

Consumers' Use of Cash: Evidence from Recent Surveys

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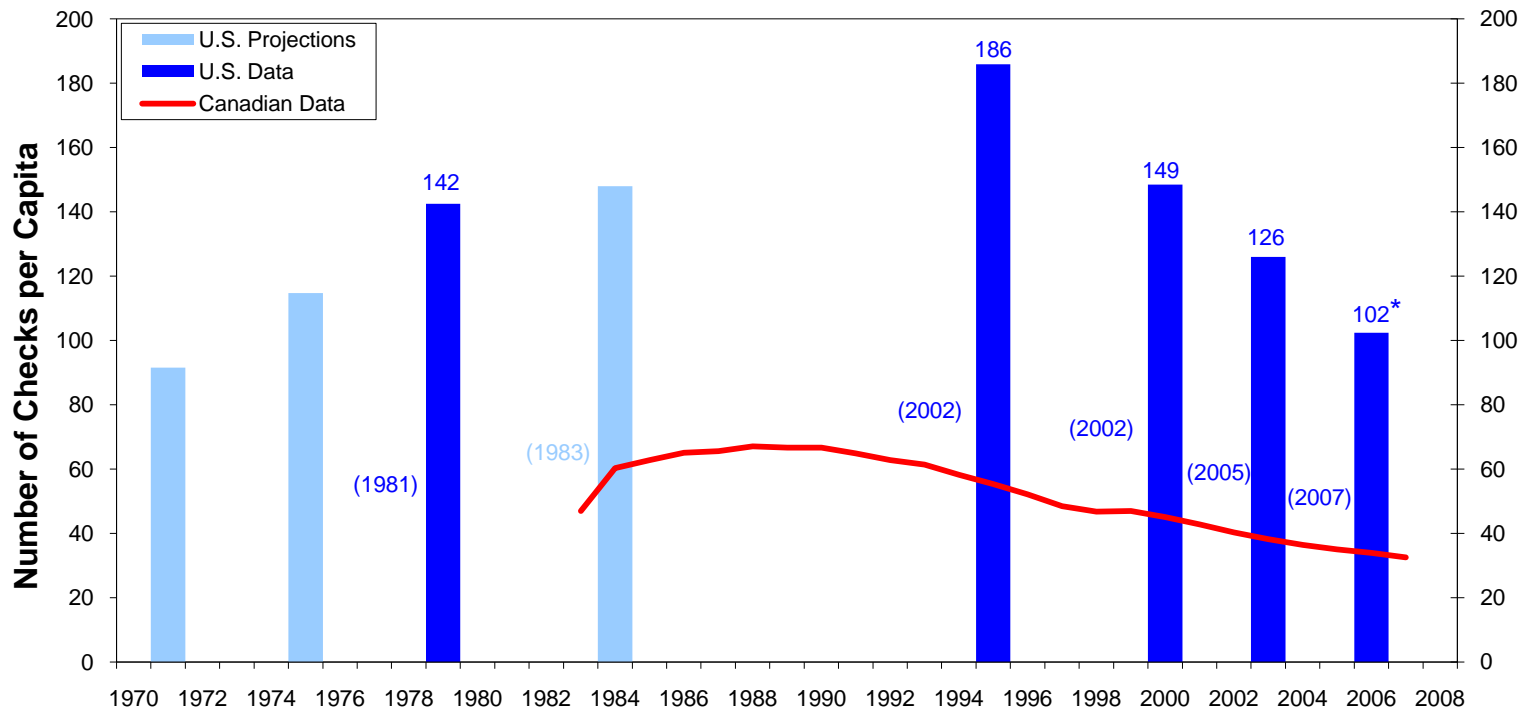


Presented to the Federal Reserve's 3rd Annual Cash
Business Continuity Conference, Boston, MA

Presentation overview

- Motivation for consumer payments data
- Preliminary cash results from 2008 SCPC
- Case study: cash & debit card acceptance
- Future plans

Checks – public data



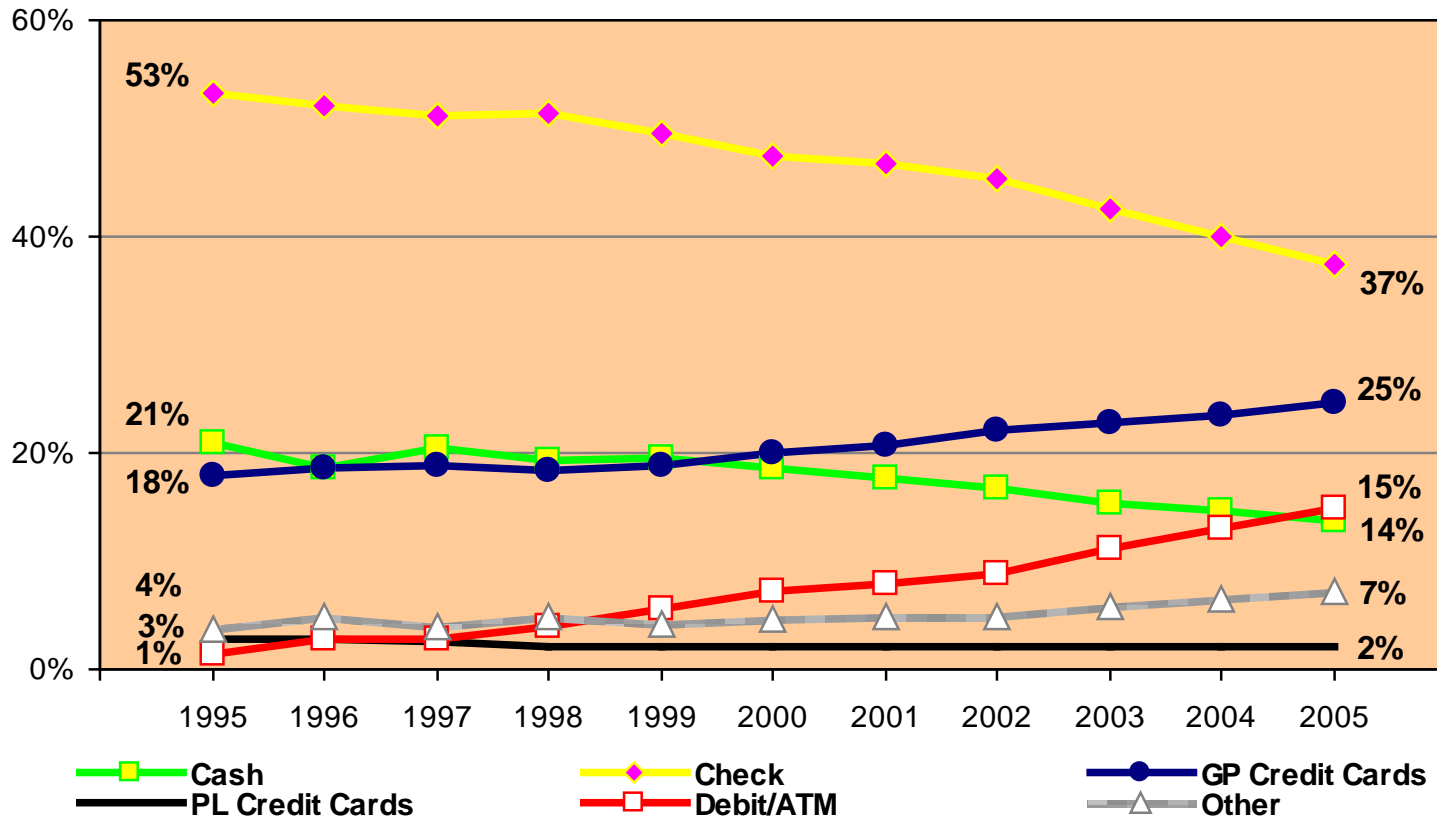
SOURCES: U.S. data: Federal Reserve Bank of Atlanta (1981, 1983); Federal Reserve System (2002, 2004); Gerdes and Walton (2002); Gerdes, Liu, Parke, and Walton (2005); Gerdes (2008); Benton, Blair, Crowe, and Schuh (2007).

