

Access to Capital and Credit For Small Businesses in Appalachia

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Appalachian Regional Commission

Prepared by:
National Community Reinvestment Coalition

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Appalachian Regional Commission

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The Appalachian Regional Commission's mission is to be an advocate for and partner with the people of Appalachia to create opportunities for self-sustaining economic development and improved quality of life.

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NCRC's mission is to increase fair and equal access to credit, capital, and banking services and products because discrimination is illegal, unjust, and detrimental to the economic growth of underserved communities in the United States and around the world. NCRC seeks to support, create, and implement long-term solutions, which include providing tools and strategies for building community and individual economic well-being.

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Executive Summary

The Appalachian Regional Commission (ARC) contracted with the National Community Reinvestment Coalition (NCRC) to conduct this study as part of ARC's effort to develop Appalachia through increasing access to credit and capital for small businesses. Heightened capital flows to small businesses would bolster the economic development of the region by creating jobs, diversifying the economy, and further developing an entrepreneurial class in Appalachia. This study found that banks have committed substantial amounts of community development financing to the region and are responding well to the credit needs of Appalachian small businesses in minority communities. The study recommends that stakeholders work together to close remaining credit gaps and needs in Appalachia.

Mid-size community banks were particularly responsive to the needs of small businesses in lower income and distressed rural communities in Appalachia. These lending institutions demonstrate that small business lending is profitable and rewarding for banks. The challenge for stakeholders is to encourage all lending institutions to expand upon profitable lending opportunities and to further finance an infrastructure for supporting small business and economic development.

The study used a number of databases including the Community Reinvestment Act (CRA) data on small business lending, data on bank branching obtained from the Federal Deposit Insurance Corporation, data from CRA exams, and data on Community Development Financial Institutions (CDFIs). The data also included U.S. Census data on population trends and Dun and Bradstreet data on the characteristics of small businesses. Based upon the report's findings, policy options are presented to address financing gaps in non-metropolitan areas and distressed counties, and among small businesses.

This policy options focus on three broad areas:

- Providing support and incentives for the development of bank branches and the growth of the community banking sector in non-metropolitan and distressed counties;
- Increasing the capitalization and sustainability of Community Development Financial Institutions operating in the region, particularly loan funds and development venture capital funds; and
- Ensuring the continued efficacy and impact of the CRA program and examinations.

Many of these recommendations can be implemented by ARC working together with stakeholders in the Appalachian region. These stakeholders include state agencies, elected officials, lending institutions, federal regulatory agencies, the U.S. Department of Treasury, financial intermediaries, public finance markets, Federal Home Loan Banks, development organizations, and the Federal Reserve Banks.

Findings

The reasons for an optimistic assessment of the ability of the Region to close identified capital and credit gaps include a favorable comparison between Appalachia and the nation on some indicators of lending. In addition, Appalachia has a lending infrastructure that includes about 227 banks and savings and loans with more than \$500 billion in assets, and a sector of alternative lending institutions featuring over 100 community development financial institutions (CDFIs).

The Community Reinvestment Act (CRA) has had a substantial impact in leveraging increases in community development lending and investing in the Appalachian Region. This study finds that banks and thrifts headquartered in Appalachia issued about \$5.4 billion in lending and investing for affordable housing, small business development, and economic revitalization each CRA exam cycle (about 2.5 years). In addition, the small business loan-to-deposit ratio for Appalachia was 35% higher than national levels. And, in contrast to most other regions in the country, small business lending was higher in counties with greater minority populations in Appalachia.

Some additional positive indicators include:

- Small and mid-sized banks in Appalachia (with assets less than \$1 billion) were particularly oriented to the needs of small businesses in distressed and rural areas, having a higher market share of loans in economically distressed and rural counties.
- Small business lending was higher in the Region in counties with higher levels of bank branches.

Within Appalachia, small business lending was less accessible in non-metropolitan counties and counties experiencing economic distress. In addition, the smallest businesses with revenues under \$1 million and businesses in low- and moderate-income communities experienced the least access to credit. In order to narrow differences in access to small business lending within Appalachia, concerted and persistent stakeholder efforts must be undertaken over a multi-year time period. Increasing access to small business lending would build the small business sector, create wealth, and stimulate job creation and economic development in Appalachia.

Additional challenges include:

- Non-metropolitan and distressed counties had considerably smaller shares of bank assets, which translated into non-metropolitan and distressed counties receiving less community development financing than metropolitan counties.
- A relatively small amount of community development financing was devoted to small business development when compared to housing activities.

This study also reviewed the role of alternative financial institutions in the Region, including Revolving Loan Funds (RLFs), microenterprise lending programs, community

development credit unions and development venture capital funds. Overall, these community development financial institutions placed a strong emphasis on business lending, but were not financed by banks to the same extent as their national peers. Instead, these institutions relied to a much greater degree on capital from government sources.

Related findings include:

- Appalachian community development credit unions and venture capital funds were more self-sufficient than their national peers, while Appalachian community development loan funds and RLFs had lower self-sufficiency rates than the national averages.
- ARC RLFs demonstrated declining deal flow while showing an increase in participation in individual loan transactions.
- No Small Business Administration (SBA) 504 loans were originated to minority- or women-owned businesses in Appalachian distressed counties.

This study updates the report commissioned by ARC in 1998 and conducted by Mt. Auburn Associations entitled *Capital and Credit Needs in the Appalachian Region*. Key findings of the Mt. Auburn report included that “insufficient financing appears to have a serious impact on the investment decisions of about one in five established companies,” and that small firms with less than 10 employees had higher levels of unmet funding needs than their larger counterparts. In addition, significant gaps were found in the provision of equity capital to growing firms in the Region.

Policy Options

Based upon the report’s findings, the following policy options are presented to increase access to credit and capital in non-metropolitan areas and distressed counties, and among small businesses. A number of these recommendations can be implemented by ARC working together with stakeholders in the Appalachian region. These stakeholders include state agencies, elected officials, lending institutions, federal regulatory agencies, the U.S. Department of Treasury, financial intermediaries, public finance markets, Federal Home Loan Banks, community development organizations, and the Federal Reserve Banks.

- *Increase Branch presence, particularly in non-metropolitan areas and distressed counties* – Since lending is higher in counties with higher number of branches, building bank branches, particularly in non-metropolitan and distressed counties, should be regarded as an important part of an economic development program. ARC, state agencies, and lending institutions should investigate New York State’s Banking Development District (BDD) Program. Begun in 1998, the BDD program offers partial property tax exemptions and encourages local public deposits for banks opening branches in geographical areas in need of banking services.¹

¹ See <http://www.banking.state.ny.us/pr980226.htm> and <http://www.banking.state.ny.us/pr050810.htm>. Last accessed July 3, 2006.

- *Growth of the Community Banking Sector* – Mid-size banks with assets between \$250 million to \$1 billion played important roles in small business financing, and focused their lending in non-metropolitan and distressed counties. Stakeholders should ensure that the mid-size and smaller bank sector remain viable and vibrant. Incentives could be developed to support existing mid-sized banks, or encourage the formation of new banking institutions in underserved areas. For example, the Federal Home Loan Bank System should consider additional advances and other incentives to support the small business lending of mid-size banks. Currently, the Federal Home Loan Bank of Pittsburgh operates a Banking on Business (BOB) program that provides financing for bank loans that would not otherwise be made due to insufficient cash flow from the small business. Since its inception, BOB has provided \$20.5 million in funding, creating and retaining 3,500 jobs.² Likewise, the Federal Home Loan Bank of Atlanta runs the Economic Development Program that helps provide financing to small businesses.³

- *Increase levels of community development financing for small business development* – Banks located in Appalachia devoted significantly higher levels of community development lending and investing for affordable housing than small business development. This finding does not mean that community development financing levels for affordable housing should go down so that levels for small businesses can go up. Instead, it suggests that banks should be encouraged to increase their overall levels of community development financing and devote substantial portions of the increases towards small business development.

- *Support alternative financial institutions* - Alternative financial institutions such as Community Development Financial Institutions (CDFIs) are important for increasing access to small business lending. Therefore, policy options include:
 - Expand sources of debt and investment capital for community development loan funds and venture capital funds. Appalachian Community Development Financial Institutions (CDFIs) and other community development financing entities need to expand their funding base. Community development loan funds and venture capital funds in the Region are heavily reliant on government sources for debt and investment capital. ARC can develop relationships with potential investors and regulatory agencies to encourage increased investment within Appalachia, including partnerships with financial intermediaries, participation in public secondary markets, and use of tax credit financings.

 - Appalachian loan funds must increase operational self sufficiency. Appalachian loan funds, both RLFs and microenterprise funds, should

² See <http://www.fhlp-pgh.com/housing-and-community/real-life-stories/banking-on-business.html>, last accessed December 21, 2006.

³ http://www.fhlbatl.com/fhlp_content.cfm?lev1=5cis&lev2=bcedp&lev3=2edp, last accessed December 21, 2006.

increase levels of self sufficiency by reducing operating costs or increasing revenues.

- Increase depth of product offerings by community development lenders.

To reach the smallest businesses with less than \$1 million in revenues, the Appalachian community development lenders should increase their financing products beyond gap financing. These new products would target the smaller businesses that the banks currently have difficulty servicing.

- Continue to grow capacity of Appalachian development venture capital funds.

Available literature shows that there remains a significant gap in access to equity financing in non-metropolitan markets. ARC's efforts to develop regional equity investment funds are important in bridging this gap and increasing regional entrepreneurship levels.

- *Maintain Integrity of CRA Exams and Data* – The federal regulatory agencies have implemented new CRA exams for mid-size banks. Stakeholders should ensure that the integrity of CRA exams is preserved so that mid-size banks maintain and increase their levels of community development financing in Appalachia. In 2005, federal regulators also deleted the small business loan data reporting requirements for mid-size banks. Federal regulators should consider ways to continue to collect this data so that future studies can systematically examine the lending patterns of mid-size banks. Mid-size banks should continue to be encouraged to voluntarily report the data as many chose to do for the 2005 data submissions. While data collection imposes costs, the benefits can exceed those costs. The data can document positive trends and highlight new opportunities as revealed by this study. Moreover, data reporting motivates banks to maintain and increase their lending levels to small businesses.
- *Encourage Small Business Administration (SBA)-guaranteed lending to Minority-Owned Businesses* – The SBA should investigate ways to increase SBA-guaranteed lending to minority-owned businesses and in minority counties. It is possible that the relatively low levels of SBA-guaranteed loans to minority-owned businesses or businesses in minority counties were due to the relatively high levels of conventional lending to these businesses. Alternatively, it is possible that there are still certain types of credit needs that are not being filled by the conventional lending, opening up new opportunities for SBA-guaranteed lending.
- *Financial Counseling and Technical Assistance for Small Businesses* – The study found that lending was higher in counties with higher portions of small businesses with the lowest risk credit scores. This suggests that lending will increase to small businesses overall if small businesses improved their credit scores. High quality financial counseling efforts are therefore important in Appalachia as a means to improve the credit scores of small businesses. In addition, technical assistance should be provided to improve the knowledge and skill level of small business entrepreneurs regarding cash flow, understanding financials, business planning and

taxation issues. ARC, state officials, lending institutions, and community organizations should work together to intensify financial counseling directed towards small businesses in Appalachia.

- *Better Understanding of Lending in Minority Counties in Appalachia* – The report's finding about higher levels of lending in counties with higher levels of minorities was a surprising and positive finding. Future research should be conducted to more fully understand why lending is unusually successful in reaching firms in counties with high levels of minorities in Appalachia. Lessons from this research should be applied to other regions of the country since the literature overall suggests serious barriers in access to small business lending for minority-owned firms.

Overview of the Background, Motivation and Methodology for the Study

The Appalachian Regional Commission (ARC) contracted with the National Community Reinvestment Coalition (NCRC) to conduct this study as part of ARC's effort to develop Appalachia through increasing access to credit and capital for small businesses. ARC is a federal-state partnership established in 1965 by the Appalachian Regional Development Act to promote economic and social development of the Appalachian Region. The Act, as amended in 2002, defines the Region as 410 counties comprising all of West Virginia and parts of Alabama, Georgia, Kentucky, Maryland, Mississippi, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Virginia—an area of 200,000 square miles and about 22.9 million people.

For 41 years, the Commission has funded a wide range of programs in the Region, including highway corridors; community water and sewer facilities and other physical infrastructure; health, education, and human resource development; and economic development programs. The rationale for ARC's Area Development program is to provide the basic building blocks that will enable Appalachian communities to create opportunities for self-sustaining economic development and improved quality of life. ARC goals particularly relevant for this study include increasing job opportunities and per capita income in Appalachia to reach parity with the nation, and strengthening the capacity of the people of Appalachia to compete in the global economy.

Small business growth and development is integral to the efforts of ARC to increase employment and competitiveness. In Appalachia, primary metals sectors, such as steel, have lost over 20,000 jobs since 1994. Many of these losses have resulted from import penetration and plant relocations overseas. The Appalachian apparel industry has lost 110,000 jobs since 1994, and the textile industry has lost 83,000. Over the last decade, one out of five jobs lost in textiles nationally occurred in Appalachia, and one out of three jobs lost in apparels occurred in Appalachia.

In the face of large economic forces, ARC has been remarkably successful in channeling economic development investments. ARC's investments have reduced the region's poverty rate by one-half, from 31 percent to 13 percent. Likewise, ARC has helped to lessen the

per capita income gap between Appalachia and the rest of the U.S from 22 percent below the national average to 18 percent. This study provides critical insights into how and why ARC should leverage additional investments for small business development and growth.

The NCRC study updates the report commissioned by ARC in 1998 and conducted by Mt. Auburn Associations entitled *Capital and Credit Needs in the Appalachian Region*. The Mt. Auburn study motivated a follow-up study focusing on bank financing because one of the key findings of the Mt. Auburn study was that “Appalachian businesses are heavily dependent on the banking industry for financing.” In addition, the Mt. Auburn study identified significant credit needs as “insufficient financing appears to have a serious impact on the investment decisions of about one in five established companies.” Further, the Mt. Auburn study indicated that small firms with less than 10 employees had higher levels of unmet funding needs than their larger counterparts.

The Mt. Auburn study broke important ground through its use of surveys of Appalachian small businesses. The study did not benefit, however, from publicly available data on CRA small business lending. The CRA data for the year 1996 first became available in summer of 1997 when the Mt. Auburn study was well underway. In addition, researchers became much more familiar with the strengths and weaknesses of the database over the next several years. Thus, this study provides an important update to the Mt. Auburn report by utilizing the small business lending data and probing to what extent the unmet credit needs overall and for very small businesses still exist in Appalachia.

Since the Mt. Auburn study, new trends and challenges confront Appalachia. The heightened pace of globalization, consolidation in the banking industry, the high cost of energy, and rising interest rates pose significant challenges as well as new opportunities for business development. Changes in the Community Reinvestment Act (CRA) and federal economic development programs likewise present a series of challenges and opportunities. For example, the federal New Markets Tax Credit program promises to provide a significant amount of resources for development in Appalachia. The program authorizes the Department of Treasury to provide tax credits of 39% on up to \$15 billion of private investments in low-income areas for business development activities and small business lending. Nonprofit and private sector entities in Appalachia are just beginning to take advantage of this new program.

NCRC’s study was able to consider the impact on small business lending of a number of these large economic changes such as consolidation in the banking industry and the growing use of credit scoring in small business lending. However, future studies will be needed to further evaluate the impact on access to credit of changes in federal programs and banking regulations as well as globalization and other economic structural adjustments.

Methodology

This report employed a number of datasets and created datasets for the quantitative analysis. For the analysis of small business lending trends, NCRC used the publicly available data on CRA small business lending. This data was combined with U.S. Census

data on population demographics and Dun and Bradstreet data on business demographics and credit scores. In addition, data was obtained from the Small Business Administration (SBA) on SBA lending programs. Branch and deposit data was obtained from the web page of the Federal Deposit Insurance Corporation (FDIC). The section of the report analyzing community development lending and investing created a database consisting of data pulled from CRA exams of banks and thrifts located in Appalachia. Finally, the chapter on alternative financial institutions used data collected by public agencies, ARC, and trade associations of Community Development Financial Institutions (CDFIs).

The CRA small business lending data analysis used the year 2003. A longitudinal data analysis was not employed because changes in the definitions of loans in the CRA small business data had a significant impact on annual loan volumes. In addition, the number of lenders required to report the data has changed. It is recommended that ARC commission a future study, using the CRA small business data as one of the resources. Such a study should carefully assess the influence of changes in the database on similarities and differences in lending patterns found in this current study and the future one. A similar caveat applies to the CRA exam analysis. The most recent CRA exam was used for each lender in this study. A future study can assess if levels of community development financing by banks increased or decreased by using the subsequent exams for each lender headquartered in Appalachia.

Socioeconomic Profile of Small Businesses and Lending in Appalachia

This chapter will first describe economic conditions in Appalachia. Appalachian region characteristics will also be described in reference to the nation. Population and business demographics are discussed, followed by a description of small business lending data. After reviewing national data, the chapter explores state level data, scrutinizing the differences and similarities among the 13 states in Appalachia. The chapter then describes trends on a county and census tract level. Here, the analysis separately considers metropolitan (MSA) and non-metropolitan (NonMSA) counties, distressed and non-distressed countries, and low- and moderate- income (LMI) census tracts.

The data in this chapter describe the number of small non-farm businesses, small business (SB) loans originated to various types of small businesses as well as the distribution of small businesses by sector, number of employees and legal status. NCRC calculated several indicators that assess access to credit by small businesses in Appalachian Region. The lending data used in this chapter is publicly reported small business loan data per the requirements of the Community Reinvestment Act (CRA) regulations. The lending data is for the year 2003. Census data and small business demographic data from Dun and Bradstreet were also used. NCRC used CRA Wiz, produced by PCI Services, Inc., to analyze the small business data and the demographic data.

Demographics and Economic Conditions

Economic Conditions

The Appalachian region includes 410 counties, comprising all of West Virginia and parts of twelve other states. It extends more than 1,000 miles from the southern New York to northeast Mississippi, and is home to over 23 million people. Despite recent progress, Appalachia still does not enjoy the same economic vitality and living conditions as the rest of the country. The region continues to battle economic distress, concentrated areas of high poverty, unemployment, low income, poor health, educational disparities, and population

out-migration that are among the worst in the nation. Increased global competition and technological change have resulted in job losses and restructuring in many key Appalachian industries. Employment losses in non-durable goods and manufacturing and resource-based industries have been severe and disproportionately impacted much of the region. Some of these declines have been offset by employment growth in service sectors, but service sector average wages are often considerably lower than those in the goods producing sectors.

A number of industrial sectors have been hit hard by job loss. Primary metals sectors, such as steel, have lost over 20,000 jobs since 1994. Many of these losses have resulted from import penetration and plant relocations overseas. The Appalachian apparel industry has lost 110,000 jobs since 1994, and the textile industry has lost 83,000. Over the last decade, one out of five jobs lost in textiles nationally occurred in Appalachia, and one out of three jobs lost in apparels occurred in Appalachia. An estimated one-third of the apparel losses and one-half of the textile losses are due to imports or plant relocations to other countries. Appalachian coal-mining employment has fallen from 101,500 workers in 1987 to 46,000 in 2003, largely because of productivity gains.

Within Appalachia, sub-regions confront unique challenges. Northern Appalachia, with its large population base and mature industrial base, must enhance the global competitiveness of its existing firms and stimulate new business creation to offset the impact of downsizing. Central Appalachia, once dominated by coal and tobacco, is struggling to diversify its economy. Southern Appalachia, influenced by its nearby large urban centers, strives to link its development to these engines of growth, and to cope with trade-related job displacement in labor-intensive manufacturing sectors.⁴

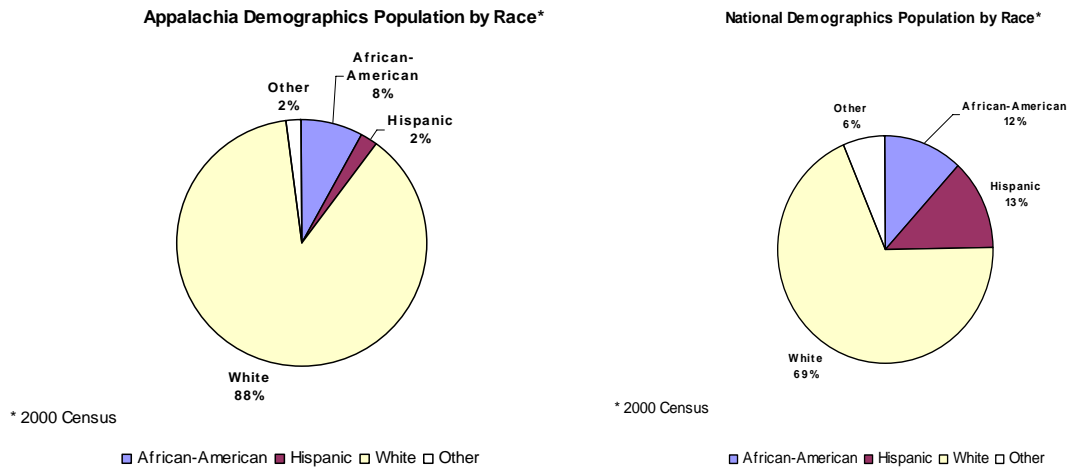
The context of sizable job loss and sub-regional economic development challenges informs the analysis of this report. Small business development is a key strategy to diversify into new industries. And access to credit and capital is integral to expanding small businesses in Appalachia.

⁴ Appalachian Regional Commission, FY 2006 Performance Budget Justification, <http://www.arc.gov/index.do?nodeId=100>.

Population by Race

The great majority of Appalachia's population is white. In total, the white population constituted about 88% of the region's population, African-Americans were 8.2% and Hispanics were only 2% of the total population (see Appendix Table 1 and Figure 1). Overall, minorities constituted 12.2% of total population. Predictably, the percent of the minority population in metropolitan areas was higher than in rural areas at 14.4% and 9.25%, respectively. The percent of minorities in distressed and non-distressed counties were close to each other at around 12.5%. Finally, there were 371 counties where less than 20% of population was minority, 41 counties with the percentage of the minority population between 20% and 50%, and only 6 counties where minority population constituted more than 50% of the total population.

Figure 1



Source: Appendix Table 1 – rows *Nation Total* and *Appalachia Total*.

The percentage of African-Americans and Hispanics in Appalachia was lower than in the Nation. African-Americans were 12.1% of the nation's population while they were 8.2% of Appalachia's population. Hispanics were 12.6% of the nation's population but just 2% of Appalachia's population. Moreover, the difference between the percent of minorities for Appalachia and Nation is higher for MSA areas (around 19 percentage points) when compared to NonMSA areas (about 9 percentage points). For the nation, 34% of the population in metropolitan areas was minority compared to 14.4% for Appalachian metropolitan areas. In addition, 18% of population in non-metropolitan areas in the nation

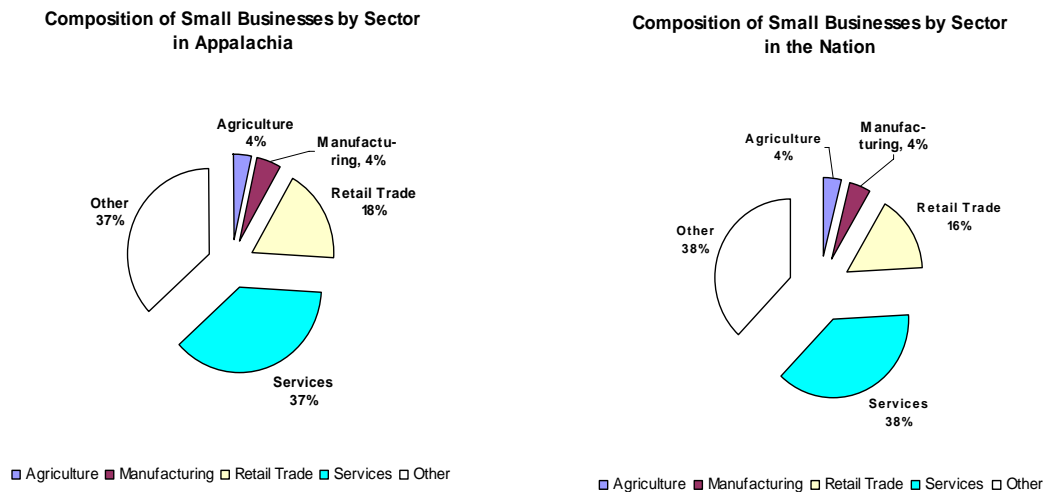
was minorities and only 9.25% of non-metropolitan population in Appalachia was minorities (see Appendix Table 1).

