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ABSTRACT

The prepaid card market is one of the fastest changing segments of the financial services industry. It includes a variety of products, ranging from traditional gift cards (closed-loop) used to make small dollar transactions with specific retailers to the more recently established branded general spending reloadable cards (open-loop), which have substantial versatility and may hold a considerable amount of a consumer's income.

The recent entry of general spending card providers to the marketplace and the proprietary nature of firm-specific data have made it difficult to analyze or document cardholders' use of these prepaid cards. This study employs a unique dataset to determine in what ways and how frequently branded general spending cards are used by cardholders. The findings show that most cardholders spent close to 100 percent of the funds loaded into their card accounts each month. In addition, cardholders not only use point-of-sale (POS) transactions more frequently than ATM withdrawals but also spend most of their funds through this method. This suggests that cardholders may be using general spending prepaid cards as a substitute for cash in making purchases. Viewed more broadly, the greater use of general spending prepaid cards for POS transactions may be reflective of the overall trend toward making electronic payments. Other emerging trends and challenges in the general spending prepaid card market are also discussed.

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Introduction

The prepaid card market is one of the most dynamic and fastest growing segments of the financial services industry. In large part, the substantial growth in this market reflects the upward trend in electronic payments. This market includes a variety of products, ranging from traditional gift cards (closed-loop) used to make small dollar transactions with specific retailers to the more recently established reloadable branded general spending and payroll cards (open-loop), which have substantial versatility and may hold a considerable amount of a consumer's income.[1] It is estimated that $14.1 billion were loaded onto more than 45 million open solution network-branded prepaid card accounts in 2005 (Davis, 2006).[2] Within this broad open solution category is the money and financial services segment, a segment which may most closely represent the prepaid card market focused on in this study. In 2005, this segment accounted for $710 million, an increase of 16.4 percent from the previous year (Sloane, 2006).

The increased use of electronic payments and movement away from cash and checks has likely permanently changed the financial services landscape. In December 2004, the Federal Reserve System announced that electronic transactions had surpassed checks as consumers' preferred noncash payment method. It is clear that today, electronic payments are the preferred noncash payment option.[3] Industry sources project that debit card purchases will exceed credit card transaction volume, reaching 26.6 billion transactions at the point of sale in 2006 (Prepaid Trends, 2006).

In terms of electronic payments made using branded prepaid cards, consumers can benefit from gaining easy access to their funds and enjoying the speed, convenience, and safety of these financial services products (Pelorus Group, 2006). Financial service providers can produce, distribute, and process branded prepaid cards at a relatively lower cost than making check disbursements, while the pay-ahead nature of prepaid cards virtually eliminates credit risk to card issuers. Overall, the trend toward electronic payments and the use of branded prepaid cards result in net benefits to society (Swartz et al, 2004).[4]

Branded general spending cards are of particular interest to this study because little research has been undertaken to explain how consumers use these particular cards to help meet their financial transactions needs.[5] Cardholders add funds to their prepaid card account and later make withdrawals through ATM transactions, make purchases through POS transactions, pay bills electronically, and move funds through account-to-account electronic transfers. These prepaid cards are heavily marketed to individuals who are unbanked (do not have either a checking or a savings account) or to consumers with blemished credit histories that preclude them from opening a deposit account.[6]

The recent entry of general spending card providers to the marketplace and the proprietary nature of firm-specific data have made it difficult to document and analyze cardholders' use of these prepaid cards. When considering branded general spending prepaid cards, several questions arise. In what amounts and how frequent are accounts loaded by cardholders? How often and in what amounts are POS transactions made? Similarly, how frequent are ATMs used to withdraw cash, and in what amounts on a monthly basis? Overall, what proportion of total funds loaded each month is used to make POS and ATM transactions?

This study seeks answers to these questions by employing a unique dataset to determine in what ways and how frequently branded general spending cards are used by cardholders. First, the study provides a general description of the size and growth potential of the general spending card consumer market and a basic explanation of how these cards work. Next, the study explores trends in the general spending prepaid card market as understood from the four card providers that participated in this study,[7] and more generally from discussions with a larger number of industry providers. Then, the study analyzes transaction data provided by the providers on a total of nearly 2,000 cardholders to understand how the cards are used. Finally, the study discusses the implications drawn from the findings and makes recommendations for future research and industry action. The findings from this study are expected to help give policymakers, financial institutions, researchers, and community-based organizations a clearer understanding about consumer use of these relatively new financial services products.

General Spending Card Consumer Market

Identifying industry figures for the dollar volume placed in these card accounts is difficult because the information reported usually does not clearly distinguish between dollars loaded onto closed- and open-loop prepaid cards or disentangle the dollar flows from among the different types of open-loop cards. What does appear to be clear is that the greatest growth opportunities are in the open-loop prepaid card market (Sloane, 2006).

Many card providers market directly to unbanked and underserved consumers. Insights about the potential size of this market can be gleaned from the 2004 Survey of Consumer Finances, which finds that 8.7 percent of U.S. families (slightly less than 10 million families) did not have a checking or a savings account (Bucks et al, 2006). Major reasons reported for not holding a checking account included: do not write enough checks to make it worthwhile (28 percent); do not like dealing with banks (23 percent); do not have enough money (14 percent); and service charges too high (12 percent). Interestingly, more than 52 percent of the unbanked families previously held a checking account, suggesting that something about their financial circumstances and/or behavior led them to leave the traditional financial mainstream.

