

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

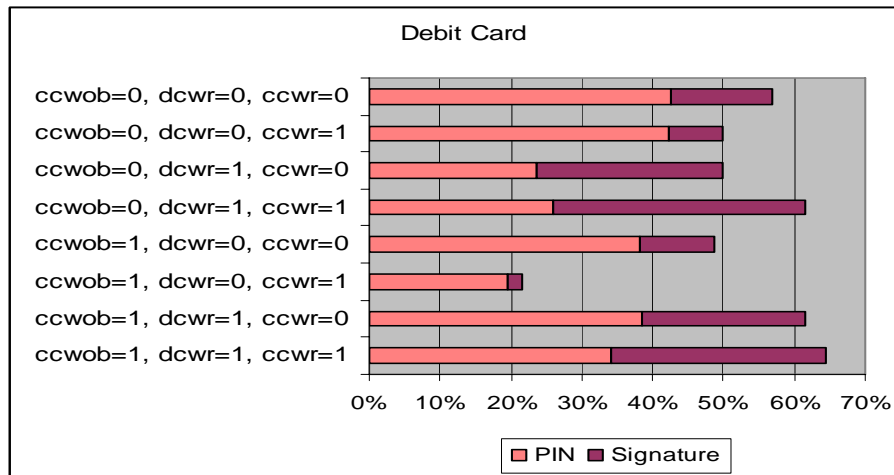
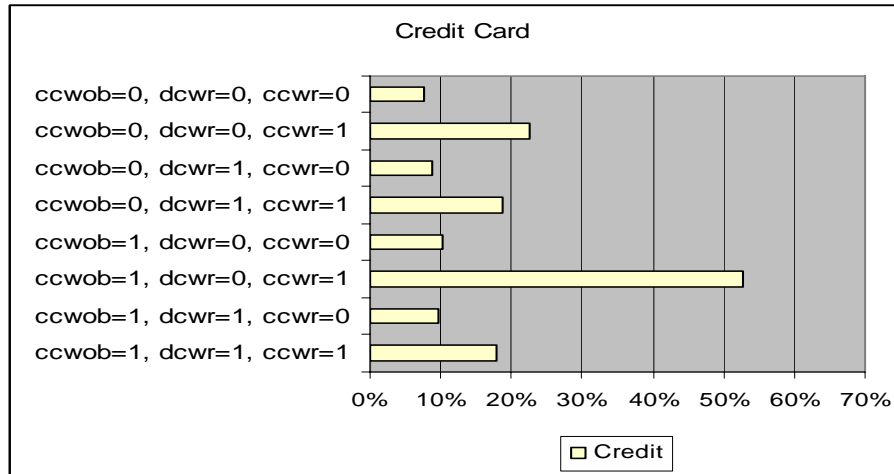
Data

