Payment Card Reward Programs and Consumer Payment Choice

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Objective

Examine the effects of reward programs on consumer payment choice

- Whether credit/debit reward receivers use credit/debit cards relatively more often than other consumers

- If so, how much more often

- Which payment methods are replaced by reward card payments

Data

2005/2006 Study of Consumer Payment Preferences by ABA and Dove Consulting

- 3008 responses → 1979 observations
- Higher educated and higher income
- Contains rich information on consumer payments
  - whether receive rewards on credit/debit card
  - how many times each payment method used
  - most frequently used method by retail type
  - perceptions toward each payment method

Data

Table 2: Reward card holders

	Sample size	Percent of sample	Percent of reward holders
Rewards card holders	**721**	**36.43**	**100**
Reward credit	**634**	**32.03**	**87.93**
Reward debit	**269**	**13.59**	**37.31**
Reward PIN debit	**131**	**6.62**	**18.17**
Reward signature debit	**242**	**12.28**	**33.56**
Reward credit & debit	**182**	**9.20**	**25.24**
Reward credit & PIN debit	**82**	**4.14**	**11.37**
Reward credit & signature debit	**167**	**8.44**	**23.16**

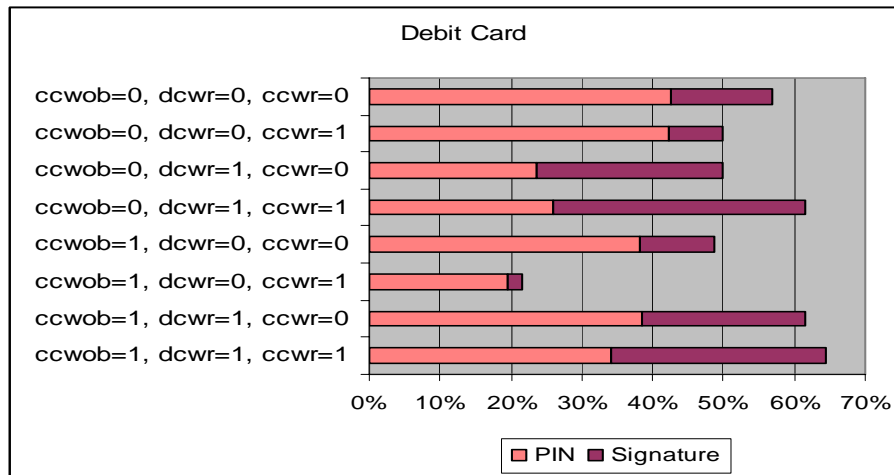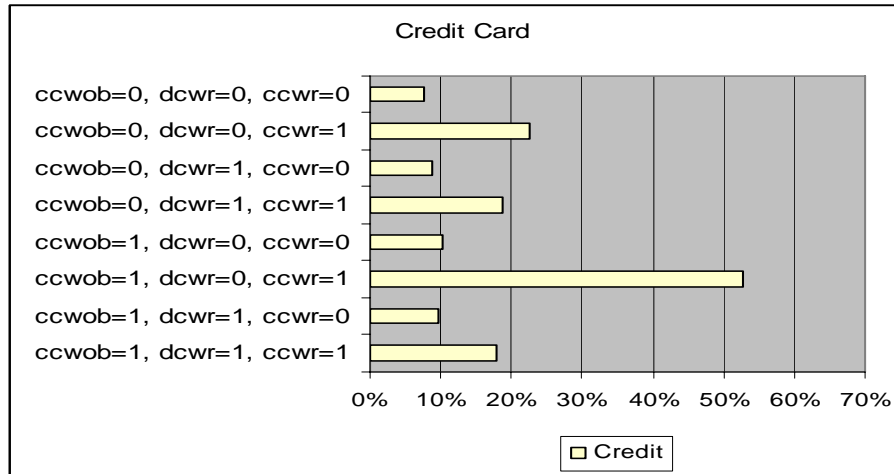# Data Table 3: Characteristics of reward card holders