Business Demographics

Comparison of Appalachian and National Business Demographics

In general, the distribution of businesses by sector and other demographics was similar in Appalachia and the nation (see Appendix Table 2 and Figure 2). The largest industry was services (36.8% of all the businesses in Appalachia and 37.9% in the U.S. are service small businesses). The second largest was retail trade (17.9% in Appalachia and 15.9% in the U.S.). In NonMSA areas, the percent of agricultural small businesses was higher in the nation than in Appalachia, 9.8% and 5.1%, respectively. For the category of retail trade, NonMSA Appalachia had a higher percent of small businesses than rural areas in the nation; 19% and 16.6%, respectively.

Figure 2



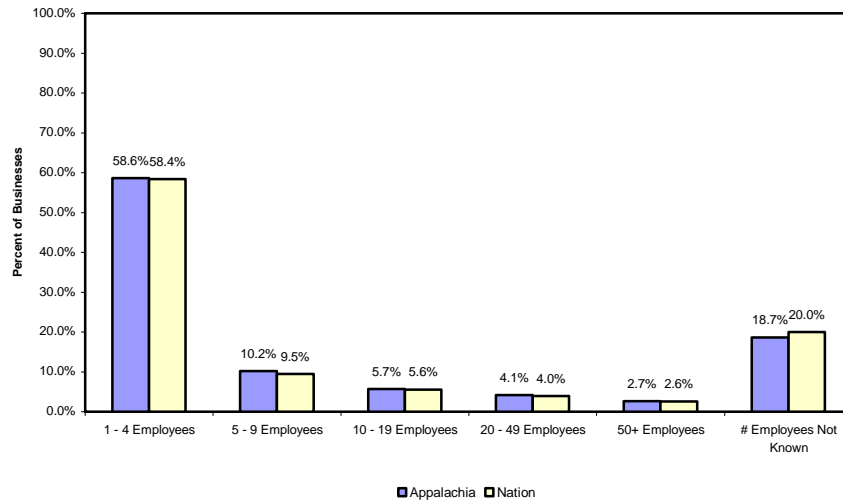
Source: Appendix Table 2 – rows *Nation Total* and *Appalachia Total*.

When the size of a small business was concerned, about 58.6% of small businesses in Appalachia and 58.4% in the nation had 1-4 employees (see Appendix Table 9 and Figure

3). The distribution in larger size categories was also similar when comparing Appalachia to the nation.

Figure 3

Composition of Small Businesses by Firm Size in Appalachia and Nation

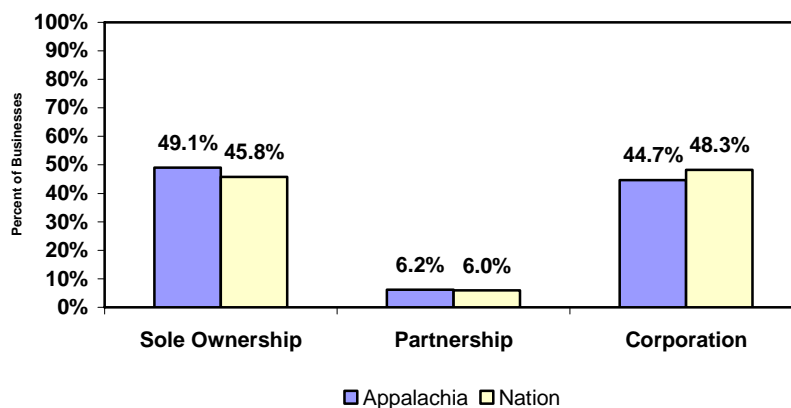


Source: Appendix Table 3 – rows *Nation Total* and *Appalachia Total*.

In addition, a significant amount of small businesses nationwide and in Appalachia lack legal status information; 44.9% and 45.1%, respectively. When removing businesses with legal status unknown, Appendix Table 4 and Figure 4 show the percent of sole ownerships was higher in Appalachia than the nation (49.1% versus 45.8%) and the percent of corporations was lower in Appalachia (44.7% versus 48.3%).

Figure 4

Composition of Small Businesses by Legal Status in Appalachia and Nation



Source: Appendix Table 4 – rows *Nation Total* and *Appalachia Total*.

Sectoral Distribution within Appalachia

Appendix Table 5 represents information on the number of businesses in each sector by state. The Appalachian region had a large service industry: the percent of service small businesses was 36.8% of the total number of small businesses. The second largest sphere was retail trade (17.9%) and third largest was construction at 8.6% of all small businesses. There were not many outliers in terms of the sector structure among Appalachian states. In other words, each state had approximately the same percent of small businesses in each sector. Only in Ohio the percent of agricultural small businesses was much higher than the aggregate for the region, 7.9% versus 3.7%. One of the possible explanations could be that Ohio Appalachian counties were located in less mountainous areas than the rest of the Region. In contrast, since a number of West Virginia counties were mountainous, the percent of mining small businesses there was higher than for Appalachia in total, 0.9% versus 0.3%.

The analysis also compared the sectoral distribution of small businesses in MSA and NonMSA counties (see Appendix Table 6a). Overall, the percentages were rather close except for agricultural and services. In particular, the percent of agricultural small businesses was higher in NonMSA than MSA counties (5.1% versus 2.9%) and the percent of service sector small businesses was higher for MSA than NonMSA counties (38.1% versus 34.7%). The analysis of the sectoral distribution of small businesses in distressed and non-distressed counties revealed interesting differences (see Appendix Table 6b). In distressed counties, the percent of mining small businesses was higher and percent of construction and finance small businesses was lower. Also, the percent of transportation and retail small businesses was higher in distressed counties compared to non-distressed counties (5.8% versus 3.9% for transportation and 20.2% versus 17.8% for retail trade).

Distribution of Businesses by Number of Employees

Appendix Table 7 examines the distribution of small businesses by the number of employees. The smallest businesses, with the number of employees from 1 to 4, comprised

the largest portion of all the small businesses in the Appalachian region (more than 58% of all small businesses). The second largest category was small businesses with 5 to 9 employees (10.2%). The larger small businesses with number of employees exceeding 10 comprised only 12.5% of total number of small businesses. A similar composition of small businesses by number of employees was observed in each state.

The composition of small businesses by number of employees in MSAs versus NonMSAs and distressed versus non-distressed counties shows that percentages of small businesses by size were close in each of these geographical areas (see Appendix Table 8).

Legal Status of Small Businesses

Appendix Table 9 illustrates the distribution of small businesses by legal status in each state. The data revealed that almost half of all small businesses (45% in Appalachia) did not provide information on the legal status of their businesses. To adjust for the large number of businesses with legal status unknown, this category was excluded from the analysis and the tables.

Of reporting small businesses, sole ownerships and corporations constituted respectively, 49.1% and 44.7%, of small businesses in Appalachia. Partnerships comprised only 6.2% of all the small businesses. There were some outliers in this distribution on a state level. The percent of sole ownerships in Georgia and South Carolina (43.7% and 44.3%, respectively) was lower than for Appalachia in total (49.1%). On the other hand, the percent of corporations in those states (51.4% for Georgia and 49.9% for South Carolina) was higher than the regional total of 44.7%. In addition, the percent of sole ownerships in Ohio (55.2%) was higher and the percent of corporations (38.7%) was lower than the Appalachian total.

Comparison of MSA and NonMSA regions shows that percent of sole ownerships in NonMSA counties was higher than in MSA counties by almost 7 percentage points (see Appendix Table 10a). In addition, the same pattern can be observed when distressed

counties were compared to non-distressed; the portion of sole ownerships was higher in distressed counties by 2.7 percentage points (see Appendix Table 10b). This phenomenon can be possibly explained by a greater portion of local businesses versus franchises in rural and distressed counties. The higher share of sole ownerships in Appalachia as a whole and in rural and distressed counties might reflect an entrepreneurship of necessity; that is, Appalachian residents may establish small businesses because of the paucity of wage and salary jobs.

Lending Analysis

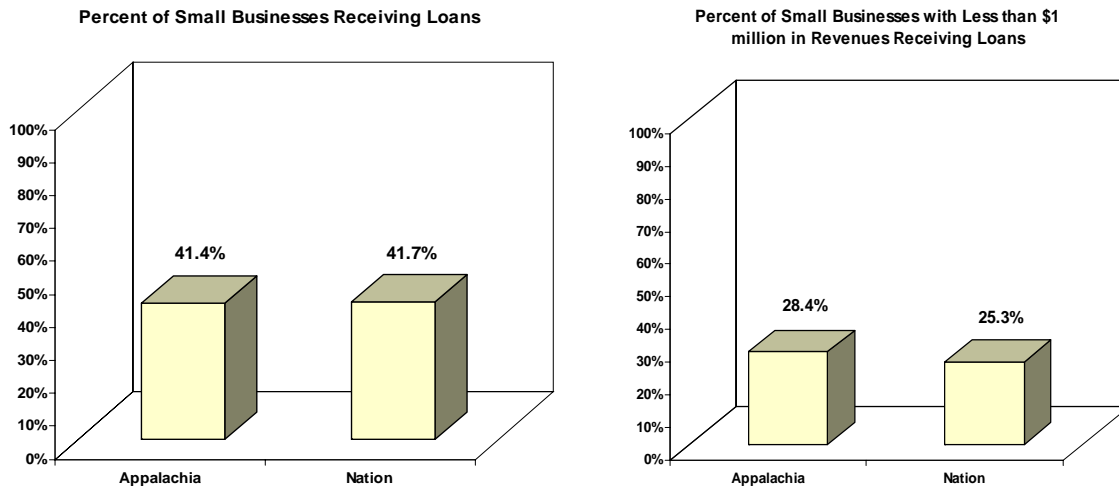
This section provides an extensive analysis of small business lending trends in the Appalachian region. A descriptive lending analysis becomes richer when keeping in mind the demographics of the small businesses. As discussed above, the demographic composition of small businesses was similar for the nation and Appalachia. Like the nation, the largest percentages of small businesses in Appalachia were in the services and retail sectors. Similar to the nation, almost 60 percent of the small businesses in Appalachia had just 1 to 4 employees. Unlike the nation, however, a slightly larger portion of Appalachian businesses were sole ownerships as opposed to corporations. Overall, the data reflected lending to very small businesses with just under half of the small businesses in Appalachia in the services and retail sectors. The small business lending data was for the year 2003.

Comparison to the Nation

Like business demographic indicators, lending indicators overall for Appalachia were close to the respective indicators for the nation. Appendix Table 11 and Figure 5 show that 41.7% of small businesses nationwide received small business loans whereas the figure for Appalachia was 41.4% during 2003. For small business (SB) loans to small businesses with revenues less than \$1 million, the indicators were 25.3% for the nation and 28.4% for Appalachia. Almost 41% of Appalachian NonMSA small businesses received SB loans

and 39.5% of national NonMSA small businesses received loans. For MSA areas, these indicators were 42.2% for the nation and 41.7% for Appalachia.

Figure 5



Source: Appendix Table 11 – rows *Nation Total* and *Appalachia Total* and columns *# SB Loans/#SB* and *# SB loans to SB with =<1mln) / #SB (<\$1mln)*.

The percentage point difference in the ratio of loans to small businesses between MSA and NonMSA areas for the nation was higher (around 3 percentage points) than for Appalachia (less than 1 percentage point). For the nation, 42.2% of the businesses in MSAs received loans whereas 39.5% of the businesses in NonMSA areas received loans. For Appalachia, 41.7% of small businesses received loans in MSA areas and 40.9% of small businesses received loans in NonMSAs.

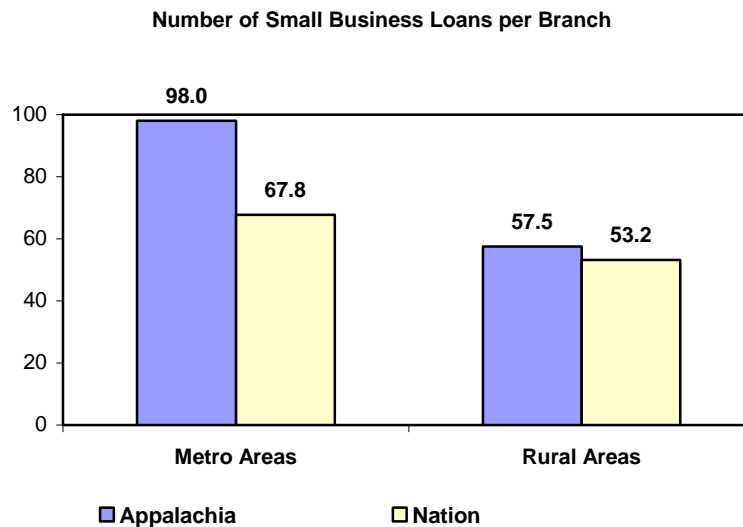
Deposit and branching information is presented in Appendix Table 12. It demonstrates that the small business loan-to-deposit ratio was higher for Appalachia (7%) than for the Nation (5.2%). The ratio was also higher for Appalachian MSA and NonMSA counties. For example, the loan-to-deposit ratio in Appalachian NonMSA counties was 7.2% and was 5.8% for NonMSA areas in the Nation.

Branches were more accessible in Appalachian MSAs than national MSAs, but were less accessible in Appalachian NonMSAs than national NonMSAs. Access to branches is measured by the number of persons per branch. A higher number of persons per branch

generally indicate that branches are less accessible since one branch has to serve a larger population. The number of persons per branch in total was higher for the Nation (3,244) than for Appalachia (2,896). The same pattern could be observed for MSAs. In contrast, for NonMSA counties, the number of persons per branch was higher in Appalachia by more than 500 people during 2003.

When examining small business lending per branch, national MSAs were served better than Appalachian MSAs but Appalachian NonMSAs were served better than national NonMSAs. The number of small business loans per branch was significantly higher for the nation as a whole than for Appalachia. The number of loans per branch was 85.6 for the nation and 63.6 for Appalachia. For MSA counties, these figures were 98 and 67.8, respectively. However, for NonMSA counties the number of SB loans per branch was higher for Appalachia (57.5) than for the whole nation (53.2) (see Figure 6).

Figure 6



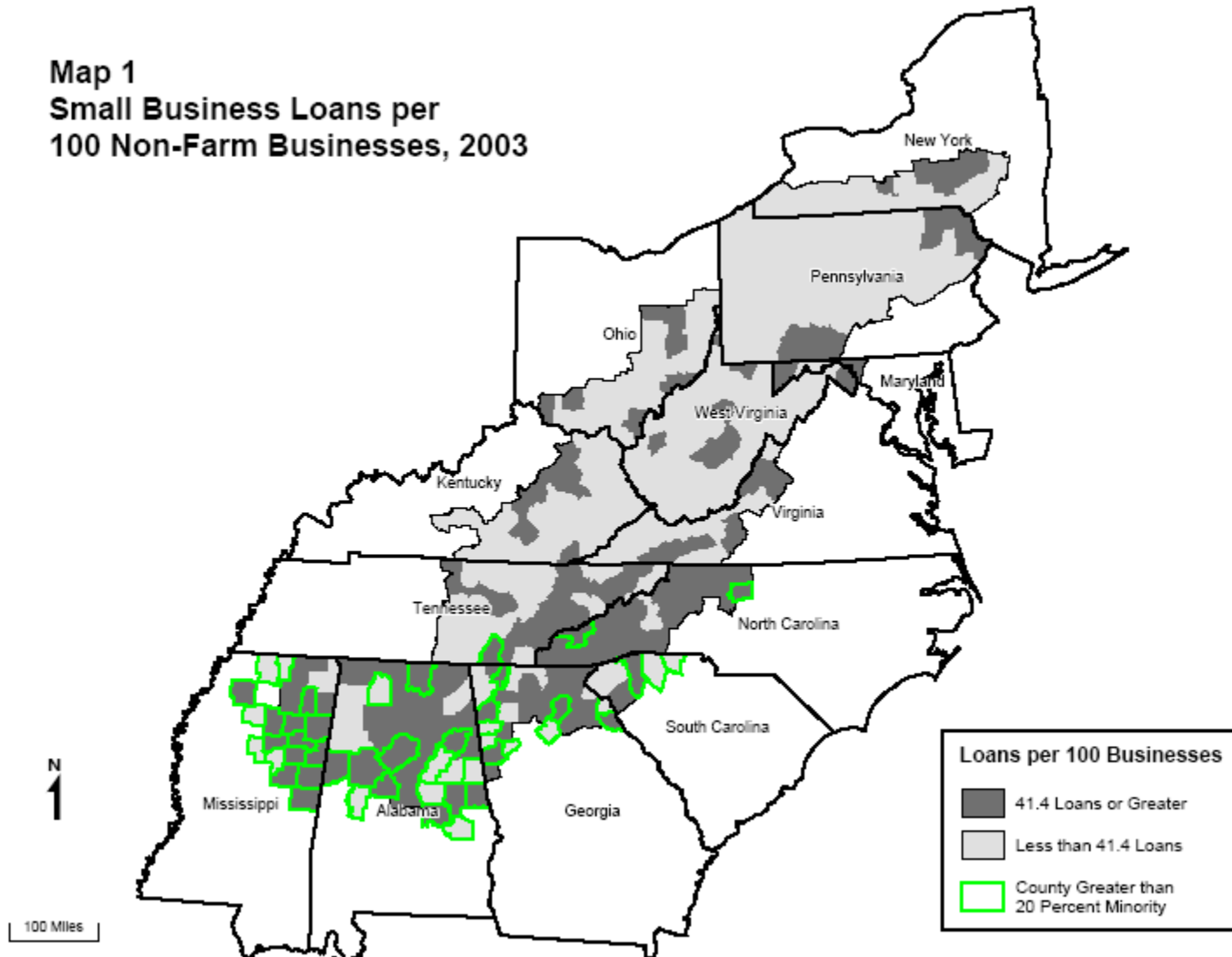
Source: Appendix Table 12 – column *SB Loans/# branches* and rows *MSA (Nation and Appalachia)* and *NonMSA (Nation and Appalachia)*

Appalachia also compared favorably to the nation when considering small business lending by minority level of county (see Appendix Table 13). Appalachia contains 371 counties in which the minority level is between 0 and 20% of the population; 41 counties contain 20% to 50% minorities. Only 6 counties have a minority level above 50% and all of them are

distressed counties⁵. NCRC found that for Appalachia, higher levels of minorities were associated with higher loans-to-SB ratios, meaning that in minority counties a higher percentage of small businesses received loans. In Appalachian counties with less than 20 percent minorities, the loan to small business ratio was 39.4 percent while in counties with 20 to 50 percent minorities, the ratio was substantially higher at 51.4 percent in 2003. In counties with more than 50 percent minorities, the ratio was 53.4 percent. Map 1 below shows that the loans-to-SB ratio was usually higher in counties with substantial minority populations than the regional loans-to-SB ratio. In addition, the difference between the ratios for counties with low minority level and high minority levels was also favorable for the counties with more minorities when considering loans to small businesses with less than \$1million in revenues.

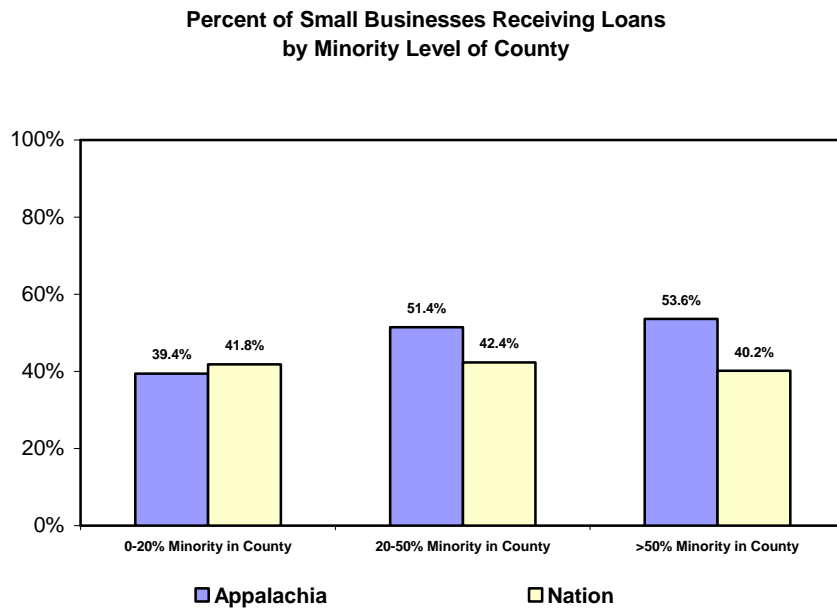
⁵ For the descriptive analysis part of the report NCRC treated eight cities in Virginia as “county equivalent” even though they lost this status. So, the total number of counties is 418. However, this treatment of Virginia geographical areas does not influence the report’s findings as verified through sensitivity analysis.

Map 1
Small Business Loans per
100 Non-Farm Businesses, 2003



In contrast to Appalachia, national level data revealed little difference between counties in these minority groups. In particular, 40.2% of small businesses in high minority counties received loans, 42.4% of small businesses received loans in counties with 20% to 50% minorities, and 41.8% of small businesses were reached in low minority areas (see Figure 7).

Figure 7



Source: Appendix Table 13 – column # *SB Loans*/#*SB* and rows 0-20% (*Nation and Appalachia*), 20-50% (*Nation and Appalachia*) and >50% (*Nation and Appalachia*)

Due to the relatively small number of high minority counties, the correlation between minority level and the percentage of small businesses that received loans needs further investigation. One interesting fact was that of the 47 counties with more than 20% minorities, 32 or 68.1% were in Alabama and Mississippi, while only 29 counties or 7.8% of the 371 counties with minority level less than 20% were located in Mississippi and Alabama. Mississippi and Alabama could be experiencing faster economic growth than the rest of Appalachia.

In conclusion, even though business demographic and small business lending indicators for Appalachia were close to the respective national data, the number of SB loans per branch,

SB loan-to-deposit ratio and number of persons per branch were significantly different.⁶ In terms of the number of branches per person, NonMSA Appalachian counties appeared underserved compared to the nation whereas MSA Appalachian areas outperformed national MSA areas. However, in terms of SB loans per branch, Appalachian NonMSA areas outperformed national NonMSA areas. In addition, SB loan-to-deposit ratios were higher in Appalachia than the nation. On some macro indicators of small business lending, Appalachia appeared to compare favorably to the nation. But differences in meeting small business credit needs emerged within Appalachia (as detailed below).