Information from the 2000 Survey of Income Program Participation allows for separately calculating the proportion of unbanked U.S.-born and immigrant families. According to this survey, 14 percent of the U.S.-born white families were unbanked, while 46 percent of U.S.-born black families, 34 percent of U.S.-born Hispanic families, and 34 percent of the U.S.-born families of other racial groups were unbanked. Among immigrant groups, 53 percent of the Mexican immigrant families were unbanked, compared to 37 percent of the other Latin American immigrant families, 20 percent of the Asian immigrant families, and 17 percent of the European immigrant families (Rhine and Greene, 2006). Thus, the potential market for general spending prepaid cards is not only sizeable, as proxied by the proportion of unbanked consumers, but also is likely to represent growing segments of the U.S. population, including specific minority or immigrant groups who are more heavily represented among the unbanked and underserved. Moreover, according to a 2004 survey of residents of low- and moderate-income neighborhoods in Los Angeles, Chicago, and Washington, D.C., two-thirds of banked households also use nonbank services, such as check cashing or money transfer; and half of those who are currently unbanked formerly had bank accounts (Seidman et al, 2005).

How General Spending Cards Work

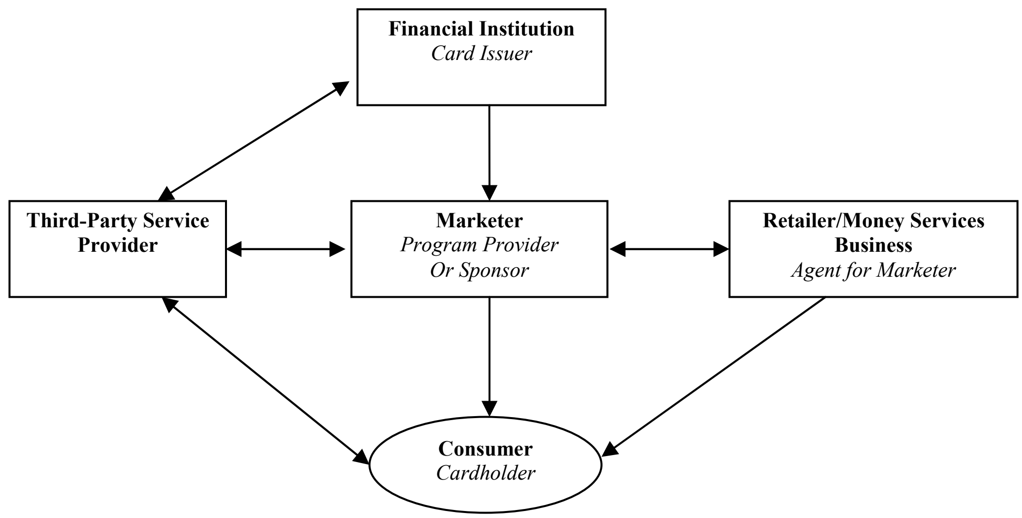
The functionality of branded general spending reloadable cards closely resembles that offered by traditional credit and debit cards because transactions are processed using the same systems as the network brand—MasterCard, Visa, American Express, or Discover. Branding through payment networks adds to the functionality of these cards and gives consumers, especially unbanked or underserved individuals, an easier and more convenient way to meet their financial transactions needs. These cards are used to withdraw funds from ATMs as well as to make retail purchases or pay bills, either in person, online, or over the phone—effectively anywhere the network brand is accepted. In essence, branded prepaid cards, based on the pay early business model, can provide cardholders with access to the payment system in much the same ways as traditional credit and debit cards, but without the need for a more formal banking relationship (Cheney and Rhine, 2006b).

Typically, general spending cards are marketed directly to consumers in a growing range of programs often targeted to particular consumer segments. *Nonbank program providers or sponsors* usually sell this type of prepaid card and may have business arrangements with money service businesses or retailers, who act as agents on behalf of nonbank program providers. Check-cashing businesses and convenience stores are examples of agents used by program providers.[8] All network-branded prepaid cards must be issued by a partnering financial institution that has a relationship with Visa, MasterCard, American Express, or Discover.

Consumers obtain branded general spending cards by applying over the telephone, on the Internet, or at a retail or agent location. Typically, the program provider establishes pooled accounts or cardholder sub-accounts drawn on the pooled account with a financial institution. The functions or features available to cardholders depend on the card structure. These functions may include the ability to use the card for both PIN and signature transactions. Funds can be loaded onto the card account in a variety of ways, including electronic transfer of wages and salaries, account-to-account transfers, cash loads at a program provider's or its agents' locations, and paper checks sent by mail or accepted by agents of the program providers.[9] Program fees may be assessed for a range of cardholder activities, and fee structures vary across general spending card programs. For example, depending on the program, cardholders may pay fees—typically set by the program provider—related to account setup, monthly maintenance, fund loads, cash withdrawals, purchase transactions, and balance inquiries, among other types of account-based activities.[10]

Figure 1 depicts a simple general spending reloadable card program offered by nonbank providers.[11] Services that enable and support general spending reloadable card programs, such as transaction processing, program administration, and customer service, may be handled by third-party service providers, the bank issuer, or the program sponsor—or a combination of the three. The numerous market participants associated with providing these programs, combined with the range of potential functionality and the many possible ways to load funds to these cards, result in much product variation, particularly in pricing structures, across general spending card programs.

Figure 1. Branded General Spending Reloadable Cards: Nonbank Program Providers



Source: Cheney and Rhine (2006b)

Prepaid cards may be a valuable financial tool for consumers (Jacob et al, 2005). They are easily purchased and funds can be transferred to the prepaid card account from a growing number of locations and through a variety of methods. Individuals unable to open a traditional deposit account because of poor or no credit history are better able to obtain and use prepaid cards. Moreover, prepaid cards are a way to gain immediate access to funds at a cost, in some cases, which is lower than some other alternatives for unbanked or underbanked consumers. The pay ahead nature of these financial instruments also makes them difficult to overdraft, thereby substantially lowering the incidence of paying overdraft or other fees.