Canadian data: Automated Clearing Settlement System (ACSS) Clearing Exchange Report (2008).

*The 2006 U.S. number excludes paper checks written and converted to ACH, which were included in earlier years.

Checks – private data

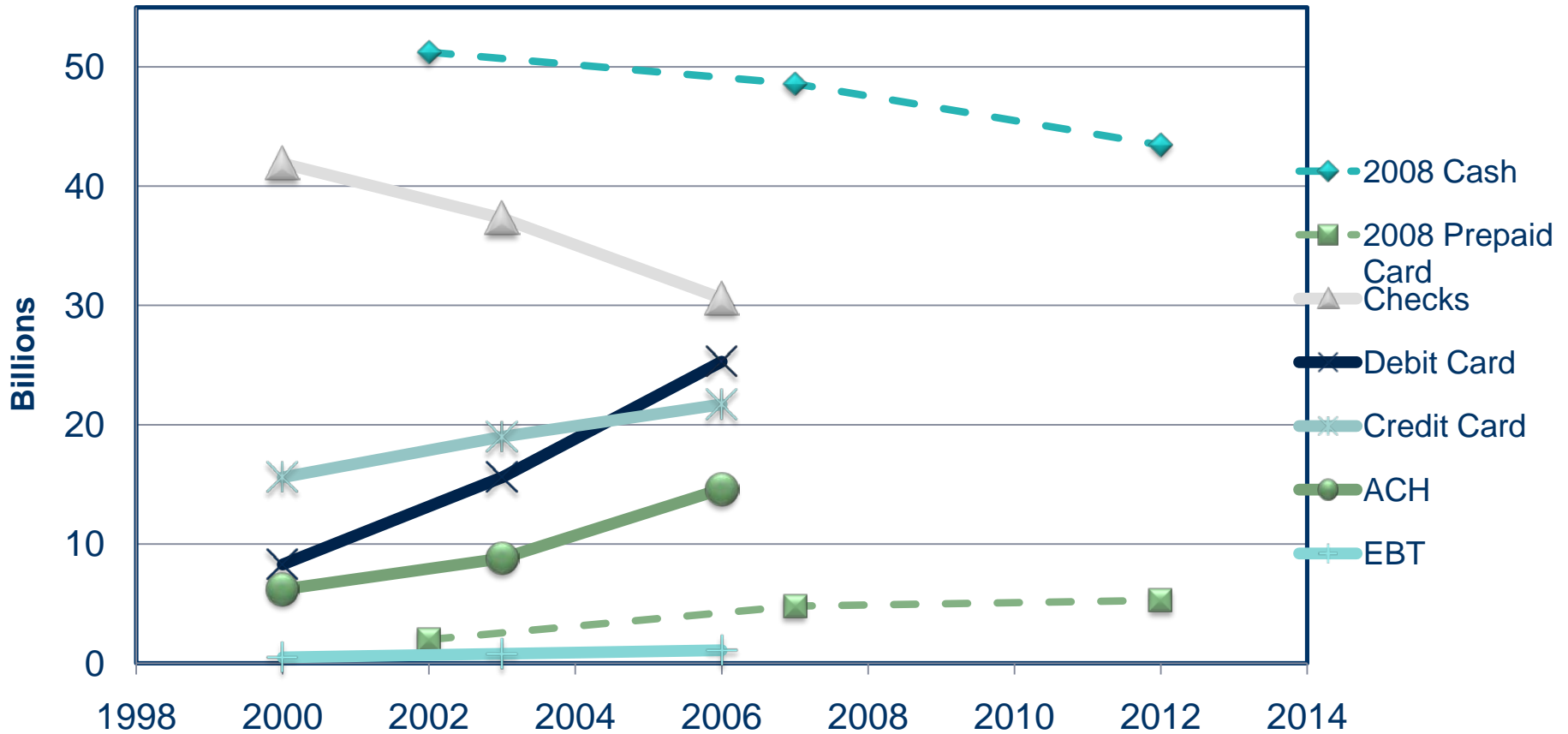
Payment method share of dollar value (all merchant categories)



SOURCE: Visa USA Research Services. (2006) "Visa Payment Panel Study." Page 9.
<http://www.bos.frb.org/economic/eprg/conferences/payments2006/papers/hampton.pdf>.

