Dēmos
A NETWORK FOR IDEAS & ACTION

Who Pays?

The Winners and Losers of Credit Card Deregulation

Jennifer Wheary
and
Tamara Draut

BORROWING TO
MAKE ENDS MEET
SERIES

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Borrowing to Make Ends Meet - Series Information

Who Pays? is part of a new Dēmos publication series that examines trends in household indebtedness and its impact on economic security. The first report in the series, *A House of Cards,* chronicled the housing boom and the subsequent refinancing wave. The second report, *Borrowing to Stay Healthy,* examined how medical expenses impact household credit card debt. Other reports in the series will offer new research and analysis on debt among low- and middle-income households, examine the driving factors behind the rise in debt, and advance innovative policy solutions for improving the economic stability of America's households.

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Introduction

It has been nearly two decades since the credit card industry was deregulated with the promise of bringing greater competition and lower prices to consumers. In addition, technological advancements in underwriting, commonly referred to as risk-based pricing, have widened the market for credit cards to lower- and moderate-income consumers. The result: In 2004, 35 percent of households with incomes below $10,000 had credit cards, while more than half of households with incomes between $10,000 and $24,999 had credit cards.[1]

While much is made of this democratization of credit, there is less public awareness and consumer knowledge about how the cost of credit varies across different segments of the population. Last year alone, households received nearly 8 billion credit card solicitations in their mailboxes.[2] Often these solicitations promise teaser rates of 0 percent, or they might dangle the carrot of airline miles or cash-back rewards.

But as our study uncovers, for about one-third of all cardholders, the carrot is not nearly as big as the stick. Today, almost all of the top 10 issuers of credit cards reserve the right to change the APR on the account at any time, for any reason.[3] A single late payment—even by as little as minutes—can result in penalty interest rates that average 24.51 percent. Under the shield of deregulation, credit card companies have shifted the cost of credit to individuals least able to afford it—using those profits to underwrite the free loans and bonus miles, rewards and other benefits enjoyed by higher income households. Our research found that four groups—low-income individuals, African Americans, Latinos and single females—bear the brunt of the cost of credit card deregulation through excessive fees and high interest rates.

KEY FINDINGS:

- One-third of cardholders are paying interest rates in excess of 20 percent.
- Cardholders with household incomes below $25,000 who have credit card balances are two times more likely than households earning $50,000, and five times more likely than households earning over $100,000, to pay interest rates higher than 20 percent.
- Cardholders with balances and household incomes between $25,000 and $50,000 are nearly two times as likely as households earning more than $50,000, and four times more likely than households earning over $100,000, to pay such rates.
- Credit cardholders in the bottom two income quintiles with credit balances are more than twice as likely to pay penalty interest rates as those in the top two income quintiles.
- African-American and Latino credit card holders with balances are more likely than whites to pay interest rates higher than 20 percent.

- Seven percent of white cardholders, 15 percent of African-American cardholders, and 13 percent of Latino cardholders pay interest rates higher than 20 percent.
- Eleven percent of single women with credit card balances pay interest rates higher than 20 percent compared to 6 percent of single men with credit card balances.
- In 2004, 21 percent of consumers reported missing or making a late payment.
- Forty percent of African-American and 26 percent of Latino borrowers reported paying late or missing a payment.
- Twenty-two percent of single women and more than 30 percent of borrowers with incomes less than $25,000 also reported making a late payment or missing a payment.

While personal responsibility must be exercised by consumers, the lending industry must also exercise corporate responsibility. In the current regulatory environment, the bargaining power between lender and borrower is heavily tilted toward the lender. The fact that the highest consumer costs are disproportionately borne by low-income families, African Americans, Latinos and single females raises additional moral questions and underscores the need to reexamine the public policy and regulatory framework related to the credit card industry.

