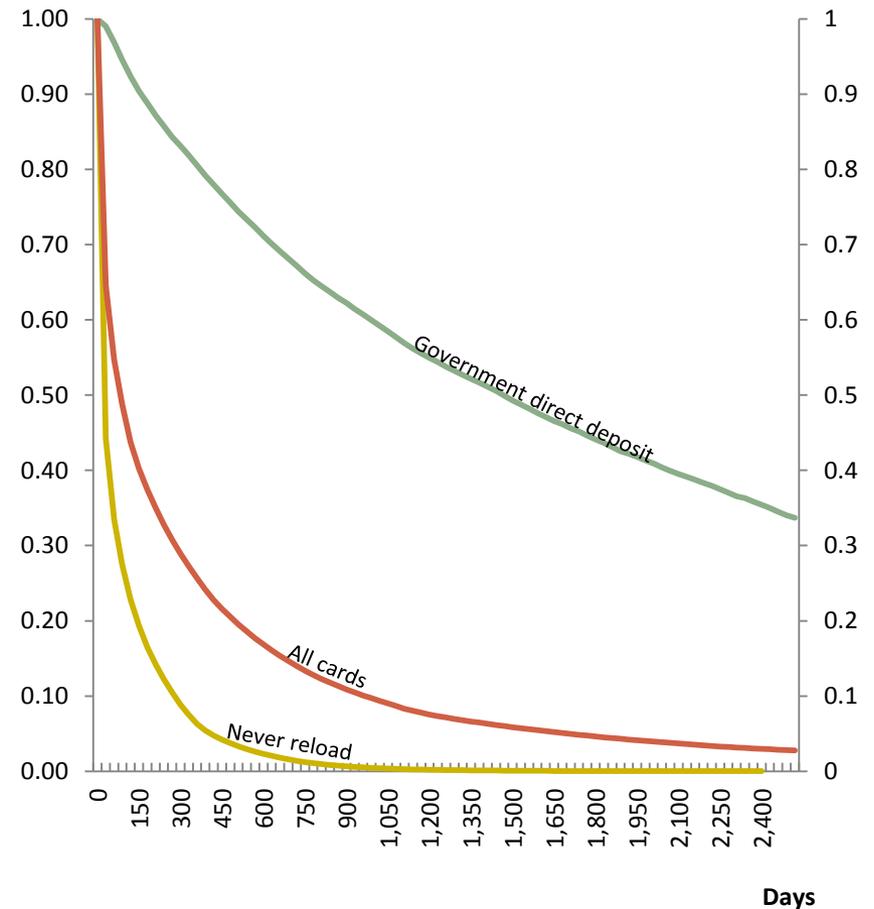
How card use varies by account characteristic?

Account lifespan

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



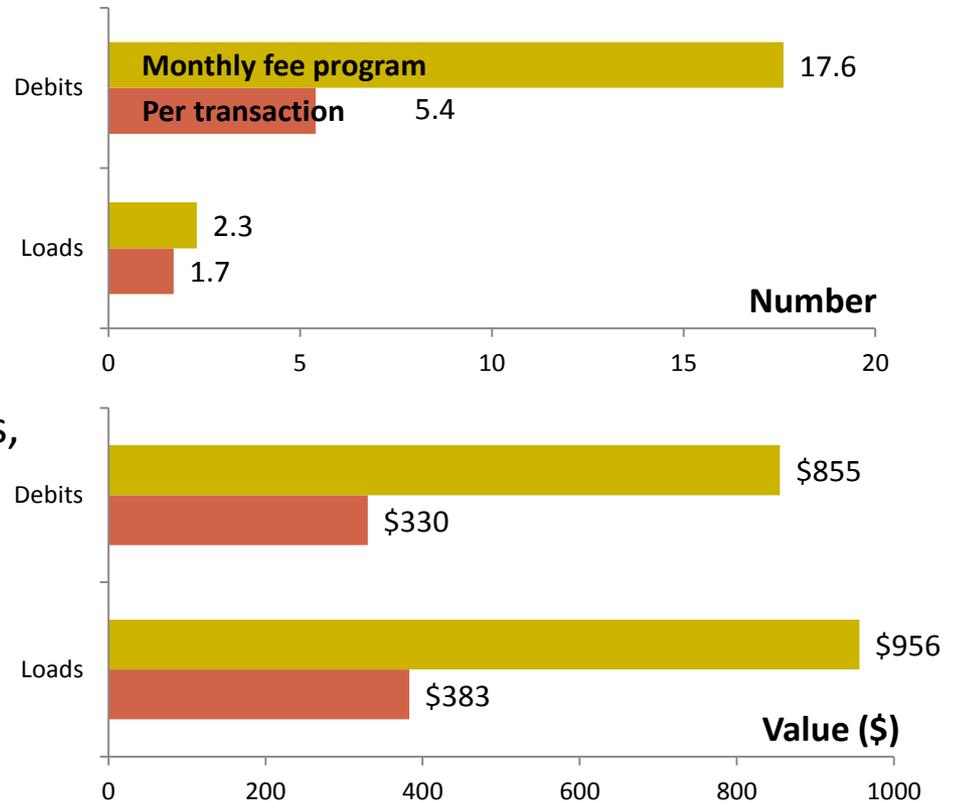
How card use varies by account characteristic?