U.S. payment trends

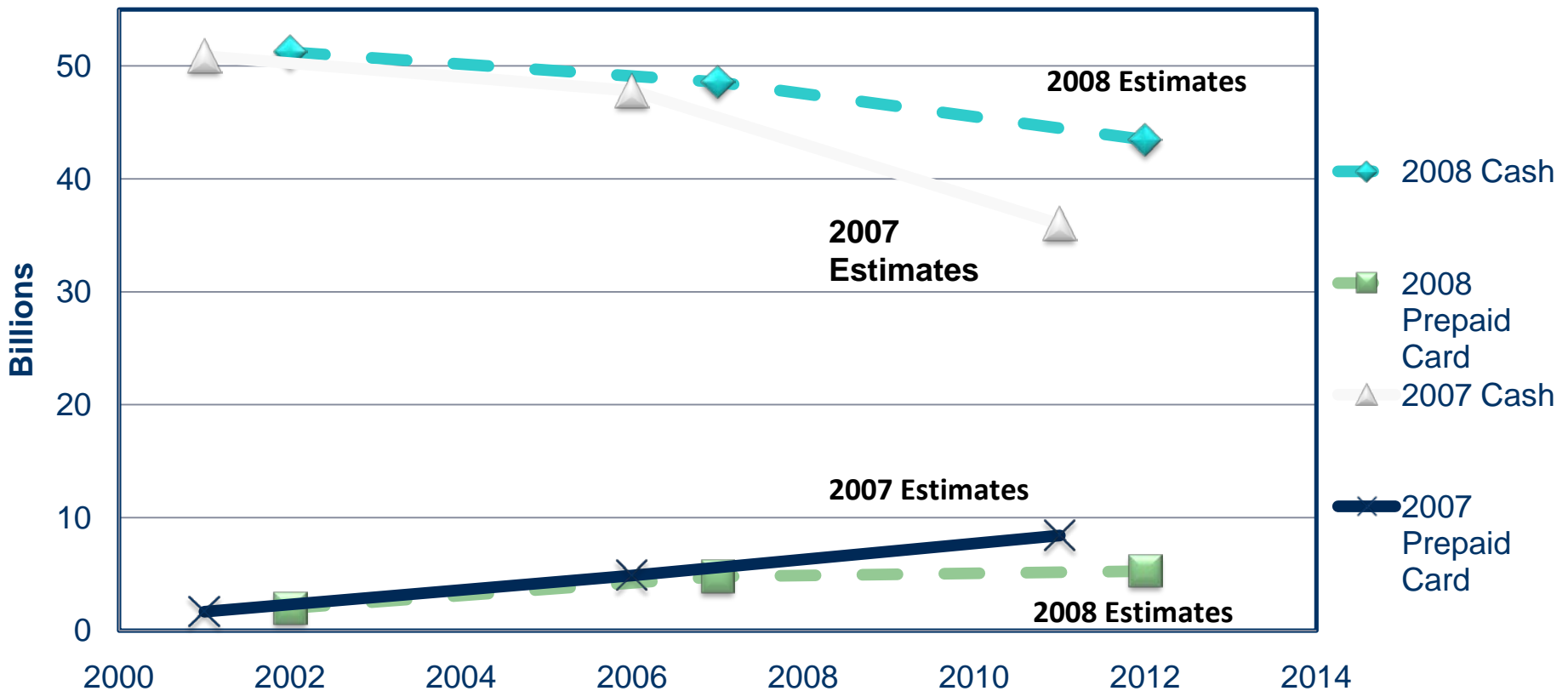
Annual Number of Transactions by Payment Type



Source: Nilson, Federal Reserve, NACHA, ATM&Debit News

U.S. cash payment estimates

Annual Number of Transactions by Payment Type



Source: Nilson

Need for public data

- Private data limitations
 - Often statistically weak or can't tell
 - Proprietary or prohibitively expensive
 - Not designed to be comprehensive
- Public data advantages
 - Relatively unbiased, freely available to all
 - Technical & research expertise (esp. CB's)

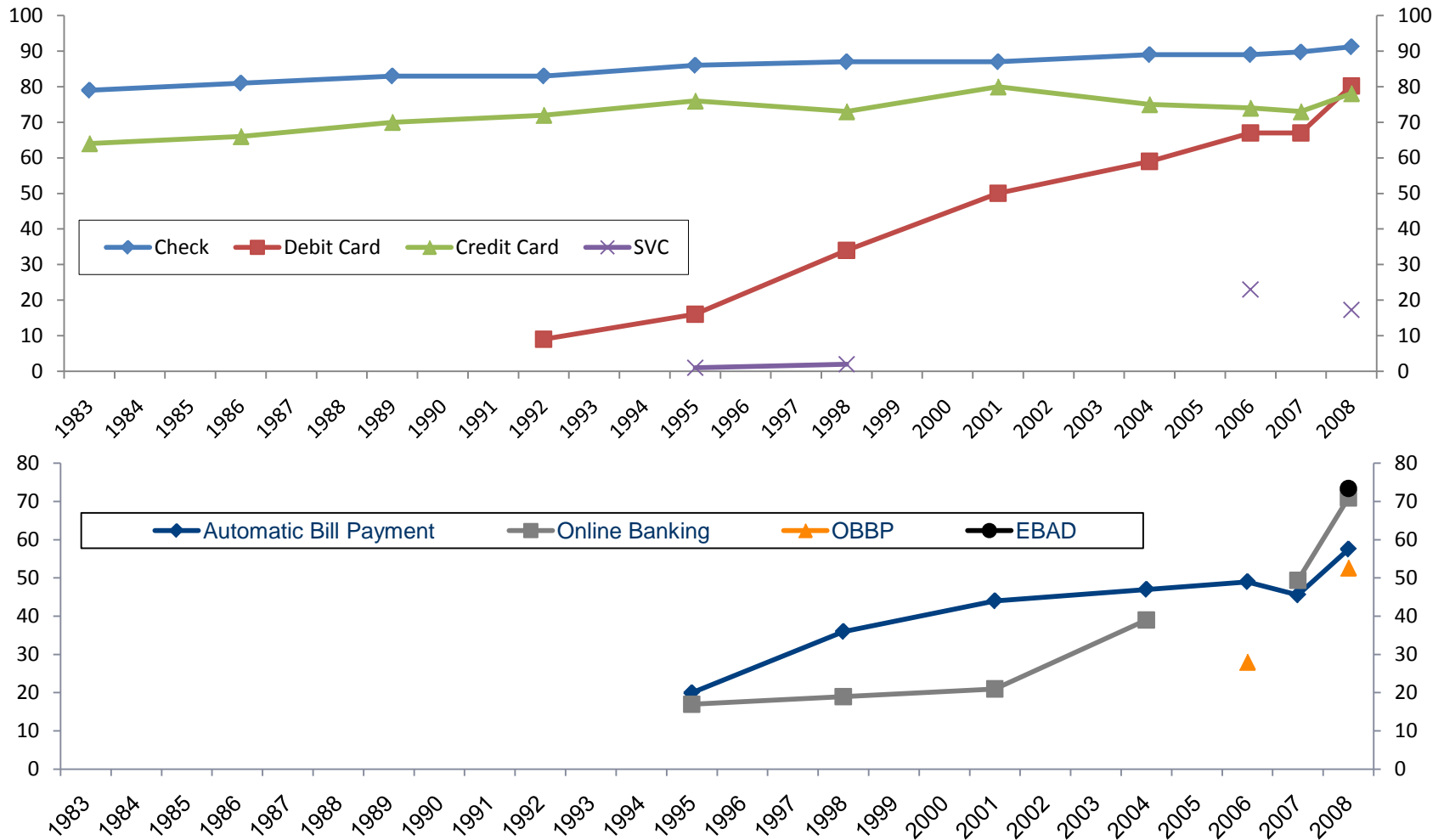
Boston Fed efforts

- Consumer Payments Research Center (CPRC)
 - Established in 2004 to study demand side of payments
 - Develop data
 - Conduct economic research
 - Evaluate public policies toward payments
- Examples of survey work
 - *Survey of Consumer Payment Choice (SCPC)*
 - *Survey of Payment Choice & Shopping Behavior (2008-09)*