A recent study by Cheney and Rhine (2006a) describes how branded general spending prepaid cards are an important method for distributing financial relief to consumers affected by manmade or natural disasters. This finding was particularly true for unbanked and lower-income financial relief recipients, suggesting that branded general spending prepaid cards can be more than simply a convenient way for consumers to meet their financial transactions needs.

Prepaid Card Market Trends

While the prepaid card industry is in its infancy and the market is constantly evolving, clear trends related to card distribution, use, and marketing are emerging. The following section provides an overview of industry trends as understood primarily from the four card providers that participated in this study, and more generally from discussions with a larger number of industry providers.

Who Are Prepaid Card Users?

Generally, prepaid card providers have a limited amount of detailed demographic information on their customers. In large part, this is because cardholder information, such as household income, racial/ethnic background, gender, or household composition is not collected as part of the application process.

According to industry sources, prepaid card customers are a mix of banked and unbanked consumers. It also is not uncommon for some cardholders to have a credit card. According to findings from a variety of focus groups held by providers, some cardholders said they had negative experiences with the traditional banking system or had poor credit relationships. Of those who were banked, a variety of reasons for using prepaid cards arose. For example, some consumers preferred the “security” of prepaid cards in the sense that the cardholders did not want to link transactions to a bank account that can be tracked by family members or others. Other banked consumers said they are attracted to prepaid cards because in the past they had used direct deposit into a checking or savings account but would immediately withdraw all of the funds and use cash to avoid bank withdrawal and overdraft fees.

How Consumers Access and Load Cards

Generally, consumers have several options for obtaining prepaid general spend cards. Consumers can buy prepaid cards via phone or Internet, at check cashers, and in retail locations, such as convenience, grocery, or drug stores. Collectively, the four companies that participated in this study distribute their cards through one of these channels. To activate cards, it is common for consumers to purchase temporary, instant issue prepaid cards and subsequently provide personal information that is verified by an Internet or phone-based screening process provided through the card marketer or processor. Once personal information such as name, address, and Social Security number have been verified and the necessary due diligence is completed, providers mail permanent (usually embossed with a consumer's name), branded cards to consumers.

Transactions

In general, prepaid card transactions can be made wherever the card network brand is accepted. Consumers can make transactions via ATM, POS, or, in some cases, Internet or phone/interactive voice response (IVR). Common locations for purchases include general merchants, fast-food restaurants, utilities, and service stores. Both PIN- and signature-based transactions are usually possible with branded prepaid cards. While not all providers track or distinguish between PIN- and signature-based transactions, the general consensus is that most POS transactions—between 80 percent and 90 percent—are signature-based. Indeed, studies show that consumers prefer signature-based transactions over PIN-based transactions when given a choice.[12]

Anecdotal evidence from the providers included in this study suggests that the transaction preferences of prepaid card users are similar to banked debit card users.

Under certain circumstances, these cards can fall into negative balance. This issue is important, as the term "prepaid" implies that "overdrafting" on this type of account should be difficult, if not impossible. The understanding that overdrafts are not the norm is one of the main reasons consumers chose to use prepaid cards.Some providers limit the possibility that cardholder accounts can fall into negative balance by simply declining all transactions above the amount available on the card. A common reason why prepaid card accounts may go negative is that consumers may forget to deduct the monthly fee from their account balance. Another possibility is when signature-based transactions are made and the balance on the account is not verified by the merchant before the transaction is completed.[13] In other, less-frequent cases, deliberate overdrafting can occur, though providers believe that this is much less common than unintentional overdrafting.

Providers described various experiences with declined transactions. Some, especially those that do not allow negative balances, reported having a fairly high percentage of declined transactions—as high as 0.9 declined transactions for every approved transaction. Conversely, providers that allow for negative balances claim a high *number* of transaction declines, representing an overall low percentage of total transaction volume and a much lower number of declines for every approved transaction. Reasons for transaction declines include general cardholder account mismanagement, confusion over available balance, and misunderstanding about the card's purpose, as some consumers assume they have received a credit rather than a debit card.

These trends suggest that there is a real need for consumer education and customer service with prepaid cards. To help customers obtain a regular account of transactions and balances, most providers offer account balance information from ATM receipts, IVR, and Internet-based tools, while some offer text-message capability via customers' mobile phones or paper statements. Live customer service is normally offered through a call-in center operated by the card marketer or the processor, and fees are usually assessed for this service. Providers noted that the most common customer service inquiries are related to balance verifications and transaction authorizations. For example, if a consumer's transaction is declined, he or she may call customer service to discover why this occurred or why there was not more money than expected on the card. Other common reasons for calling customer service include disputes over fees, chargeback inquiries, and questions about electronic transfer of wage or salary funds, when applicable.

Pricing and Fees

While fees vary across branded general spending prepaid card products, there is more consistency in fees today than in the earliest days of the prepaid card industry. The following table provides a snapshot of fee ranges charged for various activities. The data is a collective representation of the fees charged by companies that participated in this study.

Table 1. General Spending Prepaid Card Pricing

Activity	Typical Fee
Purchase and activate card	$9.95 - $14.95, when applicable
Reload funds	free for electronic transfers to card, otherwise $2.95 - $5.00
Monthly fee	$4.95-$7.95, when applicable
ATM cash withdrawal	$1.00 - $2.00 (within network)
ATM balance inquiry	free to $1.00
POS transaction	free to $1.00
Customer service	
Live person	$1.00 to $3.00
IVR	free to $1.00

A hypothetical example is given of how transactions and fees might be incurred by a cardholder on a monthly basis. The consumer pays a monthly fee of $6.95, which includes free POS transactions plus two free ATM withdrawals on a monthly basis. After the first two free withdrawals have been made within the month, a fee of $2 is charged for each ATM withdrawal thereafter. In this example, the consumer makes four ATM withdrawals and six POS transactions during the month. The consumer also makes one customer service inquiry with a live agent for a fee of $2.50 and one balance inquiry using an IVR, which is free.