Background: A Deregulated Credit Card Market

The credit card industry is measured on a scale of billions. Eight billion is the approximate number of credit card offers Americans received in 2006. The amount of debt owed on credit cards is $800 billion;[4] $30 billion dollars is how much lenders profit each year.[5]

The billion-dollar scale of the industry must be viewed in the context of a wave of deregulatory actions that began in the late 1970s with a Supreme Court decision. In *Marquette National Bank of Minneapolis v. First Omaha Service Corp* (hereafter "Marquette") the Court ruled that Section 85 of the National Banking Act of 1864 allowed a national bank to charge its credit card customers the highest interest rate permitted in the bank's home state—as opposed to the rate in the state where the customer resided.[6] As a result, regional and national banks moved their operations to states with fewer protections for borrowers, such as South Dakota and Delaware, where there were no usury ceilings on credit card interest rates.

In the mid-1990s, further deregulation of the credit card industry occurred as the result of another Supreme Court ruling. In *Smiley v. Citibank*, the Court ruled that fees could be defined as "interest" for the purposes of regulation and thus were subject to the rules set by *Marquette*. As such, the laws regulating fees were now to be determined by the state laws in which the bank was located.

The practical result of these two decisions is that state usury laws, which used to set limits or rules around interest rates and fees, are now toothless. Since Congress hasn't stepped in to fill the void in consumer protection, there are no limits concerning when and how often card issuers can raise APRs or revise contract terms. In this deregulatory environment, the demand side of the market is split into two segments: consumers who pay low, competitive, regular APRs and the consumers who pay the high, delinquent, penalty APRs. Because of deregulation, each individual card issuer has virtually an unlimited ability to revise its APR at any time for any consumer. Therefore, firms are able to "price discriminate" by charging low APRs to consumers who pay their bills on time and charging high, penalty APRs to the consumers who miss a payment—or whose payment arrives and is processed just minutes after their daily cutoff time.

Price discrimination explains an important paradox in the credit card industry: the unfettered ability to offer different APRs and contract terms to different consumers makes the credit card market highly competitive for new customers. Firms compete by offering lower and lower introductory APRs and other perks, such as frequent flyer miles, consumer product rewards, and "cash-back" benefits to lure new customers. This competition decreases margins and should therefore decrease industry profitability over time—but it doesn't because the lucrative side of the credit card business comes from those who revolve their balances. It's a side of the market missing any competitive fever. All the major card issuers feature similar terms: high penalty interest rates and fees, the ability to retroactively apply rate increases, and the right to change terms at any time, for any reason.

As credit card debt has grown tremendously over the last decade, it has become even more important to understand how deregulation has impacted households. The research presented in this report provides an initial answer to a critically important, but unanswered, question: *Who bears the cost of deregulation in the credit card industry?*

Uncovering the Facts About Who Pays the Most to Credit Card Companies

Dēmos commissioned original research from Dr. Jing Jian Xiao, Professor of Consumer Finance at the University of Rhode Island, along with Radovan Vadovic, Ph.D. candidate in economics at the University of Arizona, to determine which consumers contribute most to credit card industry profits. A more detailed description of their methodology, including the equations used in their calculations, can be found later in this report, as well as in the technical appendix and the academic papers on which this brief is based.[7]

ONE-THIRD OF ALL CREDIT CARD HOLDERS PAY INTEREST RATES OF 20 PERCENT OR HIGHER.

Using data from the Federal Reserve and CardData, an online database of credit card industry information, the study categorized cardholders into three groups: those paying 0 percent or low introductory APRs; those paying rates between 10 percent and 20 percent; and those paying interest rates in excess of 20 percent. The study determined statistically that 31 percent of credit card accounts fall into the first group, 36 percent fall into the second, and 33 percent fall into the third. (See Technical Appendix for methodology.) This pattern supports the suggestion that the third group, those accounts paying punitively high interest rates, subsidize the low introductory APRs paid by the first group.

Table 1: Distribution of Interest Rates Paid By Cardholders with Balances

Percent of Credit Card Accounts with Balances	Interest Rate
31%	0% or low introductory rate
36%	Regular interest rate
33%	Interest rate higher than 20%

The study then used the Survey of Consumer Finances (SCF) to determine which households report paying the highest interest rates. The Survey of Consumer Finances is conducted every three years by the Federal Reserve Board, providing comprehensive data on household assets and liabilities. Several SCF questions were used to make this determination. These questions probed cardholders' interest rates and late payments. The frequency of these behaviors was then calculated on a sample weighted by income, marital status, gender, race and ethnicity.

