

# How Do Consumers Use Prepaid Cards?#

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FEDERAL RESERVE BANK OF PHILADELPHIA

# **Preliminary Results from Our Analysis of Prepaid Card Transactions**

Note that the results presented here are subject to change. Transactional data require considerable cleaning, fact checking, and interpretation and we have not entirely completed this process.

For the latest version of the results, please contact the authors.

# A Few Basic Questions We Can Begin to Answer

- How long do consumers use their network branded prepaid cards?
- How frequently do consumers transact with their cards?
- How often do they reload their prepaid cards?
- Do consumers schedule repeated reloads of their cards?
- How frequently do consumers withdraw cash from their cards?
- Where do consumers use their prepaid cards?
- How much revenue is earned from consumer fees?
- What is the frequency and composition of consumer fees?
- What share of prepaid card revenues comes from interchange?

# Data

- Furnished by Meta Payment Systems.
- The data set contains:
  - More than 300 million anonymized prepaid card transactions
  - Made on more than 3 million cards
  - Issued in over a dozen different prepaid card programs
    - But most of the transactions occur on cards in the payroll programs
  - The composition of the card programs and transactions we study may not be representative of the prepaid market as a whole.
- Transactions were conducted across the U.S. over a 6-year period that encompasses the most recent business cycle.
  - But most transactions occurred in 2009-2010
- Data include transaction date, type, amount, and merchant category code.
- But we have no demographic or financial data for cardholders.
  - However, we do have ZIP Codes indicating where the card was purchased or mailed.

# Program Types

15 card programs are grouped by program type and enrollment method

Card Program Type (number of programs)	Program Launch Year	Enrollment Method	Distribution Method
Retail GPR (6)	2004, 2005 (2), 2007, 2008, 2009	Via retailer	Mail
Web GPR (3)	2005, 2007 (2)	Via web	Mail
FI GPR (1)	2007	Financial institutions	Financial institutions
Payroll (3)	2007 (2), 2009	Via employer	Mail
FSA (1)	2005	Via employer	Mail
Transit (1)	2009	Via employer	Mail

# Card Activity

**Table 1. Median length of card activity, by program type**

<b>Program type</b>	<b>Median length of activity* in days</b>	<b>Percent of cards included in calculation</b>
<b>Retail GPR</b>	65	91.0
<b>Web GPR</b>	187	93.7
<b>FI GPR</b>	269	83.4
<b>Payroll</b>	154	74.0
<b>FSA</b>	516	94.7

\*Defined as the number of days between a card's first and last transaction.

# Purchase Activity

**Table 2. Total number of purchases over the life of the card, by program type**

Program type	Maturity of programs (quarters)	0 – 5 purchases (% of cards)	6 – 10 purchases (% of cards)	11 – 25 purchases (% of cards)	26 – 50 purchases (% of cards)	> 50 purchases (% of cards)	Median number of purchases	Median purchase volume*
<b>Retail GPR</b>	4 – 25	54.50	12.19	13.78	7.99	11.53	4	\$120.01
<b>Web GPR</b>	11 – 24	32.07	11.80	17.12	12.13	26.88	14	\$460.80
<b>FI GPR</b>	16	42.60	14.37	20.22	10.98	11.83	8	\$216.68
<b>Payroll</b>	3 – 13	32.86	8.38	13.93	12.06	32.78	19	\$473.77
<b>FSA</b>	21	55.00	9.04	18.45	12.13	5.37	3	\$234.04

\*Volume means dollar value.

Note that the card programs are not equally mature in terms of the number of quarters that they appear in the data set and this might contribute to differences in intensity of card use across programs.

## Load Activity

**Table 3. Total number of loads over the life of the card, by program type**

Program type	Maturity of programs (quarters)	0 - 1 loads (% of cards)	2 - 3 loads (% of cards)	4 - 5 loads (% of cards)	6 - 7 loads (% of cards)	8 or more loads (% of cards)	Median number of loads	Median load volume*
<b>Retail GPR</b>	4 – 25	50.55	19.64	7.24	4.40	18.18	1	\$213.95
<b>Web GPR</b>	11 – 24	37.23	18.34	8.58	5.66	30.18	3	\$735.05
<b>FI GPR</b>	16	33.02	33.33	10.31	5.46	17.87	2	\$301.00
<b>Payroll</b>	3 – 13	26.83	13.34	8.78	6.85	44.19	6	\$1,212.34
<b>FSA</b>	21	36.07	53.90	3.97	0.56	5.50	2	\$1,650.00

\*Volume means dollar value.