The consumer gets paid each week for four weeks. Loading the card account can be done by either having paychecks electronically transferred to the card account or by going to a designated retailer or money service business. In this example, the consumer loads funds each payday at a designated money service business at a fee of $3 for each load made to the card account. The cardholder’s total monthly fees equal $25.45.

Loading funds into the card account represent close to half of this monthly fee. If the paycheck funds had been automatically transferred electronically each payday, the cardholder would have experienced substantial savings, in this example $12.

Table 2. Hypothetical Cardholder Monthly Transactions and Costs

Type of Transactions	Monthly Fees
Recurring monthly fee	$6.95
Add funds to account electronically	0.0
Add funds to account via local distributor/vendor	$3.00 X 4 weeks
ATM withdrawals (4)	2 free + $2.00 X 2 withdrawals
POS transactions (6)	free
IVR access balance inquiry (1)	free
Live customer service inquiry (1)	2.50
Total Monthly Cost	**$25.45**

This hypothetical example conveys how monthly fees might accumulate for a general spending cardholder. Monthly fees vary from program to program and depend on the program pricing as well as the consumer's loading decisions, frequency in making ATM withdrawals, and possibly making POS transactions. Similar to conventional financial services products, it is in the best interest of consumers to shop around for the most cost-effective card program that meets their financial transactions needs.

More recently, providers have begun to pursue monthly account fee options rather than transactional-fee models. In other words, providers might set monthly fees based on a set number of transactions per month or an unlimited number of transactions per month. In some cases, unlimited PIN transactions are included for a monthly fee, while other monthly plans also include signature transactions. Card providers make varying decisions about what fees, if any, are charged for declined transactions or accounts that fall into a negative balance.

Additional Features

In addition to offering cardholders the ability to access cash, load funds, and make purchases, most card providers offer some sort of bill payment option. Some also offer a funds transfer mechanism, either in a dual card format or card-to-card funds transfer arrangement, primarily for remittances. Those providers most interested in the remittance market may be pursuing this type of feature by establishing money services business (MSB) licenses within the 50 states, while others rely on partners' MSB licenses in order to offer remittances.

Some card providers have expressed interest in pursuing a variety of additional features for their reloadable general spending card products. Key areas of interest include:

- *Rewards Programs:* The majority of providers recognize the potential value of adding rewards programs to prepaid cards. Many providers feel that their customers are looking for immediate rather than long-term rewards. Accordingly, cardholders may be more interested in obtaining instant credit for items such as additional phone minutes than in accumulating airline miles or other rewards that can be redeemed at a later date. Some providers also have expressed interest in offering add-ons such as prescription drug discount cards.

- *Credit Building:* A majority of providers acknowledge that an important segment of their customer base may either lack a credit history or may have a low credit rating. According to providers, these customers are interested in finding ways to build or repair credit using prepaid cards. There are several possible ways to accomplish this, even though the credit bureaus do not currently take prepaid card transactions into account in credit scoring models.[14]

  Numerous card providers are considering options in this area, and a handful of providers are already doing so. As an example, a deliberate overdraft-type protection product might be offered as a line of credit and reported to the credit bureaus. Or, some prepaid card providers may directly enter the credit card market and begin to offer credit cards through the same distribution and marketing channels currently used for prepaid cards such as retail stores.

- *Savings Features*: Some providers feel that savings features are unsustainable because most of their customers are living paycheck to paycheck. However, others find the idea of linking prepaid card users to a savings account to be an attractive feature for a variety of reasons. While some bank issuers are interested in the deposits gained through offering a saving feature, others see the primary motivator as a product enhancement for their prepaid card provider partners that could engender customer loyalty. And some card providers view saving as an important differentiator that could promote greater card use.

However, not all processors offer "dual purse" functionality that enables funds to be placed in different accounts or sub-accounts on prepaid cards. Moreover, the issue of when and how consumers can make "deposits" into savings accounts through prepaid vehicles unearths important state and federal regulatory concerns about what kind of entity can legally take deposits.[15] Finally, some card providers feel that rather than offering general savings accounts, specialized products such as health savings accounts may be a more attractive add-on feature.

- *Customized features*: Currently, prepaid card programs are patterned on the gift card model, making it difficult for providers to offer customized features to cardholders. For instance, credit card users often receive reduced interest rates, higher credit limits, rewards, and incentives based on their card performance. Prepaid card providers expressed interest in being able to individualize their products in similar ways so that cards could be specialized at the "user level" rather than the "card level."

Marketing Approaches

Providers utilize various marketing techniques depending on who the end-use consumer is and how the product is distributed. Most providers mentioned radio and TV as promising marketing channels, particularly programming that focuses on ethnic segments such as Spanish-speaking radio and TV venues. For some providers, the "in-store" marketing offered through aisle placement of cards proves to be the most effective technique. Card providers that distribute mainly through retail locations rely on the affinity that a customer has to shopping in that location in order to attain new business. Even in these cases, it is important to note that most providers do not expect retail clerks to help with marketing; product placement becomes the primary marketing vehicle in retail locations.

On the other hand, some providers contend that in-store marketing is ineffective in gaining customers who were not already thinking of purchasing a card. Some providers contend that relationship-based marketing is preferred, especially in cases where the card provider has a previous financial relationship with a customer (such as through a partnership with a check casher). In general, card providers feel that it is difficult to assess a positive return on investment through general public marketing channels such as bus signs, billboards, or direct mail.