SCPC overview

- *Survey of Consumer Payment Choice (SCPC)*
 - Annual data for public use (2003-04, 2006, 2008-ongoing)
 - Fills niches not covered by SCF, FRPS
 - Detailed adoption & incidence of use of payment instruments and practices
 - Detailed frequency of use of payment instruments by consumers
 - Aggregate data for macroeconomic and trend analysis
 - Consumer-level data for microeconomic and policy analysis

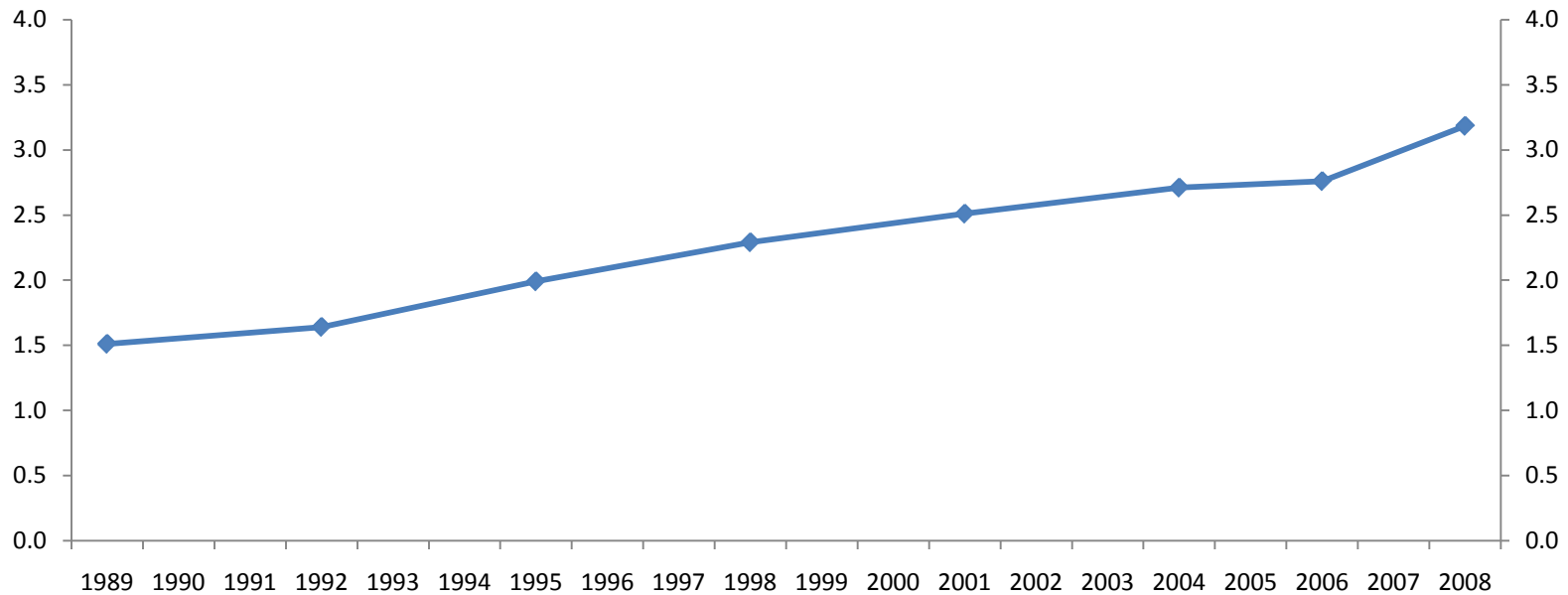
Consumer adoption of payment instruments



SOURCES: 1983-2007 Survey of Consumer Finances; 2006, 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Payment instruments per consumer

Number of payment instruments per consumer (out of 4 possible – check, CC, DC, ACH)



SOURCES: Survey of Consumer Finance (1989-2004) and 2006-2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Payment instruments per consumer

	2006	2008	2008
Maximum #	7	7	9
Actual #	4.1	4.2	5.0

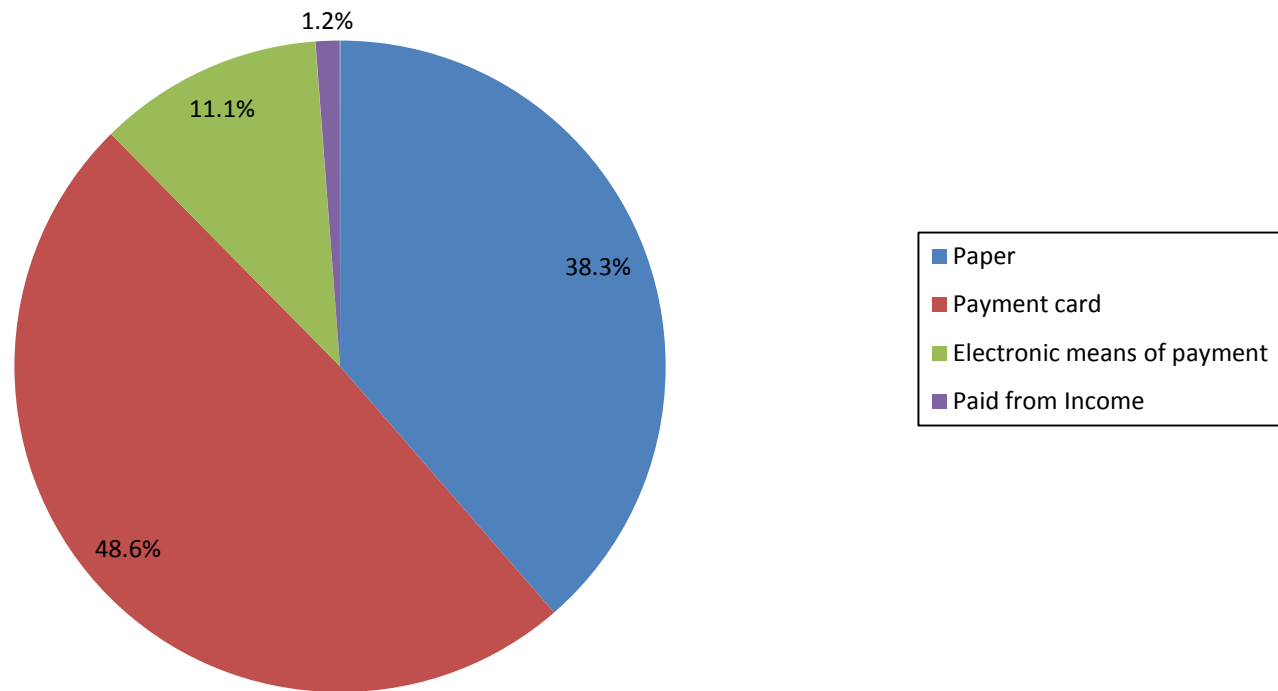
7 = cash, check, money order, debit card, credit card, prepaid card, automatic bill payment