Note that the card programs are not equally mature in terms of the number of quarters that they appear in the data set and this might contribute to differences in intensity of card use across programs.



## Purchase and Load Activity on Cards with and without Direct Deposit\*

Table 4. Purchase and load activity over the life of the card: retail, web, and payroll cards

	Retail GPR: Cards <u>with</u> Direct Deposit Activity*	Retail GPR: Cards without Direct Deposit Activity	Web GPR: Cards <u>with</u> Direct Deposit Activity*	Web GPR: Cards without Direct Deposit Activity	Payroll: Cards Meeting Direct Deposit Criteria*
Percent of Direct Deposit Cards	4.0%		16.0%		45.2%
Percent of Transactions on Direct Deposit Cards	30.5%		53.6%		86.5%
Median Length of Activity in Days	385	60	340	161	294
Median Number of Purchases	110	4	139	9	63
Median Purchase Volume	\$3,033.67	\$103.66	\$4,404.06	\$275.02	\$1,636.92
Median Number of Loads	20	1	19	2	14
Median Load Volume	\$7,967.41	\$200.00	\$8,813.02	\$425.00	\$4,322.07

\*:These are cards with *at least* 2 value loads at weekly or bi-weekly intervals for an amount not ending in “.00”

# Preliminary Results for Estimated Revenues

The following slides present our first attempt to calculate revenues earned over the active life of prepaid cards in our data.

These estimates are subject to change as we refine our techniques and continue to analyze these data.

For the latest version of the results, please contact the authors.

# Specifics of Our Revenue Measurement

- These estimates reflect *only* fees charged to consumers by prepaid issuers\*
  - These don't include interchange revenues or costs (in process now)
  - Interchange is a significant source of revenues derived from POS transactions
  - Interchange paid to ATM owners are a significant cost to prepaid programs
- Estimates are based on all but the most recently issued prepaid cards
  - We exclude very new cards we expect will remain active into 2011\*\*
- We may miss some information at card origination
  - An account opening fee (we can correct using fee schedules)
  - The first value load on the card
- We exclude some fees on cards that occur *after*
  - The last consumer initiated transactions AND
  - The estimated balance falls permanently below -\$300
  - This occurs on about 1 percent of prepaid cards that were ever active
  - We exclude those fees because we don't think consumers actually pay them

\*: For example, the preliminary estimates don't include ATM surcharges the consumer may also incur.

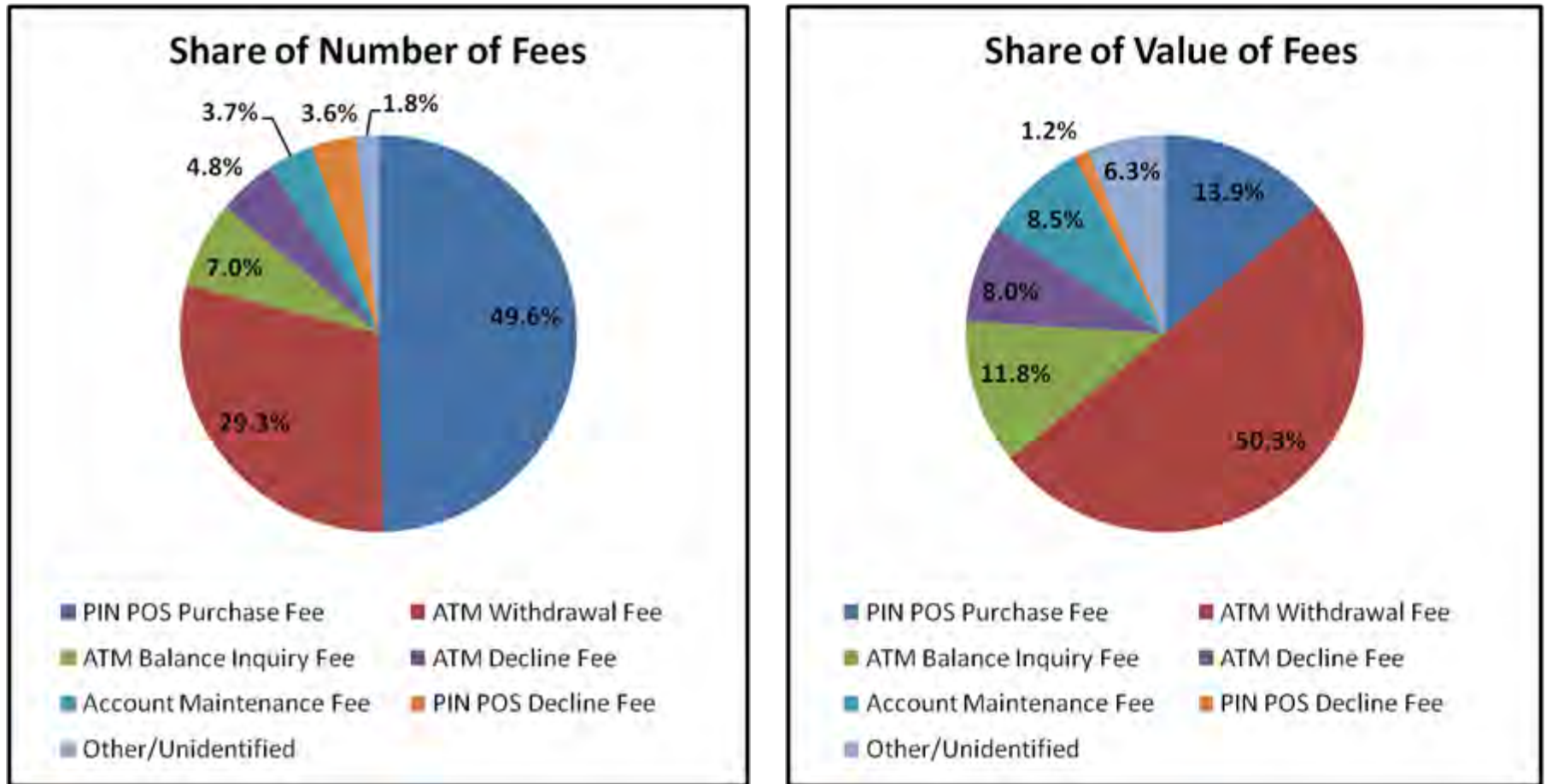
\*\* : We exclude cards in each program that become active within a period at the end of 2010 that is shorter than the median active life of cards in that program.

