

COMMUNITY ORGANIZATION AND COMMUNITY REINVESTMENT ACT LENDING IN WASHINGTON, D.C.

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This study looks for evidence of a Community Reinvestment Act (CRA)-induced effect in bank mortgage and small business lending in Washington, D.C. Previous research on bank lending patterns has emphasized economic explanations, such as income levels, property values, and loan-to-value (LTV) ratios. The Community Reinvestment Act, however, permits political influences to impact bank lending. By emphasizing bank partnerships with community-based organizations, and providing an opportunity for local activists to lay claims of discrimination against a bank during its application for a merger or acquisition, CRA has provided an incentive for banks to lend in those poor, minority communities that are better able to organize themselves for political action. Drawing on mortgage and small business lending data in the District of Columbia for 1998, I develop and test variables measuring the influence of community-based nonprofit organizations and community activism on bank lending. I find evidence in support of the influence of community organizations but not of community activism. I conclude that, to an extent, there is a recognizable CRA effect on bank lending. This means that it is important to carefully consider how changes in CRA by the Gramm-Leach-Bliley Act, and other major banking reform bills, will impact access to credit for poor and minority communities across the nation.

Enactment of the Gramm-Leach-Bliley Act (GLB) in 1999 was widely considered as a watershed event in the history of national banking policy across a number of different dimensions. After decades of chipping away at legal constraints, banks, insurance companies, and investment firms now have the green light to freely enter each other's

lines of business through the acquisition of existing companies or the de novo establishment of subsidiaries. Although financial modernization promises new opportunities for this collective financial industry, critics fear it may also result in raising new barriers to credit access by minorities and residents of poor, inner-city neighborhoods. Interest groups advocating for a stronger CRA argued that Gramm-Leach-Bliley actually guts CRA by allowing banks to move significant portions of assets out of the bank and into subsidiaries not covered by the law. Proponents countered that the new law in no way hamstrings CRA and that, in fact, it enhances it by applying a new compliance test that financial firms must pass in order to convert to the new, multipurpose financial holding companies. They further point out that CRA's requirements on depository institutions have not been touched, and the opportunities open to recourse for communities discriminated against under the old CRA will be just as applicable in the GLB era.

This argument is predicated, however, on the belief that the current mechanisms for enforcing CRA on depository institutions have been effective, a claim that has not been subjected to extensive empirical testing. In this paper, I identify several tools that communities have under CRA to either lever or entice more loans from banks. I test the effectiveness of these mechanisms with a data set I developed on bank lending in Washington, D.C., combining data on loans and demographic characteristics at the census tract level. In my analysis, I find evidence that neighborhoods able to organize themselves through the establishment of community development organizations are more likely to attract mortgage and small business loans. Little evidence, however, is found that neighborhoods able to mobilize residents to engage in political protest pushed banks to step up their lending.

Bank Lending and the Post-1995 Community Reinvestment Act

The history of the Community Reinvestment Act, and the larger issue of discrimination in mortgage lending, are long and controversial and need not be discussed here (see Litan, 2000; Haag 2000; and Squires 1992). Suffice to say that CRA has been, and continues to be, characterized by bankers as needlessly stringent and by community activists as not stringent enough. Instead of outlawing discrimination in lending, as the fair lending laws do, the 1977 Community Reinvestment Act requires banks to make loans and provide services in every community in which they solicit deposits, regardless of race or income. Yet there have been few studies on the influence of CRA on bank lending (Dahl, 2000).

One explanation for this may be that many of the mechanisms CRA depends on to be effective are more political than economic. Absent compulsion through public policy, lending decisions are modeled as a function of borrower characteristics and a set of indicators measuring aspects of the neighborhood the borrower is from, such as median income and property values. The post-1995 version of CRA changes the equation not through punitive sanctions on banks but by creating incentives to encourage bank compliance. In 1995, responding to criticisms that the original CRA created more paperwork than loans, federal banking regulators issued a completely revised set of implementing regulations. These rules shifted the focus of the law from requiring banks to demonstrate compliance through paperwork to an evaluation of institutions' actual lending performance in their geographic service areas. Under this new system, banks with total assets in excess of \$250 million have their CRA performance evaluated under a tripartite requirement made up of a lending test, an investment test, and a service test.¹ With the new rules only five years old, analysts are still trying to evaluate the impact the new CRA has had on bank lending and investing in low- and moderate-income (LMI) and minority communities.