Going Inside the Credit Card Market: Different Borrowers, Different Prices

FOUR TYPES OF BORROWERS

Credit card holders can be categorized into four groups. There are *Non-Users* who carry credit cards but do not utilize them. There are also *Convenience Users* who accumulate balances each month, but pay them in full without incurring interest charges. *Revolvers* are users who accumulate balances each month without paying them in full and incurring monthly interest charges as a result. *Late Payers* make tardy payments or miss payments altogether, accumulating balances and incurring interest charges and late fees. These users are also subject to much higher interest rates.

Table 2: Major Types of Credit Card Users

Consumer Type	Description
Non-Users	Have credit cards but do not use them
Convenience Users	Accumulate balances, but pay them in full each month, without incurring interest charges
Revolvers	Accumulate balances without paying them in full and pay monthly interest
Late Payers	Accumulate balances and miss payments, incurring higher interest charges and late fees

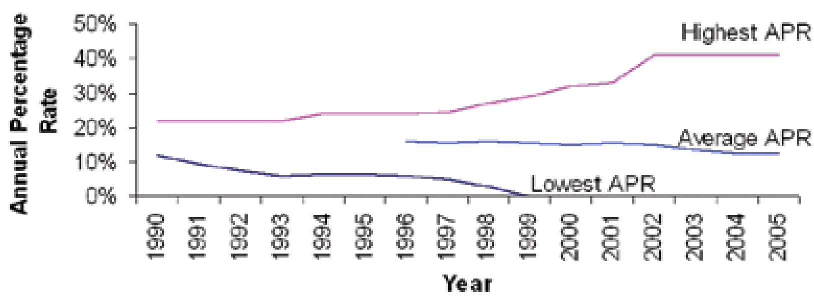
Revolvers and *Late Payers* are the credit card industry's most lucrative customers. These groups carry balances and pay interest and, therefore, generate the bulk of industry profit and bear most of its costs. *Late Payers* are especially lucrative to the credit card industry because they pay higher penalty interest rates and incur late fees, which result in rapidly growing balances.

Which Credit Card Holders Pay the Most?

One of the most important determinants of the cost of credit is the interest rate. For credit card holders who revolve a balance, the cost of carrying a balance is determined by the credit card interest rate. Credit card interest rates, usually published as the Annual Percentage Rate (APR), determine the amount of interest paid each month. The higher the rate, the more interest paid. While the average credit card interest rate has decreased over the last 10 years to 12.71 percent, the divergence between the lowest and highest rates has actually increased dramatically. In 1990 the lowest credit card interest rate reported was 11.88 percent, and the highest interest rate reported was nearly double, at 22 percent. By 2004 the lowest credit card interest rate reported had dropped to 0 percent, while the highest reported credit card interest rate stood at an astounding 41 percent.[9] (See Chart A.)

IN 1990 THE LOWEST APR REPORTED WAS 11.88 PERCENT, AND THE HIGHEST 22 PERCENT. BY 2004, THE LOWEST WAS 0 PERCENT, WHILE THE HIGHEST JUMPED TO 41 PERCENT.

Chart A: Credit Card Annual Percentage Rates, 1990–2005



Sources: CardData.com (Lowest APR), Federal Reserve Board (Highest and Average APR)

As illustrated in Chart A, fierce competition among credit card issuers for new cardholders has driven interest rates to zero. However, the presence of very high, punitive interest rates shows that the market for cardholders who are *Revolvers* or *Late Payers* is not competitive in terms of interest rate pricing.

About a third of credit card accounts with balances pay little or no interest each month, which essentially amounts to a free or very low-cost loan. More than a third (36 percent) of accounts pay the regular interest rate. The final third of accounts pay interest rates that range from more than 20 percent to as high as 41 percent. (See Table 1.)

Our findings from the 2004 Survey of Consumer Finances reveal that four groups—low-income individuals, African Americans, Latinos and single females—are more likely to report paying interest rates higher than 20 percent.