9 = cash, check, money order, travelers check, debit card, credit card, prepaid card, online banking bill payment, electronic bank account deduction

SOURCES: 2006, 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer payment use by instrument

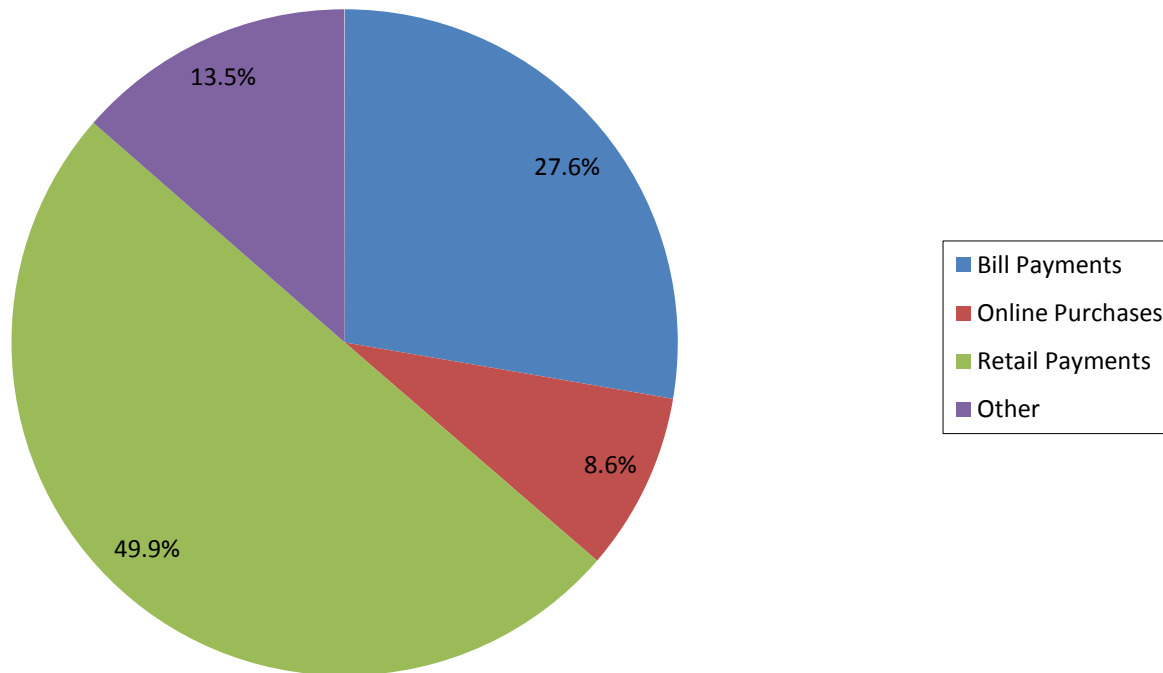
Consumer share of payment volume by payment instrument, 2008



SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer payment use by transaction

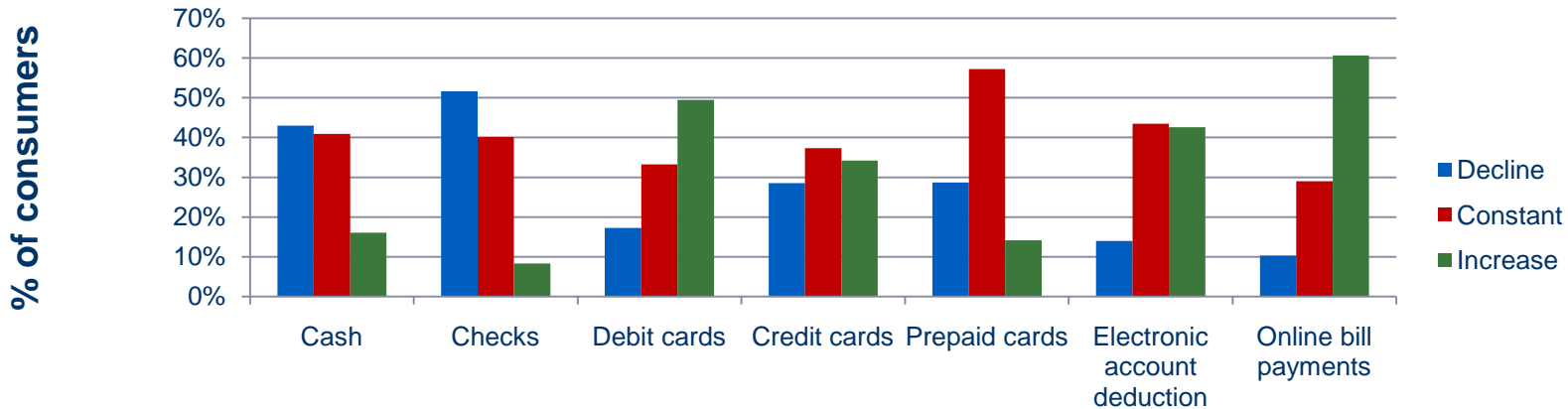
Consumer share of payment volume by transaction type, 2008



