Policy Brief: The Effect of the Community Reinvestment Act on Consumers' Contact with Formal Credit Markets

by Ana Patricia Muñoz and Kristin F. Butcher*

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Summary

Data on consumer credit outcomes from 2004 to 2012 reveal that individuals in low- to moderate-income neighborhoods that are eligible for the Community Reinvestment Act (CRA) show more contact with formal credit markets than those in very similar neighborhoods that do not qualify for CRA credit. Controlling for other factors that may drive contact with the credit markets, we demonstrate that individuals in CRA-eligible neighborhoods are more likely to be in the credit report data, are more likely to have a valid credit score, and have more accounts. Despite this increased contact with formal credit markets, which could put them at higher risk of a bad credit outcome, individuals in CRA-eligible neighborhoods have no greater levels of delinquency and do not show lower credit scores than their peers on the other side of the CRA eligibility threshold.

The importance of accessing formal credit markets

Access to good loans improves families' wellbeing by giving them the opportunity to buy a house or a car, open a small business, invest in education and increase consumption. A well-functioning credit market is also an important driver of economic growth. The ability to borrow makes it possible for consumers to smooth consumption and for firms to invest in capital; when this ability is curtailed, the economy as a whole will not function as well as it might.

Credit markets, like insurance markets, are plagued by what economists term "asymmetric information problems." When borrowers have information about their ability to repay loans that is not available to lenders, lenders are unlikely to lend as much as they otherwise would, or will only lend at higher rates than they otherwise

* Ana Patricia Muñoz is deputy director of research and communications in the regional and community outreach department at the Federal Reserve Bank of Boston. Kristin F. Butcher is the Marshall I. Goldman Professor of Economics at Wellesley College and a research associate at the National Bureau of Economic Research.

would, because they need to hedge against the risk that the individual is not creditworthy. This type of problem -- where the loan applicant has more information about his or her abilities and intentions than the loan provider – can cause what economists refer to as a "market failure through adverse selection." The market failure is that there are people willing to lend and people willing to borrow at a reasonable interest rate, but because the lenders cannot tell which people are good bets, they set the interest rate higher than they otherwise would--thereby excluding from formal credit markets potential borrowers who would have been able to pay back their loans in a timely fashion. These individuals are left off the formal credit markets either with no access to credit or are forced to turn to alternative providers of financial services.

One way to combat such "asymmetric information" problems is by creating ways to give lenders more comprehensive information about creditworthiness. Ideally, this is the role of credit rating agencies, which maintain information on whether, for example, an individual has paid off past loans in a timely fashion. Rating agencies use past information to predict the probability that a loan applicant will default on a future loan, and this likelihood is expressed as a credit risk score.

In addition to their role in providing information to credit markets, however, credit rating agencies are providing information to other markets. Because an individual's credit risk score is seen as a single index that can give insight into potential outcomes in other areas, other parties make use of it. For example, a 2012 survey by the Society for Human Resource Management found that about half of all employers surveyed reported using credit reports as part of the screening process in hiring new employees.[1] This was viewed as a way to avoid hiring someone who might steal goods or embezzle money from the employer, as well as a way to avoid allegations of negligence in hiring. Similarly, landlords use credit reports to weed out those

[1] Society for Human Resource Management, "SHRM Survey Findings: Background Checking – The Use of Credit Background Checks in Hiring Decisions" (PowerPoint presentation, July 19, 2012, http://www.shrm.org/Research/SurveyFindings/Articles/Pages/CreditBackgroundChecks.aspx).

prospective tenants who may fall behind in their rent, and insurance companies use them to avoid those who may pose a high risk of requiring a payout.

As use of credit report agency data becomes more prevalent, developing and maintaining a healthy credit record becomes even more important, affecting not only an individual's access to credit, but to employment, housing, and insurance as well. Government policies that may affect access to credit potentially have a broader impact across many spheres of an individual's life. The Community Reinvestment Act (CRA) is such a policy. In this brief, we discuss the impact of the CRA on consumers' contact with formal credit markets. More details are presented in our recent Federal Reserve Bank of Boston Community Development Discussion Paper (No. 2013-02): "Using Credit Reporting Agency Data to Assess the Link between the Community Reinvestment Act and Consumer Credit Outcomes."