Organized Communities and Bank Lending

Absent other external incentives or constraints, the decision to originate a loan is an assessment by the lender of the probability of default by the applicant, plus any biases against the applicant that the lender may have, resulting in discrimination. The fair lending laws impose constraints by making such discrimination illegal. The Community Reinvestment Act creates further constraints by requiring banks to have "Satisfactory" or "Outstanding" records of meeting the credit needs of their service communities in order to engage in merger and acquisition (M&A) activity. The review process undergone by each bank involved in a merger has created opportunities for community activists to bring complaints on lending performance and possible discrimination to the attention of regulators. Combining diligent research on the bank's performance and grassroots activism to generate publicity, communities can bring political power to bear on a bank. Furthermore, CRA as implemented in the 1995 rules provides incentives to encourage lending by depository institutions in low- and moderate-income (LMI) communities. Now more than ever, banks have incentives to improve their CRA performance by working in tandem with community devel-

opment corporations (CDCs) in ways benefiting both the bank and the LMI neighborhood. Of course, the benefits of this incentive go to those neighborhoods with the motivation and capacity to establish and support such local development organizations.

From the bank's perspective, what CRA has done to the lending decision is to incorporate political incentives into what has otherwise been a largely economic decision on the part of the lender. It has also shifted some of the focus of the lending decision from the applicant coming to see the lending officer to a greater interest on the particular neighborhood in which the applicant lives. Is that community likely to cause trouble for the bank during a merger application by staging a protest or laying a set of well researched lending discrimination charges against the bank before regulators? Is this LMI community truly a dead loss on the balance sheet, or does it possess a network of community development organizations providing the stability necessary to the neighborhood to ensure the emergence of a viable market? By adding these considerations, CRA allows the exertion of political pressure at the grassroots level to change the calculus of the lending decision.

Local Development Organizations as Manifestations of Community Empowerment

Historically focusing on affordable-housing issues, community-based nonprofit organizations have recently emerged with more financial and economic development-oriented missions (Schill, 1997). Many of these organizations have chosen to specifically focus on increasing the level of wealth within the community by bringing in greater numbers of home-mortgage and small business loans from banks. Particularly, the emergence of community development financial institutions (CDFIs) have marked an emergence of local-level interest in finding ways to attract bank money to LMI neighborhoods and build financial infrastructures (McLenighan, 1997; Lento, 1994).

The investment and service tests under the new CRA do much to support the efforts of CDCs (Santiago, *et al* 1998), and the partnerships that result from these efforts should stimulate the level of overall mortgage and small business lending in LMI neighborhoods. The investment and service tests encourage banks to develop relationships with CDCs through equity investments in the organization or by providing investment advice or other similar services to both CDC staff and customers. Through such investments and services, a bank makes a commitment to that neighborhood that should influence its direct lending decisions. After all, it is logical for bank officers to prefer making loans

in communities they have experience with and have a stake in over those they do not know as well. In other words, lending in communities with CDCs, particularly ones specializing in financing such as CDFIs, makes the probability of default by the applicant less likely. Finally, investing in an LMI community by making loans may be the stimulus needed to create a much stronger lending market in the future.

This yields the following hypothesis: depository institutions covered by CRA are more likely to make mortgage and small business loans in those neighborhoods where one or more CDCs specializing in financing and economic development are present.

Neighborhood Mobilization and CRA Protests as Manifestations of Community Empowerment

Apart from activism in the form of establishing local development organizations to provide grassroots solutions to neighborhood problems, CRA indirectly provides a protest mechanism through which pressure may be brought on banks to increase their lending. When a depository institution covered by CRA is entering into a merger or acquisition, federal regulators are required by law to consider the efforts of that institution in meeting the credit needs of the community. Part of this investigation takes CRA performance into account and another part examines the overall distribution of loans through Home Mortgage Disclosure Act (HMDA) data. Many LMI neighborhoods have become very sophisticated in the art of bringing charges against banks serving their communities when these institutions desire to engage in M&A activity. Often spearheaded by local activists, CDCs, and even politicians, research is developed and presented to regulators on loan distributions, bank branch closings, and lack of other essential financial services, implying discrimination.² Overall, this is part of a growing community reinvestment-oriented outgrowth of the Civil Rights Movement that has begun appearing in cities, and even some rural communities, across America (Squires, 1992). Some groups, such as Inner City Press in the South Bronx or Association of Communities Organized for Reform Now (ACORN) nationally, have made names for themselves based on their ability to engage in protests when banks file M&A applications.

Under no circumstance would a bank like to have its name smeared with charges of discrimination, but the threat of the protest is particularly troublesome when mergers are being planned. Enactment of GLB is expected to increase the likelihood of merger activity, making a clean

CRA record even more important for a bank to maintain. Since LMI neighborhoods that are highly politically organized are the ones most likely to protest a bank's M&A application, it is in these neighborhoods where the banks have an incentive to lend heavily without discrimination in an attempt to head off the possibility of protest.