Load and debit behavior

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?

Purchase transactions

Account characteristics that positively affect PIN and Sig. CNP share

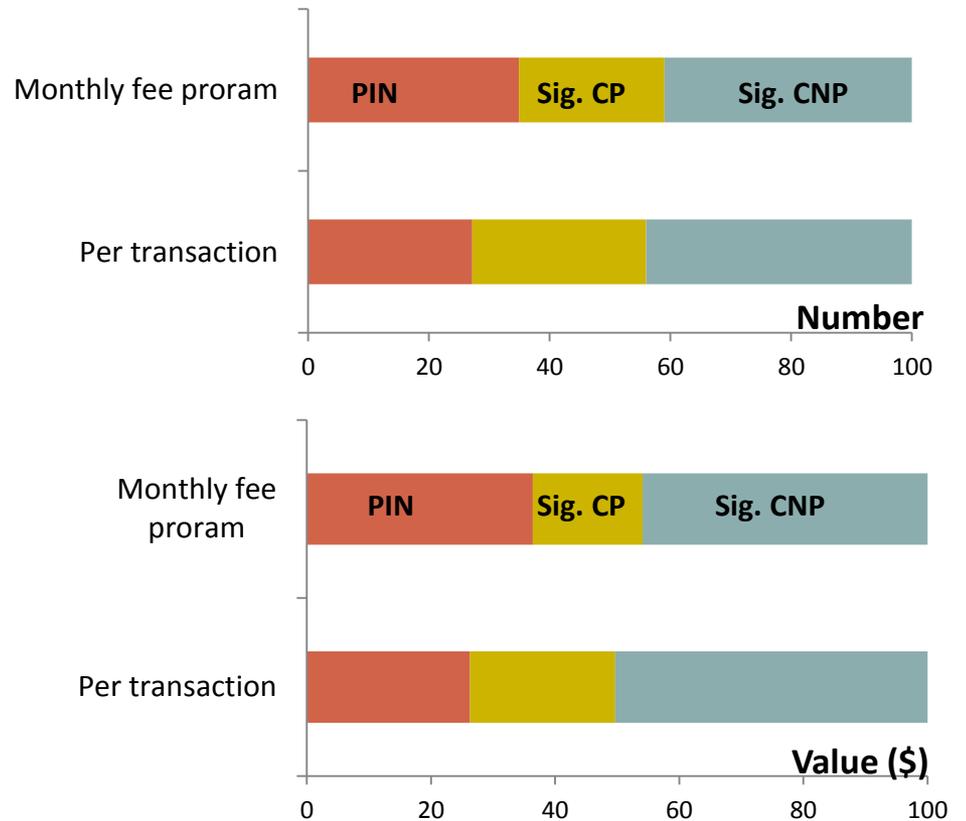
PIN share

- 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

- Decreased account lifespan
- No effect on monthly debit value
- 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

- Increased account lifespan
- Female consumers make relatively more 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
- Fewer monthly debits
- Higher ATM share

Where property crime high:

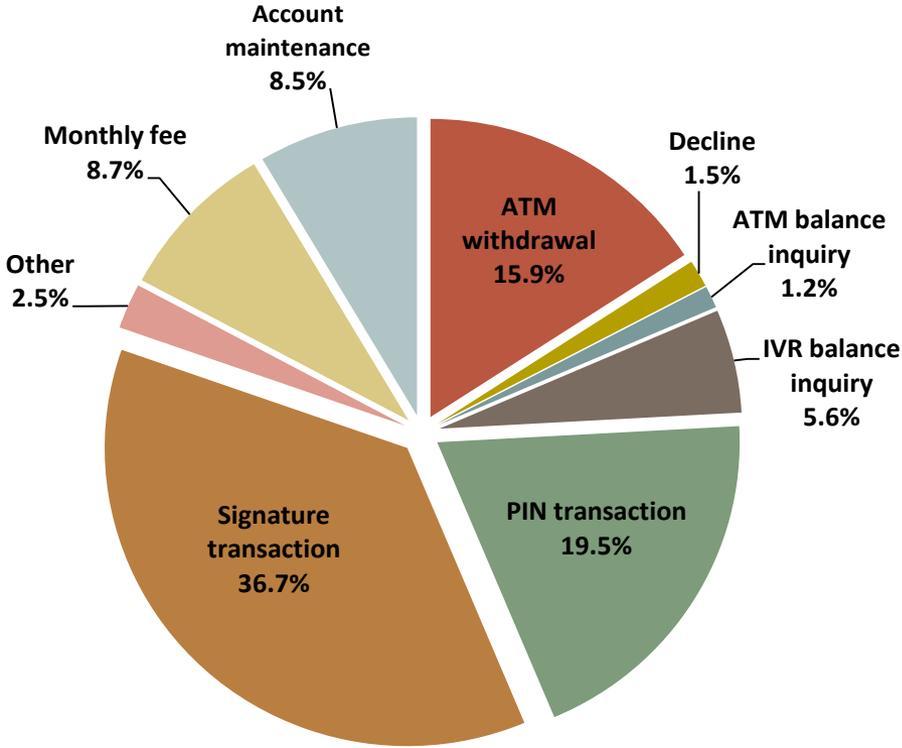
- Increased account lifespan
- More monthly debits
- Higher purchase share



Monthly fees “on average”

Monthly fee burden on consumers

	Number	Value
Card issuer fees	6.8	\$11
ATM surcharge fees	1.2	\$2.8
Reload fees	0.9	\$0.9-\$3.6
Total	8.8	\$15-\$17