Empirical Analysis

Data Description and Methodology

The data employed for this case study includes transaction and selected demographic information for 2,000 cardholders randomly drawn from four firms in the industry, with each firm randomly selecting 500 cardholders for the study. Monthly transaction data were collected over 12 months for each cardholder account during the 2005-2006 timeframe.[16] The monthly transaction information includes the number and dollar value of the loads, ATM, and POS transactions made by each cardholder over the period of the study. Eighty-three cardholders were dropped from the analysis because of account inactivity. That is, these particular cardholders did not load their account or make either an ATM or POS transaction over the period of the study. The sample size for the analysis is 1,917 active cardholders.

Measures of Transaction Activities

Prepaid card transaction activities are measured in several ways. The first measure is the average number of times a card is used monthly for loading funds into the card account, withdrawing funds from ATMs, and making POS purchases. The average number of times a card is used on a monthly basis may be either discrete units or fractional values. For example, a cardholder may make on average 1.5 ATM withdrawals or 2.2 POS transactions per month during the period of the study. This aspect of monthly average measures should be kept in mind when interpreting the results. The second measure is the monthly average dollar amount of each activity, and the third is the average dollar amount per load, per ATM, and per POS transaction.

To gain insight about the intensity of card use, several additional measures are calculated in the empirical investigation. A total fund utilization rate is calculated as the sum of the average POS dollars spent plus the average ATM dollars withdrawn each month divided by average total amount of funds loaded into the account each month. This measure explains how much of the average total funds loaded were used on a monthly basis. Similarly, POS utilization rates illustrate how much of the average funds loaded monthly were used to make POS transactions each month on average, while ATM utilization rates show how much of the average funds loaded were used to withdraw funds on average from ATMs each month.

Although cardholder accounts were active in terms of loading their card accounts or making either ATM or POS transactions, it was possible that a portion of the sample did not undertake one of these three types of activities. For instance, 3 percent of the sample did not load funds into their card account over the period of the study, and 6 percent made no POS transactions. Most notably, 45 percent of the sample made no ATM withdrawals.

Data Limitations

As part of the application process, card providers or third-party service providers, acting on behalf of the card providers, collect the cardholders' name, address, date of birth, and Social Security number. Differing processing standards and techniques among providers resulted in varying customer profile information for analysis. For example, three out of the four providers furnished the cardholders' state of residence. Of the 1,417 cardholders in the sample where state of residence is known, cardholders were located across the United States, with the largest representation in states with growing populations, such as California, Florida, and Texas.

Cardholder information such as personal or household income, race/ethnicity, gender, marital status, and household composition were not available for analysis because this type of information is not typically collected during the application process. Similarly, information about a cardholder's account or balance at the beginning or end of the month is not usually collected or monitored. As a consequence, the cardholder's account balance at the start of the study was unknown so it is possible that the reported amount of funds available for use may have been somewhat understated. Information about the location where the load, ATM, or POS activity took place (e.g., retailer, convenience store, or money service business) was furnished by only one provider and consequently could not be used in the analysis. The paucity of location information was due in large part to the distinctly different processing standards and techniques used by the other providers over the period of the study.

Information related to the cardholders' age was provided by two of the four providers. Cardholders, on average, were 35 years of age. To observe possible differences in use, cardholders were grouped into three age categories. The youngest group includes cardholders between the age of 18 and 24, the middle group includes those between 25 and 45 years of age, and the older group is 46 years of age or older. As shown in Table 3, more than half (64 percent) of the cardholders are between 25 and 45 years of age. The proportion of cardholders between 18 and 24 years of age and over 45 years of age were equally 18 percent of the sample.

Table 3. Cardholder Transaction Activities By Age Group

	Age 18-24	Age 25-45	Age 46 +
Proportion of Sample (N=913)	18 %	64 %	18 %
Average value per load ($)	114.7	149.3	123.7
Monthly average value of load ($)	52.8	106.7	68.7
Monthly average number of loads	0.4	0.5	0.4
Average value per withdrawal ($)	22.5	31.3	23.4
Monthly average value of ATM withdrawals ($)	9.3	16.3	11.1
Monthly average number of ATMs	0.2	0.2	0.2
Average value per POS transaction ($)	32.8	42.5	37.2
Monthly average value of POS transactions ($)	44.5	89.2	57.1
Monthly average number of POS transactions	1.5	2.2	1.4

A comparison of the transaction activities undertaken by cardholders in these age groups reveals that cardholders between 25 and 45 years of age load their cards slightly more frequently and make a greater number of POS purchases, in larger amounts, than do older or younger cardholders. For this group, the per load transaction size is close to $150. In terms of monthly average, the load value is close to $107. Their monthly average number of POS transactions was 2.2, for a monthly average amount of $89.20. On a per transaction basis, the value of POS purchases was $42.50. Similar to the other age groups, these cardholders make few monthly ATM withdrawals, with an average withdrawal of $31.30.

Transactions of the Average Cardholder

The transactions undertaken by the average cardholder are depicted in Table 4. During the period of the study, this cardholder loads funds into his or her account once a month, makes 3.5 POS transactions per month, and withdraws funds from an ATM less than once a month (0.77). The value of loads per transaction was almost $180. The average value of POS purchases was $39.48 and the funds withdrawn from ATMs averaged $41.35. The average cardholder had a monthly total utilization rate of 92 percent, suggesting that the vast majority of funds loaded onto the card account were drawn from POS and ATM transactions. A comparison between the monthly POS utilization and the monthly ATM utilization rates suggests that funds were primarily drawn by POS transactions.