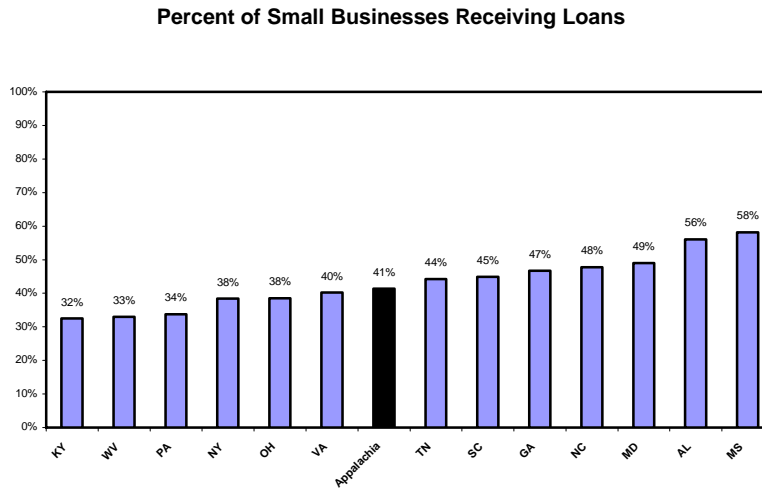
State Level Analysis

Detailed analysis on a state level focuses on branching, deposit and loan information for Appalachian counties aggregated by state and examined in various dimensions.

Appendix Table 14 reveals that 41.4% of small businesses received loans in Appalachia. The Appendix Table and Figure 8 also illustrate that in the Appalachian portion of 7 states the ratio was higher than the regional total and in Appalachian portion of 6 states the ratio was lower than the regional total. In particular, the three states with the lowest ratios were Kentucky (32.5%), West Virginia (32.9%), and Pennsylvania (33.7%); and the three states with the highest ratios were Mississippi (58.1%), Alabama (56.1%), and Maryland (49%) during 2003.

⁶ The descriptive analysis in this chapter does not control for per capita differences or other economic and demographic differences. The regression analysis below controls for a number of economic and demographic characteristics.

Figure 8



Source: Appendix Table 14 – column # *SB Loans*/*#SB*

Examining the ratio of the number of loans to small businesses with less than \$1 million in revenues shows that a few states switched positions (see Appendix Table 14). The three states where the ratio was the highest were Mississippi (66.2%), Alabama (40.8%), and Georgia (33.9%). The lowest ratios were in Pennsylvania (20.8%), West Virginia (21.4%), and Ohio (22.6%).

Overall, in Appalachia only 28.4% of small businesses with revenues less than \$1 million received small business loans in 2003. In other words, small businesses with revenues under \$1 million received fewer loans relative to all small businesses combined (41.4% of all small businesses received loans versus 28.4% for small businesses with less than \$1 million in revenues).

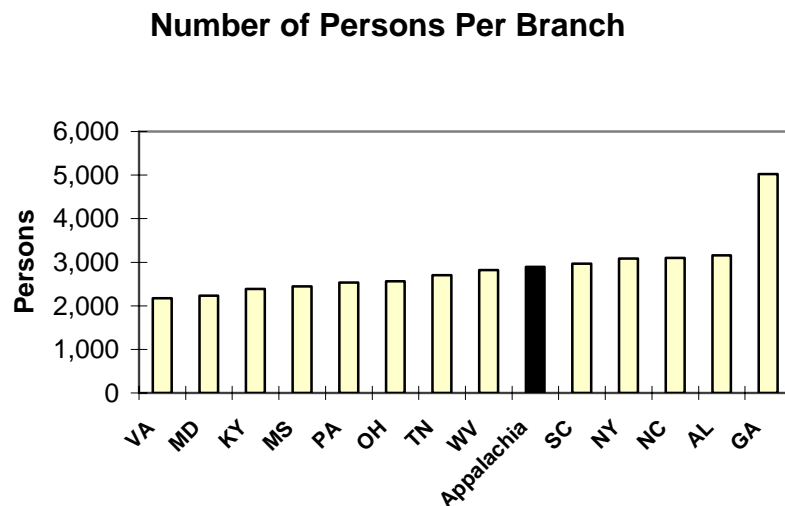
Another ratio worthy of examination is SB loans under \$100,000 divided by the number of small businesses because loans under \$100,000 are typically needed by smaller businesses. The patterns for the ratio between the number of SB loans of less than \$100,000 and number of SBs were similar to the trends for the total number of SB loans. The three states with the highest ratios were Mississippi (52.5%), Alabama (49.5%) and Maryland (44.8%).

The lowest ratios were in Kentucky (30%), West Virginia (30.1%) and Pennsylvania (31.1%).

The ratio of SB loans to deposits is yet another measure of lending activity. Georgia, Mississippi and Alabama had the highest loan-to-deposit ratios, 11.3%, 10.5% and 9.6%, respectively. On the other hand, the lowest ratios were in Kentucky (4.4%), Pennsylvania (4.7%) and Virginia (4.8%).

The number of persons per branch also shows the level of services provided by banks. Higher numbers of people per branch reveal a lower supply of branches.⁷ The states with the highest number of persons per branch (or the lowest supply of branches per capita) were Georgia (5,025), Alabama (3,156) and North Carolina (3,096) (see Figure 9). The lowest number of people per branch was in Virginia (2,174), Maryland (2,233) and Kentucky (2,388).

Figure 9



Source: Appendix Table 14 – column *Number of persons per branch*

Interestingly, Southern States often performed the best on small business lending indicators. Midwestern states tended to perform worse than their peers.

⁷ This analysis does not explicitly take into account that a lower number of people per branch may be due to sparse population or low population density in some counties. Nonetheless, statewide ratios are still suggestive of differences in branching across Appalachia.

States by Metropolitan and Non-Metropolitan Areas

The MSA/NonMSA analysis presented in Appendix Table 15 shows that lenders served businesses better in MSAs than NonMSA counties. For the region in total, the ratios were close; 41.7% of the businesses in MSAs received loans and 41% of the businesses in NonMSAs received loans. In nine states, however, the ratio of loans per small businesses was higher in MSAs than NonMSAs. For example, in Alabama 58.6% of businesses received loans in MSA counties and 48.6% of small businesses received loans in NonMSA counties. Likewise, 37 percent of the small businesses received loans in MSAs while 31.2 percent of the businesses received loans in NonMSA counties in Kentucky. In contrast, in Georgia, New York and Pennsylvania, the percent of small businesses that received SB loans in MSA counties was lower than in NonMSA counties. In Georgia, 50.6% of small businesses in NonMSA counties received loans and only 44.7% of small businesses received loans in MSAs. Map 2 and Table 1 below display lending trends in MSA and NonMSA counties.

Table 1

Percent of Small Businesses Receiving Loans in Metro and Rural Areas for Each State

State	AL		GA		KY		MD		MS	NC		NY	
	Metro	Rural	Metro	Rural	Metro	Rural	Metro	Rural	Rural	Metro	Rural	Metro	Rural
All Businesses	58.6%	48.6%	44.7%	50.6%	37.0%	31.2%	49.1%	48.8%	55.5%	48.3%	47.0%	38.1%	38.7%
Businesses with <\$1 million	41.8%	38.0%	27.8%	46.5%	27.3%	22.7%	27.0%	31.5%	55.8%	29.1%	30.8%	20.4%	24.7%

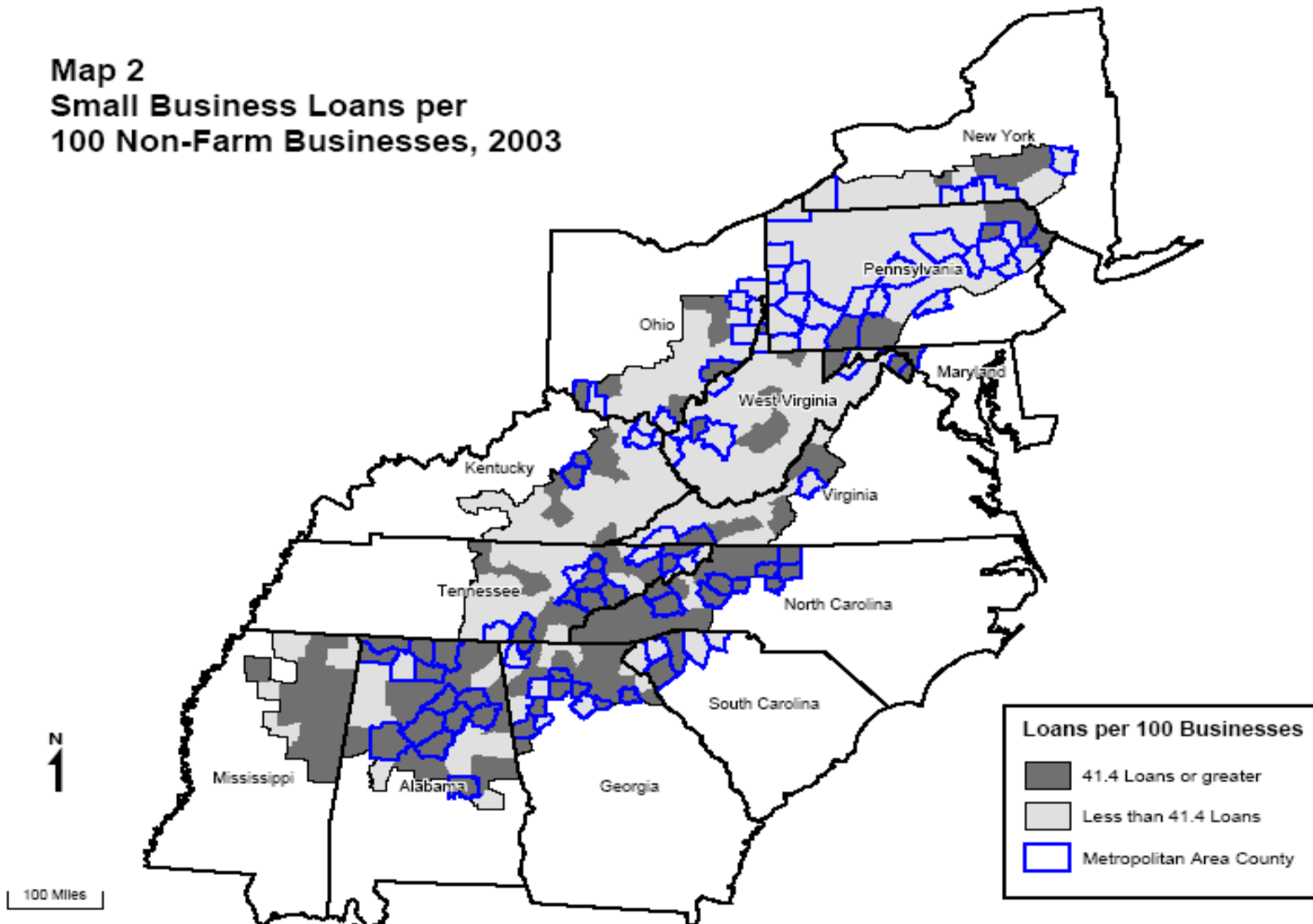
State	OH		PA		SC		TN		VA		WV	
	Metro	Rural	Metro	Rural	Metro	Rural	Metro	Rural	Metro	Rural	Metro	Rural
All Businesses	39.9%	37.5%	33.2%	35.3%	45.1%	40.3%	45.4%	42.1%	47.8%	38.4%	34.6%	31.5%
Businesses with <\$1 million	21.9%	22.8%	20.1%	22.9%	28.7%	21.5%	33.5%	32.1%	40.5%	26.3%	20.8%	21.8%

State	Appalachia	
	Metro	Rural
All Businesses	41.7%	41.0%
Businesses with <\$1 million	26.9%	30.9%

Source: Appendix Table 15 columns #SB loans/#SB and #SB loans to SB =< 1 mln/#SB (<1 mln); rows MSA and NonMSA for each state.

The ratio showing the percent of small businesses with less than \$1 million in revenues that received loans had a larger discrepancy between MSA and NonMSA counties in Appalachia than the ratio for all small businesses and all loans. In particular, 26.9% of small businesses with less than \$1 million in revenues received loans in MSA areas whereas 30.9% of such businesses received loans in NonMSA areas during 2003. This was a difference of 4 percentage points whereas for all small businesses the difference in MSA versus NonMSA counties was less than 1 percentage point. In addition, in the Appalachian portion of seven states, businesses with revenues less than \$1 million received a higher percent of loans in MSA than NonMSA counties. Overall, small businesses with revenues less than \$1 million had less access to loans than all businesses as measured by the loans per small business ratio. Interestingly, however small businesses with revenues less than \$1 million had greater access to loans if they were located in Appalachian NonMSA counties than if they were located in MSAs as revealed by the loans per small business ratio.

Map 2
Small Business Loans per
100 Non-Farm Businesses, 2003



Distressed and Non-Distressed Counties

Appendix Table 16 and Table 2 show lending patterns for distressed and non-distressed counties.⁸ Overall, the percent of small businesses that received SB loans was higher for non-distressed counties -- 32.1% of the businesses in distressed counties as opposed to 41.9% for non-distressed counties. Map 3 below clearly displays the lower loan to small business ratios for distressed counties. Similarly, for non-distressed counties 28.5% of small businesses with less than \$1 million in revenues received loans and 26.7% of these businesses received loans in distressed counties. As for the loans of less than \$100,000, 38% of small businesses received these loans in non-distressed counties and 29.9% in distressed counties.

Table 2

Percent of Small Businesses Receiving Loans in Distressed and Non-Distressed Counties

	% of Loans to Small Businesses	% of Loans to Smallest Businesses*	% of Loans less than \$100,000
Distressed	32.12%	26.71%	29.90%
Non-distressed	41.91%	28.51%	38.01%

* "Smallest Businesses" are businesses with less than \$1 million in Revenues,
Source: Appendix Table 16, columns #SB loans/#SB

⁸ For FY 2005, the Appalachian Regional Commission defines distressed counties as those counties that have a three-year average unemployment rate that is at least 1.5 times the U.S. average of 4.8 percent; a per capita market income (less transfer payments) that is two-thirds or less of the U.S. average of \$26,309; and a poverty rate that is at least 1.5 times the U.S. average of 12.4 percent; OR they have 2 times the U.S. poverty rate and qualify on the unemployment or income indicator.

The U.S. average and the distressed county level for each indicator are as follows:

	U.S. Average	Distressed County
Three-Year Average Unemployment Rate (2000-2002)	4.8%	7.3% or more
Per Capita Market Income Less Transfer Payments (2001)	\$26,309	\$17,627 or less
Poverty Rate (2000)	12.4%	18.6% or more

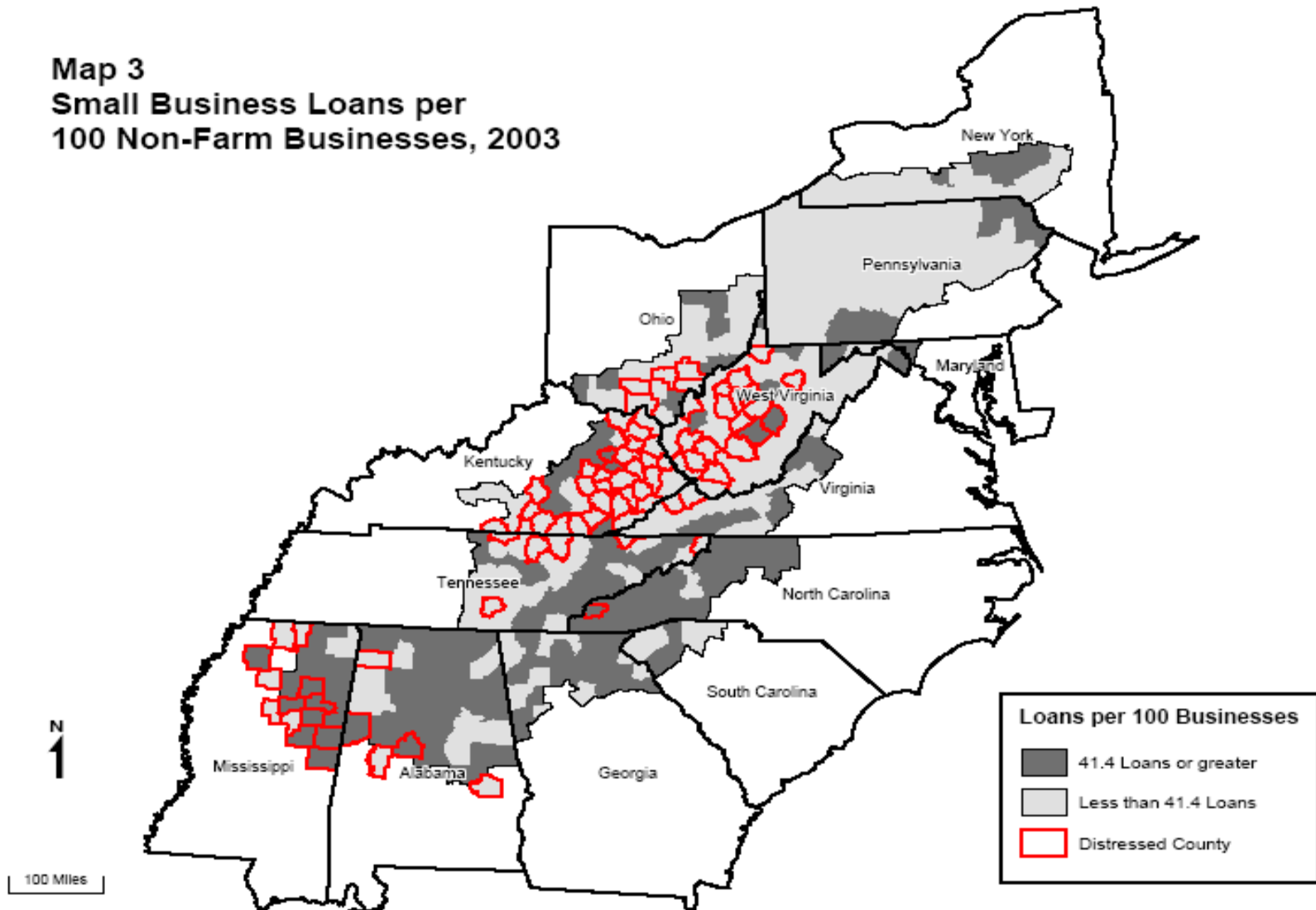
Data Sources:

Unemployment data: U.S. Department of Labor, Bureau of Labor Statistics, 2000-2002

Income data: U.S. Department of Commerce, Bureau of Economic Analysis, 2001

Poverty data: U.S. Department of Commerce, Bureau of the Census, 2000

Map 3
Small Business Loans per
100 Non-Farm Businesses, 2003

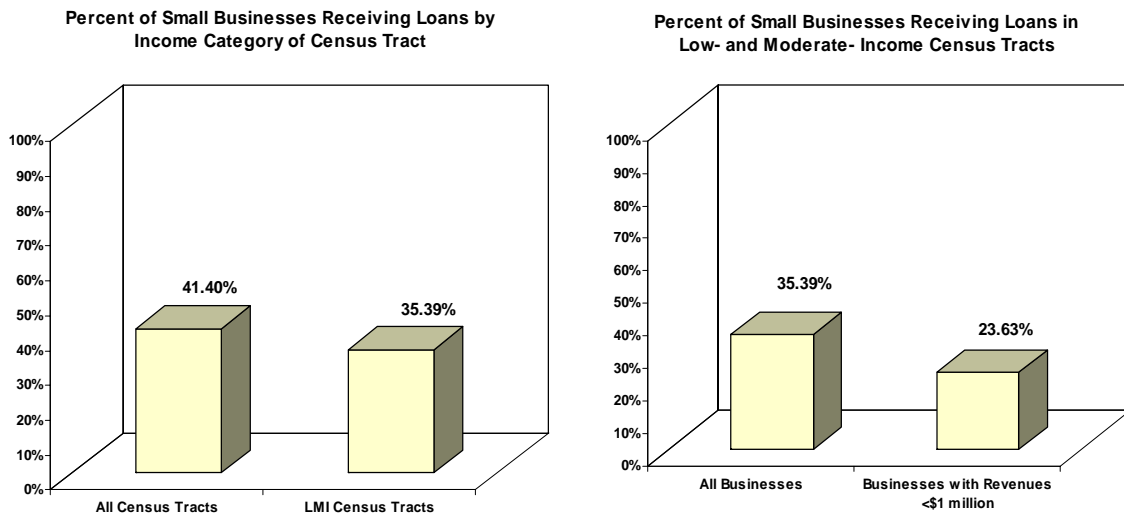


Census Tract Level Analysis

This section presents analysis of small business lending trends on a census tract level. In particular, an examination is conducted of lending trends in low- and moderate- income (LMI) census tracts in MSA counties compared to NonMSA counties. In addition, lending in LMI census tracts located in distressed counties is compared to lending in LMI census tracts in non-distressed counties.

Appendix Table 17 represents lending trends in low- and moderate- income census tracts in each state and compares them to lending in all census tracts. Overall, in each state, the percent of small businesses that received SB loans was higher in all census tracts combined than in LMI census tracts. For the Appalachian region 41.4% of the businesses in all tracts received loans but just 35.4% of the businesses in LMI tracts received loans during 2003 (see Figure 10). The difference in the ratio for all tracts and LMI tracts was 6 percentage points. The three states in which the difference in the ratios was the largest between all tracts and LMI tracts were Virginia (11.3% percentage points), Ohio (7 percentage points) and South Carolina (6.9 percentage points). The smallest difference in the ratio was for West Virginia (2.4 percentage points), Maryland (2.9 percentage points) and Alabama (3.2 percentage points).

Figure 10



Source: Appendix Table 17 – row *Total Appalachia* and columns *All Census Tracts (# SB Loans/#SB)* and *LMI Census Tracts (# SB Loans/#SB and number # SB loans to SB with =<1mln / #SB (<\$1mln)*

Small businesses with revenues under \$1 million tend to receive the fewest loans as reflected by the loans to small business ratio. The ratio of loans to small businesses was usually considerably smaller for loans to businesses with less than \$1 million in revenues than for loans to all small businesses. In particular, for LMI census tracts, 35.4% of all small businesses and only 23.6% of small businesses with less than \$1 million in revenues received loans (see Figure 10). The three states with the largest difference between these ratios in LMI census tracts were Maryland (18.8 percentage points), North Carolina (18.4 percentage points) and South Carolina (14.8 percentage points). The smallest difference was observed in Virginia (6.5 percentage points), Mississippi (7.9 percentage points) and Kentucky (9.3 percentage points). Interestingly, Mississippi was the only state in which the loan to small business ratio in LMI tracts was more favorable for small businesses with revenues under \$1 million than all small businesses (see Appendix Table 17).

Another measure of lending is comparing the portion of SB loans in LMI areas against the portion of small businesses in LMI census tracts. For each state the portion of small businesses in LMI census tracts was higher than percent of SB loans located in these census tracts. For the region as a whole 17.7% of all the SB loans were made in LMI census tracts, however, the percent of small businesses located in these census tracts was 20.7%. In other words, the portion of loans in LMI areas was 3 percentage points less than the portion of small businesses in LMI tracts. The three states doing the best on this measure were Mississippi, North Carolina and Alabama with 0.8, 0.9, and 1.3 percentage points difference, respectively. The largest difference between the portion of small businesses in LMI census tracts in a county and portion of small business loans made in LMI areas was in Kentucky (5.9 percentage points), Virginia (5.5 percentage points) and Ohio (5.1 percentage points). In lending to LMI tracts, no sub-region did consistently better or worse. In contrast, the Southern region tends to perform better on overall measures of small business lending.

Census Tract Data Compared to County Data on Distressed and Metropolitan Status

Appendix Table 18 represents small business lending ratios in LMI census tracts and all the census tracts of Appalachia comparing indicators for distressed and non-distressed counties and MSA and NonMSA counties.

As mentioned above there were more SB loans per small business in non-distressed counties than in distressed counties as well as in MSA counties versus NonMSA counties. However, the difference between the ratios for MSA and Non-MSA counties was lower than the disparity between distressed and non-distressed counties. In contrast, the difference between MSAs and NonMSAs in lending to LMI tracts was larger than the difference between distressed and non-distressed counties. In MSA counties 36.9% of small businesses in LMI census tracts received loans and 41.7% of small businesses located in all census tracts combined received loans during 2003. For NonMSAs, 31.8% of businesses located in LMI areas received loans and 41% of businesses located in all census tracts combined received loans (see Table 3). The difference between LMI census tracts and all census tracts combined was higher in NonMSA areas, 8.2 percentage points, than in MSA counties, 4.8 percentage points.