The Community Reinvestment Act

Enacted in 1977, the CRA encourages depository institutions to meet the credit needs of their local communities, including the borrowing needs of consumers in low- and moderate-income (LMI) neighborhoods. Depository institutions that are FDIC-insured are subject to CRA rules. Regulators periodically examine lending institutions' records to see if they are providing loans, investments, and services in their assessment areas. A bank's assessment area is determined by where it has a main office, a branch, or a deposit-taking ATM. The assessment area includes a large geographic area surrounding that local area of activity and cannot arbitrarily exclude LMI areas.[2] Lending institutions that do not comply with CRA requirements may see their future business opportunities affected as CRA ratings are taken into account when an institution applies to open new deposit facilities and to merge with or acquire other institutions.

Loans to small businesses and for housing purchases count toward a lending institution's compliance with the CRA. Credit card and auto loans may count toward the

[2] The assessment areas include entire metropolitan areas, metropolitan divisions, or contiguous political subdivisions that include an area with a main office, branch office, or deposit-taking ATM.

CRA lending test if the institution so elects. So too do other services a bank may provide its customers, including extended business hours, availability of bilingual services, and use of alternative systems for delivering retail banking services (e.g., ATMs, banking by telephone or computer).

In our research, we investigated whether the CRA's encouragement of banks to meet the credit needs of individuals in LMI neighborhoods translates into individuals in LMI neighborhoods having more contact with formal credit markets. If LMI consumers have more contact with formal credit markets, they may have more opportunity to build a healthy credit report, which in turn may improve their employment, housing, and insurance opportunities, not to mention their credit opportunities. On the other hand, extending more credit in LMI neighborhoods may put consumers at greater risk of getting into credit trouble, which would have a negative effect on these fronts.

The Consumer Credit Panel /Equifax data

To assess the impact of the CRA on consumers' contact with formal credit markets, we used data from the Federal Reserve Bank of New York's Consumer Credit Panel (CCP/Equifax). These data are a nationally representative sample of individuals with credit records and social security number. The data are a 5 percent random sample of the credit data maintained by Equifax, which, along with TransUnion and Experian, is one of the largest credit agencies that maintain credit reports in the United States. Although the data used for research purposes are anonymous, individuals' credit outcomes can be tracked over time using unique ID codes (CIDs). The data set contains information both on primary individuals (those in the 5 percent sample) and on additional individuals who live in the same household as these primary individuals. Our analysis focused on the primary individuals only.

The data are reported quarterly; for our analysis we used data from the first quarter of 2004 through the second quarter of 2012. The data contain a rich set of credit-related outcomes, but very little information on the individuals themselves. We

knew the year of their birth and their geographic location down to their census tract[3] or census block, but nothing about their race, gender, or education, for example.

We used the fact that we knew individuals' census tract to identify economic characteristics of their neighborhoods. We merged information from the 2000 census with the CCP data and examined how credit outcomes differed by median family income in a neighborhood (defined as a census tract).

Because family income levels vary by geography and over time, we focused on median family income in a census tract relative to the median family income in its metropolitan statistical area (MSA). We focused on large metropolitan areas--those with populations of at least 2 million.[4] We began by examining how credit outcomes differ across census tracts that have relative median family incomes that fall into five categories: above 170 percent of its MSA median, from 140 to 170 percent, from 110 to 140 percent, from 80 to 110 percent, from 50 to 80 percent, and below 50 percent of the MSA median family income. Census tracts with median family incomes below 80 percent of the MSA median meet the official definition of LMI neighborhoods. Banks' lending activities in these neighborhoods count toward compliance with the CRA.

It is important to keep in mind that not everyone has a record with a credit reporting agency. Individuals get into the database of a credit reporting agency by having an interaction with formal credit markets: opening a bank account, using a credit card, receiving store credit, taking on a car loan, a student loan, or a mortgage, for example. The database also includes individuals that appear in public record and/or collection agency data.[5] The CCP data are a nationally representative sample of people with a credit file who also have a social security number, so being in the database at all is an indication of contact with credit markets. Our first step was to examine how the number of people in a census tract in the CCP data varies with family income if that tract.