This yields a second hypothesis: the more politically active a neighborhood is, the more likely a bank desiring to engage in M&A activity will increase the number of mortgage and small business loans in that neighborhood.

Research Design and Data

Much of the literature on mortgage lending examines the binary decision of the lender between approval and denial of an application. In other words, the unit of analysis is the individual loan application. This study, however, is primarily concerned with aggregate lending patterns at the urban neighborhood level, so I use census tracts as my units of analysis as proxies for neighborhoods. I focus on Washington, D.C. for my analysis. As with many urban centers, the District of Columbia contains a large number of distinct communities within its boundaries. The majority population is African-American, but both White and Other minority populations are also growing, and there is considerable disparity in median income levels and property values around the District. Such variation within the District provides an excellent opportunity to study variation in bank lending patterns.

My dependent variables are drawn from various types of bank lending activity in each census tract for the year 1998. The Home Mortgage Disclosure Act requires depository institutions to report data on conventional, refinancing, home improvement, FHA-backed, and other types of mortgage loans at the tract level.³ Furthermore, CRA requires banks to report small business and community development loans, also at the tract level. As there should be additional variation in lending patterns between banks engaging in merger and acquisition activity and those banks not choosing to engage in such activities, explanatory variables capturing the number of loans made will have to make this distinction.

The explanatory variables that I use to test my hypotheses come from two very different sources. In the case of community development corporations, the vast majority of these are nonprofit organizations with a primary purpose of finance and/or economic development. I use the nearly exhaustive data on nonprofits collected by the National

Center for Charitable Statistics at the Urban Institute from IRS reporting files to identify the locations and types of nonprofits in the District of Columbia in 1998.⁴ From this data I am able to determine which nonprofits are focused on improving the financial stability, or the economic enhancement, of particular communities in the District and their tract locations.⁵ In the case of some tracts, there is more than one nonprofit identified as a financial or economic-developmental oriented local organizations.⁶ More information on how these variables are developed from the raw NCCS data files is presented in Appendix A.

I measure the potential for organized political activism in a tract through voter registration and turnout data available from the District of Columbia Board of Elections.⁷ This data comes at the precinct level, but through the application of geographic information software, conversion to the tract level is possible and, in the case of the District, has been used successfully in other research (see Henig 1993, 1994).⁸ I use data from the 1998 general elections to calculate voter turnout as well as data on the number of residents registered to vote at the time of the election. Political activism runs deep in many District communities, not only in terms of elections, but also as a solution to many problems of urban decay. Therefore, communities that are more organized to register larger numbers of residents, and to turn out these voters on election day, are also more likely to stage protests against banks over lending discrimination.

In order to capture the impact of these variables on lending, I make use of a variety of independent variables that figure prominently in other studies on bank lending and reflect the demographic compositions of urban neighborhoods as controls. Data on median income, racial composition of the population, and educational levels of the population per tract are available for 1998 from an assessment made by the District government.⁹ Additional variables on the number of family households per tract and the size of the labor force are available from the Census Bureau for 1990. Utilizing 1990 Census data on race and median income levels of tracts with equivalent 1998 data, it is also possible to derive the level of change in each tract over the course of the eight years. Communities that are increasing in wealth may be more attractive to bank lenders, and communities with considerable change in minority concentrations may indicate a shifting population that may decrease the likelihood of lending. Table 1 presents summary statistics on each of the variables.

Analysis and Discussion

The dependent variables in my analysis are event count data, or data recording the number of times an event occurs in a particular geographic location. As this type of data is restricted to only a positive value, it follows a Poisson distribution making ordinary least squares (OLS) regression estimation inappropriate (Long, 1997). In order to properly estimate event count data with a large amount of variance, I use a Negative Binomial Regression procedure following the Poisson distribution.¹⁰

Conventional and Refinancing Mortgage Lending

The first cut at the data makes use of the total number of conventional and refinancing mortgage loans in each census tract in the District of Columbia. Explanatory variables describing a set of characteristics regarding the census tract potentially related to home-mortgage loans are selected. In particular, the number of nonprofit organizations in the tract, the level of voter turnout, the number of minorities, the number of families, median family income, and the percentage of the population with at least a high school degree are used. In addition, changes in the characteristics of the tract over time may make a particular area more or less attractive to a bank lending officer. I subtract 1990 data on median income and the number of minorities from comparable data for 1998. This procedure generates two variables indicating change in the tract area over the span of eight years. I then use the Negative Binomial Regression procedure to estimate the impacts of these variables on the total number of conventional and refinancing mortgage loans made by CRA-covered depository institutions in each tract in 1998. The results are displayed in Table 2. In addition to the estimated coefficient, its level of statistical significance, and the robust standard errors, the marginal effects are presented for each explanatory variable. As maximum likelihood estimations do not use a direct linear procedure, the coefficients do not necessarily present a clear indication of the magnitude of the change. Finding the individual impact of each variable on the predicted number of events, while holding the impacts of all of the other explanatory variables at their mean, by increasing the single variable by one standard deviation, provides a more straightforward method of showing real impacts of each variable (King, 1998). The difference in the predicted number of events due to the movement of each explanatory variable is expressed as a percentage.