Table 3: Characteristics of reward card holders

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

Data

Card Balance, Rewards, and Payment Choice



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

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

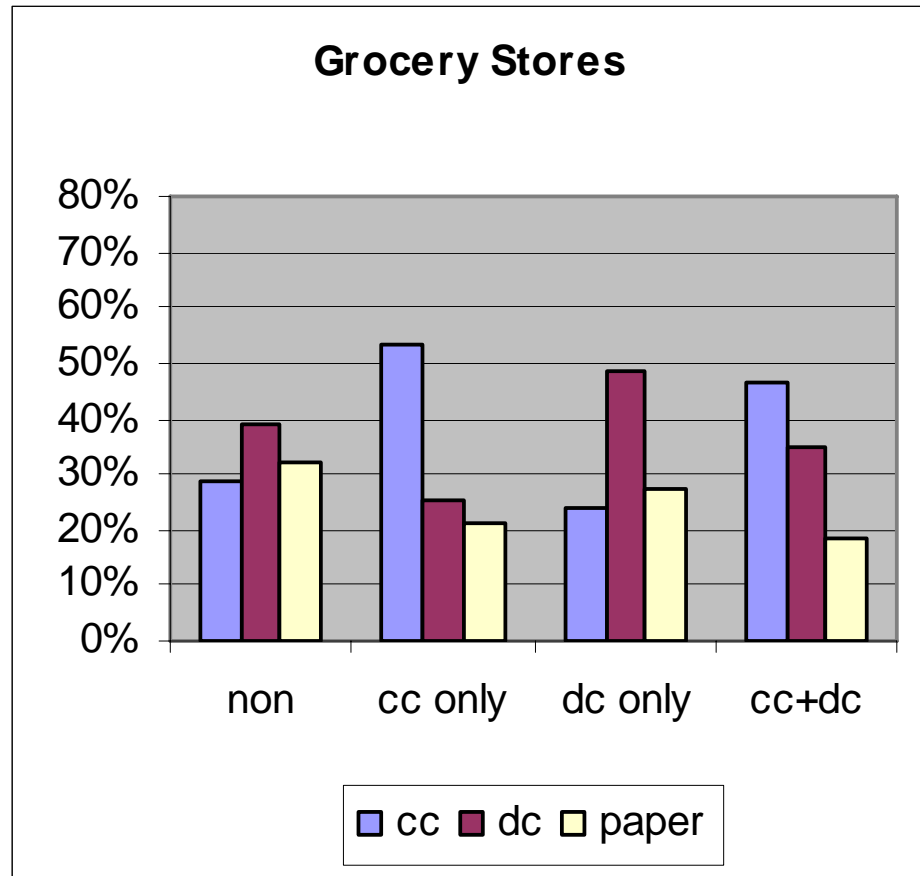
Results

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

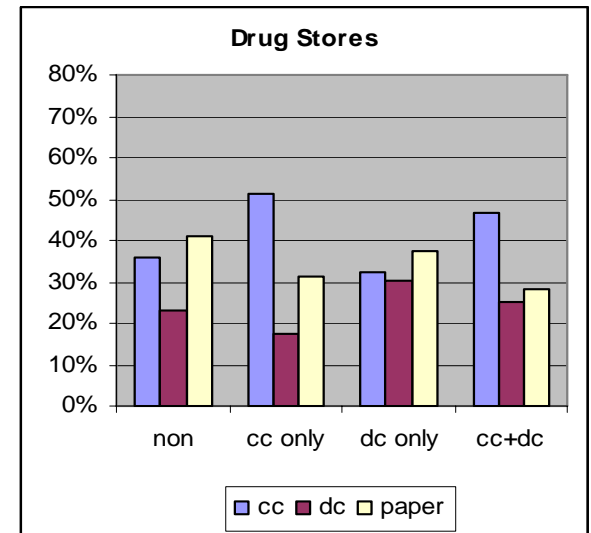
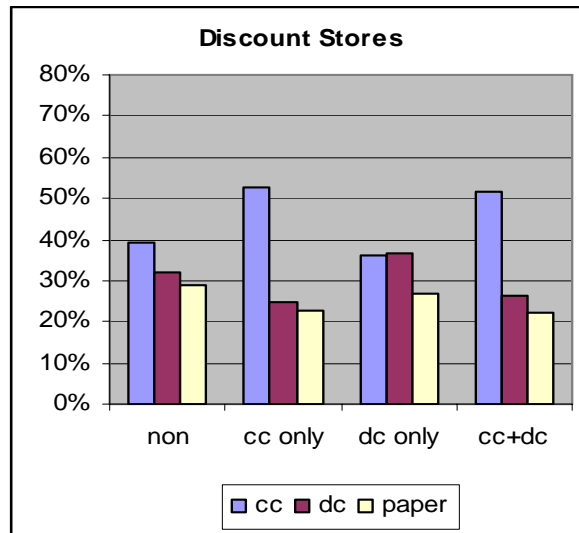
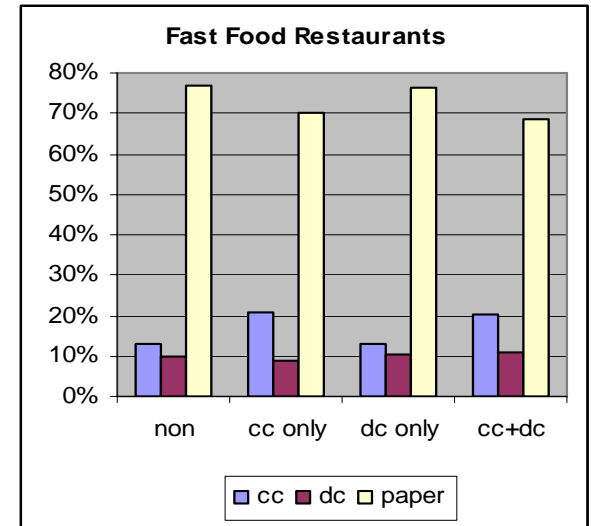
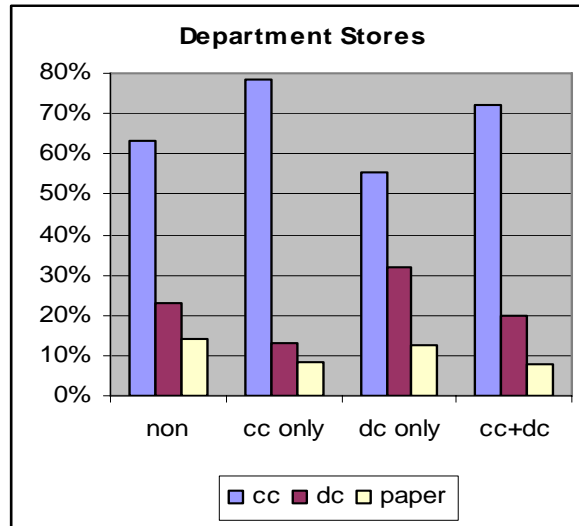
Predicted probability of choosing a certain payment method as the most frequently used payment method at grocery stores