**Table 5. Fee revenue earned on cards, by program type\***

Program Type	1st Quintile		2nd Quintile		3rd Quintile		4th Quintile		5th Quintile	
	Median revenue per card, over life of card	Median monthly revenue	Median revenue per card, over life of card	Median monthly revenue	Median revenue per card, over life of card	Median monthly revenue	Median revenue per card, over life of card	Median monthly revenue	Median revenue per card, over life of card	Median monthly revenue
<b>Retail GPR</b>	\$0.75	\$0.60	\$5.90	\$3.45	\$13.50	\$6.18	\$28.70	\$5.53	\$88.14	\$9.54
<b>Web GPR</b>	\$10.00	\$3.32	\$31.95	\$9.74	\$51.75	\$9.95	\$89.55	\$9.66	\$186.30	\$11.76
<b>FI GPR</b>	\$0.00	\$0.00	\$3.00	\$0.20	\$7.95	\$3.24	\$18.00	\$2.87	\$43.11	\$4.69
<b>Payroll</b>	\$0.00	\$0.00	\$0.00	\$0.00	\$6.00	\$1.25	\$20.25	\$3.44	\$76.00	\$8.83

\*: Fees charged to consumers on all active prepaid cards NOT subject to truncation. Excludes interchange revenues or ATM surcharges incurred by consumers. Excludes fees charged after a card has become permanently dormant and the balance falls permanently below -\$300. These preliminary calculations may not reflect an account opening fee (if any).

**Figure 6. Fees incurred on payroll cards, by fee type in 2010\***



\*:These are shares of fees charged in 2010 on all payroll cards in these programs that were active for at least a portion of 2010.

These do not include any ATM surcharges the consumer may pay.

## Summary of Results from First Phase of Our Analysis

- A typical prepaid card exhibits just a few months of activity
  - But there is considerable variation across cards, within the same program type.
- Average behavior does not fully reveal the economics of a prepaid card program
  - Profitability will depend on the entire distribution of transaction activity...
  - Because considerable resources are invested to acquire new cardholders.
- Direct deposit is important to prepaid card economics
  - Cards with regularly scheduled value loads are active for longer periods and have more transactions and more value loads.
  - In other words, they are likely to be more profitable.
  - There is considerable variation in direct deposit rates across card programs.
- Prepaid cards are used primarily for POS purchases
  - Both in terms of the number and value of transactions.
  - Cash withdrawals are important, but most prepaid cards are not just used as ATM cards.
- Cardholders are using cards primarily to purchase nondurables
  - Primarily for groceries, food away from home, and purchases at gas stations.