Table 3

Percent of Small Businesses Receiving Loans in Distressed/Non-Distressed and Metro/Rural Counties by Income Level of Census Tracts

	All Census Tracts	LMI Census Tracts
Distressed Counties	32.12%	26.25%
Non-Distressed Counties	41.91%	36.53%
Metro Areas	41.65%	36.88%
Rural Areas	40.98%	31.77%

Source: Appendix Table 18, columns All Tracts and LMI Tracts, #Loans/#SB

For distressed counties, 26.3% of small businesses located in LMI census tracts received loans and 32.1% of businesses in all census tracts received loans. For non-distressed counties, 36.5% of LMI census tracts businesses received loans whereas 41.9% of all small

businesses received loans (see Table 3). Contrary to MSA and NonMSA counties, the difference between lending in LMI census tracts and all census tracts combined in distressed counties was closer to the difference between LMI and all tracts in non-distressed counties -- 5.9 and 5.4 percentage points, respectively.

On another measure of performance - the difference between the portion of businesses located in LMI census tracts and the portion of loans made in those tracts – distressed counties did not fare as well when compared to non-distressed counties. The difference between the percent of businesses located in LMI census tracts and percent of loans in LMI tracts was 8.1 percentage points in distressed counties but just 2.5 percentage points in non-distressed counties. In other words, 44 percent of the businesses in distressed counties were in LMI tracts, but these businesses received just 36 percent of the loans in distressed counties. On the other hand, 19.5 percent of the businesses in non-distressed counties were in LMI tracts and they received 17 percent of the small business loans in non-distressed counties during 2003. In contrast, the difference between the portion of businesses and the portion of loans in LMI tracts was narrower between MSA and NonMSA counties. For MSA counties, the difference was 2.7 percentage points whereas the difference for NonMSA areas was 3.6 percentage points.

Overall, it is reasonable to assert that differences in lending were sharper for businesses in LMI tracts in distressed counties than for businesses in LMI tracts in non-metropolitan counties. When observing the loan to small business ratio, the small businesses in LMI tracts in non-metropolitan counties appeared to have less access to loans than the businesses in distressed counties. But this observation is made in the context of lower levels of lending in distressed counties than non-metropolitan counties, meaning that the differences across income level of tract will be less pronounced when comparing lending in distressed and non-distressed counties than when comparing lending across metropolitan and non-metropolitan counties. Given that lower lending levels probably blunt the differences in the small business to loan ratio in distressed counties compared to non-distressed counties, the indicator of the portion of loans compared to the portion of small businesses becomes more important. This indicator suggests less access to loans for small

businesses in LMI tracts in distressed counties relative to small businesses in non-metropolitan counties.

Conclusions

This chapter examined population and small business demographic trends on a national level and in Appalachia. Within Appalachia, this chapter compared small business demographic trends across states. The lending analysis then proceeded in a similar manner – national comparisons were first discussed followed by state, county, and then census tract analyses.

While Appalachia comprised fewer minorities than the nation as a whole, small business demographics were remarkably similar. The two largest small business sectors in the nation and in Appalachia were services and retail. Similarly, almost 60 percent of the small businesses in Appalachia and the nation were very small, consisting of 1 to 4 employees. The legal status of the firms was somewhat but not dramatically different between the United States and Appalachia. The portion of sole ownerships was greater in Appalachia than the United States by about 3 percentage points and the portion of corporations was higher in the United States than Appalachia by about 3 percentage points. Within Appalachia, the composition of small businesses was similar across states and counties with some notable exceptions. For instance, the percent of agricultural small businesses was higher in non-metropolitan areas while the percent of service sector business was higher in metropolitan areas in Appalachia. Also, the percent of sole ownerships was higher in non-metropolitan areas than metropolitan areas in Appalachia.

Since the small business demographics appeared relatively similar for the nation compared to Appalachia, it is consistent that lending trends were similar in Appalachia and the nation. For example, about 41 percent of the businesses in the nation and Appalachia received loans in 2003. In addition, Appalachia compared favorably against the nation on some lending indicators. Appalachia compared favorably against the nation when considering small business loan-to-deposit ratios and small business lending in minority counties. The

nation performed better when considering the number of small loans per branch in all counties, but Appalachia outperformed the nation on this indicator in non-metropolitan counties.

Within Appalachia, striking differences emerged in access to credit. When considering the ratio of loans to small businesses, loans to deposits and persons per branch, the Appalachia parts of southern states tended to have the best performance while the Midwest states lagged.

On a county level, small businesses in non-metropolitan counties and in distressed counties had less access to loans when considering loans-to-small business ratios for businesses of all sizes and when considering loans to small business ratio for businesses with revenues of less than \$1 million. In addition, small businesses with revenues of less than \$1 million had the least access to credit than small businesses of all sizes. Interestingly, however, small businesses with revenues of less than \$1 million were served better in non-metropolitan areas than metropolitan areas when examining the loans per small business ratio.

The differences in access to lending were also sharper when comparing distressed and non-distressed counties than when comparing non-metropolitan to metropolitan counties. Within counties, businesses in low- and moderate-income tracts experienced the least access to loans on a number of indicators.

Mid-Size Banks and Government Backed Lending: Serving Communities and Businesses Most in Need of Credit?

The extensive research literature review in this report suggests that smaller banks specialize in making loans to small businesses. To test this proposition, this chapter looked at the lending activities of mid-size lenders with revenues between \$250 million and \$1 billion. The sample used in this chapter contained the lending records of 123 mid-size banks and thrifts headquartered in Appalachia that had 1,120 branches.⁹ It would be desirable to scrutinize the lending activities of even smaller banks, however, banks with assets of less than \$250 million do not report small business loans per the requirements of the Community Reinvestment Act (CRA) regulations.

In addition to describing the lending patterns of small banks, this chapter examines the lending patterns of loans with government-backing. The Small Business Administration (SBA) provided NCRC with data on government-backed lending on a county level for the year 2003, which is also the year for the CRA small business lending data analyzed in this study. The data presented in this chapter reflects the lending activity of the major SBA program, the SBA 7(a) program. The SBA web page describes the 7(a) program as the primary business loan program designed to provide access to credit for small businesses who “might not be eligible for business loans through normal lending channels.” The 7(a) loans can be used for most purposes ranging from working capital, equipment, land and building acquisition, and debt refinancing. SBA 7(a) loans have a typical duration of 10 years for working capital and up to 25 years for fixed assets. Traditional banks and thrifts make the 7(a) loans while the SBA issues the loan guarantees.¹⁰

⁹ NCRC identified the mid-size banks and thrifts headquartered in Appalachia by using the FDIC database *Statistics on Depository Institutions* available via <http://www2.fdic.gov/sdi/index.asp>. The CRA small business lending data of these institutions was then used to tabulate their lending levels by county.

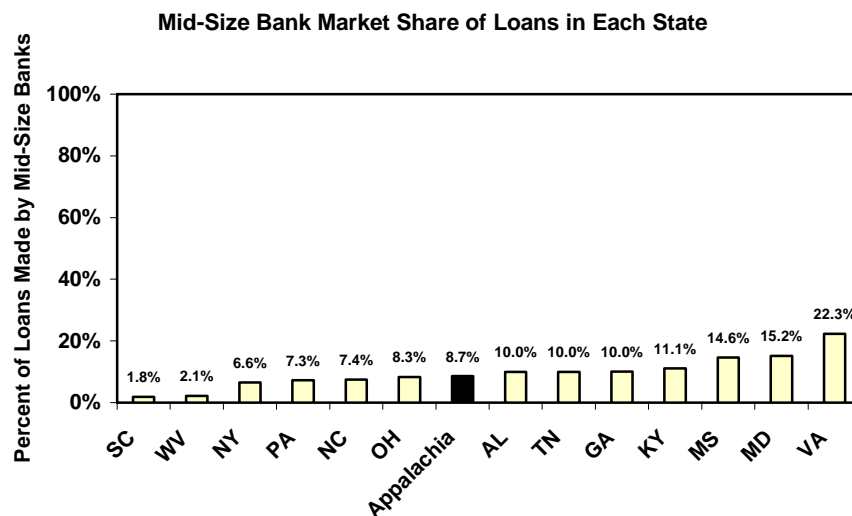
¹⁰ See description of the SBA 7(a) program on <http://www.sba.gov/financing/sbaloan/snapshot.html>. Last visited on May 6, 2006.

Mid-Size Banks

While it may appear that mid-size banks had a small role in the lending market, their presence was larger in non-metropolitan counties, distressed counties, and in counties with high numbers of minorities. Mid-size banks therefore had an important role in serving the hardest to reach small businesses in Appalachia.

In the Appalachian region, the mid-size banks issued 45,887 of the 530,309 CRA-reported small business loans during 2003. The mid-size bank market share of loans was 8.7% (see Appendix Table 19 and Figure 11). In other words, mid-size banks issued 8.7% of all loans in Appalachia. Mid-size banks exceeded their overall Appalachian market share in the Appalachian portion of seven states: Alabama, Georgia, Kentucky, Maryland, Mississippi, Tennessee, and Virginia. They had high market shares of 15.2% of the loans in Maryland and 22.3% of the loans in Virginia. Their lowest market share was in South Carolina (of 1.8%).

Figure 11



Source: Appendix Table 19 – column *Mid-size Banks' Market Share*

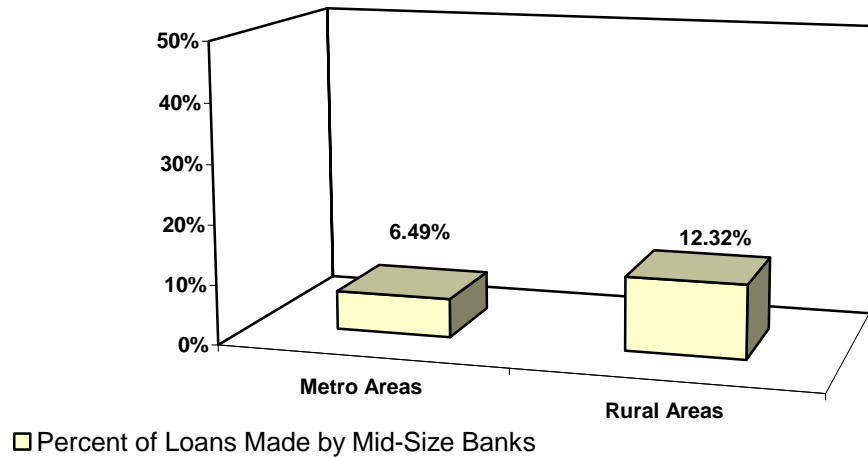
The states in which the mid-size bank market share of loans was high were also states in which their market share of deposits and branches was also high as displayed in Appendix Table 20. For example, in Maryland, the high mid-size bank market share of loans appeared to be correlated with a high market share of deposits (37.7%) and branches

(39.7%). A similar relationship between relatively high mid-size bank loan, deposit, and branch market share was present in Virginia and Mississippi. As suggested by the literature, mid-size banks' success in Appalachian lending markets hinges on their branches and deposit gathering activity. This is evidence of relationship lending featuring direct contact with and in-depth knowledge of small businesses utilizing mid-size bank branches.

Mid-size banks had a market niche in serving small businesses in non-metropolitan counties. The mid-size bank market share of loans was higher in NonMSA counties versus MSA counties. Mid-size banks made 12.3% of loans in NonMSA counties but just 6.5% of loans in MSA counties. Map 4 and Figure 12 below show mid-size bank market share in MSA and NonMSA counties in Appalachia. The mid-size bank market ratio was higher for NonMSA counties than for MSA counties in all Appalachian states but Maryland, South Carolina, Virginia, and West Virginia. In Ohio, for example, mid-size banks had a market share in NonMSA counties of 13.9% of all loans while their market share in MSA counties was just 1.2% of all loans. Likewise, in Alabama the mid-size bank market share was 16.1% in NonMSA counties but just 8.3% in MSA counties.

Figure 12

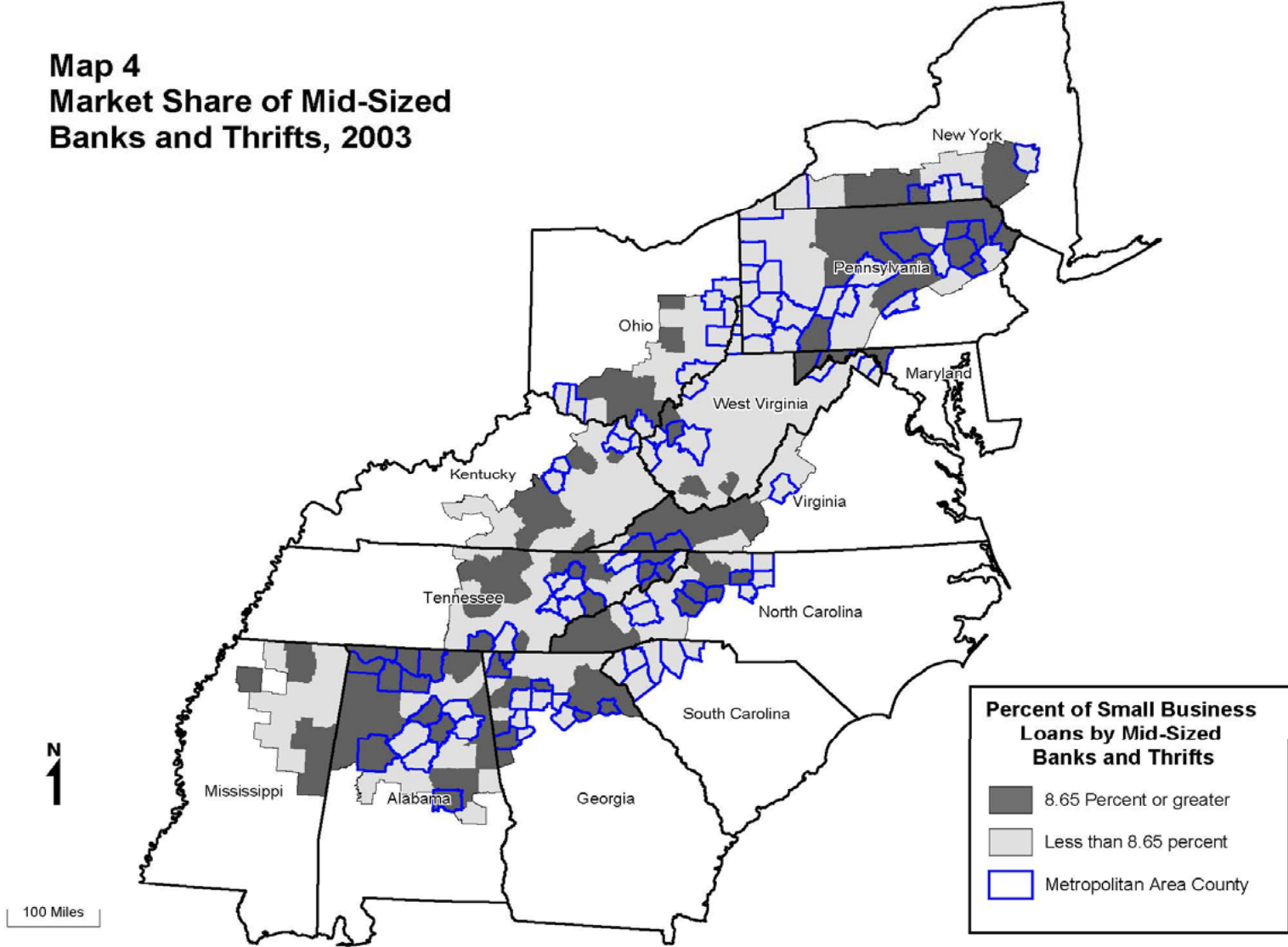
Mid-Size Bank Market Share in Metro and Rural Counties



Source: Appendix Table 21 – column *Market Share %* and rows *Appalachia (MSA)* and *Appalachia (NonMSA)*

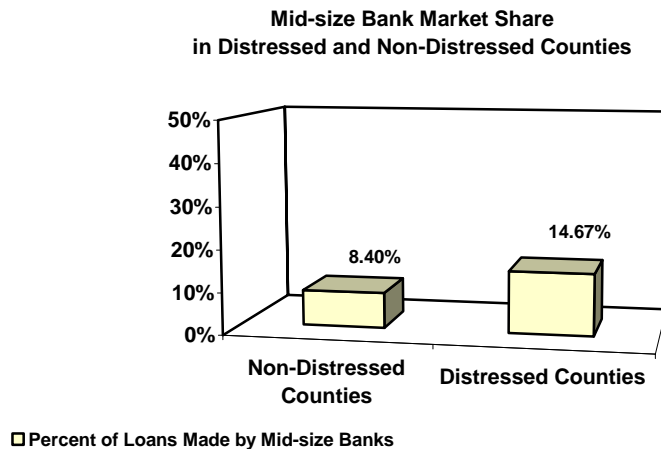
Mid-size banks also reached a higher percentage of small businesses in NonMSA counties than MSA counties. Mid-size banks issued loans to 5% of small businesses in NonMSA counties and 2.7% of small businesses located in MSA counties during 2003. The pattern of serving a higher percentage of small businesses in NonMSA counties held for 8 of the 13 Appalachian states. For instance, mid-size banks made loans to 7.3% of the small businesses in NonMSA counties in Georgia and 3.4% of the small businesses in MSA counties in the Peach state. Similarly, mid-size banks issued loans to 4% of the small businesses in NonMSA counties in Pennsylvania and 2% of the small businesses in the MSA counties in the Keystone state.

**Map 4
Market Share of Mid-Sized
Banks and Thrifts, 2003**



Just as with non-metropolitan counties, mid-size banks had a larger presence in the lending market in distressed counties than in non-distressed counties (see Appendix Table 22). Mid-size banks had a market share of 14.7% of the loans in distressed counties and a market share of 8.4% in non-distressed counties (see Map 5 and Figure 13 for a pictorial display of mid-size bank market share in distressed and non-distressed counties). Interestingly, the mid-size bank median market share in non-distressed counties (4.6%) was higher than their median market share (1.8%) in distressed counties. Mid-size bank average market share in distressed and non-distressed counties did not differ by that much. The discrepancy between overall market share and median market share was probably explained by the dispersion of mid-size bank lending. While mid-size banks had a smaller median market share of loans in distressed counties than non-distressed counties, mid-size banks probably dispersed loans over a greater number of distressed counties than non-distressed counties in absolute terms or relative to other banks, enabling them to have an overall market share of loans that was larger in distressed than non-distressed counties.

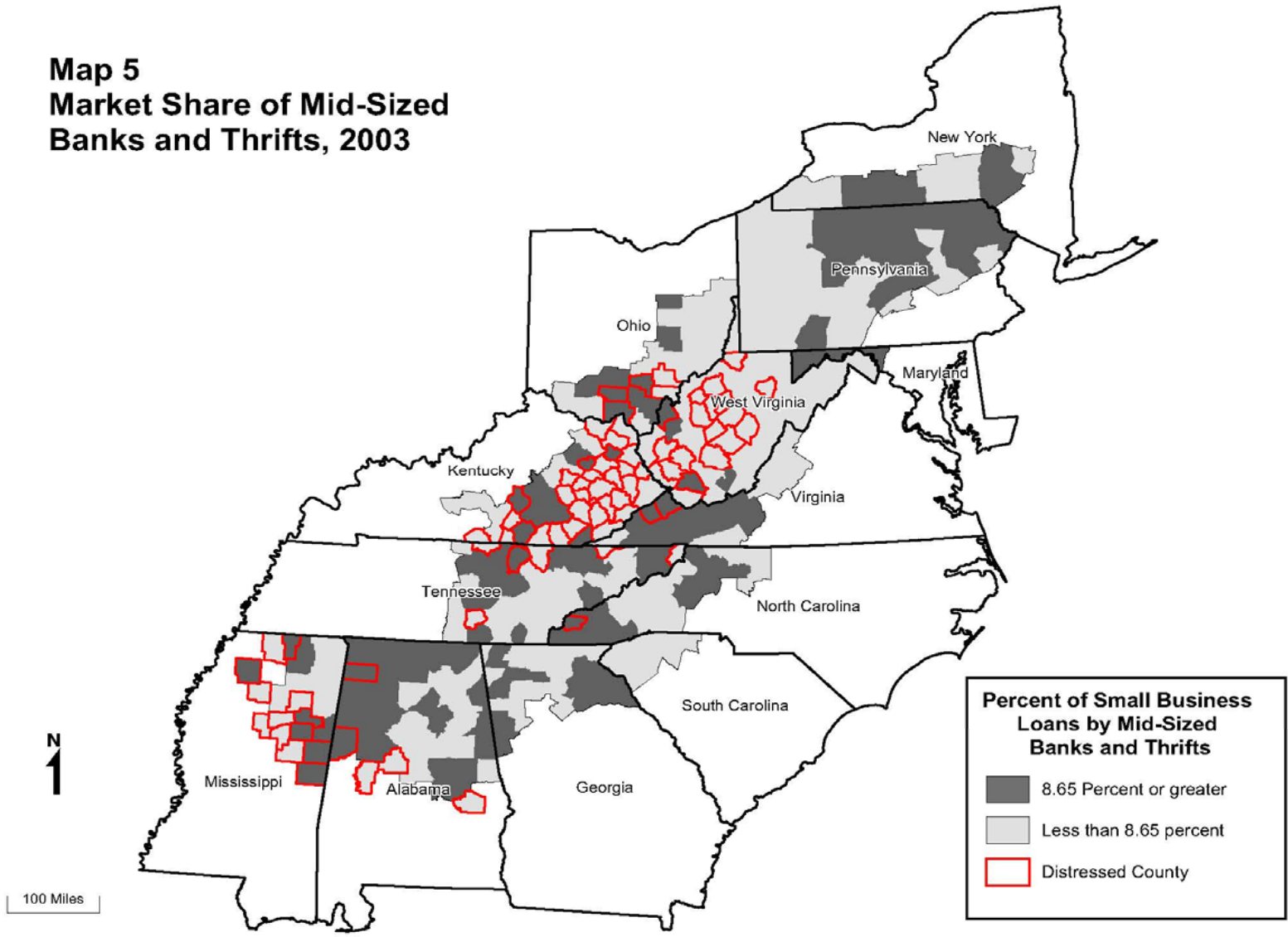
Figure 13



Source: Appendix Table 22 – column *Mid-size Banks' Market Share, number of loans* and rows *Total- Non-distressed* and *Total-Distressed*

Likewise, the percent of small businesses receiving loans from mid-size banks in distressed areas (4.7%) was higher than the percent of small businesses located in non-distressed areas (3.5%). This statistic reinforces the finding that mid-size banks concentrated their lending in distressed counties relative to non-distressed counties.

**Map 5
Market Share of Mid-Sized
Banks and Thrifts, 2003**



Mid-size banks appeared to be particularly active in counties with more than 50% minorities (see Appendix Table 23). The market share of loans made by mid-size banks in substantially minority counties (minority level >50%) was 28.6% whereas in counties with less than 20% minorities, mid-size banks issued less than 10% of all small business loans. The mid-size bank median market share of 10.7% in substantially minority counties was also much higher than the mid-size bank median market share of 4.2% in counties with less than 20% minorities. In contrast, mid-size banks had their lowest overall market share of 6.7% in counties with between 20% to 50% minorities.