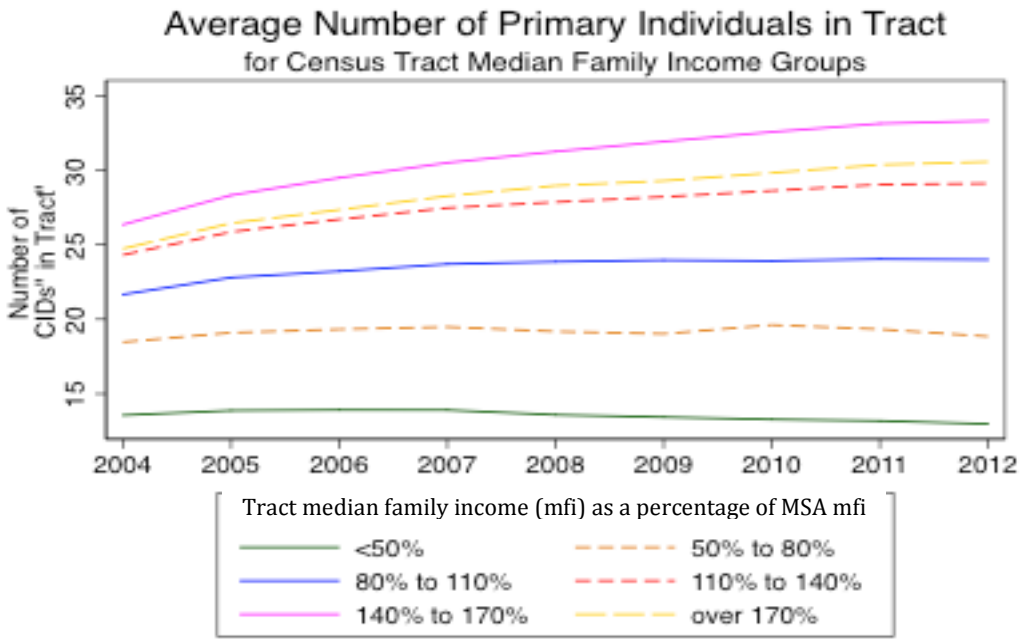
[3] Census tracts are small statistical subdivisions of a county with an average population of 4,000.
[4] There are 42 metropolitan areas that meet this population cutoff.
[5] Closed accounts remain on credit reports for up to 7 to 10 years after their closing.

If the CCP data were a 5 percent sample of the entire population, rather than a 5 percent sample of people with a credit file, then CCP sample sizes would be about the same across census tracts, since tracts are created to be roughly equal in size. As Figure 1 makes clear, this is not the case: the number of individuals in the CCP data increases with relative median family income. For the lowest median family income group, on average there are fewer than 15 people in the data in a census tract.[6] For those in the second-lowest family income category--those with relative median family incomes in the 50–80 percent range--there are fewer than 20 people on average in the CCP data[7] in a census tract. By contrast, for the highest-income group--those with relative median family incomes above 170 percent--this figure is over 30[8] in the later years, roughly double the number of people in the CCP data in the lowest-income neighborhoods. It is clear that there is a correlation between family income and the likelihood of having (enough) contact with formal credit markets to be covered by the CCP data.

In addition to being more likely to be in the data at all, individuals in higher-income neighborhoods are more likely to have a valid Equifax risk score. The higher the score, the better the credit rating. However, nearly 10 percent of the individuals in the CCP data have no risk score, which likely indicates that, although they had enough contact with formal credit markets in the past seven years to be included in the CCP data, there was not enough information, or enough reliable information, to calculate a risk score for them.

[6] That is an estimated 300 individuals per census tract, on average.
[7] That is an estimated 400 individuals per census tract, on average.
[8] That is an estimated 600 individuals per census tract, on average.

Figure 1.