LOW-INCOME AND LOWER-MIDDLE INCOME CARDHOLDERS ARE ABOUT FIVE TIMES MORE LIKELY THAN THE WEALTHIEST CARDHOLDERS TO PAY MORE THAN 20 PERCENT INTEREST.

INTEREST RATE BY INCOME

Cardholders with balances and household incomes below $25,000 are more than twice as likely as households earning $50,000, and over five times more likely than households earning $100,000, to pay interest rates higher than 20 percent. Cardholders with balances and household incomes between $25,000 and $50,000 are nearly two times as likely as households earning more than $50,000, and more than four times as likely as households earning $100,000, to pay such punitive rates. (See Table 3.) Similarly, credit card holders in the bottom two income quintiles with credit balances are more than twice as likely to pay penalty rates as those in the top two income quintiles.

Table 3: Households Paying More Than 20% APR, by Income

Income Group	Percent with Interest Rate > 20%
< $10,000	15.1
$10,000 – $25,000	11.9
$25,000 – $50,000	11.2
$50,000 – $100,000	6.7
> $100,000	2.7

Income Quintile	Percent with Interest Rate > 20%
Bottom 20%	12.3
Lower-middle 20%	12.2
Middle 20%	7.3
Upper-middle 20%	6.4
Top 20%	2.7

INTEREST RATE BY RACE

African-American and Latino credit card holders with balances are more likely than whites and borrowers of other races to pay interest rates higher than 20 percent. Seven percent of white cardholders pay interest rates higher than 20 percent. About 15 percent of African-American and 13 percent of Latino cardholders pay interest rates greater than 20 percent.

AFRICAN-AMERICAN AND LATINO CARDHOLDERS ARE MUCH MORE LIKELY THAN WHITE CARDHOLDERS TO PAY INTEREST RATES HIGHER THAN 20 PERCENT.

Table 4: Households Paying More Than 20% APR, by Race/Ethnicity

Race/Ethnicity	Percent with Interest Rate > 20%
African American	14.9
Latino	12.9
White	7.1
Other	7.4

INTEREST RATE BY GENDER

Eleven percent of single women with credit card balances pay interest rates higher than 20 percent compared to 6 percent of single men with credit card balances. (See Table 5.)

Table 5: Households Paying More Than 20% APR, by Gender

Gender	Percent with Interest Rate > 20%
Single Women	11.0
Single Men	5.8

Borrower Beware: Penalties Are Likely

The modern credit card industry is one in which the lender has considerably greater leverage and power in the contract than does the consumer. Over the last decade, all the major issuers have adopted practices designed to trap consumers in high-cost debt when they slip-up—which may mean a tardy payment or going over their credit limit. One slip-up can cause a cascade of penalties. While the market for new cardholders is competitive, with card issuers enticing new customers with the promise of rewards such as miles and low introductory rates, there is very little difference among the top 10 issuers in the policies and practices for those who revolve their balances.

A PAYMENT MADE ONE DAY LATE CAN COST AN AVERAGE $28 FEE AND RAISE A CARDHOLDER'S INTEREST TO A PENALTY RATE OF 24 PERCENT OR MORE.

THE LATE PAYMENT PENALTY

As families struggle to manage monthly credit card payments, they face difficult choices. Increasingly, late payments represent a financial survival strategy rather than a sign of irresponsible behavior.[10] For many credit card holders, late payments are a result of unfair and often arbitrary payment deadlines. A credit card payment is considered late if it arrives after 1:00 pm or 2:00 pm on the day it is due. A late fee of $28, on average, is levied by issuers if a payment is just one day overdue.[11] In addition to charging a fee, credit card companies will also raise the rate on the card for a tardy payment, with penalty rates now averaging just over 24 percent. In addition, these new higher rates are typically applied retroactively to the existing balance—making it much more difficult for households to pay down the existing debt. In one survey of card practices, only three issuers were found to not have penalty rates on their cards—and none of the three banks were close to being in the top 10 issuers, who now control nearly 90 percent of the market.[12]

UNIVERSAL DEFAULT

In addition, consumers also can find themselves paying higher interest rates as a result of an industry practice known as *universal default*. Universal default is the policy of raising the interest rate on a credit card due to changes in a consumer's credit score, often due to a late payment to another creditor. For example, if you make a late payment on Card X, Card Y will raise your interest rate as well—even though you have never missed or made a late payment on Card Y.