The analysis in this chapter supports the thesis that mid-size banks were particularly responsive to the credit needs of small businesses. Overall mid-size bank market share of loans was greater in NonMSA counties than MSA counties, in distressed counties than non-distressed counties, and in substantially minority counties than non-minority counties. Some of the data were not completely consistent with the thesis that mid-size banks had a niche in traditionally underserved markets. For example, median mid-size bank market share was lower in distressed than non-distressed counties. But overall mid-size bank market share in distressed counties was larger in non-distressed counties, most likely due to a greater dispersion of mid-size bank loans in distressed than non-distressed counties. In addition, while mid-size bank market share was particularly high in counties with more than 50 percent minorities, it was lower in counties with 20 to 50 percent minorities than in counties with less than 20 percent minorities. Mid-size banks in Appalachia were more successful overall in serving non-metropolitan and/or distressed counties than they were in serving counties with a moderate to heavy minority population (between 20 to 50 percent minorities).

SBA 7(a) Loan Program

The SBA loan program had a small presence in the Appalachian and national lending market. Overall in Appalachia, the 7(a) program had not succeeded in penetrating the minority small business loan market. One possible explanation was that Appalachian banks active in the minority community are not heavy users of the 7(a) program. In

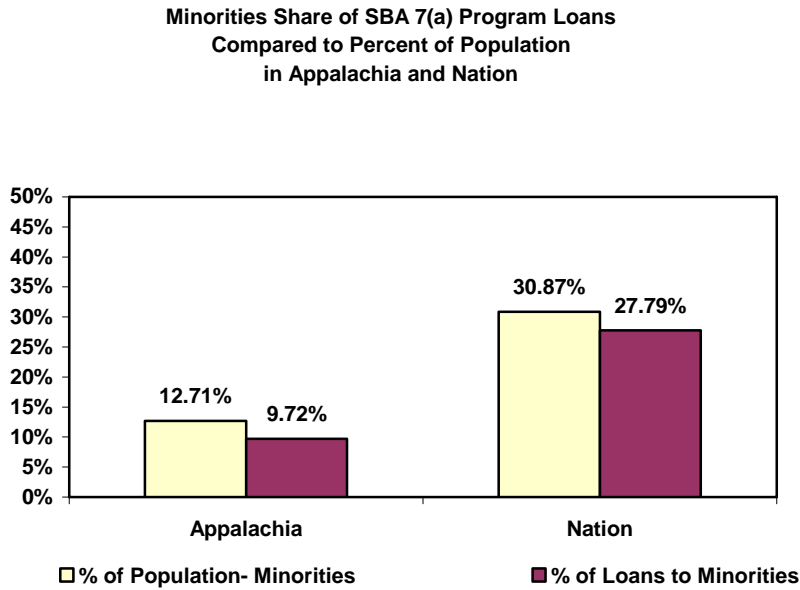
contrast to its performance in minority markets, the data suggests that the SBA program had succeeded in penetrating non-metropolitan counties.

Appendix Table 24 shows that the SBA 7(a) program accounted for 4,260 loans in Appalachia during 2003, or just 0.8% of all loans in the region. Interestingly, the SBA market share of loan dollars was higher than their market share when considering the number of loans. The SBA loan program accounted for 2.4% of the loan dollars issued in Appalachia during 2003. The higher SBA market share when considering loan dollars was probably due to credit card lending driving down the average dollar amount for non-government backed loans.

SBA-guaranteed lending did not appear to have a regional pattern. The SBA market share was not concentrated in any particular sub-region in Appalachia during 2003. The highest number of SBA-guaranteed loans (2,620 loans) was in Pennsylvania and the lowest was in Virginia (28 loans). After Pennsylvania, the next highest totals for SBA-guaranteed lending occurred in Georgia (372 loans), West Virginia (207 loans), and New York (200 loans). The states with the lowest totals besides Virginia were Maryland (35 loans), Mississippi (49 loans), and Kentucky (66 loans).

The SBA program did not quite reach minorities in proportion to their population in Appalachia or the nation. While the SBA program did well in serving Asian businesses, it had the most difficulty in serving African-Americans in proportion to the African-American population. In the Appalachian region, 9.7% of the SBA 7(a) program loans in 2003 were made to minorities while minorities constituted 12.7% of population. Across the country, 27.8% of the SBA-guaranteed loans served minorities, but minorities constituted 31% of the population (see Figure 14).

Figure 14



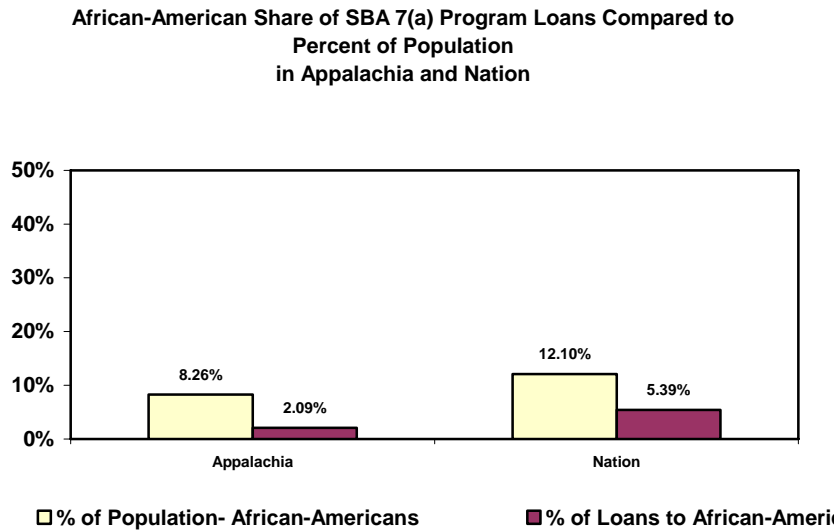
Source: Appendix Table 24 – columns *% Minority pop* and *% of loans, number* and rows *Total for Appalachia* and *Total for Nation*

The SBA program would have served an even lower level of minorities were it not for its success in reaching Asian-owned businesses. In Appalachia, Asians were less than 1% of the population, and 5.5% of the SBA 7(a) loans were issued to Asians. Likewise, Asians across the country enjoyed a greater percentage of SBA-guaranteed loans than their percentage of their population. Asians constituted 3.6% of the nation’s population and received 13% of the SBA 7(a) loans during 2003.

The SBA program was not nearly as successful in serving African-Americans as Asians. The mismatch between the percent of small business loans and the percent of their population was particularly striking in Appalachia and across the country. In Appalachia, African-Americans were 8.3% of the population but received 2% of the SBA 7(a) loans during 2003. On a national level, African-Americans constituted 12.1% of the population but were issued just 5.4% of the SBA 7(a) loans (see Figure 15). The situation was similar for Hispanics, but Hispanics did not comprise a large portion of the population in Appalachia. Hispanics were 2.2% of the Appalachian population and received just 1.2% of

the SBA-guaranteed loans. Across the country, Hispanics were 12.6% of the population and were issued just 8.3% of the SBA 7(a) loans.

Figure 15



Source: Appendix Table 24 – columns % *Afr-Amer pop* and % *of loans, number* and rows *Total for Appalachia* and *Total for Nation*

In the Appalachian portion of states with a considerable minority population, the disparities in SBA 7(a)-guaranteed lending to African-Americans were pronounced. For example, 21.4% of the population in Alabama was African-American but African-American businesses received just 4.4% of the SBA 7(a) loans during 2003. Similarly wide differences occurred in Mississippi, North Carolina, and South Carolina. In Georgia, the SBA 7(a) program exhibited a disparity in reaching Hispanics in proportion to their population. Almost 7% of Georgia’s population was Hispanic, but Hispanic-owned businesses received 3% of the SBA 7(a) loans.

The performance of the SBA program in serving women-owned businesses in Appalachia matched its performance on a national level. In Appalachia, 20.3% of SBA-guaranteed loans in 2003 were made to women owned small businesses, which was very close to the nationwide indicator of 21.3%.

Appendix Table 25 illustrates that minority-owned businesses in Appalachia had greater access to SBA-guaranteed loans if they were located in MSA counties as opposed to NonMSA counties. Almost 29% of the SBA-guaranteed loans were issued to minorities in MSA counties but just 7% of the loans were issued to minorities in NonMSA counties in Appalachia during 2003. The difference for Asians was large. About 19% of the SBA 7(a) loans were issued to Asian-owned businesses in MSA counties and just 3.5% of the loans were received by Asian-owned businesses in NonMSA counties during 2003 in Appalachia. The difference in the portion for African-American businesses was also substantial; African-American businesses received 6.5% of the SBA 7(a) loans in MSA counties but just 1.5% in NonMSA counties.

In contrast to the SBA lending patterns to MSA and NonMSA counties, minority-owned businesses had about as much access to 7(a) loans in distressed as in non-distressed counties. In non-distressed counties, lenders using the SBA program issued 9.8% of guaranteed loans to minority-owned businesses. In distressed counties, lenders using the SBA program offered 8.4% of SBA-guaranteed loans to minority-owned businesses in Appalachia during 2003. The pattern was quite different across the country; minorities in distressed counties received a much higher portion of SBA loans than minority-owned businesses in non-distressed counties. This differential access was driven by the much higher percentage of Hispanic businesses in distressed counties receiving SBA 7(a) loans than Hispanic businesses in non-distressed counties across the country. Appalachia did not have a sizeable Hispanic population, and hence did not exhibit this lending pattern to Hispanics.

The SBA program was more successful in penetrating NonMSA counties than minority markets during 2003 in Appalachia. In NonMSA counties, the SBA 7(a) program achieved a market share of loans of 1% whereas in MSA counties its market share was .34%. Unlike the market share differences in MSA and NonMSA counties, the SBA program did not have a greater market share in distressed than non-distressed counties. In addition, other data indicate that the SBA 7(a) program may not be as successful in distressed counties as in non-distressed counties. Lenders using the program made 22.3 loans in distressed

counties per 10,000 businesses and 68.3 loans per 10,000 businesses in non-distressed counties (see Table 4).

Table 4

SBA 7(a) Loans per 10,000 Businesses, 2003-2004

	Appalachia			all USA
	Distressed Counties	Non-distressed Counties	All	
All Loans	22.33	68.27	66.2	78.83
Minority owned businesses	1.17	7.57	7.28	21.62
Women owned	4.33	14.44	13.99	17.02

When considering SBA 7(a) loans per 10,000 businesses on a county level, the data suggest that the SBA program was not as successful in guaranteeing lending in Appalachia as it was across the country. In Appalachia, lenders using the 7(a) program issued 66.2 loans per 10,000 small businesses while they issued 78.9 loans per 10,000 small businesses across the country. In addition, lenders using the SBA 7(a) program issued just 7.3 loans to minority-owned businesses per 10,000 businesses in Appalachian counties but 21.6 loans to minority-owned businesses per 10,000 businesses in counties across the country. For women-owned small businesses, the ratios were 14 in Appalachia and 17 across the country.¹¹

Conclusion

Mid-size banks generally performed according to expectations. Their lending was relatively concentrated in non-metropolitan counties and distressed counties in contrast to larger banks. They also had a greater market share in substantially minority counties with

¹¹ To generate the data for loans per 10,000 businesses, this report combined 2003 and 2004 SBA 7(a) loan data. Above the report used SBA 7(a) loan data for the year 2003 only.

populations that were more than 50% minority but had their smallest market share in counties with 20% to 50% minorities.

The SBA 7(a) program had a higher degree of success in serving small businesses in non-metropolitan counties than in counties with substantial minority populations. SBA-backed lending was not offered in proportion to the minority population in either the nation or Appalachia. SBA-guaranteed lending had a higher market presence in non-metropolitan counties than metropolitan counties. However, SBA-guaranteed lending served a smaller percentage of minority-owned businesses in non-metropolitan than metropolitan counties. The SBA program also did not guarantee as many loans per small businesses in Appalachia as it did across the country. In sum, it appears that mid-size banks were more consistently oriented towards traditionally underserved populations while the performance of the SBA 7(a) program was mixed in its success of reaching traditionally underserved markets.

Literature Review

Introduction

An extensive literature on small business lending has examined the impacts of restructuring in the financial industry on banks' capacities to satisfy credit needs of small businesses. This inquiry is important since small businesses represent one of the most vulnerable yet critical parts of the national economy. Accordingly, this chapter will explore the lending techniques and specializations of small and large banks. As the industry consolidates and banks become larger, on average, is the industry as a whole still able to meet the variety of credit needs of small businesses? Alternatively, do small businesses now experience less access to some types of lending in which smaller banks excelled? The impacts of consolidation will also be assessed by a review studies that have explored whether small or large banks are more likely to practice discrimination in small business lending. In addition, the review discusses lending patterns in rural areas, given the prevalence of rural areas in the Appalachian region. Finally, the literature review contributes to the report's regression analysis in the next chapter by providing insights into the variables to use in the regression analysis.

Banking consolidation has been at the center of attention for several years due to the large number of mergers and acquisitions. In June 2002, the portion of total industry assets held by the largest 50 bank holding companies constituted 70 percent whereas in June 1997 this figure was 52 percent (Ou, 2005). At the same time number of small banks with the assets under \$500 million decreased from 8,647 in 1997 to 7,208 in 2002. Hence, researchers have given prominent attention to the impacts of bank consolidation in small business lending.

Bank consolidation remains a complex and controversial issue. Some researchers argue that it is not efficient for large banks to provide small business loans as these loans are associated with relationship financing involving detailed and individualized attention to small business borrowers. On the other hand, other research indicates that large banks have

dramatically increased their small business lending as they have adopted credit scoring and have achieved economies of scale in small business lending. While large banks have undoubtedly increased their small business lending, it is not clear that they have the ability to satisfy all credit needs, particularly the needs for larger loans and lines of credit associated with the relationship lending of small banks. In fact in recent years, large bank credit card lending, which is a type of transactional lending, has increased dramatically. Credit card lending has surged to such an extent that average loan amounts (\$32,400 in 2004) made to small businesses with revenues greater than \$1 million were actually smaller than average loan amounts (\$42,600) made to the smallest businesses with revenues under \$1 million¹². The larger small businesses are receiving a greater portion of credit card loans than the smallest small businesses.

The increase in credit card lending and the rise of credit scoring lending by large banks begs the question of whether the range of credit needs of the smallest businesses are being adequately met. In this era of consolidation, are the smallest businesses receiving an adequate supply of larger loans and sufficient access to lines of credit, which are more often associated with smaller banks?¹³ On the other end of the scale, are the smallest businesses receiving an adequate supply of credit card lending and small loans; although large banks are increasing credit card lending is the credit card lending reaching the smallest of the small businesses?

Relationship and Transactional Lending

In general, researchers agree on the typologies of lending techniques used by large and small banks. They distinguish between financial statement lending, asset-based lending, credit scoring, and relationship lending. (Mitchell, 2004). The first three represent “transactional” lending as they are based on the “hard” or objective information about a

¹² FFIEC. Reports – Findings from Analysis of Nationwide Summary Statistics for 2004 Community Reinvestment Act Data Fact Sheet (August 2005). http://www.ffiec.gov/hmcrpr/cra_fs04.htm

¹³ Smaller banks have legal limits on the size of their small business loans (Berger, Rosen, Udell, 2001) The reference to larger loans made by smaller banks refers to non-credit card loans (credit card loans are usually in amounts of \$10,000 or less) and/or loans in amounts greater than \$100,000. Credit scoring used by large banks are usually applied to loans in amounts of \$100,000.

borrower. For underwriting purposes, asset-based lending uses information about the accounts receivable, inventory, and other forms of collateral. Credit scoring is based on the owner's history of using credit. Financial statement lending is rarely used for small business lending as it looks at the audited financial statement of companies that have an access to public credit market. In contrast, relationship lending, is based on "soft" information about the potential borrower. In other words, banks rely on the subjective information about a borrower that they received out of the lasting relationships rather than on financial condition of the borrowers. Another indication of relationship lending as reported by Cavalluzzo, Cavalluzzo, and Wolken (2001) is that 84 percent of the loans received by small businesses came from lending institutions located in the same city. The median distance between the firm and the lender was just three miles.

Allen Berger (1999) defines three conditions that should be met for relationship-based finance to occur. First, information other than data from financial statements, collateral and other public resources is collected. Second, the information is collected via continuous communication between the lender and the small business, the customers of the small business, and local community. Third, the information is confidential and can be used only for making further lending decisions.

Relationship lending is mainly associated with small banks whereas transactional lending is typically employed by large banks. Berger and Udell (2001) say that banks employing relationship lending should delegate more authority to loan officers than those that use objective information. Small banks are better equipped to delegate authority than larger ones; smaller banks have considerably fewer loan officers, making it easier for smaller banks to control, trust, and rely upon the quality of loan officers' decisions. Relationship lending is therefore typically done in lower volumes than transactional lending at large banks. Using automated technology such as credit scoring, transactional lending benefits from economies of scale. Large transactional lenders serve relatively high number of customers, enabling them to lower costs per borrower by spreading fixed costs over a large customer base.

Cole, Goldberg, and White provide detailed analysis of differences between relationship, “character”, and transactional, “by-the-number,” lending. They found that large banks mostly use “by-the-number” approach and small banks use “character” information which is based on pre-existing relationships between the bank and a borrower. Using the National Survey of Small Business Finances, Cole, et al. classify small banks as those with assets under \$1 billion and large banks as those with assets above \$1 billion. Cole’s regression analyses appear to confirm the different lending approaches of small and large banks. For example, higher debt-to-asset ratios increase the likelihood that large banks will not approve small business loans whereas small banks are not influenced by debt-to-asset ratios. Cole et al. hypothesize that small banks possess superior non-financial information about their customers and are thus able to make decisions not based purely on the numbers. In the same vein, small banks are more likely to approve loans to small business customers that have deposits at their banks while large banks are indifferent to deposit relationships. It appears that small banks are able to better utilize the experience and information gained through the deposit relationship than large banks.

Impacts of Consolidation

A definitive answer regarding the impacts of consolidation on small business lending will probably never be reached. It is quite likely that the economic, institutional, and regulatory context in which mergers occur determine their influence on the level of lending in communities. Reviewing the literature, Hancock, Peek, and Wilcox (2005) hint at the possibilities of different outcomes. In a study in the late 1990’s, for example, Berger found that merged banks reduce their small business lending, but that other lenders in the community increased their lending in response, often replacing the lost lending of the merged banks. Similarly in the late 1990’s, Peek and Rosengren (1998) concluded that the small business lending behavior of the merged bank resembled the behavior of the acquiring bank instead of the acquired bank. So if the acquiring bank had conducted less small business lending, the newly merged bank was likely to reduce its level of small business lending. Other studies showed that mergers of smaller banks actually increased small business lending while mergers of larger banks had little effect.

While the impacts of bank mergers are likely to be influenced differently by economic and market characteristics, Hancock, Peek and Wilcox (2005) identify important institutional characteristics that are likely to have more uniform impacts at least for larger banks. Hancock, Peek, and Wilcox distinguish between acquisition of banks and merger of bank charters. When a bank holding company (BHC) acquires another BHC, the acquiring BHC can either absorb the acquired BHC's banks completely or let the acquired bank(s) continue lending as a separate entities. In other words, the acquiring BHC can let the acquired bank(s) remain as a separately chartered institutions or it can merge the banks and eliminate the charter of the acquired bank(s). To assess the impacts of acquisitions versus mergers (of bank charters), the study looked at small business lending patterns of the 50 largest bank holding companies excluding credit card lenders. The authors used annual data for the period of 1997-2002.

A major finding is that small business lending remains the same after acquisitions not involving mergers of charters. However, acquisitions involving mergers of separately chartered banks result in declines of small business lending. Researchers used natural log of total assets, log of acquired assets, and the Herfindahl-Hirschman Index (HHI) as explanatory, independent, variables. The HHI measured concentration of assets within the holding company; the higher the HHI, fewer banks within the holding company control more of the holding company's assets.

Estimated coefficients for the log of change of asset size of banks are negative and statistically significant for each model at the 5% level. In addition, estimated coefficients of the HHI on gross amount of originations and purchases are statistically significant and have negative values. Thus, internal growth of assets and increasing concentration of assets through merger of bank charters has a significantly negative impact on small business lending. In contrast, external growth through acquisitions does not affect small business lending. The estimated coefficients for the log of acquired assets were not statistically significant at 5% level. Among the top 50 BHCs in the country, Hancock et al. conclude that larger BHCs (in terms of asset size) tend to reduce their small business

lending. In addition, the reduction is more pronounced when acquiring BHCs merge banks than when the banks are allowed to operate as separately chartered institutions.

Frame, Srinivasan, and Woosley (2001) reinforce the conclusion of Hancock et al. by finding that the share of small business loans in a bank holding company's portfolio increases with the number of subsidiary banks. Frame et al. hypothesize that a subsidiary bank structure is associated with decentralized decision-making in which relationship lending is employed.

Maintaining that large banks increase lines of credit to small businesses, Berger, Rosen, and Udell (2001) come to different conclusions than a substantial portion of the literature. They find that large banks in markets in which large banks are dominant are more likely to increase their line of credit lending to small businesses than smaller banks in markets dominated by smaller banks. The one exception to this is line of credit lending in amounts less than \$100,000; smaller banks are more likely to make these line of credits available to small businesses than larger banks. They attribute their findings to different methodology from the standard literature.

The few studies that examine the impacts of mergers on small business lending in low- and moderate-income tracts generally find that mergers and acquisitions decrease small business lending in these tracts. Reviewing the literature, Immergluck and Smith (2001) state that Samolyk and Richardson (2001) find that banks involved in mergers have smaller growth rates of lending in low- and moderate-income tracts than banks not involved in mergers. From 1996 to 1998, the merging banks' share of small business loans in low- and moderate-income tracts was 13.6 percentage points lower than banks not involved in mergers.

Interestingly and importantly, the Immergluck and Smith (2001) review reports that merging banks tend not to decrease their lending in low- and moderate-income census tracts in geographical areas covered by their CRA exams; the decrease in lending in low- and moderate-income tracts occurs in areas outside the scope of the CRA exams.

Buttressing the finding of CRA's impact is a conclusion in the Frame, Srinivasan, and Woosley study. This study finds that the share of small business lending in a bank's portfolio increases as the percent of recently acquired assets increase. Frame et al. suggest that the positive impact of recently acquired assets is the result of CRA motivating large banking institutions to negotiate CRA pledges with community groups to boost their home and small business lending. In other work related to home lending, Bostic and Robinson have found that banks, in fact, increase their home mortgage lending to low-income and minority borrowers in geographical areas covered by banks' CRA agreements and CRA exams. Regulatory enforcement via CRA exams and the merger application process can mitigate decreases in lending as a result of mergers and in some cases may actually increase lending after mergers.

Credit Scoring

As was mentioned above, credit scoring is one of the techniques employed by transactional lending. Credit scoring has the potential to mitigate adverse impacts mergers by enabling large banks to boost their number of loans. Credit scoring is a process of assigning a score to a borrower based on the previous financial behavior of the borrower. A study conducted by Frame, Srinivasan and Woosley (2001) explores how credit scoring influences large banks' tendency to engage in small business lending. They use data on 99 large banks received through a phone survey. Results showed that 100% of scoring banks used the credit scoring system to issue loans under \$100,000, and 74% used it for loans under \$250,000. Only 21% of banks scored larger loans. Regression results demonstrate that credit scoring leads to an increase in the portfolio share of small business loans under \$100,000 by 8.4% or about \$4 billion per institution. Frame, Padhi, and Woosley (2001) also found that large banks using credit scoring increased their loans in low- and moderate-income tracts to a much greater extent than in higher-income tracts.

Another study that looked at the role of credit scoring was conducted by Berger, Frame, and Miller (2002). They compared "marginal" and "nonmarginal" borrowers. A "marginal" borrower is a borrower whose credit approval depends on use of credit scoring;

and a “nonmarginal” borrower is a borrower who will get her credit approved regardless of usage of credit scoring. Credit scoring for small business loans under \$100,000 lead to an increase in credit availability. Interest rates on loans increase as credit scoring is used. Berger et al. suggest that interest rates increase because credit scoring has increased the number of risky borrowers receiving loans and these borrowers are appropriately charged higher prices. However, for larger loans (\$100,000 to \$250,000) the use of credit scoring does not have a significant effect on credit availability. Indeed, only a few banks in the sample used credit scoring for loans over \$100,000.