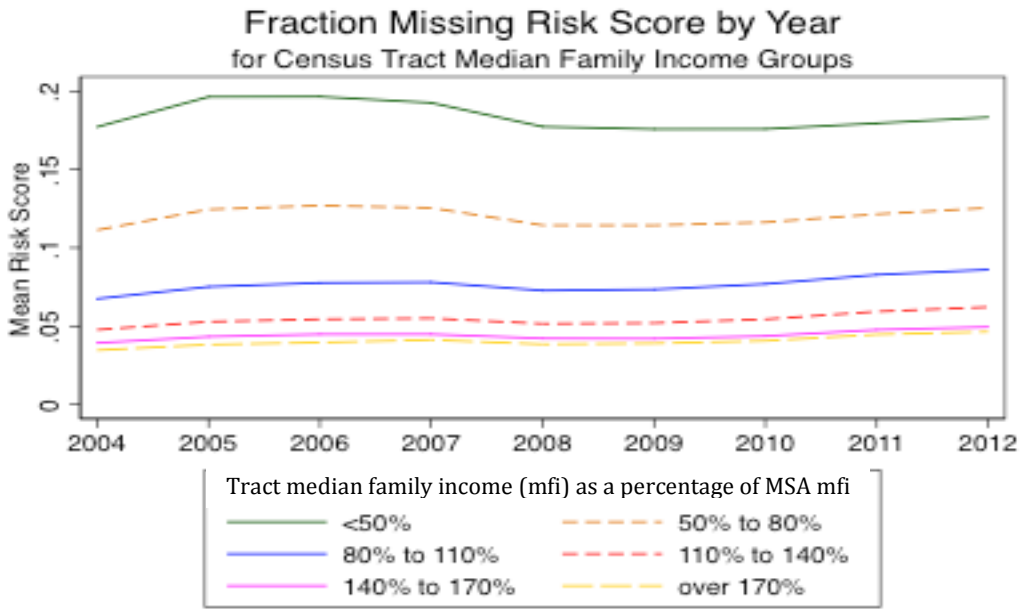
Source: NY Fed/Equifax

Figure 2 shows that, like presence in the credit rating data at all, presence of a risk score is correlated with relative median family income. Here, we calculated the average fraction of individuals in the census tract who were missing a risk score. Note that this is calculated only over the people who are in the CCP data in the first place, not over the population in the census tract. Between 15 and 20 percent of the people in the CCP data in neighborhoods with relative median family incomes less than 50 percent have missing risk scores, whereas that is true of less than 5 percent of the people in the neighborhoods with the highest median family incomes.

Finally, Figure 3 shows that family income is also correlated with the number of "trades" or open accounts that individuals have on record. This is to be expected if higher-income individuals buy more things and open more and different lines of credit. Figure 3 shows that for the lowest-income neighborhoods, the average number of accounts is close to three, while for the highest-income neighborhoods, it is above six, at least for the years prior to the financial crisis. The reduction in consumer credit that

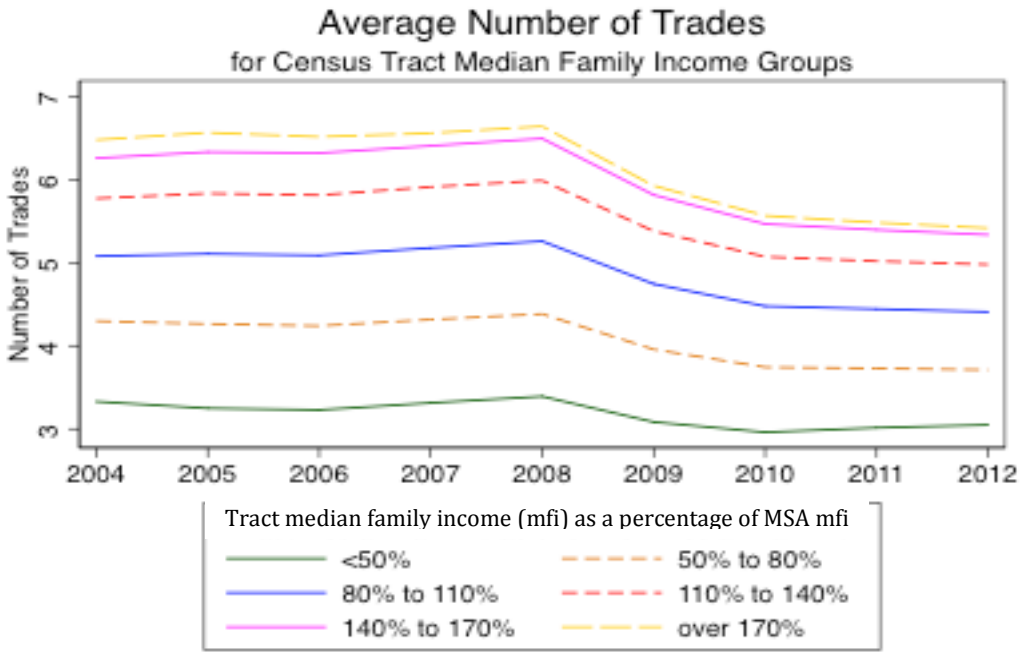
accompanied the financial crisis is seen in the downturn in the average number of open accounts after 2008.