Universal default has the chilling effect of shifting consumers into the penalty phase for all of their credit card accounts because of a single activity on one of them. Moreover, the addition of loan obligations such as a mortgage or a car loan, as well late payments on these loans, can trigger a higher interest rate on a credit card. These forces trap too many borrowers in a dangerous cycle of debt, placing them in a precarious state where one small mistake can set off growing indebtedness across all of their accounts.

WHO PAYS THE PENALTY?

In order to understand who bears the bulk of penalty fees and higher credit card interest rates, we need to know who is missing or making late payments on any type of debt.

UNIVERSAL DEFAULT CAN MEAN THAT A PAYMENT LATE ON ONE CARD WILL RESULT IN HIGHER INTEREST RATES ON OTHER, UNRELATED ACCOUNTS.

In 2004, 21 percent of consumers reported missing or making a late payment. Forty percent of African-American and 26 percent of Latino borrowers reported paying late or missing a payment. Twenty-two percent of single women and more than 30 percent of borrowers with incomes less than $25,000 also reported making a late payment or missing a payment. (See Technical Appendix for methodogy.)

Among those who reported paying late or missing a payment, 42 percent reported the payment was late 60 days or more. These borrowers were more likely to be low-income, single or nonwhite. Among those with incomes less than $10,000, 50 percent reported a payment that was at least 60 days late. Among those with incomes between $10,000 and $25,000, 53 percent reported payment that was at least 60 days late. For single females that figure was 48 percent. For African Americans it was 44 percent, and for Latinos it was 29 percent.

Policy Recommendations

While personal responsibility on the part of the consumer is important, the lending industry must also demonstrate corporate responsibility. In the current regulatory environment, the bargaining power between lender and borrower, is heavily tilted toward the lender. As one major issuer clearly states in its solicitation: “We reserve the right to change the terms of the account, including APRs, at any time, for any reason.” The practice of tripling or even quadrupling a cardholder’s interest rate for tardy or missed payments—in combination with applying this change to prior balances and to credit cards on which the borrower has never missed or made a late payment—amounts to unfair lending and must be addressed. The fact that the high consumer costs associated with this practice are disproportionately borne by low-income families, African Americans, Latinos and single females raises additional moral questions and underscores the need to reexamine appropriate regulation and public policy addressing the credit card industry practices.

Addressing Industry Practices and Enacting a Borrower's Security Act

Today there are no legal bounds to the amount of fees and interest credit card companies can charge borrowers. In addition, credit card companies, unlike other lenders, are allowed to change the terms on the card at any time, for any reason. As a result, cardholders often borrow money under one set of conditions and end up paying it back under a different set of conditions. Legal limits on interest rates and fees have traditionally been established by the states. However, because card companies can export interest rates from the state in which they are based, consumers are left unprotected from excessive rates, fees and capricious changes in account terms.

Low-income, Latino, African-American and single female consumers suffer most from this lack of protection. As a result, these groups in effect subsidize low introductory APRs, the nearly 8 billion credit card offers sent out each year, and the estimated $30 billion generated profits.

Dēmos has developed a Borrower's Security Act that would restore responsible credit practices to the lending industry by extending fair terms to borrowers. Specifically, the reforms should include the following:

- Eliminate universal default terms by requiring that any penalty rate or fee increase be linked to a material default directly related to that specific account.
- Limit penalty rate increases to no more than 50 percent above the account's original rate. (For example, a 12 percent interest rate could only be increased to an 18 percent penalty rate.) This would still provide the issuer with significant additional protection against payment risk.
- Provide at least 30 days' advance notice that the card issuer is invoking the penalty pricing clause.
- Prohibit the retroactive application of pricing changes so that rate changes are applied only to purchases made after the issuer gives notice of the rate change.
- Ensure that grace periods and payment posting rules and practices are not designed to trigger late charges and penalty rates for minor tardy payments.
- Require disclosure of the full costs of making only the minimum payments on a credit card, including the number of years and total dollars it will take to pay off the debt.