While the research suggests that potential decreases in small business lending as a result of consolidation may be compensated by using credit scoring, it seems apparent that credit scoring has its limits. At this point, the industry is not employing credit scoring for loans in amounts greater than \$100,000. As long as this remains the case, credit scoring may not be effective for boosting lending of larger dollar amounts when mergers depress lending of banks. Moreover, the Berger et al. study shows that credit scoring increases interest rates for riskier borrowers, per expectations that riskier borrowers are charged higher prices. However, there is likely to be a segment of riskier borrowers for which credit scoring may lead to either extremely high interest rates or loan denials (due to insufficient credit history, for example). These borrowers depend on relationship lending. If mergers in a particular geographical area decrease small bank relationship lending to a great extent, then mergers could very well decrease access to credit for the hardest to serve borrowers.

Branches, Credit Scoring, and Mergers

Bank branches are generally found to boost small business lending. Frame, Srinivasan, and Woosley report that the number of bank branches increases the share of small business loans in a bank’s portfolio. They also report that branch networks are associated with centralized decision-making networks and increased use of credit scoring by large banks. For relationship lending as well, branches are important because they increase customer contact. Immergluck and Smith (2001) report that their research in Chicago reveals that banks with the highest percentage of their branches in low- and moderate-income (LMI)

census tracts make the highest percentage of their loans in these tracts while banks with the lowest percentage of branches in LMI tracts make the lowest percentage of their loans in LMI tracts. Squires and O'Connor (1999) came to similar conclusions in Milwaukee. Immergluck and Smith review research showing that mergers of banks with branches within the same zip code resulted in less per capita growth in branches within lower income areas. Mergers of banks with branch presence in the same metropolitan area also result in fewer branches in low-income zip codes. By decreasing access to branches in low- and moderate-income areas, in-market mergers will lead to less lending in low- and moderate-income areas, given the strong relationship between branches and lending.

Discrimination

Researchers distinguish between statistical and prejudicial discrimination. Statistical discrimination reflects measurement problems whereas prejudicial involves unjust lending practices. The research generally concludes that while prejudicial discrimination may not be widespread, it occurs in certain loan markets and to certain borrowers. Mitchell and Pearce (2004) using data from 1998 SSBF employ a new approach in that they examine possible discrimination in relationship versus transaction lending and by lender type (banks and non-bank finance companies). They state that many researchers regard line of credit lending as “quintessential” relationship loans since line of credit lending represents a sustained commitment on the part of the bank to make periodic loans to borrowers over a specified time period. Only banks with close relationships with businesses are likely to engage in line of credit lending according to observers. Accordingly, line of credit lending is classified in regression equations as “relationship” loans while “one-shot” deals or transaction loans are commercial mortgages, motor vehicle loans, equipment loans, and capital leases. The authors use data from the 1998 Survey of Small Business Finances (SSBF) that is conducted at five year intervals for the Federal Reserve. Mitchell and Pearce construct variables that reflect the degree of market concentration (as measured by the HHI index) and variables that capture characteristics of the small businesses including gender, ethnicity, creditworthiness, history of bankruptcy, and asset levels.

Mitchell and Pearce find that African-American and Hispanic business owners are less likely to have bank transaction loans than whites after controlling for market and business characteristics, but that there is no statistically significant difference in the likelihood of receiving a bank line of credit (relationship lending). Also, minorities are more likely to have transaction loans from non-banks. In line with the observation that discrimination is not uniform, the authors could not detect discrimination against Asians and females. The counter-intuitive finding that minorities are less likely to receive transaction loans suggests that smaller banks employing relationship lending may remain an important source of lending for minorities. Moreover, the trend for large banks to engage in transaction lending may decrease, not increase access to credit for minorities. Cole et al. also found that smaller banks are more likely to make loans to African-Americans than large banks with assets above \$1 billion.

Cavaluzzo, Cavaluzzo and Wolken (2001) assess the interplay of discrimination and market concentration. In the seminal *Economics of Discrimination*, Gary Becker hypothesized that discrimination is more likely in highly concentrated markets lacking significant competition. In less competitive markets, firms can get away with discrimination while in more competitive markets the discriminating firms are likely to lose out in the competitive race against firms more willing to hire or serve minorities. Supplementing data from the 1993 National Survey of Small Business Finances with creditworthiness data obtained from Dun and Bradstreet, Cavaluzzo, Cavaluzzo and Wolken examined the connection between demographic characteristics of small business borrowers, market concentration, and the ability to access credit.

A series of regression analyses revealed that increases in market concentration as measured by HHI indices result in African-Americans and females being more likely to experience denials of loan applications. Additionally, results show that African-Americans and females are more likely to have unmet credit needs (as measured by a fear to apply because of possibilities of discrimination or actual rejection) when market concentration increases. Finally, a one percentage increase in concentration as measured by an HHI index causes an 11.40 basis point increase in the price of a line of credit for Hispanic small businesses.

Cavaluzzo, Cavaluzzo, and Wolken test the rigor of their model. They conclude that regression results stand up since there is no correlation between market concentration and borrowers' credit scores, meaning that financial institutions do not change their credit score policy when market concentration changes. Overall, the report concludes that gender and race discrimination cannot be omitted when assessing differences in credit application and denial rates. Moreover, their study suggests that consolidation and increasing market concentration can exacerbate discriminatory behavior.

Demand for Small Business Credit

The literature spends much time scrutinizing the relationships among consolidation, discrimination, and lending techniques. The literature on the nature of demand for loans by small business is considerably thinner. An indirect means for assessing the demand for credit is documenting the types of loans used by businesses of different sizes.

The SBA report, *Financing Patterns of Small Firms: Findings from the 1998 Survey of Small Business Finance*, provides detail on the types of credit used by type of small businesses. The SBA report categorizes traditional loans as line of credits, mortgage, vehicle, equipment, and leasing loans. Nontraditional loans include loans from owners of the small businesses themselves and credit cards (business and personal). The report indicates that around 80% of all the small businesses participating in the survey used loans at the end of 1998. In addition, the majority (71%) of small businesses used nontraditional credits, and only 55% utilized traditional loans. The single largest source of credit was from banks; 38% of the surveyed businesses used banks. In contrast, owners' loans and finance companies' loans were 14.2% and 13.3% of all loans received by small businesses, respectively. The study also shows that the smallest firms (1-4 employees) do not usually borrow from commercial banks (only 17% to 31 % of these small firms borrowed from banks) whereas 53-77% of larger small firms used credit offered by commercial banks.

In terms of total debt outstanding as of the end of 1998, lines of credit and mortgage loans were the two most important types of loans used by small businesses. Mortgage loans, lines of credit, owner's loans, equipment and vehicle loans accounted for 31%, 30%, 8%, and 5%, respectively of total debt outstanding.

Small businesses are not heavy users of loans. Only 15% had more than two loans outstanding, 25% had only one loan, and about 47% of small firm had no loans outstanding. However, the portion of small businesses using credit jumps with the increase of firm size. In addition, smaller firms increasingly use nontraditional types of credit such as owners' loans, personal credit cards, and sometimes home equity lines for business purposes. Minority-owned firms are also less likely to use credit than non-minority owned firms.

Bitler, Robb and Wolken (2001) compared the use of credit by small businesses over time by comparing the 1998 and 1993 Surveys of Small Business Finance. Over the 1993 and 1998 surveys, the percent of small businesses using vehicle loans, equipment and "other" loans decreased. The portion of small businesses utilizing capital leases remained the same while the portion of firms using credit lines and mortgages increased. Credit usage and availability depends on the firm's age; the portion of young firms (less than 5 years old) that receive credit lines, loans, or leases is smaller than the percentage of older firms. Along the same lines, Haynes, Ou, and Berney, using the 1993 NSSBF data, found that large banks are more likely to lend money to larger and older small businesses.

Reporting on the supply of credit to different categories of businesses most likely understates the needs of small businesses for credit. A significant number of small businesses that desire credit do not apply because they fear rejection. Cavaluzzo et al. (2001) found that almost half of all small businesses in the 1998 SSBF desired credit but half of these firms did not apply because they feared rejection. Of those that feared denial and did not apply, black females feared the most (86.3%) and only 45.7% of white males feared denial. Because of large-scale fear of rejection, patterns of lending do not necessarily indicate that credit needs of various types of small businesses are satisfied. While the SSBF data reveals

that larger, older, and non-minority firms are most likely to use credit, it is quite plausible that smaller, younger, and minority firms are not receiving the credit they need because of real and perceived obstacles in access to credit.

Credit Demand in Rural Markets

Just like assessing overall credit demand, documentation of credit demand in rural areas is sparse. The USDA study's *Credit in Rural America* examines access for credit in rural areas of the U.S. Firstly, the report indicates that data collection is fraught with difficulties. In particular, it states that researchers usually must rely on limited survey data that usually shows that borrowers in rural areas are satisfied with their credit or obtaining loans is not a priority for them. While the report suggests that financial institutions provide necessary loans for rural communities, the report documents differences between operations of banks in urban and rural areas and emphasizes lack of competition in rural markets. This leads to unmet needs for credit in some communities. The study also reveals that while farm sectors and housing are well served, credit needs for rural development projects and non-farm businesses need additional attention.

The 1998 Mt. Auburn Associates report, *Capital and Credit Needs in the Appalachian Region*, conducted for the Appalachian Research Commission is one of the few attempts to comprehensively measure credit needs in a predominantly rural region. Mt. Auburn Associates measured and assessed demand for small business credit through a series of telephone interviews of 200 small businesses with more than 5 employees located in Appalachia. Overall, for the surveyed businesses, the types of financing most frequently sought were revolving lines of credit (sought by 36 percent of the applicants), equipment loans (32 percent), equipment leases (25 percent), and fixed rate mortgages (25 percent). Medium-term working capital and short-term working capital was sought by 18 and 16 percent of respondents, respectively. The most frequently sought loan size amount was for \$10,000 to \$49,000, generally for equipment loans and leases, working capital loans, and revolving credit lines. Larger amounts of \$100,000 to \$499,000 were generally used for commercial mortgages, working capital and revolving credit lines. Mt. Auburn found that

survey respondents from non-metropolitan counties were less likely to seek financing for their business than respondents from metropolitan counties. While smaller and larger businesses demanded similar types of credit and capital, twice as many smaller firms under 5 employees (18 percent as opposed to 8 percent) anticipated having difficulties obtaining financing over the next two or three years.

Implications

Consolidation presents contradictory influences on small business lending. On the one hand, larger banks, through the use of credit scoring, have increased lending to small businesses. On the other hand, the literature suggests that in certain economic and institutional circumstances, consolidation will decrease small business lending, particularly when acquiring bank holding companies merge separate bank charters. Banks in concentrated markets appear more likely to discriminate, surprisingly in the provision of transactional lending. Branch presence is important for reaching low- and moderate-income communities; when mergers result in branch closures in low- and moderate-income or minority communities, the result is likely to be less small business lending.

We will further investigate the impacts of consolidation and the lending patterns of large and small banks in Appalachia. The statistical analysis in the next chapter will attempt to shed light on how responsive small and large banks are to credit needs of the smallest businesses, the influence of bank consolidation and demographic characteristics on small business lending, and the role of bank branches on small business lending.

Regression Analysis of Small Business Lending in Appalachia

Introduction

Drawing on the insights gathered from the literature review, this chapter will test the influence of bank consolidation, credit scoring, the number of branches, the minority population share, median household income, metropolitan and distressed county status, and small business firm size in three econometric models to analyze lending outcomes for all lenders, mid-size banks and SBA lenders. The chapter will assess the impact on lending levels of demographic and economic factors such as income levels, the portion of minorities on a county level, and the metropolitan/non-metropolitan and distressed/non-distressed status of counties. The chapter will also examine the impact of firm size of the small business sector on lending such as the number of businesses with four or fewer employees. In addition, NCRC was able to secure data from Dun and Bradstreet on the credit scores of small businesses on a county level for Appalachia. The chapter will therefore add an examination of the impacts of creditworthiness on the level of lending. Finally, the chapter will scrutinize the effect on lending of banking characteristics on a county level including the level of concentration and the number of branches.

One of the significant inquiries for the regression analysis is probing the extent to which banks of various asset sizes respond to the credit needs of the smallest businesses in Appalachia as well as businesses in distressed counties. The literature suggests that smaller institutions with assets under \$1 billion will be more responsive to the needs of the smallest businesses. Accordingly, NCRC will assess the impacts of demographic and economic factors on mid-size bank lending. In addition, NCRC has obtained SBA loan data, and will determine if SBA lending patterns resemble those of the smaller or larger banks making non-government backed loans. The literature is surprisingly silent on patterns of SBA lending so an econometric analysis of SBA lending represents value added.

This chapter has developed models for the three different types of lenders. These three models have the following dependent variables: 1) lending by all lenders of all asset sizes

reporting CRA small business loan data, 2) lending by mid-size banks with assets between \$250 million and \$1 billion, and 3) SBA lending.

For each model, the chapter will describe an expectation or hypothesis of the impacts of various demographic, economic and structural variables. For example, it will describe the expected impact of the metropolitan or non-metropolitan status of a county on the level of lending. In some cases, additional descriptive analysis will further illustrate the expectations of how the variable will impact lending. In other cases, references will be made back to previous chapters in describing the expectations of the variable's impact. After describing the expectations for each of the variables, NCRC will review the actual impact of each variable and explain whether the actual impact matched our expectations.

NCRC tested for collinearity and heteroskedasticity; the models were free from these problems. The data for our regressions were on a county level. A number of researchers use national surveys sponsored by the Federal Reserve that contain data on a firm level. Researchers are also starting to use the CRA small business loan data on a county or census tract level. NCRC's models were based on county level data due to the availability of concentration indices on a county level, credit score data on a county level, and because counties were relatively small in terms of population in many cases in Appalachia.

Data for the year of 2003 was used for this study. NCRC opted against longitudinal analysis because the CRA small business data has experienced definitional changes (for example, reporting of renewals changed) over the years. The Appalachian region was in a weak recovery in 2003, which must be kept in mind when examining the results of the data analysis.

Below is a description of the variables used in each model, the expectations of the variables' impacts per the literature review and descriptive data analysis, and results of the regressions. For each model, we developed two versions: a core model that contained demographic, economic and banking variables and a full model that included business demographic variables. In developing the models, NCRC had also tested introducing one

business demographic variable at a time to the core model in order to determine if the impacts of the variables were consistent in different models. Overall, the variables were consistent in their impacts. The intermediate models between the core and full model are not presented here in the interests of space. The full models discussed in this report did not violate the classical assumptions of regression analysis.

Finally, some of the variables had up to five categories such as the credit score variable which was expressed as quintiles of risk. Some of the full models below did not have all the categories for variables such as the credit score variable. The discarded categories were not significant and caused collinearity.

Following is a list of variables in the regression analysis.

Explanatory Variables

Core Model

% Black	Percent of Black population	Percent
%Hispanic	Percent of Hispanic population	Percent
MedianHH income	Median Household Income	Number
MSA/NonMSA	Metro or Non-metro county status	Dummy (1 – MSA, 0 – NonMSA)
Distressed/Nondistressed	Distressed or Non-distressed county status	Dummy (1- Distressed, 0 – Non-distressed)
Personal Inc Grwth	Personal Income Growth	Percent
HHI, ICB + Thrift @50% county level	HHI index	Number
Number of Branches	Number of all lenders’ branches	Number
Number of Branches (mid banks)	Number of mid-size banks’ branches	Number

Size (number of Employees)

Size_1	Percent of SB with 1 – 4 Employees	Dummy ^{14*}
Size_2	Percent of SB with 5 – 9 Employees	Dummy*
Size_3	Percent of SB with 10 -19 Employees	Dummy*
Size_4	Percent of SB with 20 – 49 Employees	Dummy*
Size_5	Percent of SB with 50 + Employees	Dummy*

Credit Score

* “1” is assigned to a county where percent of small businesses in a particular category is above median for Appalachia; “0” is assigned to a county where percent of small businesses in a particular category is below Appalachian median

CS1	Low risk small businesses in terms of credit score	Dummy*
CS2	Moderate risk small businesses in terms of credit score.	Dummy*
CS3	Medium risk small businesses in terms of credit score.	Dummy*
CS4	High risk small businesses in terms of credit score.	Dummy*
CS5	Very high risk small businesses in terms of credit score.	Dummy*

Dependent Variables

All lenders

Log#SBL	Logarithm of the number of Small Business Loans made by all lenders	Number
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Mid-size banks

LogMid-sizebankloans	Logarithm of the number of small business loans made by mid-size banks	Number
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SBA 7a Program

7a prg loans	Number of loans made through the SBA 7a Program	Number
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Model 1 – All Lenders (see Appendix Table 31)

Metropolitan Statistical Area/Non-Metropolitan Statistical Area (MSA/NonMSA)

Expectation: The numbers of lenders and small businesses are greater in metropolitan areas; supportive infrastructure such as counseling agencies, law firms, appraisal firms, and other entities needed for lending are in greater supply in metropolitan areas. All else equal, the number of small business loans should be greater in metropolitan areas. In addition, the descriptive analysis above also suggested that the loans-to-small business ratio was greater in MSA than NonMSA counties in the Appalachian portion of nine states.

Results: In the core model, the MSA/Non MSA variable was significant with more lending occurring in MSAs. However, in the full model with credit score and size of business variables, the MSA/NonMSA variable was insignificant. Expectations were partially matched in the core model but not in the full model. Perhaps other factors such as small business demographic variables rather than the metropolitan status of the county have a stronger influence on lending levels.

Distressed/Non-Distressed Counties

Expectation: NCRC's descriptive analysis suggests that lending levels are lower in distressed counties. Distressed counties have higher levels of poverty and unemployment, and overall economic conditions that are less conducive to small business lending.

Results: The results are consistent with the expectations. In each model this variable was significant and had a negative sign.

Minority Level in County (Percent Black and Percent Hispanic Variables)

Expectation: The literature suggests that discrimination against minority owned businesses is a serious possibility that cannot be dismissed. In Appalachia, however, the descriptive analysis above suggested that lending was higher as the minority level in a county was greater. It is possible that a regional characteristic could be increasing lending to minority-owned businesses and/or counties with a substantial minority population in Appalachia. In contrast, minority-owned businesses in other parts of the country do not fare as well in access to credit as discussed in the analysis above.

Results: Results contradicted the findings in the literature but were consistent with the descriptive analysis above. In particular, in the core and full models minority variables were statistically significant and had positive signs, which indicated that lending was higher as the minority population in a county was higher. This can have the following explanation: in Southern Appalachia, the highest growth areas are the counties north of Atlanta, Georgia where there has also been the highest growth in the Hispanic population, so there should be a positive and direct association with the number of business loans, although this could be an indirect effect induced by the regional growth trend. However, an income growth variable was introduced in the model (see below), suggesting that the level of Hispanics in a county is having a positive and independent impact in small business lending levels in Appalachia.

Deal-flow considerations may explain the increase in lending associated in predominantly African-American counties. Lending to African-American businesses may be higher in substantially African-American counties because the high concentration of African-American businesses in those counties increases the likelihood that African-American businesses will receive loans. Again, African-American small business owners' experience in Appalachia is likely to be different than their experience in other parts of the country.

A report of the Minority Business Development Agency¹⁵ found that minority-owned businesses grew dramatically, at 35%, between 1997 and 2002 whereas the total number of firms grew only 10%. In particular, African-American-owned firms grew 45% and Hispanic-owned firms at 31%. It is possible that the percent of the African-American and Hispanic population is a proxy for the minority-owned businesses. If this is the case, the relationship between number of small business loans in a county and minority population is expected to be positive.

Median Household Income

Expectation: NCRC's descriptive analysis revealed that lending was lower in low- and moderate-income census tracts. We therefore expect that lending will be higher as the median household income of a county is greater.

Results: Consistent with the expectations. Each model showed that the median household income variable was significant and had a positive sign indicating that lending levels were higher in counties with higher median income levels.

Level of Concentration (HHI Index)

Expectation: NCRC obtained from the Federal Reserve Board data on the level of concentration in each county in Appalachia. The Herfindahl-Hirschman (HHI) index

¹⁵ *The State of Minority Business Enterprises: A Preliminary Overview of the 2002 Survey of Business Owners*, Minority Business Development Agency of the U.S. Department of Commerce, September, 2005.

measures the level of concentration. The literature contains a lengthy discussion on the impacts of consolidation; it appears that markets dominated by larger firms are likely to experience drop-offs in lending. The descriptive analysis in Appendix Table 26 appears to support this hypothesis. In Appalachian counties with below median HHI, the median number of small business loans was 1,120. In counties with above median, HHI, the median number of loans was 287 (see Appendix Table 26).

Results: The results were consistent with the expectations. The HHI index variable was statistically significant in each model and had a negative sign which indicated that higher levels of bank concentration in a county led to lower levels of small business lending.

Branches

Expectation: Existing studies suggest that banks make more small business loans as they increase their number of branches in a community. NCRC's descriptive analysis was consistent with previous studies. The median number of branches in Appalachian counties was 11 according to Appendix Table 27. In counties with above median number of branches, the median number of loans by all banks was 1,287. In counties with below median number of branches, the median number of loans was 235.

Results: Consistent with the expectations. The number of branches variable was significant in each model and had a positive sign suggesting that banks had higher levels of lending to small businesses when they had more branches in the area.

Income Growth

Expectation: This variable measures the change in personal income on a county level. First, all incomes of persons residing in a county are summed. Second, the income growth variable is derived by computing the percentage increase or decrease between the aggregate personal income level in 2003 and the income level of 1998. As income levels increase, it is expected that lending levels would also increase.

Results: The results were partially consistent with the expectations. Aggregate income growth was associated in a statistically significant manner with higher levels of small business lending in the core model. The sign was positive in the full model but the coefficient was not statistically significant. NCRC had also anticipated that the income growth variable would have made the minority variables insignificant because counties experiencing fast income growth tended to be Appalachian counties with high minority levels. However, introducing the income growth variable did not impact the significance of the minority variable.

Size - Number of Employees in Small Business

Expectation: The literature reports that the smallest businesses (those with 1 to 4 employees) were the least likely to borrow. NCRC's initial hypothesis was that the regression analysis would show that lending levels were lower in counties with above median percentage of these businesses. The descriptive data analysis in Appendix Table 28 appeared to provide support for our hypothesis. In counties with below median percentages (60 percent) of small firms with 1 to 4 employees, banks made a median of 717 loans; in counties with above median percentages, banks made 473 loans.

In the next two categories of employment size (5 to 9 employees and 10 to 19 employees), all banks had a greater median number of loans in counties with above median percent of firms in these employment sizes. For instance, in counties with an above median percent of firms with 10 to 19 employees, banks issued a median of 817 loans while in counties with a below median percent of firms in this category, banks made a median of 465 loans.

Lending patterns were mirror opposites for the next two categories of firm size (20 to 49 employees and 50 and above). The median number of total loans was considerable higher by about 100 loans in counties with below median percent of firms with 20 to 49 employees than in counties with above median percent of these firms. In contrast, the median number of loans from all banks was about 400 loans greater in counties with above

median percent of firms with greater than 50 employees than in counties with below median percent of these firms. Banks appeared to make much greater numbers of small business loans in counties with above median percent of firms with greater than 50 employees but fewer loans in counties with above median percent of firms with 20 to 49 employees. Not too much should be read into this yet, because the median percentages of these firms per county were relatively small (3.95% for firms with 20 to 49 employees and 2.44% for firms with greater than 50 employees). But further research may find that something is going on – perhaps the largest firms are supporting their smaller business counterparts with subcontracts to a greater extent in counties with above median number of these firms. The subcontracting could then stimulate more loan demand.