Table 4. Average Cardholder Transactions

Description of Average Transaction	**Mean**
Number of loads per month	1.04
Funds per load transaction	$179.69
Number of POS transactions per month	3.5
Funds per POS transaction	$ 39.48
Number of ATM withdrawals per month	0.77
Funds per ATM withdrawal	41.35
Monthly average total utilization rate (monthly average funds used for POS + monthly average funds withdrawn from ATM divided by monthly average amount of funds loaded)	92%
Monthly average POS utilization rate (monthly average funds used for POS divided by monthly average amount of funds loaded)	71%
Monthly average ATM utilization rate (monthly average funds withdrawn from ATM divided by monthly average amount of funds loaded)	21%

Load Activity

Over the time frame of the study, on average, cardholders added funds to their account once a month in an average amount of $217.30. A closer look at the detailed pattern of load behavior in Table 5 shows that 32 percent of the cardholders loaded funds into their account at least once and less than twice a month; 16 percent loaded funds two or more times per month; and 49 percent of the cardholders loaded funds less than one time per month. Of the 49 percent who added funds to their account less than once a month, the vast majority (66 percent) loaded funds into their account every three months or longer. A small percent of cardholders did not add additional funds into their account, although the accounts were active with either POS or ATM transactions.

Table 5. Frequency and Value of Loads Made Into Cardholder Account

Frequency of Monthly average Loads	Percent	Average Load Per Transaction (Dollars)	Monthly Average Load (Dollars)
Zero per month	3	0.00	0.00
Less than one per month	49	172.50	67.94
At least one and less than two per month	32	184.04	241.40
Two or more per month	16	223.11	672.52

Overall average number of loads made per month = 1.04
Overall average value of loads made per month = $217.30
N = 1,917

The greater the frequency of monthly load activity, the larger the average load value both in terms of monthly average amounts and average per transaction amounts. This pattern of behavior might suggest that, as the load activity begins to mimic the expected *deposit behavior* of bank account holders, the amount of funds loaded onto the prepaid card account rises.

ATM Activity

On a monthly basis, ATMs were not heavily used by cardholders to withdraw funds. The overall monthly average use of ATMs was 0.77—less than once per month—in an average amount of $66.76. As Table 6 shows, 28 percent of the cardholders used an ATM less than one time per month; 14 percent used an ATM at least one time and less than two times per month; 13 percent used their ATM two or more times per month; and 45 percent of cardholders did not access the account with an ATM, although POS transactions or account funding did occur during the period of the study. Of the 28 percent who used an ATM less than once a month, 76 percent of them made an ATM withdrawal every two months or longer. The monthly average ATM withdrawal and the average per ATM transactions rise as the frequency of ATM use increases. For example, for those cardholders who use ATMs two or more times per month, the average monthly withdrawal is $359.35.

Table 6. Frequency and Value of ATM Withdrawals

Frequency of Monthly Average ATM Withdrawals	Percent	Average ATM Per Transaction (Dollars)	Monthly Average ATM Transaction (Dollars)
Zero per month	45	0.00	0.00
Less than one per month	28	71.94	23.85
At least one and less than two per month	14	71.26	91.13
Two or more per month	13	87.19	359.35

Overall average number of ATM withdrawals per month = 0.77
Overall average value of ATM withdrawals per month = $66.76
N = 1,917

POS Activity

The average number of POS transactions made per month was 3.52 for an average amount of $142.39 per transaction. As shown in Table 7, 17 percent of the cardholders made at least one and less than two transactions per month; 12 percent made at least two and less than three transactions per month; 14 percent made at least three and less than five transactions per month; and 24 percent made five or more transactions per month.

Table 7. Frequency and Value of POS Transactions

Frequency of Average POS Transactions	Percent	Average POS Per Transaction (Dollars)	Monthly Average POS Transaction (Dollars)
Zero per month	6	0.00	0.00
Less than one per month	27	44.38	14.96
At least one and less than two per month	17	44.99	58.66
At least two and less than three per month	12	37.52	88.28
At least three and less than five per month	14	40.70	154.65
Five or more per month	24	40.03	396.55

Average number of POS transactions per month = 3.52
Average value of POS transactions per month = $142.39
N = 1,917

Of the 27 percent who made less than one POS transaction per month, 70.6 percent made a POS transaction every two months or longer. Six percent of the cardholders did not conduct POS transactions, although these card accounts were active with ATM withdrawals and load activity. Consistent with other usage indicators, the greater the number of monthly POS purchases, the larger the monthly average value of POS transactions made.

Cardholder Utilization of Funds Loaded

Table 8 reports how the monthly average funds loaded into the account are utilized. The monthly average total funds spent is calculated as the monthly average dollar value of POS transactions plus ATM withdrawals made, POS($) + ATM($). The total funds utilization rate is calculated as the monthly average of total funds utilized divided by the monthly average load value, POS($) + ATM($)/LOAD($). The POS utilization rate is calculated as the monthly average of POS transaction dollars divided by monthly average load value, POS($)/LOAD($). The ATM utilization rate is calculated as the monthly average of ATM transaction dollars divided by monthly average load value (ATM($)/LOAD($). The utilization rates are multiplied by 100 to interpret as percentage values.

The total funds utilization rate provides information about the monthly average use of loaded funds over the study's timeframe. Similarly, the POS utilization rate measures the percentage of average monthly total loaded funds used to make POS transactions, while the ATM utilization rate measures the percentage of average monthly total loaded funds used to make ATM withdrawals. Accordingly, the sum of the POS utilization rate and the ATM utilization rate equals the total funds utilization rate.