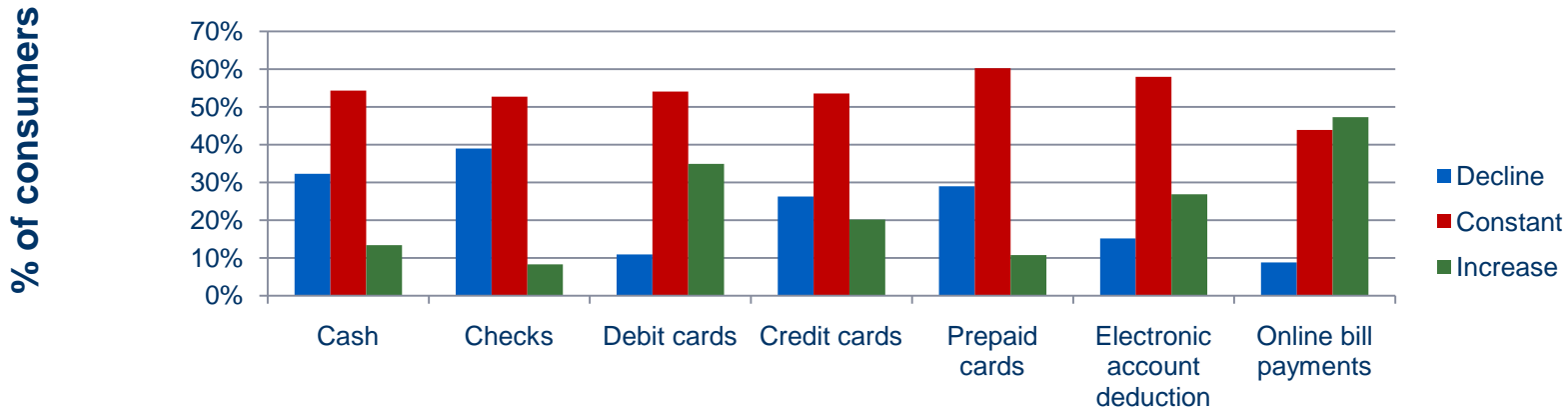
SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Change in payment use

Actual use, past three years (2005-2008)



Expected change in use, next three years (2008-2011)



SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer cash use (volume)

Percentage of payments made with cash

	Bill payments by mail or in person	Essential retail payments*	Other retail payments*	Other non-retail payments*	All other payments	Total
Share of cash payments in category	13	34	35	29	0	23
Category share of total payments	11	35	15	14	25	100

SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Payment category	Examples
Essential retail payments	Groceries, prescription drugs, food from restaurants and payments for gas (petrol)
Other retail payments	General merchandise, electronics, household goods, hardware, office supplies and others
Other non-retail payments	Tolls, medical, entertainment, charitable donations, person to person payments among other payments
All other payments	Any payments made online, bill payments, payments made by travelers checks or money orders

Consumer cash management

Statistic	Current Cash Holdings			Typical Cash Withdrawals		
	Total (\$)	On Person (\$)	Other (\$)	Monthly Amount (\$)	Typical Amount (\$)	Monthly Frequency (#)
Mean	230	79	157	1196	135	6.5
Median	70	27	10	200	50	3

SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Consumer cash withdrawals

LOCATIONS where consumers get cash most often

	ATM	Bank Teller	Check Cashing Store	Retail or Grocery Store	Employer	Family	Other
First Choice	54	23	2	9	5	3	0
Second Choice	14	44	2	24	2	5	1
Third Choice	7	37	1	17	5	8	1

METHODS consumers use to get cash most often

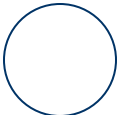
	ATM or Debit card	Account withdrawal	Cashing personal check	Cashing paycheck	Paid by employer in cash	Unknown Methods
First Choice	61	11	7	10	2	3
Second Choice	34	29	14	6	1	5
Third Choice	21	18	16	6	1	9

SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Payment characteristic ratings

	Acceptance for payment	Acquisition & setup	Control over payment	Cost	Ease of use	Record keeping	Security	Speed	ROW AVG
Cash	4.6	4.4	4.0	4.5	4.2	2.4	2.5	4.4	3.9
Check	3.6	3.8	3.2	3.8	3.4	4.2	2.9	2.9	3.5
Debit card	4.3	3.9	3.7	3.9	4.3	4.0	2.9	4.1	3.9
Credit card	4.6	3.7	3.6	2.8	4.4	4.3	3.0	4.1	3.8
Stored value card	3.8	3.4	3.4	3.3	3.7	2.9	2.6	3.8	3.4
Electronic account deduction	3.1	3.3	3.7	3.8	3.7	4.0	3.3	3.8	3.6
COL AVG	4.0	3.8	3.6	3.7	3.9	3.6	2.9	3.8	3.7

NOTE: Ratings are on a 5-point scale (1 is lowest, 5 is highest)

 = Significant determinants of cash use (in prior research)

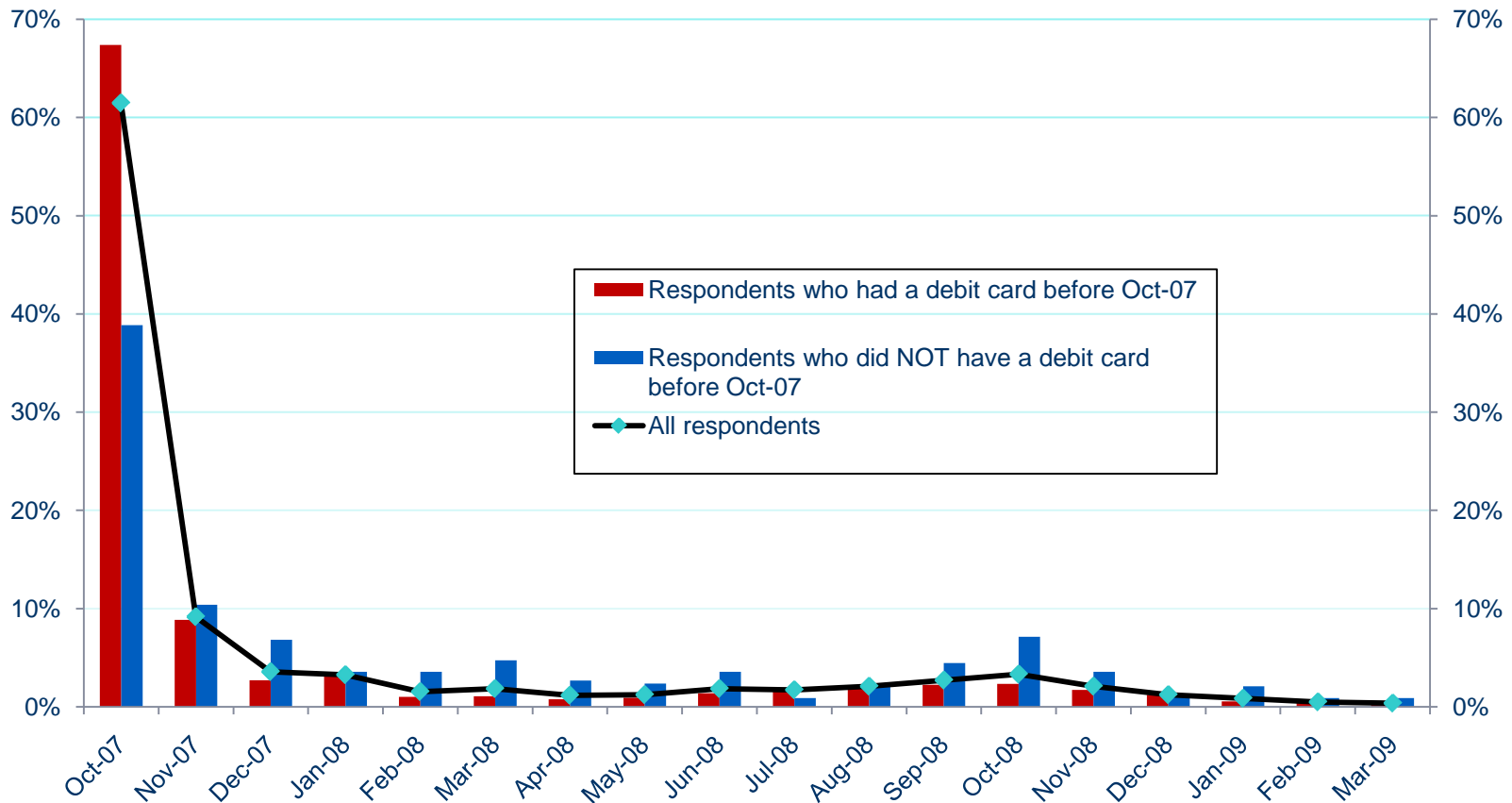
SOURCE: 2008 Survey of Consumer Payment Choice; preliminary and unofficial statistics, subject to revision.