Overall, the descriptive data analysis suggests that less lending occurs when there was above median percentages of the smallest firms (1 to 4 employees) than when there was an above median percentage of the largest firms.

Results: In the full model, the variable for businesses with 10-19 employees was significant in determining small business lending volumes. In particular, lenders had higher levels of lending as the number of these businesses was greater in a county. This was somewhat consistent with our hypothesis and descriptive data analysis. While all lenders did not have lower levels of lending in counties with a high number of the smallest businesses per our hypothesis, lenders made more loans when the small businesses of larger employee sizes were present in greater numbers. In particular, the regression analysis was consistent with the descriptive data analysis, which suggested that banks would have higher lending levels in counties with above median numbers of firms with 10 to 19 employees.

Credit Score

Expectation: The literature suggests that credit scoring has allowed larger, transaction based lenders to make more loans to small businesses. In contrast, smaller lenders tend not use credit scores, meaning that their lending levels are unaffected by credit scores. A number of studies report that smaller lenders employ the relationship model in which

underwriting decisions are more qualitative in nature and depend on the lender's knowledge of the character and reputation of local small businesses. NCRC obtained Dun and Bradstreet (D&B) credit score data to test these propositions.

D&B's commercial code credit score predicts the likelihood that a company will pay its bills in a severely delinquent manner (90 days past due), or obtain legal relief from creditors, or cease operations over the next year without paying all outstanding loan amounts. The score ranges from 101 to 670, with 101 representing the highest risk of serious delinquency and 670 representing the lowest risk. The credit score data can also be expressed as quintiles of risk, with 1 representing the lowest risk and 5 representing the highest risk of serious delinquency. On a county level, the D&B data reveals how many businesses are in each quintile of risk. D&B uses a sample from its database of 16 million small businesses to develop credit scores based upon demographic characteristics of the small businesses, public records, payment performance, and financial ratios (such as liquidity and efficiency ratios).¹⁶

Appendix Table 29 shows the largest portion of small businesses in Appalachia was in the credit score category of low risk scores. Moreover, the differences among the distribution of businesses in categories of credit scores were not as large as would be expected. The table shows that 26% of all Appalachian small businesses had the low risk credit scores, 17.2% had moderate risk, 13.7% had medium risk, 23.6% had high risk, and 18.7% had very high risk scores.

Considering categories of counties, the largest differences occurred among the distribution of businesses with low risk and very high risk credit scores. The portion of businesses with low risk credit scores in non-distressed counties was about 3 percentage points greater than the portion of businesses with low risk credit scores in distressed counties. Likewise, the portion of businesses with low risk credit scores was about 5 percentage points greater in MSA counties than NonMSA counties. On the other end of the scale, the portion of

¹⁶ D&B Risk Management Solutions, *Understanding the D&B Commercial Credit Score*, Copyright 2002, D&B, Inc.

businesses with very high risk scores was about 2.5 percentage points greater in NonMSA counties than MSA counties. The difference between the portion of businesses with very high risk scores in non-distressed and distressed counties was just under 1 percentage point.

In sum, only the difference in the distribution of businesses with low risk scores between MSA and NonMSA counties was particularly striking. The difference in the distribution of very high risk scores was not large among the categories of counties. Thus, it is plausible that credit score distribution and the metropolitan/non-metropolitan or distressed/non-distressed status of counties were not correlated or interacting with each other.

The data suggests that banks, including larger ones, were using credit scoring and had lower small business lending levels in counties with higher portions of higher risk scores (high risk is represented as low scores in D&B's scoring system, see above). According to Appendix Table 30, in counties with above median portions of low risk scores, the median loan level was 877 loans. In contrast, the median loan level was 382 loans in counties with below median portion of low risk scores. Starting with the second lowest risk category (moderate risk) and continuing through the other quintiles of risk, the median lending levels were larger in below median portions of the risk category and were smaller in above median portions of the risk category. For example, in counties with below median portions of moderate risk scores, the median number of loans was 734. In counties with above median portions of moderate risk scores, the median number of loans was 440.

It is therefore to be expected that lending would be higher in counties populated by small businesses with low risk credit scores and would be lower in counties populated by businesses with high and very high risk credit scores.

Results: The full model showed that only the low risk category was significant and had the expected sign. Banks had higher lending levels in counties with high numbers of the lowest risk businesses. Interestingly, banks did not have statistically significant lower levels of lending in counties with above median portions of higher risk scores. Despite the insignificance, the signs were in the expected direction; that is, lending would be lower if

the variables had been significant. The results suggest that banks were most sensitive to higher portions of low risk businesses, with significantly higher levels of lending in counties with above median portions of these businesses. This was consistent with expectations. The lack of significant impacts of the other credit score quintiles did not necessarily refute the initial expectations. The initial expectations would be refuted completely only if lending was higher as greater portions of higher risk businesses were present.

Model 2 – Mid-Size Banks (see Appendix Table 32)

Metropolitan Statistical Area/Non-Metropolitan Statistical Area (MSA/NonMSA)

Expectation: The descriptive data analysis above showed that mid-size banks made a greater number of their loans in NonMSA counties and had a higher market share of loans in NonMSA counties than MSA counties. However, the median number of mid-size bank loans was greater in MSA than NonMSA counties. Mid-size banks probably dispersed more of their loans over a greater number of NonMSA counties than other banks. But on a per county basis, it is to be expected that mid-size banks would be making fewer loans in NonMSA counties than MSA counties.

Results: The results show that the MSA/NonMSA variable was not significant in either the core or the full model. Just as with all banks, it appears that MSA/NonMSA status did not have a statistically significant impact on lending. This finding was somewhat contrary to initial expectations, but suggests that in and of itself, MSA/NonMSA status did not exert a large influence on lending for mid-size or other banks.

Distressed/Non-Distressed Counties

Expectation: Mid-size banks had a higher market share of loans in distressed than non-distressed counties. But just like other banks, mid-size banks had a lower median number of loans in distressed than non-distressed counties. Perhaps, mid-size banks did not lower

their lending to the same extent as other banks in distressed counties, thereby accounting for their larger market share in distressed counties. Nevertheless, the lower median number of loans in distressed counties suggests that mid-size bank lending would be lower in distressed counties.

Results: In the core model, the distressed/non-distressed variable was significant and negative. This was consistent with initial observations, meaning that lending was lower in distressed counties. In the full model, however, the distressed/non-distressed variable became insignificant. In contrast, the distressed/non-distressed variable was significant and negative for all lenders in the full model. Two effects may be occurring here that cancel each other out. On the one hand, mid-size banks may indeed have a niche in distressed counties, which would boost their market share of loans in distressed counties. On the other hand, distressed economic conditions in distressed counties may lower lending levels of banks in general.

Minority Level in County (Percent Black and Percent Hispanic Variables)

Expectation: The literature reports that smaller and mid-size banks with assets below \$1 billion are more likely to make loans to minority-owned businesses. It is possible that this could also apply to counties with high levels of minorities, suggesting that the minority level of a county may be a positive and statistically significant variable. However, the descriptive data analysis suggested that mid-size bank market share of loans was actually the lowest in counties with 20% to 50% minorities although mid-size banks had a higher median number of loans in counties with 20% to 50% minorities than in counties with less than 20% minorities. Although the descriptive data was mixed, the initial expectations were that mid-size banks would have lending patterns similar to other banks; that is, lending levels would be higher in counties with more minorities.

Results: The impact of the percent African-American and Hispanic variables were consistent with expectations in the full model and core model. Race variables were

significant and had positive signs; this implied that mid-size bank lending was higher in counties with higher levels of minority population.

Median Household Income

Expectation: The expectation for this variable was the same as for all lenders; namely lending would be higher as median household income was greater in a county.

Results: The core model was consistent with expectations but with a coefficient that was very small. The full model was not consistent with expectations because the variable was statistically insignificant.

Concentration

Expectation: Some theories suggest that smaller banks perceive opportunities in more concentrated markets as customers become dissatisfied with services offered by oligopolies. These theories suggest that lending by mid-size banks would be higher in concentrated markets. The descriptive data, however, in Appendix Table 26 reveals that mid-size banks made a median number of 8 loans in counties with above median levels of HHI and 66 loans in counties with below median levels of HHI. The median mid-size bank market share of loans was also lower in counties with above median levels of HHI and higher in counties with below median levels of HHI. Overall, the descriptive data analysis suggests that mid-size banks would make less loans in Appalachian counties with higher concentration levels.

Results: The level of concentration was associated with lower mid-size bank lending in the core model, and was consistent with initial expectations. In contrast, the level of concentration was insignificant in the full model. It did not appear that mid-size banks were seizing competitive opportunities by offering more loans in concentrated markets, however, higher levels of concentration were not associated with less mid-size bank lending as it was for other lenders.

Income Growth Variable

Expectation: Just as with other lenders, it was expected that mid-size banks would increase their lending as income growth surged over time in a county.

Results: The income growth variable was positive and statistically significant in the core model but became statistically insignificant in the full model.

Number of Branches of Mid-Size Banks

Expectation: Mid-size banks appeared to thrive in counties with above median number of mid-size bank branches. Their market share of loans was 2.1 percent and 5.3 percent in counties with below median number of branches and in counties with above median number of branches, respectively, as displayed in Appendix Table 27.¹⁷ The median number of loans was 6 loans in counties with below median number of branches and 95 loans in counties with above median number of branches. We thus expected lending to be higher in counties with greater number of mid-size bank branches.

Results: The results were consistent with the expectations. Mid-size bank lending was higher as the number of mid-size bank branches was greater in a county in both the core and full models.

Number of Employees in Small Business

Expectation: The literature dwells on the “relationship” lending of mid-sized banks which is geared to serving the smallest businesses. We expected to see greater numbers of loans by mid-size banks in counties with greater numbers of firms with 1 to 4 employees and 5 to 9 employees. The descriptive analysis suggests that mid-size banks may have a market

¹⁷ NCRC used the FDIC database, Summary of Deposits, to identify branches located in Appalachian counties and to identify branches of mid-size banks headquartered in Appalachia. See <http://www2.fdic.gov/sod/index.asp> for this database.

niche with the firms with 5 to 9 employees. Their median market share of loans was one percentage point higher in counties with above median percent of firms with 5 to 9 employees than in counties with below median percent of these firms (see Appendix Table 28). Moreover, the median number of loans in counties with below median number of firms with 5 to 9 employees was 13. In contrast, the median number of loans in counties with above median number of firms with 5 to 9 employees was 37.

Results: The results were not consistent with the descriptive statistics. None of the size categories of businesses, including the number of businesses with 5 to 9 employees, had a statistically significant impact on lending. The sign on the coefficient for the 5 to 9 employee variable was in the expected direction (positive) while the signs for the other size categories were negative.

Credit Score

Expectation: The literature, as discussed above, finds that credit scoring is not a statistically significant factor in mid-size bank lending and underwriting. Mid-size banks often employ relationship lending in which first-hand knowledge of local small businesses replace the quantitative analysis and/or credit scoring as the means for making loans to small businesses. In contrast, larger banks engage in transactional lending that mostly rely upon credit scoring and other quantitative techniques for underwriting and issuing loans (Mitchell, 2004 and Berger and Udell, 2001).

The descriptive analysis reveals that mid-size banks' lending patterns were similar to other banks when considering credit score. As shown in Appendix Table 30, mid-size banks had a higher median number of loans (37) in counties with above median levels of businesses with low risk credit scores, but they had lower median number of loans (13) in counties with below median number of low risk scores. The patterns were reversed for mid-size banks in the other risk categories; that is the number of loans was lower with above median number of businesses in the higher risk categories. Notwithstanding the descriptive data

analysis, we are going to rely on the extensive literature and expect the credit scoring variables to be statistically insignificant.

Results: The results were consistent with the expectations. The credit score variable was not statistically significant. Mid-size banks' lending levels were not affected by the distribution of credit scores on a county level in Appalachia. Mid-size banks appeared to be applying the relationship model of lending.

Model 3 – SBA Loans (see Appendix Table 33)

Overall, the expectations for SBA lending were similar to mid-size bank lending because of the possibility that the “relationship” model of lending was employed to a large extent in SBA lending. This section will report on the results for each variable.

Metropolitan Statistical Area/Non-Metropolitan Statistical Area (MSA/NonMSA)

Expectation: The descriptive data analysis revealed that the SBA 7(a) program had a higher market share of loans in NonMSA than MSA counties. Accordingly, the initial expectation was that SBA 7(a) loans would be higher in NonMSA counties.

Results: In the core model and full models, the variable capturing metropolitan/non-metropolitan status of a county was negative and statistically significant, meaning that SBA 7(a)-guaranteed lending actually was lower in metropolitan counties. This finding was different from all banks and mid-size banks. It suggests a focus of SBA 7(a)-guaranteed lending in Appalachian non-metropolitan areas that was distinct and significant from a policy perspective.

Distressed/Non-Distressed Counties

Expectation: The descriptive data analysis found that the SBA 7(a) program's market share of loans did not differ that much in distressed or non-distressed counties. Therefore, it

would be expected that the distressed/non-distressed status of the county would not have much of an impact on SBA 7(a)-guaranteed lending. As stated above, the SBA 7(a) program focuses on small businesses who “might not be eligible for business loans through normal lending channels.” A program goal of this nature could include targeting economically distressed areas for small business loans, but the SBA 7(a) program description on the SBA website does not include information on whether geographical targets have been established for the program.

Results: This variable was not significant in any of the models, whereas it was significant and negative for all lenders. The result for SBA-guaranteed lending was the same as for mid-size banks, meaning that mid-size bank lending and SBA-guaranteed lending may not be negatively influenced by distressed counties in contrast to lending conducted by all banks.

Minority Level in County (Percent Black and Percent Hispanic Variables)

Expectation: The descriptive analysis above documented that SBA 7(a)-guaranteed lending did not reach minority-owned businesses in proportion to the minority population either nationally or in Appalachia. Accordingly, it was expected that larger portions of the African-American or Hispanic population would result in lower levels of SBA 7(a)-guaranteed lending.

Results: In the core and full models, the variable capturing the portion of the African-American population was negative and statistically significant. The Hispanic population variable was negative in sign but not statistically significant in the models. The findings for the African-American and Hispanic variables contrasted with all lenders and mid-size banks; for all lenders and mid-size lenders, loan volumes were higher in counties with greater numbers of minorities.

Median Household Income

Expectation: The SBA program intends to target small businesses who would not otherwise receive loans. Given this orientation, the initial expectation would be that SBA-guaranteed lending was less likely than non-government backed lenders to be higher in counties with higher median income levels.

Results: The results were consistent with the expectations. The median household income variable was insignificant in the core and full models. Income levels in a county did not influence SBA-guaranteed lending.

Concentration

Expectation: The descriptive statistics in Appendix Table 26 reveal that the number of median SBA loans was lower in counties with above median HHI and was higher in counties with below median HHI. It was therefore expected that SBA-guaranteed lending would be lower in counties with higher levels of banking industry concentration.

Results: Partially contrary to expectations, the core model showed that SBA-guaranteed lending was higher when the concentration level was higher. In the full model, the concentration variable was not statistically significant. Overall, this was a positive finding in that SBA-guaranteed lending may not be as sensitive as non-guaranteed lending to higher levels of concentration on a county level. In contrast to SBA-guaranteed lending, the full model for all lenders revealed lower levels of lending as HHI was higher on a county level.

Income Growth

Expectations: Counties experiencing higher levels of personal income growth also probably experienced higher levels of small business formation and growth. It would be expected that SBA-guaranteed lending would be higher in counties experiencing faster rates of

income growth. This could even include poorer counties, as long as the income growth was fast in these counties.

Results: Contrary to expectations, the income growth variable did not have a statistically significant impact on SBA 7(a)-guaranteed lending.

Branches

Expectation: The descriptive data analysis in Appendix Table 27 reveals that median and average levels of SBA-guaranteed lending were higher in counties with above median number of branches and lower in counties with below median number of branches. Thus, the expectation was that SBA-guaranteed lending would be higher in counties with greater number of branches.

Result: In the core and full models, the number of SBA-guaranteed loans was higher in counties with greater number of branches. This finding was consistent with the expectations.

Number of Employees in Small Business

Expectation: The descriptive data analysis in Appendix Table 28 does not provide good clues regarding expectations of SBA-guaranteed lending to businesses of various sizes. In all the business size categories (except for firms with more than 50 employees), the SBA 7(a) program guaranteed a greater average number of loans in counties with below median number of firms in the particular size category than loans in counties with above median number of firms. Based on the purpose of the 7(a) program, it would be expected that SBA-guaranteed lending would be higher in counties with greater number of smaller businesses.

Results: In the full model, the variable for small businesses with 5-9 employees was significant and negative in sign. The variable for small businesses with 1 to 4 employees

was statistically insignificant as was the variable for small business with 10 to 19 employees. SBA-guaranteed lending was not lower in counties with higher numbers of the smallest businesses (1 to 4 employees), but was lower in counties with greater portions of businesses with 5 to 9 employees. Perhaps, SBA-guaranteed lending was more focused than all lenders on the smallest firms with 1 to 4 employees since: 1) the 1 to 4 employee variable was the only variable in the 7(a) model that was not negative in sign, and (2) the only statistically significant variable for the all lender model was the variable for firms with 10 to 19 employees.

Credit Score

Expectation: The intent of the SBA 7(a) program would suggest that SBA-guaranteed lending would be higher in counties with greater portions of moderate risk and high risk small businesses. The descriptive data analysis in Appendix Table 30, however, suggests that the 7(a) program guaranteed more loans in counties with higher numbers of lower risk business and fewer loans in counties with higher risk businesses. Since the intent of the program was not consistent with the data analysis, the initial expectation will split the difference between the program's purpose and the descriptive data. The initial expectation was that credit score distributions would not significantly impact the level of SBA-guaranteed lending on a county level.

Results: The full model showed SBA 7(a)-guaranteed lending was higher in counties with greater numbers of businesses in all credit risk quintiles except the moderate risk quintile. In other words, SBA-guaranteed lending basically remained unaffected by differences in the distribution of credit scores in counties. Since SBA-guaranteed lending was not lower in counties with the highest portion of medium or high risk businesses, the SBA program appeared to be serving its purpose in Appalachia by serving (and not avoiding) higher risk businesses.

Discarded Variables

This report discarded a few of the variables on business characteristics from the equations due to collinearity problems. It is nevertheless worthwhile to briefly discuss these variables as initial expectations were that they would influence the levels of lending in Appalachia.

Sector of Small Business

Expectation: The sector of small businesses appeared to be an important control variable for regressions. For example, the median percentage of services businesses in a county was 34.8 percent and the median percentage of retail businesses was 18.9 percent. The median number of loans in counties with above median percentages of services businesses was 470 loans higher than in counties with below median percentages of services firms (see Appendix Table 34). In contrast, the median number of loans was reversed in the case of retail firms, with a much higher median of loans in counties with below median percentages of retail firms.

Results: In the great majority of the equations, the sector variable was insignificant and created collinearity problems. Two versions of the variable were tried. In the first version, demographic data on the number of small businesses in each sector were employed. In the second version, data from Economic Research Service from the United States Department of Agriculture that characterizes county-wide dependence on a given sector was employed.

Ownership of Small Business

Expectation: Dun and Bradstreet's description of their credit scores states that corporations are considered less risky than sole ownerships. Thus, an initial hypothesis was that small business lending was less in counties with below median percentages of corporations and above median percentages of sole ownership firms. The descriptive data suggested this was the case. The median percentage of sole ownerships in a county was 30.6 percent. All

banks made 842 loans in counties with below median percentages of sole ownerships, and 434 loans in counties with above median percentages of sole ownerships (see Appendix Table 35). In contrast, lending was higher when the number of corporations in a county was greater.

Results: Variables that measured sole ownerships and corporations as a percent of small businesses created collinearity problems. This was solved by introducing a composite ownership variable which was a ratio of the sum of sole ownerships and partnerships divided by the percent of corporations in a county. However, this variable was not significant, motivating us to delete it from the equations.

Conclusion

The regression analysis produced significant findings of factors accounting for lending levels. One of these significant findings was that higher numbers of bank branches result in more small business loans for banks of all sizes and for SBA 7(a)-guaranteed lending. Furthermore, lower lending levels occurred in distressed counties than non-distressed counties. Sensible policies would be to encourage bank branch building in Appalachia and to pursue economic development in distressed counties. When counties move from distressed to non-distressed status, more small business lending would occur.

An important finding was that counties with higher levels of minorities had higher levels of small business loans in Appalachia. In contrast, counties with higher levels of bank consolidation and concentration had lower levels of lending. In addition, counties with the highest numbers of businesses with low risk credit scores had higher levels of loans.

As predicted by the literature, mid-size banks exhibited lending patterns that reflected relationship lending. The level of mid-size bank lending on a county level was unaffected by the distribution of credit scores. In addition, the distribution of small businesses by employee size did not impact mid-size bank lending unlike lending by all banks which was higher in counties with a higher portion of businesses with 10 to 19 employees. Also, levels

of concentration did not impact mid-size bank lending whereas lending by all lenders was lower in counties with higher levels of concentration.

The SBA 7(a) program also exhibited distinct lending patterns. It was the only type of lending that was lower in MSA counties relative to NonMSA counties in Appalachia. This suggested a non-metropolitan focus by the SBA program in Appalachia. A worrisome finding, however, was that the SBA program was the only type of lending that was not higher in counties with greater portions of African-Americans and Hispanics.

Assessing the Impact of CRA on Community Development Lending for Affordable Housing and Small Business in Appalachia

Introduction

The Community Reinvestment Act (CRA) of 1977 imposes upon banks and thrifts an affirmative and continuing obligation to meet the credit needs of communities in which they are chartered, including low- and moderate-income communities. Four federal financial supervisory agencies enforce CRA and conduct periodic CRA exams about once every two or three years for banks with assets above \$250 million. CRA exams assess the level of loans, investments, and services banks with assets above \$250 million provide to low- and moderate-income communities.¹⁸ Banks receive CRA ratings for their overall performance as well as their performance in each state and multi-state metropolitan statistical area (MSA) in which they have branches. Banks and thrifts have strong incentives to increase their levels of lending, investing, and services to low- and moderate-income communities. Low CRA ratings can result in negative publicity and/or delay bank applications for federal agency approval to merge with another institution or open additional bank branches.

This chapter will assess the impacts CRA has had on increasing certain types of lending and investing for affordable housing and small business by banks located in Appalachian counties. The chapter will use CRA exams of banks headquartered in Appalachia during the time period of 2001 through 2004 to document levels of financing for affordable housing and small business development. So far the report has been devoted to examining access to lending for individual small businesses. In this chapter, the report scrutinizes the level of community development financing. Community development lending and investing provides the financing that builds the infrastructure and support systems of small

¹⁸ As of September 2005, the CRA exam structure was different for mid-size banks with assets between \$250 million and \$1 billion and for large banks with assets above \$1 billion. The exams for these two types of banks, however, had the same test structure (separate lending, investment, and services tests) during the time period examined by this report. Below, the chapter describes the test structure in more detail. This chapter looked at the most recent CRA exams of banks headquartered in Appalachia; the great majority of exams were conducted during 2001 through 2004. Only about 1 percent of the exams were conducted during 2005.

businesses. For example, community development financing would support the development of small business incubators and Rural Business Investment Corporations (RBICs). This chapter therefore rounds out the analysis of serving the credit and capital needs of small businesses. The chapter supplements the previous analysis of lending to individual small businesses with an analysis of financing the necessary infrastructure and support systems of small business development.

CRA exams for banks with assets greater than \$250 million include sections that assess a bank's level of community development lending and investments. Community development lending and investing include financing for low- and moderate-income rental and homeowner units as well as for small business incubators and equity vehicles for small businesses. The purpose of comparing levels of financing affordable housing and small business is to provide the Appalachian Regional Commission with a new and unique database of bank financing for these important needs.