For both conventional and refinancing loans, the variables appearing to have the greatest explanatory power are minority population, number of families, and percentage of tract population with a high school degree. In the case of minority population, the negative sign of the coefficient indicates that the greater the concentration of minorities in a tract, the less likely conventional and refinancing loans will be made in that tract. This variable reduces the predicted number of conventional loans by 35 percent and the number of refinancing loans by 47 percent. Although I have not tested enough alternative variables to draw any conclusions regarding discrimination, this result should at least raise a red flag and prompt a more thorough investigation. In terms of the variables of interest for this research, neither the presence of nonprofits nor voter turnout had any statistically significant impact on the predicted number of conventional loans. Furthermore, the first differences' effect of each variable was small. The presence of nonprofits was statistically significant in the case of refinancing loans, but the effect remains fairly small with a one standard deviation increase in the number of nonprofits producing only a 17 percent increase in the predicted number of loans.¹¹ At this level of analysis there is little evidence to support my community organization hypothesis.

Yet looking at total conventional and refinance lending may not be the ideal place to find such an effect. If an increase in bank lending due to community organization is largely a CRA-induced effect, then it is those banks to whom CRA is of greater concern that should be the most responsive. Since CRA is most likely to have teeth during the review process for a merger or acquisition, then those banks acquiring, or being acquired, by another institution are more likely to respond to a community organization than banks not engaging in such activity.¹² Using the Federal Reserve's National Information Center, I was able to identify which banks operating in the District of Columbia acquired another institution, or were acquired by another institution between 1996 and 2000.¹³ I then separated out the number of conventional and refinancing loans made by banks engaging in M&A activity from those not engaging in such activity to create two separate dependent variables. The same explanatory variables are used in the estimation, and the results for conventional loans either engaging or not engaging in mergers and acquisitions are presented in Table 3. Results for refinancing loans are in Table 4.

Looking at conventional loans produces no substantial evidence in support of either of my hypotheses. Neither the number of nonprofits nor voter turnout variables are statistically significant, and the only

marginal effect of any real substance is voter turnout on conventional loans made by banks not engaging in M&A activity at 23 percent. The results from the estimations on refinancing loans are somewhat more supportive of my hypothesis. The number of nonprofits in a census tract does have a statistically significant impact on the number of loans made by banks engaging in M&A activity and no significant impact on banks not merging or acquiring. This result is what I would expect, given that the first types of institutions are more concerned about their CRA records than the latter types. Furthermore, although not as strong as the number of families and high school degree variables, the number of nonprofits variable does increase the predicted number of refinancing loans in a tract by 22 percent.¹⁴ Unfortunately, once again there is little evidence to support the hypothesis that communities with higher voter turnout are more likely to attract more loans through the threat of protest. This explanatory variable is not significant in either estimation, although in the case of banks not engaging in M&A activity, there is a first difference effect of 20 percent.

Small Business Lending

In search of further evidence to test my hypotheses, I turn from mortgage loans to small business loans. Since lack of access to credit by small businesses may be evidence of redlining or a lack of desire to lend in low-income communities, the 1995 CRA regulations emphasized the need for banks to make small business loans in such communities and report data on these loans. Immergluck (1999) notes in his study of small business lending in Chicago that there may be differences in lending patterns to very small businesses, those with an annual revenue of \$1 million or less. Smaller firms, he points out, may be considered a greater risk by lending officers because they do not have as deep resources to draw on to repay loans, and very small firms owned by minorities have a harder time leveraging their equity for the same value as comparable firms owned by Whites. CRA attempts to correct such forms of discrimination by encouraging banks serving LMI and minority neighborhoods to make loans to very small businesses. Therefore, a CRA-induced influence may emerge more prominently in an analysis of loans to firms with \$1 million or less in annual revenue than to larger businesses. In order to make this comparison, I subtract out the number of loans made to firms with \$1 million or less in annual revenue from the total number of small business loans made in the District of Columbia and use both sets of data as dependent variables.