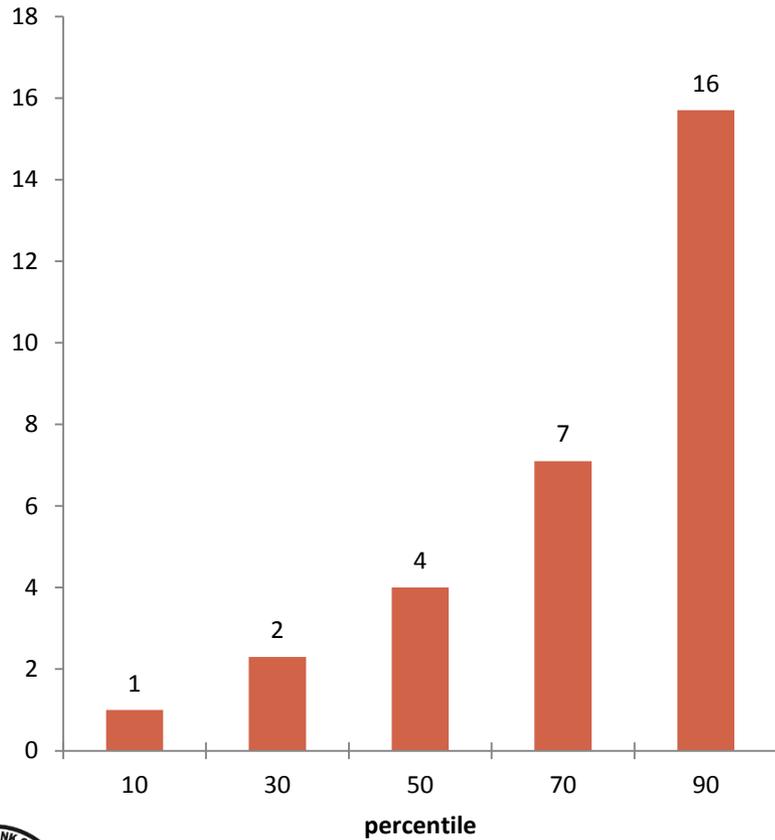


Breakdown of card issuer fees

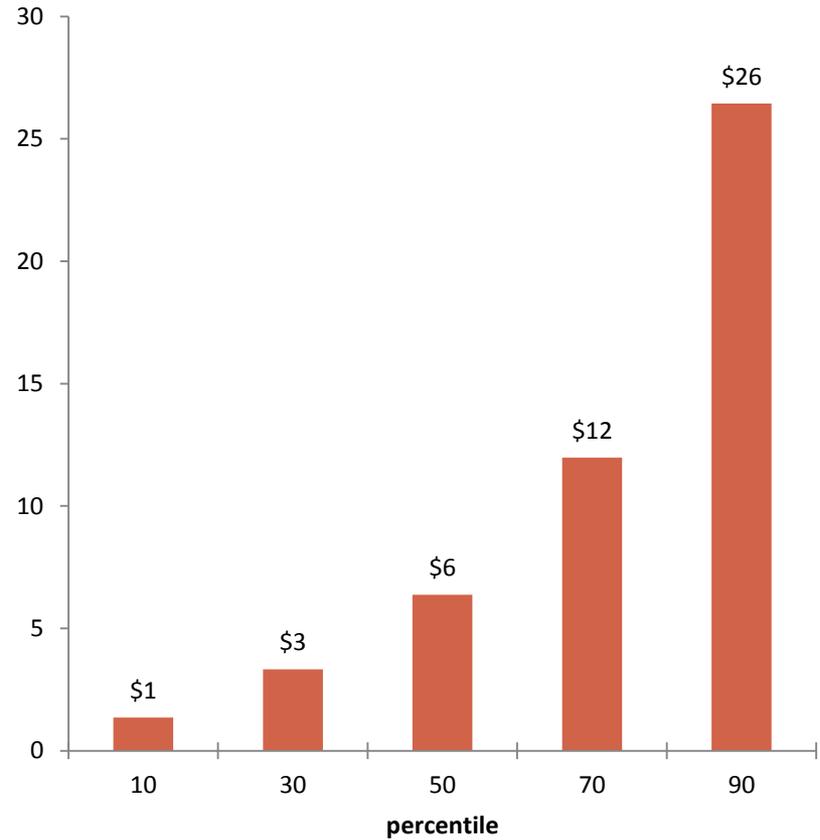


Variation of fees paid to card issuers

Monthly volume



Monthly value (\$)



Fraud rates

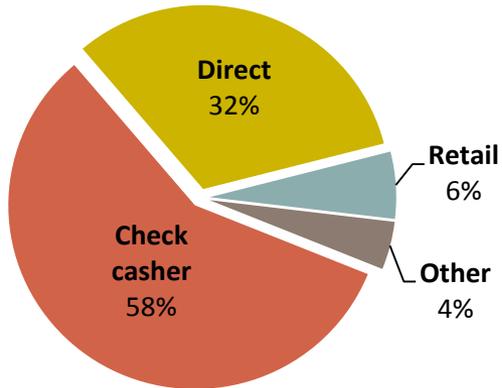
- Our datasets enable us to analyze detailed fraud risk surrounding prepaid cards
 - By type of transactions – ATM, PIN, or Signature; CP or CNP
 - By reasons – counterfeit, lost/stolen, account takeover, other
 - By merchant category – grocery, gas station, fast food, cable, utility, etc.
- Fraud rates are modestly higher than other publicly available fraud statistics but patterns are generally consistent (PIN<ATM<Signature)