Cash/debit case study

- *Survey of Payment Choice and Shopping Behavior*
 - Specialty food store changed its payment acceptance:
 - Before Oct 2007: cash, check, money order, food stamps/EBT
 - Since Oct 2007: also accepts debit cards
 - Surveyed members from Dec 2008 to Apr 2009
 - Effect of DC acceptance on consumers behavior?
 - Who switched to debit cards when and why?
 - How did payment choices change?
 - How did shopping behavior change?
 - A few very preliminary results...

Response to debit card acceptance

First use of a debit card at the food store
(Percent of members)



SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Payment use transitions

Instrument used most often at the food store
(Percent of members)

		Since October 2007					Row Total
		Cash	Check	Debit Card	Other	Missing	
Before October 2007	Cash	9.2%	0.2%	50.5%	0.5%	4.1%	64.5%
	Check	0.4%	1.9%	8.8%	0.2%	0.9%	12.1%
	Other	0.1%	0.0%	0.2%	0.3%	0.1%	0.7%
	Missing	1.3%	0.0%	12.3%	0.3%	8.8%	22.7%
Column Total		11.0%	2.1%	71.8%	1.3%	13.9%	100.0%

SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Cash withdrawals (any)

Where do food store members cash most often (for any reason)?

	Most often		Second most often	
	Before October 2007	Since October 2007	Before October 2007	Since October 2007
ATM	1,382 (90.1%)	1,439 (89.3%)	246 (23.2%)	262 (23.9%)
Bank teller	52 (3.4%)	63 (3.9%)	262 (24.7%)	257 (23.4%)
Check cashing store	2 (0.1%)	1 (0.1%)	2 (0.2%)	6 (0.6%)
Cash back from retail or grocery store	25 (1.6%)	27 (1.7%)	334 (31.5%)	342 (31.2%)
Employer	37 (2.4%)	42 (2.6%)	25 (2.4%)	22 (2%)
Family, friend or household member	18 (1.2%)	22 (1.4%)	138 (13%)	155 (14.1%)
Other	18 (1.2%)	17 (1.1%)	52 (4.9%)	54 (4.9%)
Total responses	1,534	1,611	1,059	1,098

SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Cash withdrawals (food store shopping)

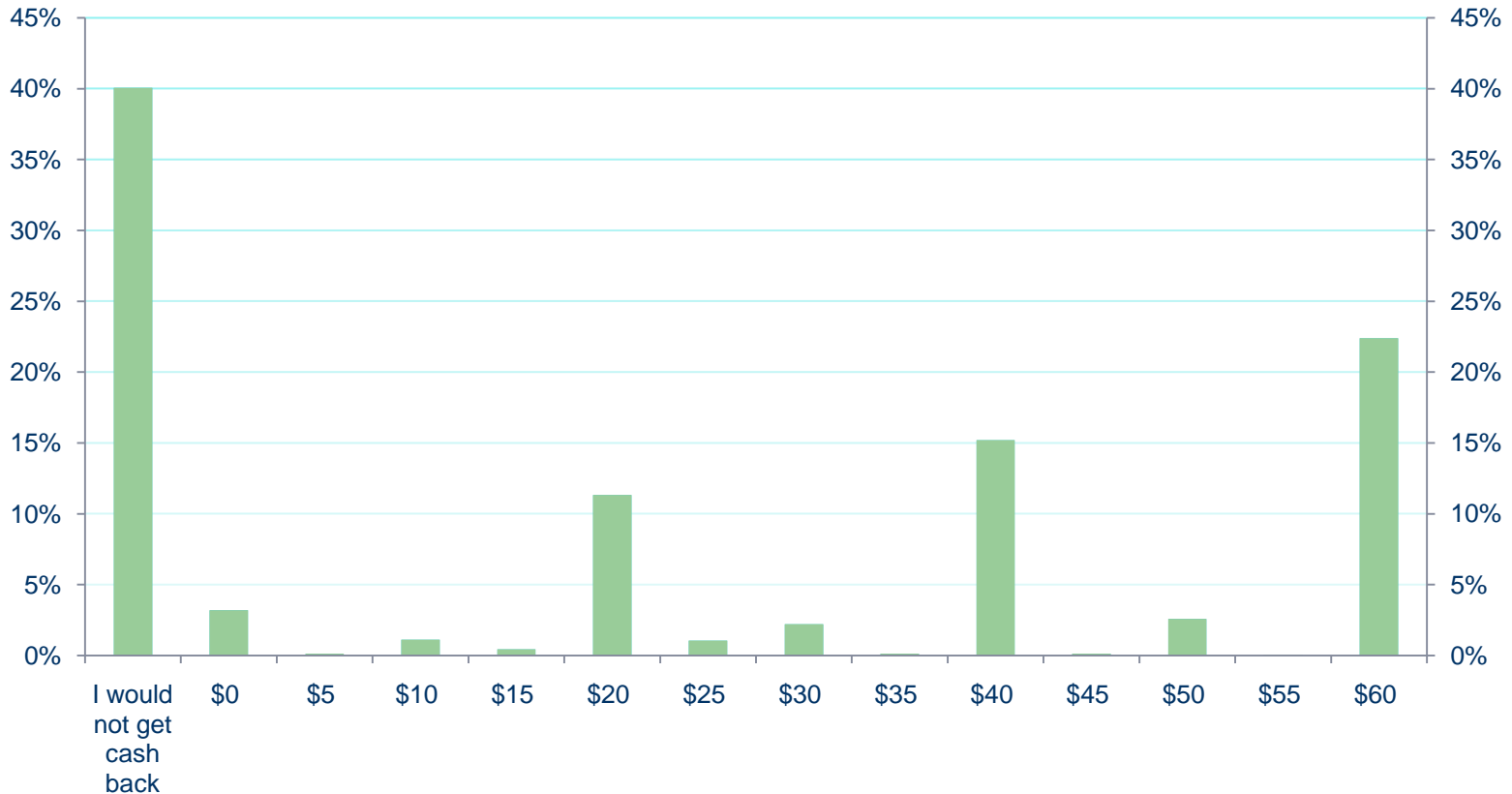
Where do members get cash most often (for food store shopping)?