Figure 2.



Source: NY Fed/Equifax

Figure 3.



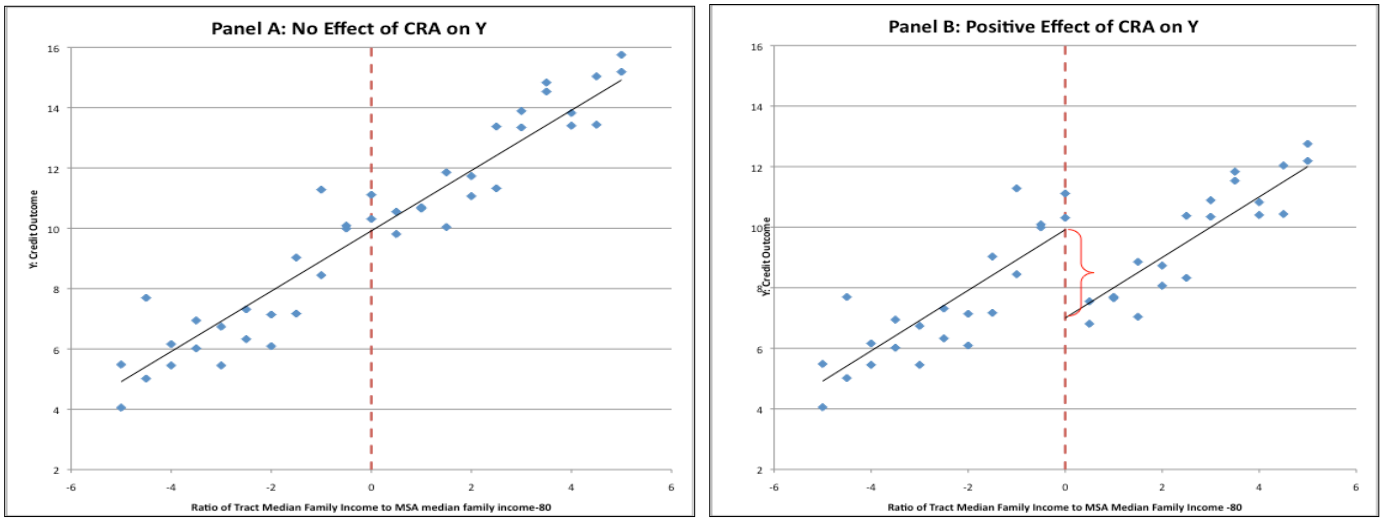
Source: NY Fed/Equifax

Impact of the CRA on credit outcomes

Assessing the impact of the CRA on consumer credit market outcomes requires more than merely examining how outcomes vary with family income. We took advantage of a striking feature of the CRA regulations to make our assessment: If credit market activity takes place in a census tract where the median family income is less than 80 percent of the MSA median family income, then that neighborhood is deemed an LMI neighborhood, and an institution's lending in that neighborhood counts toward compliance with the CRA. Neighborhoods with relative median family incomes at or higher than 80 percent are not eligible.

This feature of the CRA rules allows us to make close comparisons in credit outcomes between people in neighborhoods that are very similar in terms of relative median family incomes, but that are treated very differently under CRA rules. Figure 4 demonstrates the hypothetical comparison.

Figure 4. Hypothetical Comparison



In both panels A and B of Figure 4, average credit outcomes (Y) in neighborhoods are arrayed according to relative median family income. The vertical dotted line denotes the point at which median family incomes are at 80 percent of the MSA median. Thus, neighborhoods to the left of the red dotted line are those that are CRA eligible and those that are on the vertical line or to the right are not. We examine only those neighborhoods that are within 5 percentage points of the eligibility threshold in order to focus on neighborhoods with very similar incomes where some are CRA eligible and others are not.

If the CRA has no effect, we would expect results that look like those shown in Panel A, which shows no change in Y at the point at which neighborhoods go from being CRA eligible to ineligible. If the CRA does have an effect, however, we would expect results that look like those shown in Panel B. The discontinuous jump in the outcome at the vertical line measures the impact of CRA eligibility on the credit market outcome. This technique, known as a "regression discontinuity design," controls for the many other factors that are likely to differ across high income and low- to moderate-income neighborhoods that also might affect credit market outcomes and allows us to focus only on the effect of CRA eligibility.