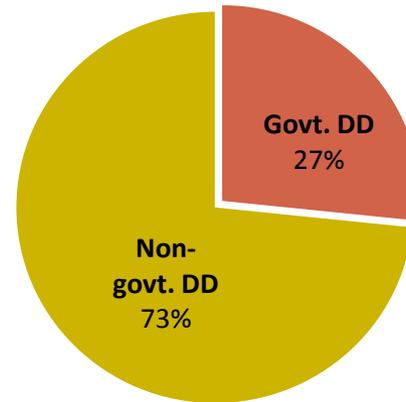
Analysis of cards with direct deposit

Account characteristics of direct deposit users

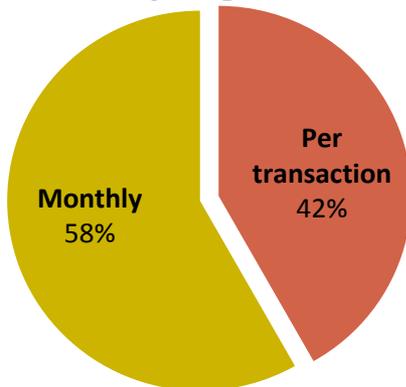
Card distributor



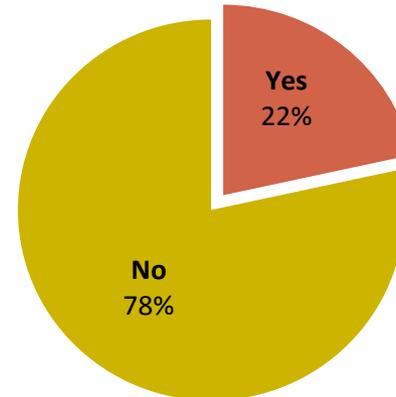
Reload status



Fee program

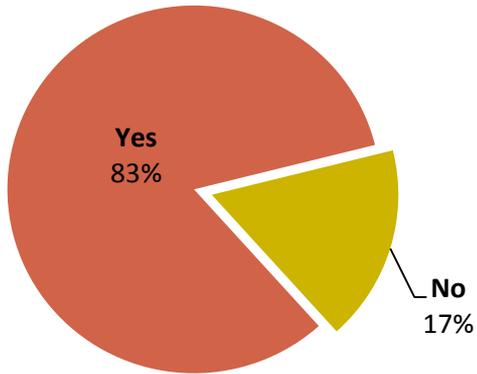


Overdraft

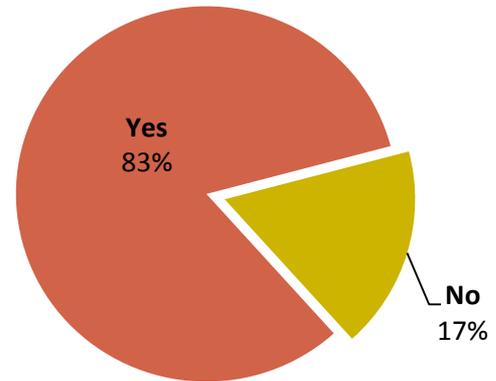


Account characteristics of direct deposit users, cont.