Table 8. Utilization of Funds Loaded into the Prepaid Card Account

Load Frequency (Monthly Average)	Total Funds Spent[1] (Dollars)	Total Fund Utilization Rate[2] (Percent)	POS Utilization Rate[3] (Percent)	ATM Utilization Rate[4] (Percent)
	M o n t h l y		A v e r a g e s	
More than zero and less than one per month	69.5	95.9	78.5	17.4
At least one and less than two per month	227.8	86.6	61.8	24.8
Two or more per month	640.8	93.7	66.8	26.9

[1] Total funds spent = ATM($) + POS($).
[2] Total fund utilization rate = [ATM($) + POS($)/Load ($)] X 100.
[3] POS utilization rate =[POS($) / Load($)] X 100.
[4] ATM utilization rate = [ATM($)/Load($)] X 100.
N = 1,867

For simplicity, Table 8 reports the transactions made by cardholders who made at least one load during the study period.[17] As Table 8 indicates, the monthly average total funds utilization rate is close to 100 percent, suggesting that the majority of funds loaded into the card account are drawn off the account each month. As suggested by the relatively higher POS utilization rates, the bulk of funds are used to make POS transactions. For example, two-thirds of the funds loaded by cardholders making more than two loads per month are for POS transactions, while about 27 percent of the funds are withdrawn from ATMs. Not surprisingly, as the monthly average load activity increases, the utilization rates for POS transactions and ATM withdrawals rise. These findings offer further evidence of a pattern of behavior that begins to mimic the expected deposit behavior of bank account holders.

Table 9 reports the average number of POS and ATM transactions made on a monthly basis.[18] Similar to the findings reported in Table 8, the majority of transactions were for POS transactions rather than ATM withdrawals. For example, cardholders who load their card account at least once and less than twice per month make an average of five transactions per month. Four of these transactions are for POS purchases and one is to make an ATM withdrawal. The findings from Tables 8 and 9 suggest that the greater dollar volume and number of transactions are for making POS purchases than for withdrawing cash from ATMs.

Table 9. Number Of Transactions and Withdrawals

Load Frequency (Average)	ATM (#)	POS (#)	Total Number of Transactions[1]	POS Relative to Total Number of Transactions[2] (Percent)	ATM Relative to Total Number of Transactions[3] (Percent)
More than zero and less than one per month	0.3	1.3	1.6	87.6	12.4
At least one and less than two per month	0.9	4.1	5.0	80.9	19.1
Two or more per month	2.2	9.6	11.9	80.9	19.1

[1] Monthly average total number of transactions =ATM(#) + POS(#).
[2] POS relative to total number of transactions = [POS(#)/ ATM(#) + POS(#)] X 100.
[3] ATM relative to total number of transactions = [ATM(#) / ATM(#) + POS(#)] X 100.
N = 1,867

Thus far, the analysis has included the transaction activities of all cardholders, including those who did not make POS or ATM transactions. Table 10 reports the average transaction values for cardholders who actively used their card to make POS purchases or ATM withdrawals over the period of the study. At every monthly load frequency, the dollar amount that cardholders withdrew in an average ATM transaction is considerably larger than the amount spent in an average POS transaction.

Table 10. Transaction Values for Cardholders With Positive Activity

Frequency of Monthly Average Loads	Average POS Per Transaction (Dollars)	Average ATM Per Transaction (Dollars)
Less than one per month	41.5	71.2
At least one and less than two per month	41.0	75.2
Two or more per month	47.6	83.5
Sample Size	1759	1031

Concluding Remarks

Fueled by the growth in electronic payments, the prepaid card market is highly dynamic. Branded general spending reloadable cards can function in much the same way as traditional checking deposit accounts. Yet, little has been documented or analyzed about consumer use of these financial products. This study employs a unique dataset to learn more about how cardholders use these prepaid cards.

This case study shows that most cardholders spent close to 100 percent of the funds loaded into their card accounts each month. In addition, cardholders not only use POS transactions more frequently than ATM withdrawals but also spend most of their funds through this method. This suggests that cardholders may be using general spending prepaid cards as a substitute for cash in making purchases. Viewed more broadly, the greater use of general spending prepaid cards for POS transactions may be reflective of the overall trend toward making electronic payments.

Several important implications can be drawn from this case study. First, as the industry matures and stabilizes, it is critical that there be greater standardization in the application process, in transaction processing, and in data warehousing. Gathering data from four providers to create a single dataset demonstrated how disparate these processes are now, and also how little commonality there is among providers and processors in terms of how they define data fields and what data they choose to retain. Without greater consistency in record-keeping, it will be challenging for the prepaid card industry to develop benchmarking and other tools that are the hallmark of mature, robust industries. By establishing consistent standards for customer application and card processing procedures, firms would have more detailed cardholder information that could enable them to create additional card features, provide more versatility in card use, and promote additional cross-selling opportunities. For example, having a better understanding of the prepaid market could help firms further stylize their products and features to meet the preferences of their customers. Moreover, as policymakers give more attention to the expanding prepaid card industry, additional market intelligence about the prepaid card customer would be useful to place the industry into the larger context of financial services policy.

Second, consumers would benefit from having a better understanding about what general spending prepaid cards are and how these prefunded financial service products can be used to meet their financial transactions needs. Moreover, consumers need to understand that certain signature-based transactions can trigger merchant preauthorizations and financial institution holds on card account funds that could result in negative balances. According to industry sources, it is not uncommon for consumers to confuse prepaid cards with credit cards. This may also suggest that consumers need a clearer understanding about how electronic payments work more generally. For example, how well do consumers understand the potential advantages or possible drawbacks from making automatic transfers of wage and salary income, child support payments, or other income sources into their prepaid card account? Or, how well do consumers understand the terms and conditions of prepaid cards relative to other financial services products? There is an important role for financial educators and counselors to help bring this information to consumers, especially the unbanked and underserved.