Since the small business lending decision is more likely to be made by the lending officer with a different set of neighborhood criteria in mind than mortgage loans, I use a somewhat different set of explanatory variables in my analysis. I retain the variables on the number of non-profits, voter turnout, minority population, median income, change in median income, and change in minority population, but add in two new control variables. The size of the local labor force should be conducive to the creation of businesses, and those neighborhoods with a larger labor force are more likely to see more firms spring up and, therefore, attract more loans. Therefore, I use census data on the size of the labor force as a control variable.

I also will continue to investigate the differences in behavior between banks engaging in mergers and acquisitions and those that are not. Unfortunately, limitations in the small business data have not permitted me to accurately identify which loans are coming from banks recently engaging in M&A activity.¹⁵ I develop a rough proxy measure by finding the number of bank offices in a census tract that are connected to an institution engaging in M&A activity under the assumption that the more branches of such banks are found in a tract, the more loans will be made. The results of my estimations are presented in Table 5.

Unlike mortgage lending, the small business data analysis provides clear evidence in support of my hypothesis regarding community development organizations but still fails to produce any evidence to support my community action hypothesis. The number of nonprofits variable is highly significant for both total small business lending and lending to very small firms. Interestingly, the first difference effects for the total number of loans is larger than for loans to very small firms, although both effects are quite substantial at 61 percent and 45 percent, respectively.¹⁶ The voter turnout variable fails to be statistically significant in either model and produces virtually no change in the predicted number of loans. Also of interest is that the variable indicating the number of offices of banks engaging in M&A activity between 1996 and 2000 is statistically significant, although the effect on the predicted number of loans is not as strong in either model as the nonprofits variable. This suggests that banks that are, or are considering, engaging in M&A activity are more likely to be responsive to the small business credit needs of their service community than banks not planning to engage in such activity.

Overall, my analysis of mortgage and small business lending data provides support for my hypothesis of community organization through

community development nonprofit organizations, but not for the potential for community activism as measured by voter turnout. The impact of the presence of nonprofits appears to be greater for small business loans than for mortgage loans, but there are certainly some signs of an effect in both types of loans. The disappointing results from the voter turnout data may be due to the possibility that this measure may not be a good proxy for community activism. In fact, activism may be more likely in communities that feel alienated from the traditional political process of voting. With little faith in the system, residents of such communities may feel their votes are a waste of time.¹⁷ But because these types of communities feel excluded from the process, they may also be inclined to engage in non-traditional, "outsider" politics such as protests and demonstrations, similar to the types of community mobilization tactics activists might take against a bank.

Conclusion

We are only just beginning to witness the changes in the financial industry as a result of the Gramm-Leach-Bliley Act, and it will be many years before we know with any degree of certainty what the far-reaching impacts of such a complex piece of legislation will be. This will certainly be true of the Community Reinvestment Act and bank lending in LMI and minority communities. Unfortunately, if pro-CRA forces are correct, and GLB has blunted CRA's teeth during the merger and acquisition review process, then this may be bad news for LMI and minority neighborhoods. This research provides some evidence that there is indeed a CRA effect on bank lending stemming from the 1995 regulations in the form of working with local intermediary organizations such as community development financial institutions or other types of community development corporations. Therefore, diluting the power of CRA at the time a merger is considered may have a detrimental impact on poor, minority urban communities.

On the other hand, banks may be inclined to continue working with local development organizations apart from trying to fulfill CRA requirements. Banks may desire to make long-term investments in communities they feel can be developed into strong markets, incurring a near-term loss for long-term gain. Certainly, the results I found for small business lending do not clearly show that only banks contemplating M&A activity were making more loans, although these institutions were making more loans overall in the District.

As with determining whether or not redlining and discrimination against lending in LMI communities is truly taking place, it is difficult to clearly separate out the influence of the Community Reinvestment Act from lending activities a bank would have engaged in anyway. Research into this area is still relatively young as good mortgage-lending data have only existed since changes in HMDA took effect in the early 1990s and the release of small business data beginning in 1996. Only a few studies have been able to closely examine the influence of CRA. But in order to truly evaluate the impact of CRA on the availability of credit, and therefore evaluate the long-term impacts of related laws such as GLB and the Riegle-Neal Interstate Banking Act, it is important to have as clear an understanding as possible of how CRA works.