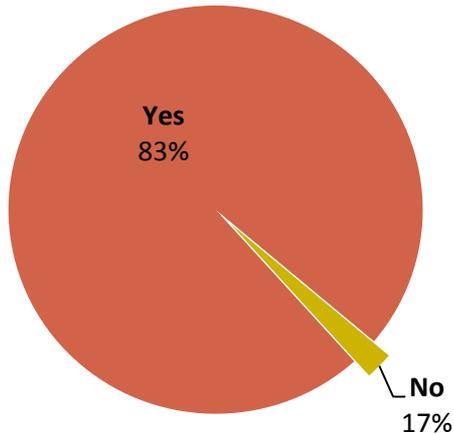
Alert



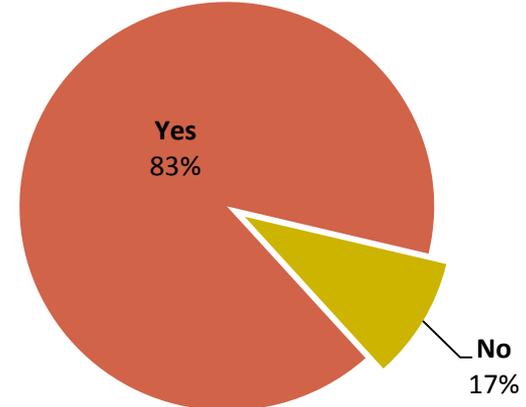
Email



Customer service calls



Web users

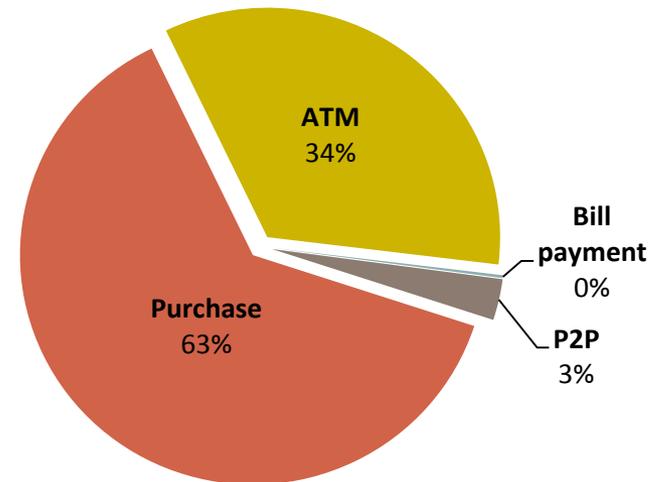


Card use “on average” of direct deposit users

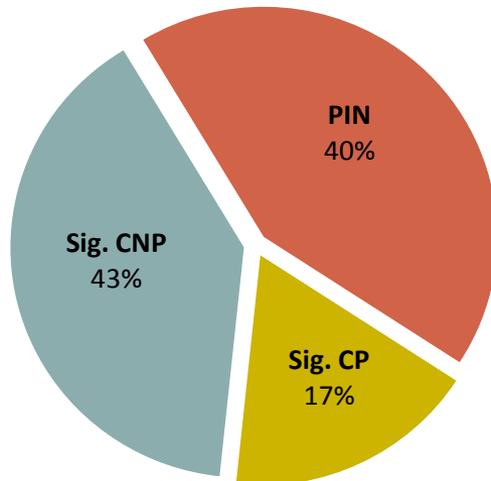
Monthly loads, debits, and lifespan

	N	\$
Loads	2.6	\$1139
Debits	18.7	\$953
Lifespan	1050 days	

Shares of debit transactions (\$)



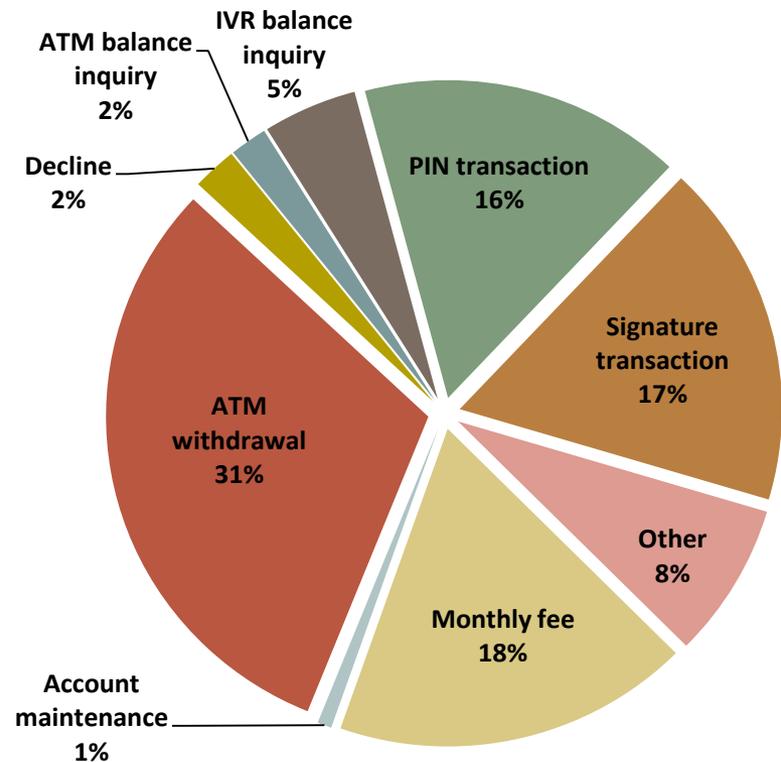
Shares of purchase transactions (\$)



Monthly fees “on average” of direct deposit users

Monthly fee burden on consumers

	Number	Value
Card issuer fees	11	\$20
ATM surcharge fees	3.4	\$7.9
Reload fees	0.4	\$0.4-\$1.6
Total	14.8	\$28-\$30



Breakdown of card issuer fees



Conclusion

- GPR prepaid cards are especially popular in areas densely populated by the unbanked and underbanked
- GPR prepaid cards are generally short-lived but cards with direct deposit survive much longer
- Intensive of use, composition of spending transactions, and fees incurred by cardholders per month vary by account and socio-demographic characteristics
- GPR cardholders who receive direct deposits use their cards intensively (with higher ATM share) and incur higher fees per month
- Fraud rates are modestly higher than other publicly available fraud statistics



Appendix - Fraud rates

		Fraud rate (bps)	
		#	\$
PIN	All	2.54	3.83
	Counterfeit	0.9	1.7
	Lost/Stolen	1.61	2.09
	Other unauthorized	0.03	0.03
Signature CP	All	3.98	11.96
	Counterfeit	1.71	5.39
	Lost/Stolen	2.22	6.43
	Other unauthorized	0.05	0.14
Signature CNP	All	12.65	15.69
	Counterfeit	10.7	13.47
	Lost/Stolen	1.54	1.34
	Other unauthorized	0.41	0.87