The prepaid card industry also has a role to play in educating consumers. It is still quite early in the adoption cycle of general spending prepaid cards, which have only been widely available in the market for the last few years. Add to that the lack of product standardization described above, and it is easy to understand why some consumers become confused. While individual prepaid card companies can make a more vigorous effort to provide explanatory materials both at the point of purchase and afterward, the networks and the industry association are in a unique position to create broad-reaching public awareness and marketing campaigns.

Finally, the results of this study bolster the case for linking prepaid cards to the broader credit reporting system and adding savings mechanisms to them. Given how heavily consumers in the study utilize the funds they load on prepaid cards, it suggests that transactions made via general purpose prepaid cards represent a substantial portion of the average user's funds put into the account for meeting financial transactions needs. As such, data that reflects consumer loading and transactional behavior could be an important new source of information for financial services companies trying to reach consumers with thin or no credit files, providing consumers with increased access to financial services. Anecdotally, card providers report that consumers are looking for ways to build their credit and often mistakenly believe that prepaid cards offer that pathway. Linking prepaid cards to the credit reporting system can provide a significant value proposition for consumers to use a card product and keep using it over time, thus bolstering the bottom line for card providers. Similarly, adding a savings feature to prepaid cards can promote "stickiness" and longer-term use. A savings mechanism also would provide consumers with a structure and a reason for leaving funds on the card and thus lowering the utilization rate.

Through this case study, policymakers, financial institutions, researchers, and community-based organizations can gain insights about how these relatively new financial services products are used by cardholders. To our knowledge, there is no publicly available transaction data in the general spending prepaid card space. The data set used in this study include cardholders who were randomly drawn from each participating firm; however, the firm-level data are drawn from industry representatives that chose to participate in this study. This selection issue should be kept in mind when interpreting the findings from this analysis. Nevertheless, this case study lays the foundation for future research about this rapidly changing industry.

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Endnotes

[†] The views expressed are those of the authors and may not reflect the opinions of the Federal Reserve Banks of New York and Chicago or the Federal Reserve System. Sherrie L.W. Rhine, senior economist, Office of Regional and Community Affairs, Federal Reserve Bank of New York until February 28, 2007 and beginning March 5, 2007, the Community Affairs Department, The Office of the Comptroller of the Currency, Washington, D.C. Katy Jacob, Economic Research specialist, Federal Reserve Bank of Chicago. Yazmin Osaki, assistant economist, Office of Regional and Community Affairs, Federal Reserve Bank of New York. Jennifer Tescher, director, The Center for Financial Services Innovation, Chicago.

[1] For a detailed discussion about closed- and open-loop prepaid cards, see Cheney and Rhine, (2006b).

[2] According to Tim Sloane, Mercator Advisory Group, these figures include 19 card segments: travel, open money and financial services, open gift, remittance cards / p2p, business travel, events and meetings, employee and partner incentives, consumer incentives, relocation cards, campus, in-store gift, distributed gift, court ordered payments, state unemployment, insurance, payroll, employee benefits, fsa/hsa tax deferred programs, and purchasing.

[3] The Federal Reserve System report found that 55 percent of these noncash transactions were completed using debit or credit cards, through automated clearing house (ACH) transactions, or electronic benefit transfers (EBT). The remaining 45 percent of these transactions were made by check. See “The 2004 Federal Reserve Payments Study,” Federal Reserve System, Appendix A, December 2004, http://www.frbservices.org/.

[4] Swartz et al. (2004) finds evidence to suggest that the shift away from cash and checks to toward electronic payments results in net benefits to society.

[5] Excluded from this study are payroll cards, a class of open-loop prepaid cards typically offered by employers to employees as a way to lower payroll expenses. For more information about payroll cards, see Frumkin et al. (2005).

[6] For example, Todd Brockman, Visa, describes general spending cards as serving the unbanked consumer demographic segment (Brockman, 2004).

[7] The companies participating in the study include: Diamond Financial Products, Southfield, Mich.; Green Dot Corporation, Monrovia, Calif.; PreCash, Inc., Houston, Texas; and one program managed by BankFirst, Sioux Falls, S.D.

[8] An example is the business arrangement between Secure Cash Network, Inc., a prepaid card provider, and Circle K, a convenience store chain with roughly 1,900 company-operated locations in 16 states, primarily located in the southern, western, and Midwestern parts of the country.

[9] An example of an account-to-account transfer is when a family member deposits the cardholder’s paycheck into his or her own checking account. The family member electronically transfers these funds to the general spending card account (account-to-account).

[10] See Rhine and Su (2005) for a broader discussion of cardholder fees associated with general spending reloadable cards.

[11] For a technical discussion about the role of nonbanks in the payments system, see Bradford, Davies, and Weiner (2003).

[12] Killifer, V., “Consumer Use of Debit, Prepaid Cards Heats up Market,” ATMMarketplace.com, August 9, 2006.

[13] The rules established by the payment networks allow merchants, in certain cases, to force post transactions regardless of the balance in the account—or, in this case, on the card.

[14] For more information on the potential of using prepaid cards for credit building, see Jacob, Rhine, Su, and Tescher, (2005) and Jacob (2006).

[15] For more information on issues related to money service businesses, see Jacob (2005).

[16] Specifically, the time frames were: September 2004-August 2005 for Diamond Financial Products cardholders; September 2004-August 2005 for Green Dot Corporation cardholders; January 2005-December 2005 for PreCash, Inc. cardholders; and January 2005-December 2005 for BankFirst cardholders.

[17] During the survey period, 50 cardholders (2.6 percent) did not load funds into their account.

[18] Following the methodology employed in Table 7, the transaction information for cardholders who did not load their account at least once during the period of the study were not reported in Table 8.