Credit card reward	PIN debit card reward	Signature debit reward
Asian	Asian	25<=Age<=34
Caucasian	25<=Age<=34	Living in Mid-Atlantic
Income>$60,000	Living in Mid-Atlantic	Users of Internet at work
Education>college	Users of Internet at work	Users of online banking
Living in New England	With PIN and signature	With PIN and signature
Technology users	debit card perception	debit card perception
With credit card perception	-comfortable	-comfortable
-comfortable	-fast	-fast
-fast		With signature debit card
-convenient		perception
-easy to use		-convenient
-preferred by stores		-easy to use
-safe		-preferred by stores
-spend within my means		-safe
-for small amounts		-spend within my means
-control over money		-for small amounts
-easy to get refund		-control over money
		-easy to get refund
		-money is taken from
		account right away

Data
Card Balance, Rewards, and Payment Choice

Credit Card

Group	
ccwob=0, dcwr=0, ccwr=0	
ccwob=0, dcwr=0, ccwr=1	
ccwob=0, dcwr=1, ccwr=0	
ccwob=0, dcwr=1, ccwr=1	
ccwob=1, dcwr=0, ccwr=0	
ccwob=1, dcwr=0, ccwr=1	
ccwob=1, dcwr=1, ccwr=0	
ccwob=1, dcwr=1, ccwr=1	

0% 10% 20% 30% 40% 50% 60% 70%

□ Credit

Debit Card

Group	
ccwob=0, dcwr=0, ccwr=0	
ccwob=0, dcwr=0, ccwr=1	
ccwob=0, dcwr=1, ccwr=0	
ccwob=0, dcwr=1, ccwr=1	
ccwob=1, dcwr=0, ccwr=0	
ccwob=1, dcwr=0, ccwr=1	
ccwob=1, dcwr=1, ccwr=0	
ccwob=1, dcwr=1, ccwr=1	

0% 10% 20% 30% 40% 50% 60% 70%

■ PIN ■ Signature

Share of payment method as the most frequently used method at grocery stores by consumer group

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Model

**Utility to consumer *i*
from using payment method *j*
when making a transaction at retail type *h***

$$U_{ijh} = X_i \beta_{jh} + Z_{ij} \gamma_h + C_{ij} \delta_{jh} + \varepsilon_{ijh}$$

**X:consumer characteristics
Z:payment method attributes evaluated by consumer
C:reward and balance dummies**

Results

From multinomial logit model estimation,

after controlling consumer characteristics and

perception, credit rewards, signature debit

rewards, and a credit card balance have a

significant effect on consumer payment choice
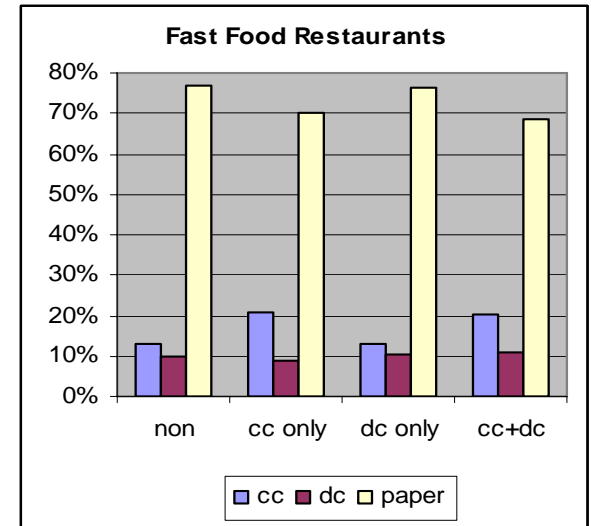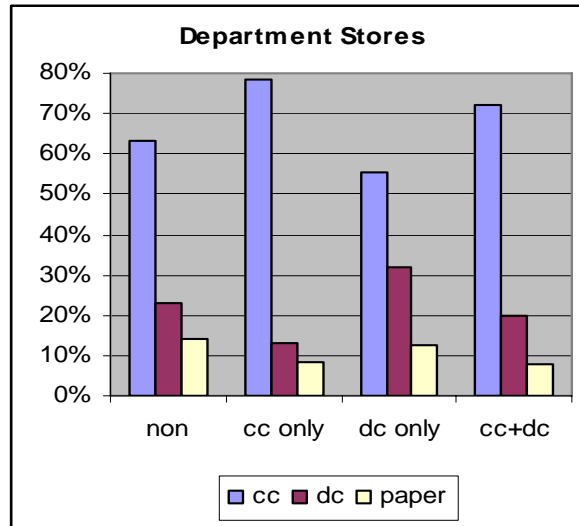
but PIN debit rewards don't.