Table 1 shows the size of the jump at the CRA eligibility threshold for a number of consumer credit outcomes.[9]

[9] For more details, see Muñoz and Butcher (2013). The regressions that underlie these results include only those neighborhoods with median family incomes between 75 and 85 percent of the MSA median. The regressions include a dummy variable equal to 1 if the relative median family income is less than 80 percent and zero otherwise, a continuous variable for relative median family income, indicators for quarter, MSA fixed effects, and median age in the census tract. The standard errors are clustered at the census tract level. The outcome variables are the log of the number of people in the census tract, fraction missing a risk score, the log of the total number of trades or accounts in the census tract, the log of the total number of delinquencies, and the value of the average risk score in the tract.

Table 1. Estimated Jump in Credit Outcomes at the CRA Eligibility Threshold

	Number of People in Census Tract	Fraction Missing Risk Score	Total Number of Accounts	Total Delinquencies	Average Risk Score
Size of Jump	7.1%*	–0.5ppt**	9%*	5.7%	1.74 points

**Statistical significance at 5 percent level, * Statistical significance at 10 percent level.

Census tracts that are slightly worse off (i.e., below 80 percent of the MSA median rather than above it) nonetheless have about 7 percent more individuals in the CCP data. Among the people who are in the data, fewer of those in CRA-eligible neighborhoods have missing risk scores. The reduction in "missingness" is about a half a percentage point. Since an average of 9.5 percent are missing a risk score, this represents about a 5 percent reduction in the prevalence of missing scores. Finally, neighborhoods at the threshold of CRA eligibility show about a 9 percent increase in total number of accounts.

Taken together, these results strongly suggest that the CRA has expanded the formal credit market "footprint" of individuals in LMI neighborhoods. They are more likely to be in the credit report data, more likely to have records that are complete enough to generate a valid credit risk score, and they have more overall accounts than individuals who live in nearly identical (in terms of relative median family incomes) neighborhoods that are just above the CRA cutoff.

We cannot tell, from this expanded footprint, whether the CRA helps individuals establish a healthy credit record that will follow them from credit markets to labor, insurance, and rental markets. Critics of the CRA have argued that giving banks an incentive to lend in LMI neighborhoods undermines their due diligence and leads to bad outcomes for both the institutions and individuals, as individuals are given loans that are inappropriate for them. It is possible that the 7 percent increase in people in the data and the 9 percent increase in loan accounts at the CRA threshold represent more people in CRA-eligible neighborhoods who are at risk of poor credit outcomes. But if that were the case, we would expect to see lower risk scores at the CRA threshold--as riskier

borrowers are drawn into the market--and that delinquencies were higher. Instead, we see no statistically significant differences at the CRA threshold for either of these measures.[10]

Conclusions

Using data on consumer credit outcomes from 2004 to 2012, we found that individuals in low- to moderate-income neighborhoods that just barely qualify as eligible for the Community Reinvestment Act show more contact with formal credit markets than those in neighborhoods that just barely do not qualify. This comparison controls for other factors that likely drive contact with the credit markets. Individuals in CRA-eligible neighborhoods are more likely to be in the credit report data, more likely to have a valid risk score, and have more accounts documented in the Consumer Credit Panel. Despite this increased contact with formal credit markets, which could put them at higher risk of a bad credit outcome, delinquencies and risk scores are no worse in neighborhoods that barely qualify for CRA eligibility than in neighborhoods that barely fail to qualify.

As credit reports become more and more widely used in employment screenings, rental applications, and the like, establishing and maintaining a good credit record is likely to become an important component to success across a large number of life's spheres. The research reported here suggests that policies that encourage access to credit among low- and moderate-income individuals may help them to establish such a record.

[10] In fact, risk scores are slightly higher, indicating better risk scores among those in CRA-eligible neighborhoods, although the difference is small and statistically insignificant. Delinquencies are estimated to be 5 percent higher at the CRA threshold, but again, this figure is statistically indistinguishable from zero. Even if the estimate were statistically significant, it is about half the size of the effect on the total number of accounts, suggesting that despite more credit activity creating more risk of delinquency, there is a less than proportional increase in delinquency.