Technical Appendix

An Excerpt from "The Cost of Deregulating the Credit Card Industry and its Implications for Consumers," Vadovic and Xiao, 2006.

This brief is based on research commissioned by Dēmos and conducted by Professor Jing Jian Xiao of the University of Rhode Island and Radovan Vadovic of the University of Arizona. Readers are referred to their academic paper, "The Cost of Deregulating the Credit Card Industry and its Implications for Consumers," for further details. Below is an edited excerpt detailing the methodology used in this work.

Relative Distribution of the Regulation Cost among Consumers

Credit card companies earn the majority of their revenue by trapping delinquent consumers in debt. The natural question to ask is: "What share of consumers pay the excessive interest on their loans and thus bear the cost of the competition in the industry?" We have already argued that these delinquent consumers pay for the competition between issuers by enabling them to issue cards with long (commonly one year) introductory 0 percent APRs. In this section we will attempt to estimate who shares what proportion of the interest revenue.

There are three groups of consumers:

1. Those who pay a low (we assume 0 percent) introductory APR.

2. Those who pay the regular APR—which falls in the range between 10 percent and 20 percent.

3. Those who pay the delinquent, punitive APR, which is anywhere from 20 percent to 41 percent.

We are interested in evaluating the proportion of consumers in each category.

Calculating the Proportion of the "Subsidized" Consumers

As a first step we find the proportion of "subsidized" consumers who pay 0 percent APR. Call ϕ_i the proportion of consumers belonging in the group $i \in \{1,2,3\}$, as defined above. Then, we have

$$\phi_1(0\%)+\phi_2 APR_2+ \phi_3 APR_3 = APR_A \tag{5.1}$$

Similarly,

$$\frac{\phi_2}{\phi_2+\phi_3}APR_2+\frac{\phi_3}{\phi_2+\phi_3}APR_3 = APR_B \tag{5.2}$$

Next, we can rewrite expression (5.1) as

$$\phi_1(0\%) + (1-\phi_1)\left(\frac{\phi_2}{\phi_2+\phi_3}APR_2 + \frac{\phi_3}{\phi_2+\phi_3}APR_3\right) = APR_A \tag{5.3}$$

and by substituting (5.2) into (5.3) we get

$$\phi_1(0\%)+(1-\phi_1)APR_B = APR_A \tag{5.4}$$

Now, we can change this into a statistical equation by adding an error term. The coefficient of interest is the ϕ_1. The equation that we estimate is reformulation of (5.4), i.e.,

$$APR_B - APR_A = \phi_1 \mathrm{APR}_B + \varepsilon \tag{5.5}$$

The data that we used for the estimation were the monthly time series for the time period between January 2001 and April 2005. The following variables were used:

1. APR_A : Comes from the Consumer Credit Section of the Federal Reserve Statistical Release. APR_A is given by expression (5.1), i.e., it is the average APR that is charged to all consumers carrying balances.

2. APR_B : Comes from the CardData database provided by CardWeb.com. APR_B is given by expression (5.2), the average APR for the population of consumers who are charged the regular and punitive APRs. In other words, all individuals with introductory and bonus rates, such as 0 percent APRs, are excluded from this average.

Note that the unit of analysis here is consumer revolving accounts. Consumers here refer to consumer revolving accounts. The results from the regression show that the proportion of consumers who are offered introductory APRs and who are subsidized in this way is surprisingly high, i.e., 31 percent. The statistic is significant at 5 percent level. This tells us that the remaining portion, i.e., 69 percent, of all consumer accounts are generating interest.