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Table 1
Dependent and Explanatory Variables

Variable Name	Mean	Standard Deviation	Minimum Value	Maximum Value
<i>Dependent Variables</i>				
Total Conventional Loans	3.417	6.110	0	55
Conventional Loans Made by Banks Engaging in Mergers and Acquisitions	1.942	5.198	0	50
Conventional Loans Made by Banks Not Engaging in Mergers and Acquisitions	1.474	2.304	0	9
Total Refinancing Loans	4.910	7.532	0	40
Refinancing Loans Made by Banks Engaging in Mergers and Acquisitions	3.372	5.924	0	33
Refinancing Loans Made by Banks Not Engaging in Mergers and Acquisitions	1.538	2.453	0	15
Total Small Business Loans	25.942	48.700	1	345
Total Loans to Small Businesses	10.538	15.758	0	106
<i>Independent Variables</i>				
Nonprofits	1.282	2.946	0	20
Voter Turnout	1098.36	561.27	247	3556
Minority Population	1793.15	1205.91	1	4560
Number of Families	657.28	349.10	0	1784
Percentage of Population with at Least a High School Education	71.88	18.79	0	100
Change in Median Income from 1990 to 1998	0.441	0.275	0.193	2.33
Change in Minority Population from 1990 to 1998	-414.05	673.77	-3555	2207
Labor force	1796.39	897.19	0	4210
Number of Banks Engaging in Merger and Acquisition Activity Lending in Tract	0.487	1.10	0	7

Table 2
Negative Binomial Regression Estimates of Total Conventional and Refinancing Loans

Explanatory Variables	Total Number of Conventional Bank Loans			Total Number of Refinancing Bank Loans		
	Coefficient	Robust Standard Error	First Differences Marginal Effect	Coefficient	Robust Standard Error	First Differences Marginal Effect
Constant	-2.0025**	0.7262	-	-1.3234*	0.5871	-
Number of Nonprofit Organizations	0.0185	0.0309	0.0559 (6%)	0.0531*	0.0236	0.1700 (17%)
Voter Turnout	0.0002	0.0002	0.1504 (15%)	0.0002	0.0001	0.1204 (12%)
Minority Population	-0.0004***	0.0001	-0.3517 (-35%)	-0.0005***	0.0001	0.4741 (47%)
Number of Families	0.0015***	0.0004	0.6842 (68%)	0.0018***	0.0003	0.8598 (86%)
Median Family Income	-0.0001	6.1806	-0.2105 (-21%)	8.7606*	3.7406	0.2005 (20%)
Percent with at least a High-School Degree	0.0317***	0.0091	0.8132 (81%)	0.0189***	0.0057	0.4291 (43%)
Change in Median Income	0.9136*	0.4496	0.2855 (28%)	0.4046	0.2741	0.1204 (12%)
Change in Minority Population	0.0004*	0.0002	0.3512 (35%)	0.0002	0.0002	0.1585 (16%)
Wald X2	126.42***			324.75***		
Log-Likelihood	-306.44491			-321.12805		

* p < 0.05
 ** p < 0.01
 *** p < 0.005
 N = 153

Table 3
Negative Binomial Regression Estimates of Conventional Loans by Banks Engaging and Not Engaging in Mergers and Acquisitions

Explanatory Variables	Total Number of Conventional Loans by Banks Engaging in Mergers and Acquisitions			Total Number of Conventional Loans by Banks Not Engaging in Mergers and Acquisitions		
	Coefficient	Robust Standard Error	First Differences Marginal Effect	Coefficient	Robust Standard Error	First Differences Marginal Effect
Constant	-2.8307	1.0308	-	-2.8548	0.9823	-
Number of Nonprofits	0.0400	1.037	0.1265 (12%)	-0.0089	0.0363	-0.0262 (-3%)
Voter Turnout	0.0001	0.0003	0.0789 (8%)	0.0004	0.0002	0.2346 (23%)
Minority Population	-0.0003	0.0002	-0.3059 (-31%)	-0.0002*	0.0002	0.3470 (35%)
Number of Families	0.0018***	0.0006	0.8873 (89%)	0.0010*	0.0004	0.4366 (43%)
Median Household Income	-0.0001	9.1706	-0.2210 (-22%)	-0.0001	8.2206	-0.1885 (-19%)
Percent with at Least a High School Degree	0.0288*	0.0140	0.7166 (71%)	0.3700***	0.0104	1.000 (100%)
Change in Median Income	1.6411*	0.7645	0.5702 (57%)	0.1981	0.4595	0.0482 (5%)
Change in Minority Population	0.0007***	0.0002	0.5893 (59%)	0.0001	0.0002	0.0712 (7%)
Wald X2	67.83***			97.45***		
Log-Likelihood	-237.92472			-219.14954		

* p < 0.05
 ** p < 0.01
 *** p < 0.005
 N = 153

Table 4
Negative Binomial Regression Estimates of Refinancing Loans by Banks Engaging and Not Engaging in Mergers and Acquisitions