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



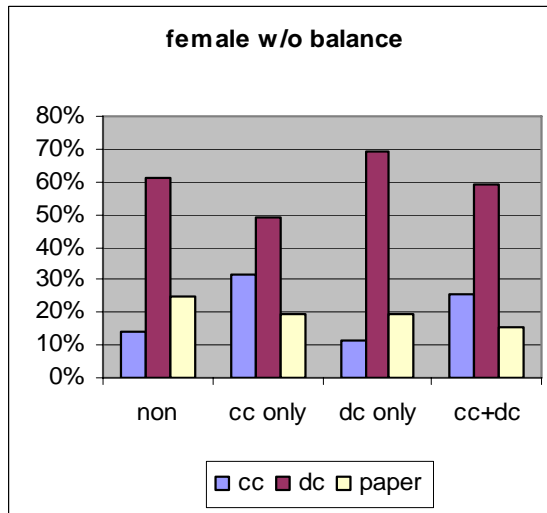
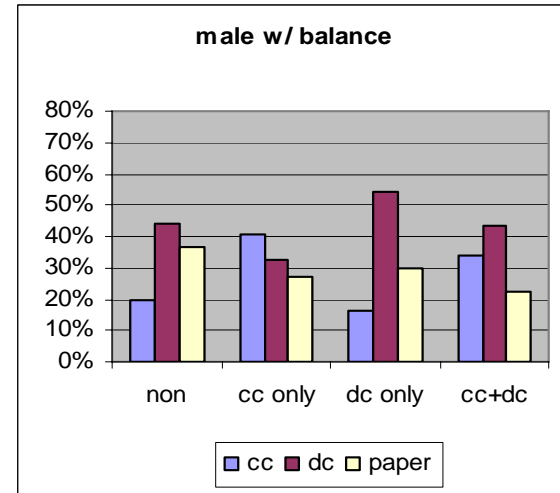
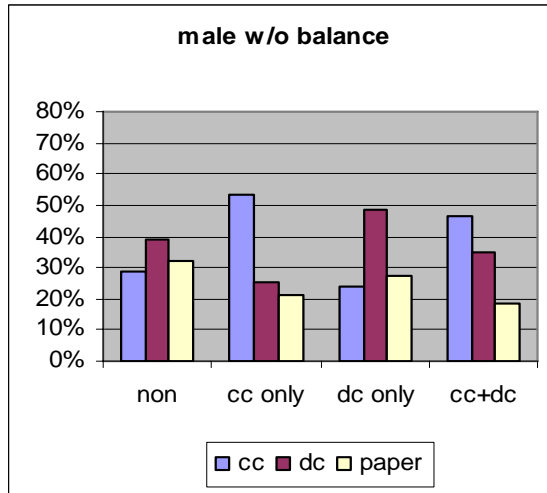
Results

Predicted probability at other stores



Results

Predicted probability at grocery stores by type of consumer



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**