Calculating the Proportion of Consumers Who Pay Punitive Rates

The next step is to break the 69 percent of consumers into those who pay the regular interest rate and those who pay the punitive rate. We do so as follows. Consider equation (5.2) and let $\frac{\phi_3}{\phi_2+\phi_3} = \alpha$. Then, necessarily, $\frac{\phi_2}{\phi_2+\phi_3} = (1-\alpha)$. We can proceed to estimate (5.2) as

$$\begin{gathered} \alpha APR_3+(1-\alpha)APR_2 = APR_B \\ APR_B - APR_2 = \alpha \mathrm{APR}_3 + \varepsilon \end{gathered} \tag{5.6}$$

The variables that we used for estimation came from the CardData database at CardWeb.com: As before, we have a monthly time series for the period from January 2001 until April of 2005. We used the following variables:

1. APR_2 : The variable for the regular APR was constructed by adding 9.5 percent to the prime rate for each month. (This proxy variable was suggested to us by Jessica Zentz of CardWeb.com, personal communication, July 14, 2005.) There is no source of data known to us that would provide information on the regular APR. A statistic on the regular APR would be very hard to characterize since credit card companies compete against each other either in prices (by APRs) or they use non-price competition, such as bonus programs, etc., that in turn affect prices. Hence, it is very hard to discern which APR is regular and which is part of (or affected by) a special offer.

2. APR_3 : This variable comes from the survey of the 10 largest credit providers in the industry. We averaged over the highest APR that each of the issuers reported. Thus, for each month we got the average highest APR that was charged to the consumers.

We can be quite confident that these APRs are the punitive charges as they exceed the 20 percent mark. The average APR for our sample is 24 percent with the range between 22 percent and 26 percent. However, we feel that using this proxy gives us an underestimate as these APRs seem quite low. Delinquent individuals are routinely charged an APR close to the 30 percent mark with the industry high being 41 percent for the past year. But since we lack another representative index for the punitive APR, we use our constructed averages for the estimation.

The results of our estimation only confirm our concerns about APR_3 being low. The coefficient α equals 48 percent. This would mean that about 48 percent of all revolving balances are generating punitive revenue. Overall, we have now estimated proportions for all three groups:

1. For the subsidized group the proportion is equal to $\phi_1 = 31\%$.

2. For the regular group the proportion is equal to $\phi_2 = (1-\phi_1)\ \alpha\ \phi_2 = (1-\phi_1)(1-\alpha) = 0.69*0.52 = 36\%$.

3. For the delinquent group the proportion is equal to $\phi_3 = (1-\phi_1)\alpha = 0.69*0.48 = 33\%$.

Distribution of the Deregulation Cost among Consumers

We are interested in knowing which consumers are more likely to pay punitive interest rates and late payment fees. To answer this question, we used data from the 2001 Survey of Consumer Finance (SCF). This data was then updated using the 2004 survey.

In the SCF, several questions are relevant to our research purpose. One question was about the interest rate on the credit card account with the highest balance. The wording of the question (X7132) is: "What interest rate do you pay on the card where you have the largest balance? What is the interest rate on the card you got most recently? What interest rate do you pay on this card?"

The other two questions are about late or missed payments. The wording of this first question (X3005) is: "Now thinking of all the various loan or mortgage payments you made during last year, were all the payments made the way they were scheduled, or were payments on any of the loans sometimes made later or missed? 1. All paid as scheduled or ahead of schedule; 5. Sometimes got behind or missed payments; 0. Inapplicable."

The wording of the following question (X3005) is: "(if answered 5 in X3004) Were you ever behind in your payments by two months or more? 1. Yes; 5. No; 0. Inapplicable."

We calculated frequencies of these variables with the weighted sample in terms of income, marital status/gender, and racial/ethnic groups.

Endnotes

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6. Vincent D. Rougeau, "Rediscovering Usury: An Argument for Legal Controls on Credit Card Interest Rates," *University of Colorado Law Review*, Winter 1996.
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8. See the Technical Appendix for how this was determined.
9. Sources: CardWeb.com, Federal Reserve Board.
10. For a detailed analysis of why families fall into debt, see: Dēmos, *The Plastic Safety Net,* Fall 2005.
11. Consumer Action, *Credit Card Survey 2007,* Spring 2007. Available at http://www.consumer-action.org/downloads/english/CA_News_CC_07.pdf.
12. Ibid.

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