	Most often		Second most often	
	Before October 2007	Since October 2007	Before October 2007	Since October 2007
I never pay by cash at the Coop	29 (2.1%)	327 (21%)	11 (1.2%)	92 (9.3%)
From cash I have at the time	502 (35.5%)	694 (44.6%)	330 (34.6%)	250 (25.4%)
ATM	827 (58.5%)	473 (30.4%)	419 (43.9%)	462 (46.9%)
Bank teller	25 (1.8%)	22 (1.4%)	68 (7.1%)	56 (5.7%)
Check cashing store	0 (0%)	0 (0%)	4 (0.4%)	5 (0.5%)
Cash back from retail or grocery store	1 (0.1%)	1 (0.1%)	38 (4%)	29 (2.9%)
Employer	18 (1.3%)	19 (1.2%)	10 (1.1%)	11 (1.1%)
Family, friend or household member	8 (0.6%)	16 (1%)	63 (6.6%)	67 (6.8%)
Other	4 (0.3%)	5 (0.3%)	11 (1.2%)	14 (1.4%)
Total responses	1,414	1,557	954	986

SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Cash back from debit card – amount

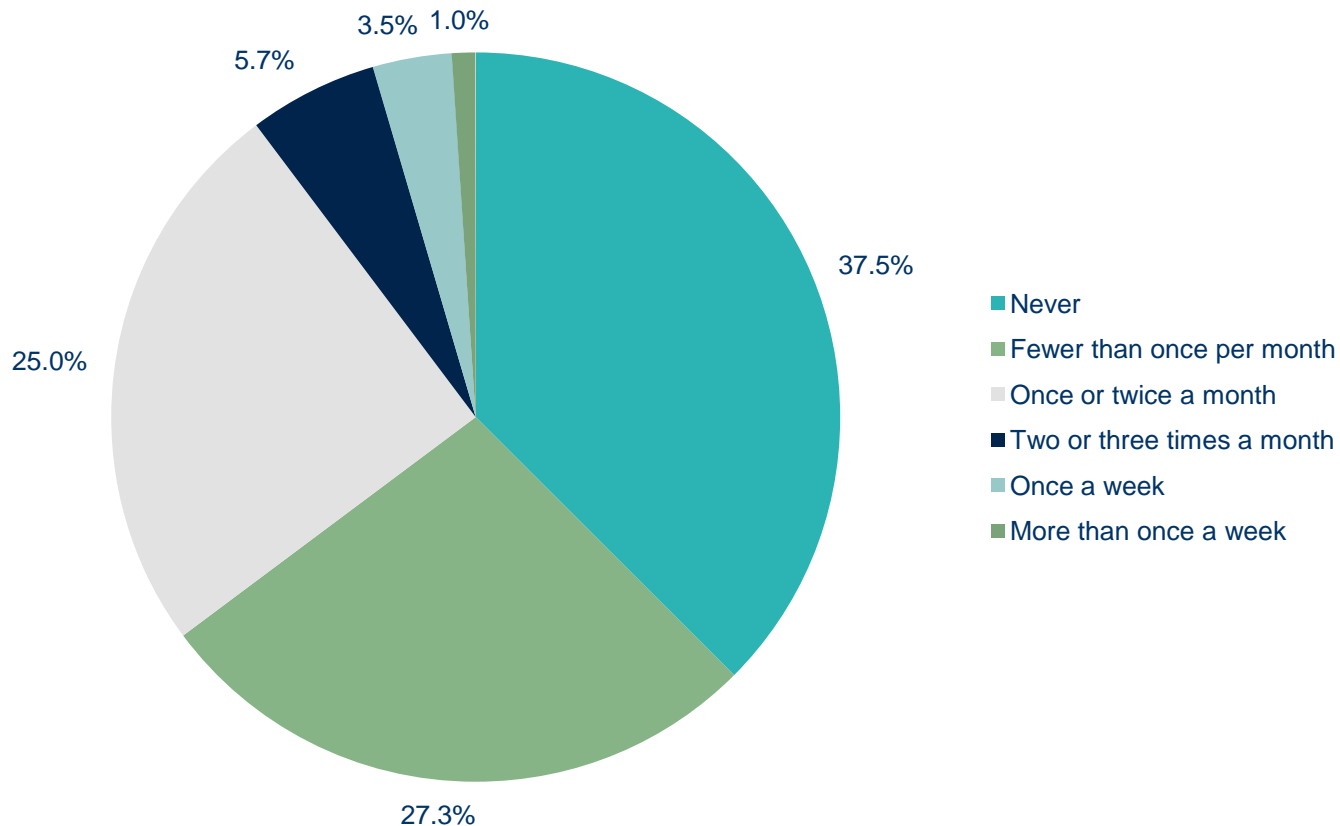
If store offered cash back from DC, what amount would members get most often?
(Percent of members)



SOURCE: 2008-2009 Survey of Payment Choice and Shopping Behavior; preliminary and unofficial statistics, subject to revision.

Cash back from debit card – frequency

If store offered cash back from DC, how often would members get cash back?
(Percent of members)



SCPC production schedule

- 2009 goals
 - 2008 aggregate data released (summer)
 - 2009 revised SCPC implemented (fall)
 - 2008 data by demographics released (winter)
- 2010 goals
 - 2009 data released (spring)
 - 2008-2009 micro data released (summer)
 - 2010 revised SCPC implemented (fall)
- 2011 and beyond – TBD

Other cash-related projects

- Bank customers' actual and reported payment choice (*under development*)
- Diary study of consumer payment use (*under consideration*)
- Block Island (RI) tourist cash use (*under consideration*)
- Other? (*suggestions welcome!*)

More information

To download this presentation and SCPC data later this year, or for more information about:

Consumer Payments Research Center
Federal Reserve Bank of Boston

visit our web site:

<http://www.bos.frb.org/economic/eprg/index.htm>