Results

Predicted probability of choosing a certain payment method as the most frequently used payment method at grocery stores

Middle-aged Caucasian male college graduates with income $70,000 who don't carry a credit card balance
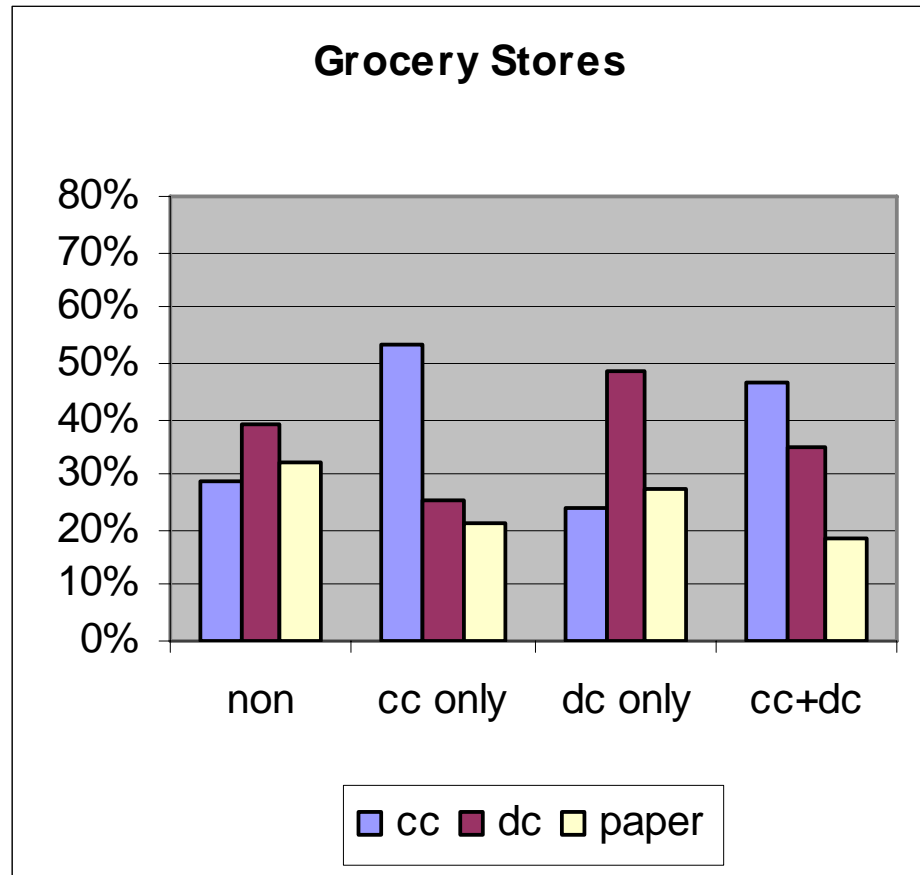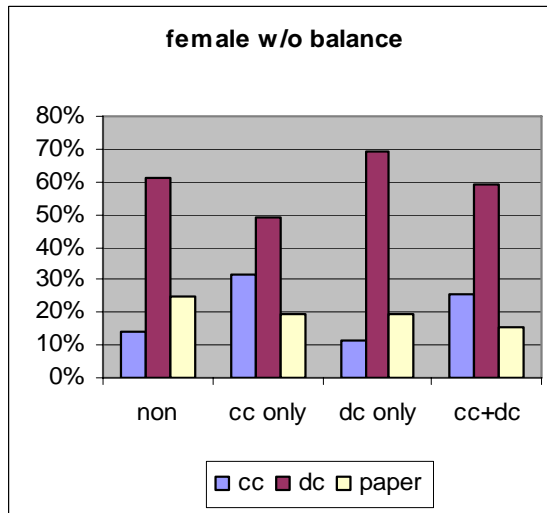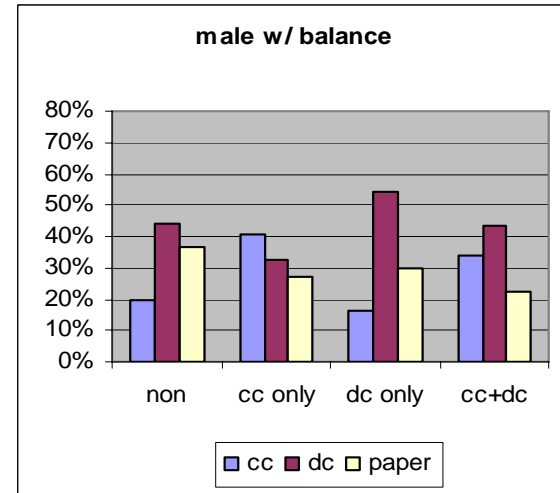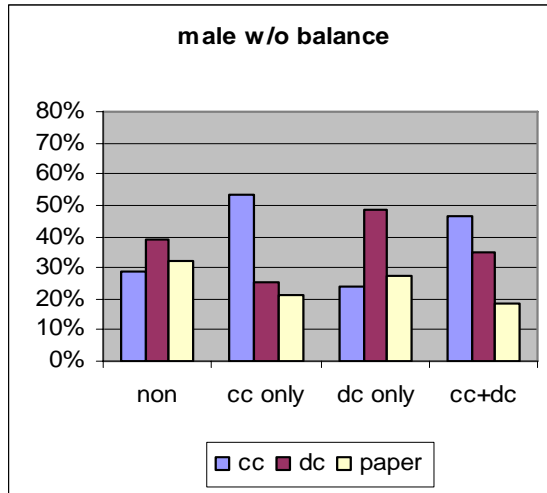