Explanatory Variables	Total Number of Refinancing Loans by Banks Engaging in Mergers and Acquisitions			Total Number of Refinancing Loans by Not Engaging in Mergers and Acquisitions		
	Coefficient	Robust Standard Error	First Differences Marginal Effect	Coefficient	Robust Standard Error	First Differences Marginal Effect
Constant	-1.9545**	0.7574	-	-2.1711**	0.8366	-
Number of Nonprofits	0.0659*	0.0304	0.2152 (22%)	0.0266	0.0254	0.0812 (8%)
Voter Turnout	0.0002	0.0002	0.0900 (9%)	0.0003	0.0002	0.1987 (20%)
Minority Population	-0.0007***	0.0001	-0.5487 (-55%)	-0.0003**	0.0001	-0.3330 (33%)
Number of Families	0.0021***	0.0005	1.070 (107%)	0.0013***	0.0004	0.5513 (55%)
Median Household Income	0.0001*	4.4706	0.2341 (23%)	3.8106	6.3306	0.0821 (8%)
Percent with at least a High School Degree	0.0202**	0.0074	0.4614 (46%)	0.0195*	0.0093	0.4422 (44%)
Change in the Median Income	0.4664	0.3694	0.1367 (14%)	0.1368	0.4612	0.0382 (4%)
Change in Minority Population	0.0003	0.0002	0.2483 (25%)	-3.2306	0.0003	-0.0028 (0%)
Wald X2	231.15***			119.86***		
Log-Likelihood	-268.46211			-226.49105		

* p < 0.05

** p < 0.01

*** p < 0.05

N = 153

Table 5
Negative Binomial Regression Estimates of Small Business Loans

Explanatory Variables	Total Number of Small Business Loans		Loans to Businesses with Revenues of \$1 Million or Less	
	Coefficient	Robust Standard Error	Coefficient	Robust Standard Error
Constant	1.936***	0.323	1.117***	0.317
Number of Nonprofits	0.161***	0.026	0.125***	0.023
Voter Turnout	-0.001	0.001	-0.001	0.001
Minority Population	-0.001***	0.001	-0.001***	0.001
Median Household Income	7.310	4.100	8.440*	4.230
Banks Engaging in Mergers and Acquisitions	0.219***	0.060	0.205***	0.049
Size of Labor Force	0.001***	0.001	0.001***	0.001
Change in Median Income	0.435	0.370	0.394	0.294
Change in Number of Minorities	0.001*	0.001	0.001	0.001
Wald X2	218.39***		234.69***	
Log-Likelihood	-558.348		-438.857	
First Differences Marginal Effect	-		-	
	0.6081 (61%)		0.4450 (45%)	
	-0.0152 (-2%)		-0.0101 (-1%)	
	-0.2273 (-23%)		-0.2912 (-29%)	
	0.1634 (16%)		0.1912 (19%)	
	0.2728 (27%)		0.2541 (25%)	
	0.3104 (31%)		0.3771 (38%)	
	0.1269 (13%)		0.1146 (11%)	
	0.2516 (25%)		0.0948 (9%)	

* p < 0.05
 ** p < 0.01
 *** p < 0.005
 N = 153

Notes

- ¹ Alternatively banks may design their own lending and investing plan setting benchmarks by which regulators would rate their performance. Very few institutions have opted for this test. Smaller banks with \$250 million in assets or less are now evaluated by a streamlined community development lending test.
- ² Richard Marsico (1993) has even developed a guide to assist local activists and organizations in the planning of a successful CRAprotest.
- ³ All of this data may be obtained from the Internet site of the Federal Financial Institutions Examination Council (FFIEC) at <http://www.ffiec.gov>.
- ⁴ A great deal of information about how this data is collected and its availability can be found on the Internet site of the National Center for Charitable Statistics at the Urban Institute, <http://www.nccs.urban.org>.
- ⁵ The tract location is obtained by entering the address of the nonprofit into the geocoding system made available by the FFIEC at <http://www.ffiec.gov>.
- ⁶ The data representing the final calculations are available from the author upon request.
- ⁷ The data is available from the Board of Elections at <http://www.dcboe.org/>.
- ⁸ A conversion table is available from the author upon request.
- ⁹ This data is available from the District's State Data Center Internet site at <http://www.dclibrary.org/sdc/>.
- ¹⁰ Under many circumstances, event count data can be estimated through an Exponential Poisson Regression procedure (see King, 1988). However, this form of estimation makes the assumption that the mean of the distribution is equal to the average of the variance. In many cases, however, this assumption is not met, variance is so large that the two values are not equal and overdispersion occurs. The Negative Binomial Regression procedure takes this overdispersion into account.
- ¹¹ Specifically raising the predicted number of loans per tract from 2.624 to 3.070.
- ¹² The idea that banks being acquired would pay attention to their CRArating is based on two assumptions. First, that many banks acquired desire to be acquired and have made it known that such a partnership would be acceptable. Over the last few years, as banks have come into greater competition with investment firms and brokerages, turning a profit through lending has become more difficult. In order to meet the demand by shareholders in a tightening market, many banks have been forced to offer themselves up to larger bank or nonbank holding companies. Second, I also assume that banks interested in acquiring will be more attracted to those institutions with a superior CRAperformance to ward off potential trouble in the application process. Although the recent acquisition of Associates by Citigroup is a contrary example, it is logical to assume that banks would prefer to