Grocery Stores

Results

Predicted probability at other stores
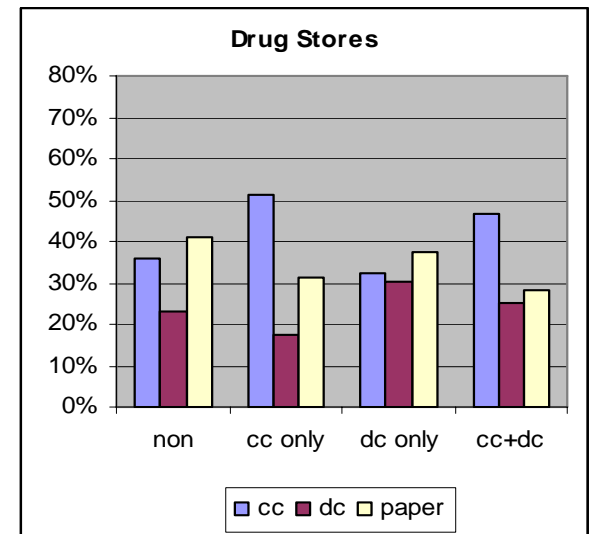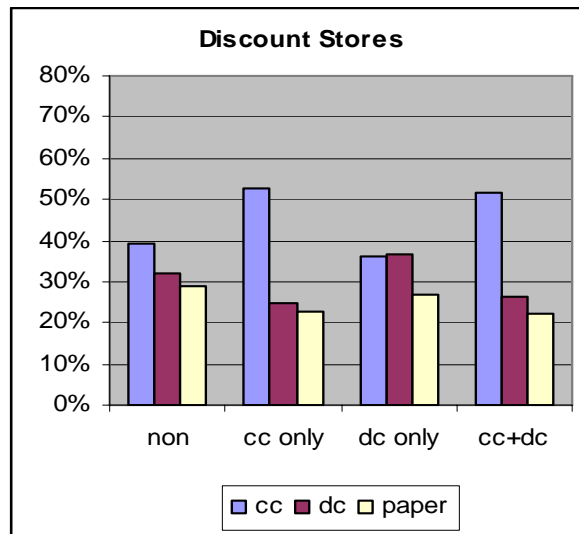
<u>Results</u>

Predicted
probability
at grocery
stores by
type of
consumer

male w/o balance

male w/ balance

female w/o balance

Results

(1)   The effects of rewards vary by retail type

(2)   Reward card transactions replace paper-based transactions as well as other card transactions

(3)   The effects of credit rewards > The effects of debit rewards

(4)   Credit rewards also affect consumers w/ a positive credit card balance

Overall effects?

Results

From the share estimation,

Credit rewards → credit share + 9% pts

debit share - 5.6% pts

paper share - 4.1% pts

Debit rewards → credit share - 6.2% pts

debit share + 6.9% pts

paper share - 0.9% pts

Conclusion

(1) Rewards and consumer payment choice have a correlation—reward receivers tend to use the card with rewards.

(2) Quantify the effects of rewards
- predicted probabilities vary by retail type and consumer
- overall effects

(3) Reward card transactions replace paper-based transactions as well as other card transactions