reduce potential troubles in a merger by acquiring institutions with better CRA performance ratings.

- ¹³ The National Information Center is the Federal Reserve's on-line database of depository institutions and holding companies at <http://www.ffiec.gov/nic/>.
- ¹⁴ Shifting the predicted number of loans from 1.478 to 1.796.
- ¹⁵ This is not necessarily an inherent problem in the data. At this time I have simply been unable to accurately disaggregate all of the small business loans I have found for the District of Columbia.
- ¹⁶ In the case of the total number of loans, when the nonprofits variable is increased by one standard deviation, the predicted number of loans per tract increases from 14.702 to 23.642. Loans to very small businesses increase as the number of nonprofits in a tract shifts the prediction from 6.711 to 9.697.
- ¹⁷ Such feelings are almost certainly true in the District of Columbia when it comes to national issues. Deprived of most voting rights in the House of Representatives and all of such rights in the Senate, and appearing late in the progression of national presidential primaries, District voters almost certainly feel that their votes are meaningless at the national level. On the other hand, local elections can be quite competitive, even in poorer neighborhoods.

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Appendix A

Developing the Nonprofit Variable

The number of nonprofits variable I use in this analysis is developed from raw data on nonprofits collected by the National Center for Charitable Statistics at The Urban Institute, <http://www.nccs.urban.org/>. Specifically, I make use of information collected on 501(c)(3) nonprofits from the Return Transaction Files (IRS Form 990), 1998, for the District of Columbia. These files provide information on charitable nonprofits, including a series of codes defining the activities of each nonprofit. The first code I use to identify the small, community-oriented nonprofits I am interested in is the AFDC code, an affiliation code indicating whether or not the nonprofit is part of a larger organization. Since it is reasonable to assume that most local development organizations are not part of large regional or national organizations, I select only those nonprofits coded as independent. For readers familiar with AFDC codes, I selected those organizations coded as “3.”

In order to identify the nonprofits oriented towards community development, I make use of the core codes representing a classification from the National Taxonomy of Exempt Entities (NTEE). These codes provide detailed information regarding the activities of each nonprofit organization. Although my primary interest is in nonprofits primarily engaged in financial and economic development activities, I decided to cast a somewhat wider net. Other types of nonprofits might also contribute to the overall financial health of a community, such as public safety and affordable housing nonprofits, or might otherwise be appealing to bankers. There are 26 general classifications NTEE uses to identify nonprofits, labeled conveniently from A to Z. I dropped all nonprofits with the following codes: B, D, E, G, H, K, M, N, P, Q, T, U, V, W, X, Y, and Z. The NTEE codes become more specific by subdividing each letter code by assigning a numerical value, providing very precise information on the activities of each nonprofit. Activities that I deemed to be clearly related to the financial health of a neighborhood were retained and the rest of the nonprofits with other codes were dropped. Specifically, I retained the following codes: A01, A02, A03, A11, A20, A23, 25, A26, A51, A52, A60, A70, A80, A90, C01, C11, C12, C20, C27, C30, C32, C34, C35, C41, C42, C50, F01, F12, F20, F21, F22, F32, F33, F40, F42, I01, I11, I12, I20, I31, I40, I43, I44, I71,

I72, I73, I80, I83, J01, J02, J12, J20, J21, J22, J30, L01, L02, L11, L12, L20, L21, L25, L30, L40, L50, L80, L81, L82, O01, O11, O12, O20, O31, O50, O51, O53, R61, R62, R63, R67, R99, and all S codes.

Finally, I read through the names of each organization and eliminated those that were clearly not of a community orientation, normally groups that had the word “national” or “American” in their name. These files also contain the address of each nonprofit, enabling me to use geocoding software to find the exact census tract location of each nonprofit in the District of Columbia.