This exercise also seeks to reveal the levels at which banks finance affordable housing and small business and whether a relatively small amount of financing for one of these activities suggests that more bank financing is required. The chapter will also assess if CRA has influenced banks to increase their level of bank branching in Appalachian counties. Finally, the CRA regulations have recently changed. The chapter will contain a brief description of the new CRA regulations for mid-size banks with assets between \$250 million to \$1 billion and offer insights into whether the new regulations and exams will impact the level of community development lending and investing.

Description of Sample Size of Banks and Thrifts

NCRC selected banks in Appalachia that had greater than \$250 million in assets as of year-end 2004, as listed by databases available on the Federal Financial Institutions Examination Council (<http://www.ffiec.gov>) web page. Banks and thrifts with assets above \$250 million in assets have more comprehensive CRA exams that scrutinize their lending, investment, and service activities. In particular, NCRC was interested in the community development

lending and investment activities of these banks. At the end of 2004, 227 banks and thrifts located in Appalachian counties had assets of more than \$250 million. NCRC was able to find the CRA exams for 220 of these institutions. In the seven remaining cases, the CRA exams could not be tracked down due to a number of possibilities including changes in charter types, the age of the institution (new or de novo banks may not have been examined yet), or mergers and acquisitions making it difficult to track name changes to the institutions.

At the time of their most recent CRA exam, 78 of the 220 banks had less than \$250 million in assets and were examined by regulators using the “small bank” CRA exam. The small bank CRA exam focuses on lending activities. The remaining 142 banks were examined using the “large bank” examination that encompasses lending, investments, and services. The banks with assets less than \$250 million at the time of their CRA exam were still included in the NCRC database and analysis.¹⁹ Specifically, these banks were included in the examination of bank branching patterns, but were not included in the part of the analysis that considered the levels of community development lending and investing.

Four federal supervisory agencies conduct CRA exams. The Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve Board (FRB) conduct CRA exams for institutions chartered by state governments. The Office of the Comptroller of the Currency (OCC) and Office of Thrift Supervision (OTS) perform CRA exams for institutions chartered by the federal government.

¹⁹ NCRC thought it was important to capture the banks that had assets over \$250 million at year end 2004, but had assets less than that amount in their most recent CRA exam. The next CRA exams of these institutions will be more comprehensive. In addition, their branching patterns could still be assessed. Finally, the small bank CRA exam provides “bonus” points if small banks engage in community development lending and investing. We wanted to see how often small banks in Appalachia took advantage of the bonus point option and engaged in community development and lending.

The regulatory agency break down for banks in the sample is as follows:

	All Banks	Small Banks	Large Banks
FDIC	51.8%	57.7%	48.6%
FRB	15.0%	9.0%	18.3%
OCC	25.5%	25.6%	24.4%
OTS	7.7%	7.7%	7.7%
Sample Size	220	78	142

The majority of banks and thrifts in our sample were state-chartered institutions as the FDIC and FRB examined 51.8 percent and 15 percent of the institutions, respectively. The OCC examined a quarter of the banks. Only 7.7 percent of the lenders were federally chartered thrifts that were examined by the OTS.

The great majority of CRA exams in the NCRC sample were relatively recent. More than 90 percent of the CRA exams for the large bank sample were from 2002, 2003, and 2004 (23.2%, 36.6% and 31.7%, respectively). CRA Exams from 2001 and earlier made up 7% of the sample, and exams from 2005 accounted for 1.4%.

Bank Location by State, Metropolitan Area and County

Appalachian counties in Pennsylvania accounted for 42 institutions in the sample or almost 30 percent of the sample. Appalachian counties in Alabama had 20 banks or 14 percent of the lenders in the sample and Appalachian counties in Tennessee had 10 institutions or 7 percent of the lenders in the sample.

Of the sample of large banks, the break-down by state is as follows:

	Count	Percentage
AL	20	14.1%
GA	14	9.9%
KY	5	3.5%
MD	4	2.8%
MS	6	4.2%
NC	8	5.6%
NY	8	5.6%
OH	9	6.3%

PA	42	29.6%
SC	2	1.4%
TN	10	7.0%
VA	7	4.9%
WV	7	4.9%
Total	142	100%

Slightly more than half of the banks and thrifts with assets above \$250 million as of year end 2004 were located in metropolitan statistical areas (MSAs) in Appalachia. One hundred seventeen banks were located in MSAs and 103 banks were located in non-metropolitan counties in Appalachia (see Appendix Table 36a). The asset sizes of the banks located in MSAs were considerably larger; banks located in the MSAs had combined assets of \$420.6 billion versus \$73.3 billion for assets of banks located in non-metropolitan counties (see Appendix Table 36c). Only 11 banks with combined assets of \$4.3 billion were headquartered in distressed counties in Appalachia.

Banks headquartered in Appalachia represent a significant financial resource for responding to credit and capital needs of small businesses, but planning needs to be undertaken to leverage increased amounts of bank financing delivered equitably throughout the region. The imbalance of considerably more bank assets in MSAs is not surprising, but can perhaps be mitigated by CRA assessment area procedures. It is unlikely, for example, that the 117 banks located in metropolitan areas have declared only metropolitan areas as their official CRA assessment areas in which they undergo CRA exams. Many of these banks may also have non-metropolitan areas designated as assessment areas. ARC officials and local economic development officials may want to undertake a targeted review of CRA exams of MSA-located banks to ensure that non-metropolitan counties are included as assessment areas, especially counties designated as distressed counties.

The other phenomena regarding asset sizes that is important for planning purposes is the relatively “small” size of banks located in Appalachia. The average asset value of banks and thrifts in the NCRC sample located in Appalachian counties as of year end 2004 was \$2.2 billion but the median asset size was \$364 million (see Appendix Table 36a and Appendix Table 36b). In other words, a large number of banks and thrift fell into the asset category of \$250 million to \$1 billion, an asset category considered to be “intermediate”

small banks by the federal financial supervisory agencies. Intermediate small banks may have more difficulties undertaking large-scale community development financing projects such as significant Low-Income Housing Tax Credit deals or high volumes of equity investments in small businesses. These banks, however, may be receptive to a consortia approach or investing in CDFIs or Revolving Loan Funds to benefit a specific area within Appalachia in cases in which large scale financing is needed.

The Level of Community Development Investment and Lending for Affordable Housing and Small Business

Banks and thrifts in NCRC's sample (located in Appalachian counties and with assets of more than \$250 million as of year end 2004) made about \$3.53 billion and \$1.9 billion in community development lending and investing, respectively, during a time period of approximately once every 2.5 years (which was the average time period evaluated by CRA exams in the sample) (see Appendix Table 37c).²⁰ In other words, lenders in the NCRC sample made about \$5.43 billion in community development lending and investing every 2.5 years.²¹ This figure of more than \$5 billion represents a significant financial resource for economic development in Appalachia. It is all the more impressive when considering it does not include dollar totals of loans to individual small businesses and homeowners. Instead, the \$5 billion reflects the amount available for community development projects such as large scale housing developments or small business incubators that benefit neighborhoods or even entire rural counties in Appalachia.

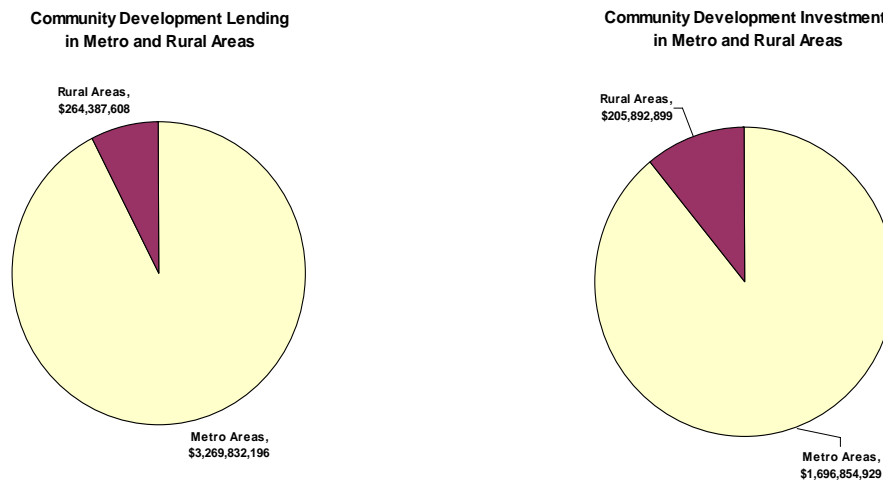
Banks located in metropolitan areas made considerably higher levels of total community development loans and investments than banks located in non-metropolitan areas in Appalachia. Banks located in metropolitan areas issued a total of \$3.27 billion in

²⁰ The average time period for which CRA data on lending and investments was considered on the exams in the NCRC sample was 30.8 months. This average number of months for large bank CRA exams was 32.7 months, and the average for small banks was 26.8 months. The median values were 32 and 24 months, respectively. The prior period investments have been subtracted from the total community development lending and investment totals.

²¹ This total does not include outstanding investments and loans from previous time periods not made during the most recent CRA exam cycle. The total prior period investments include \$16 million for community development lending and \$215 million in community development investing.

community development loans on their most recent CRA exams while banks located in non-metropolitan areas made a total of \$264 million in community development loans (see Appendix Table 37c and Figure 16). Likewise, banks located in metropolitan areas made a total of \$1.7 billion in community development investments and banks in non-metropolitan counties issued \$206 million in community development investments. This does not necessarily translate into much fewer community development loans and investments for non-metropolitan areas since banks located in metropolitan areas most likely have included non-metropolitan counties as part of their assessment areas or geographical areas scrutinized on their CRA exams. But even after taking into account the non-MSA assessment areas of MSA headquartered banks, non-MSA areas most likely receive considerably less bank community development lending and investing.

Figure 16



Source: Appendix Table 37 c. Total Values – row *CD Lending* and *CD Investment* and columns *Rural Areas* and *Metro Areas*

It is also likely the case that the total community development investment and lending disparities among banks headquartered in metropolitan and non-metropolitan areas are being driven by a few very large banks. The median community development lending and investment figures still showed that banks headquartered in metropolitan areas issued higher levels of community development financing but the differences narrowed considerably. Banks located in metropolitan areas issued a median community

development lending level of \$1.811 million as opposed to the \$1.585 million made by banks located in non-metropolitan counties (see Appendix Table 37b). Banks headquartered in metropolitan areas issued a median level of \$1.461 in investments while banks in rural counties made a median level of \$848,000 in investments.

NCRC attempted to break down the total community development lending and investing figures into sub-totals for housing and small business development. This endeavor was more successful for community development investing as opposed to lending. CRA exams vary in the level of specific detail they provide on community development financing. Some exams provide much detail on every community development project financed by banks while others reveal only total amounts of community development lending or investing. For whatever reason, the level of detail was greater for community development investments than lending (perhaps because investments were considered under a separate test for banks with assets greater than \$250 million while community development lending was considered as part of a lending test). The total amount of community development lending for all banks in the NCRC sample was \$3.53 billion with \$3.1 billion that could not be classified as supporting housing or small businesses (see Appendix Table 37c). In contrast, most of the investment dollars could be classified as either supporting affordable housing or small businesses. The total amount of community development investment was \$1.9 billion with \$707 million that could not be classified as supporting affordable housing or small businesses.

Considering the amount of community development lending and investments that could be classified suggests that the level of bank community development financing supporting affordable housing is higher than that for small businesses. In total, all banks and thrifts in NCRC's sample made \$297 million in community development loans that financed affordable housing versus \$117 million in community development loans for small businesses in Appalachia (see Appendix Table 37c and Figure 17).

Figure 17



Source: Appendix Table 37 c. Total Values – rows *CD Lending (Housing and Small Business)* and *CD Investment (Housing and Small Business)* and column *All Banks*

Similarly, banks and thrifts in NCRC’s sample issued \$807 million in investments for affordable housing as opposed to \$174 million in investments for small businesses in Appalachia during the time period of the most recent CRA exams for the banks and thrifts in NCRC’s sample. Examining average or median community development loan and investment levels per bank for affordable housing and small businesses yielded similar disparities in favor of affordable housing. This analysis is not intended to suggest that community development financing levels for affordable housing should go down so that levels for small businesses can go up. Instead, it suggests that banks could be encouraged to increase their overall levels of community development financing and small business development.

Examples of Small Business Financing

Some examples of innovative community development financing illustrate that CRA has motivated important financing for small business development and expansion in Appalachia. For instance, Union State Bank in Alabama with \$257 million in assets made a construction loan of \$1,800,100 for a childcare facility in a moderate income area. The day care provided its services to all citizens in the area; however, it offered a discounted rate to low- income individuals. The CRA exam for United Bank in Parkersburg, West Virginia stated that this bank maintained a \$2.2 million equity investment in a small

business investment company (SBIC). The SBIC focused on businesses located throughout West Virginia. Finally, S&T Bank, a Pennsylvania-based bank with \$2.2 billion in assets, invested almost \$300,000 in a federal preservation tax credit project, according to its CRA exam. The project involved an investment in a commercial office building in a moderate-income census tract.

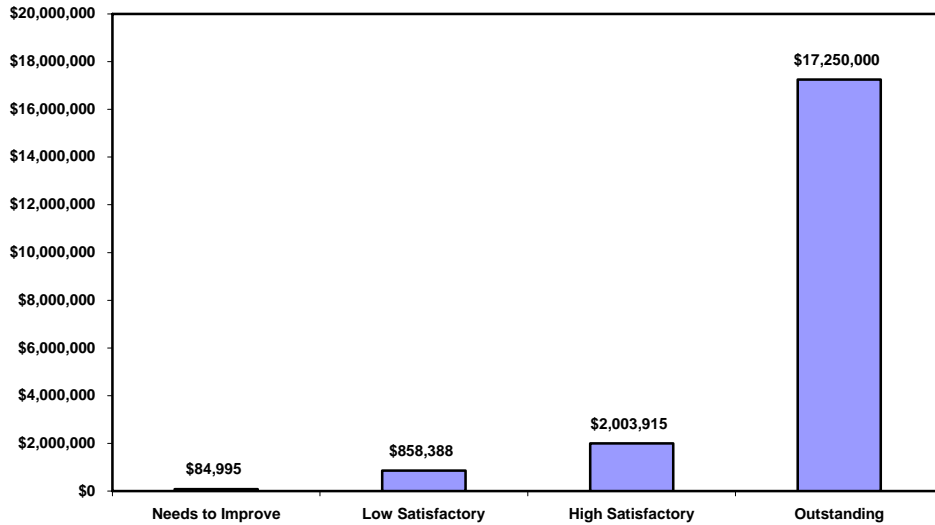
Relationships Among CRA Ratings, Community Development Investment and Lending Levels

NCRC's sample revealed that banks with higher ratings or grades on their investment and lending tests had higher levels of community development investments and lending. While this finding would appear to be intuitive, it is nevertheless important since it indicates that if banks are encouraged to perform well on their CRA exams, then the level of community development financing will increase in Appalachia. Banks can receive one of five ratings on their lending or investment tests: Outstanding, High Satisfactory, Low Satisfactory, Needs to Improve, and Substantial Noncompliance.

Substantial differences in investment levels were present for Appalachian banks with various ratings on their investment test. The median community development investment level for the 20 banks with Outstanding ratings was \$17.3 million and was \$2 million for the 41 banks with a High Satisfactory ratings on their Investment Test (see Appendix Table 38b and Figure 18). Median investment levels drop precipitously for banks with lower ratings. The 62 banks with Low Satisfactory ratings had median investment levels of \$858,388 and the 18 banks with Needs-to-Improve ratings had median investment levels of just \$84,994.

Figure 18

Median Community Development Investments by CRA Rating



Source: Appendix Table 38 b. Median Values – row *CD Investment*

Banks with various ratings also had significantly different ratios of community development investment to assets. Banks with Outstanding ratings on the Investment Test had average ratios of community development to assets of .84% (see Appendix Table 38a). In other words, the average dollar amount of community development investments was less than 1 percent of bank assets or .84% of bank assets. Banks with High Satisfactory ratings had ratios of community development investment to assets of .56%. Banks with the lowest ratings had much lower ratios.

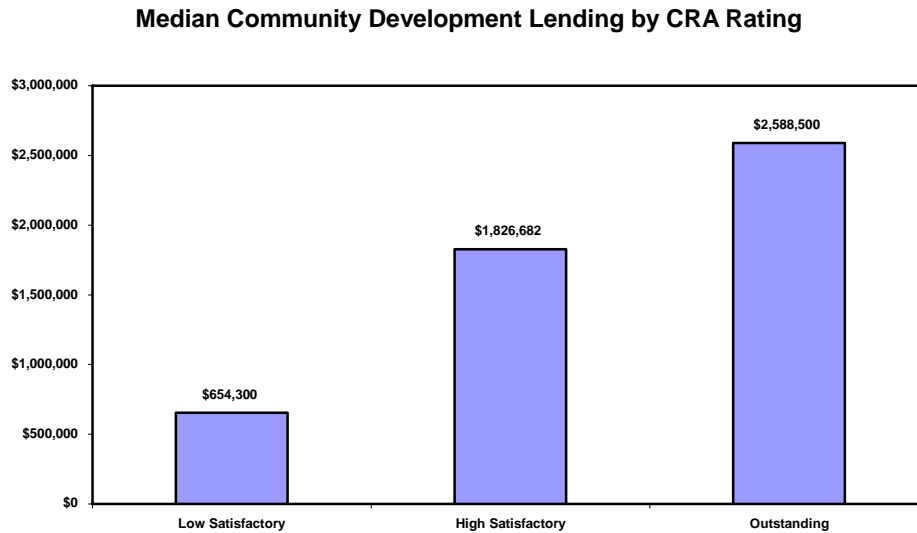
The differences among the mean community development investments to assets ratio were statistically significant for a number of the ratings categories. The difference between .56% for banks with High Satisfactory ratings and .22% for banks with Low Satisfactory ratings was statistically significant (see Appendix Table 38a). The difference between .22% for banks with Low Satisfactory ratings and .07% for banks with Needs-to-Improve ratings was also statistically significant. Interestingly, only the differences between banks with Outstanding and High Satisfactory ratings were not statistically significant.

A sensible objective is to motivate as many Appalachian headquartered banks as possible to strive for a High Satisfactory or Outstanding ratings on their investment tests since banks with these ratings were making statistically significant higher dollar number of investments in Appalachia than banks with lower ratings. Many banks desire higher ratings on CRA exams to enhance their public reputation and demonstrate solid CRA performance to the public and their regulatory agencies.²² If stakeholders (nonprofit organizations, public agencies, CDFIs, and others) present enticing opportunities, partnerships, and/or programs for increasing levels of investments, a number of banks will seize these opportunities as a means of bolstering their CRA ratings and increasing their level of profitable community development investments.

The community development lending levels were also substantially different for banks with various ratings on the lending test. Banks with Outstanding ratings on the lending test had a median community development lending level of \$2.6 million (see Appendix Table 39b). Just going down one notch in the ratings to High Satisfactory resulted in considerably less community development lending. Banks with High Satisfactory ratings on the lending test had a median community development lending level of \$1.8 million, about \$700,000 less than banks with Outstanding ratings. The difference was even more dramatic between banks with High Satisfactory and Low Satisfactory ratings. The median community development lending dollar amount of banks with Low Satisfactory ratings was \$654,300, about one quarter the amount of banks with High Satisfactory ratings (see Appendix Table 39b and Figure 19).

²² The federal regulatory agencies consider CRA performance and ratings when banks submit applications to merge and open branches. Solid CRA performance, consistent CRA performance on all the component tests, and high ratings increase the chances of expeditious approval of bank applications.

Figure 19



Source: Appendix Table 39 b. Median Values – row *CD Lending*

The community development lending to asset ratios were substantially different for banks with various ratings on the lending test but they were not statistically significant. The community development lending to asset ratios were .96%, .54% and .33% for banks with Outstanding, High Satisfactory, and Low Satisfactory ratings on the lending test, respectively (see Appendix Table 39a). One possible reason for the lack of statistical significance is that the lending test includes a number of other components besides community development lending. In contrast, the investment test is solely focused on community development investing. Despite the lack of statistical significance, the absolute dollar amounts and ratios for community development lending differed greatly among banks with various ratings on the lending test. Again, the objective should be to motivate banks to achieve High Satisfactory and Outstanding ratings on the lending test in order to maximize the amount of community development lending in Appalachia.

Lastly, small bank CRA exams did not provide much of an impetus for banks to engage in community development lending and investing. As stated above, small banks with assets under \$250 million can receive bonus points for community development financing. Only two small banks out of 78 small banks in the sample had information on community

development investments included on their CRA exam. Seven small banks in the sample had information on community development lending included on their CRA exam.

The Level of Bank Branches in Appalachia

CRA exams include an analysis of bank branching patterns as a component of the CRA service test. The service test includes the number and percent of branches by income level of census tract. The branching data in this chapter differed from the branching data presented in other chapters in that the data here were from CRA exams whereas the branching data in the other chapters were from the FDIC web page.²³ The objective in this section of the chapter was to describe branching patterns in detail for banks of various asset sizes and to assess if CRA service test ratings reflected differences in branch penetration in low- and moderate-income areas. Since branches had a significantly positive impact on the level of lending as discussed in the regression chapter, it is important to see if CRA exams are motivating banks to place more branches in low- and moderate-income areas.

The CRA exam data suggested overall differences in branching by category of counties and confirmed the analysis above that showed a relative shortfall of branches in NonMSA counties. The CRA exam sample included 7,662 branches; 7,244 branches were owned by large banks while small banks controlled 418 branches (see Appendix Table 36c). Almost 1,500 branches were located in low- and moderate-income census tracts. Banks headquartered in MSAs had 5,956 branches while banks located in NonMSAs had just 1,706 branches.²⁴ Interestingly, the median number of branches was 10 branches located in both MSA and NonMSA counties. The reason for the disparities was the larger banks with higher average assets in MSA areas. The average number of branches in the two county categories was quite different: 54 for MSA counties and 17 for NonMSA counties.

²³ The previous data on branching from the FDIC was from <http://www2.fdic.gov/sod/index.asp> and <http://www2.fdic.gov/sdi/index.asp>.

²⁴ The differences in distressed and non-distressed counties are not discussed because a small sample, just 8 banks, were headquartered in distressed counties. The CRA exam data for branching in distressed counties is contained in the tables.

Banks with Low Satisfactory ratings on the service test did not place branches in proportion to the portion of census tracts that were low- and moderate-income (LMI) in Appalachian counties. Overall, the banks with different ratings did not differ that much in the average percent of branches they placed in LMI census tracts. Banks with Outstanding ratings on the service test located 19.4 percent of their branches in LMI tracts while the branch distribution in LMI tracts was 19.2 percent and 16.7 percent, respectively, for banks with High Satisfactory and Low Satisfactory ratings, respectively (see Appendix Table 40a).

The variations in performance became apparent when calculating the difference in the percent of branches in LMI tracts and the percent of tracts that were LMI. For banks with Low Satisfactory ratings, the portion of branches in LMI tracts was 5.9 percentage points less than the portion of tracts that were LMI (see Appendix Table 40a). In contrast, for banks with Outstanding and High Satisfactory ratings, there was no difference in the percentages of branches in LMI tracts and the percentages of tracts that were LMI. Interestingly, the differences on this measure for banks with High Satisfactory and Low Satisfactory were not statistically significant. Just as was found on the lending test, the differences in performance on this measure may not be statistically significant because the service test includes a number of components. However, the differences appear to be substantial, and point to the desirability of motivating banks to score well on the service test.

The Future in CRA Performance

The federal banking agencies recently changed the CRA exam format for mid-size banks with assets between \$250 to \$1 billion in assets (the change occurred after the time period in this study).²⁵ Instead of a separate lending, investment and service test, the new mid-size

²⁵ The federal banking agencies changed the CRA regulation in August of 2005 and then adopted new Questions and Answers on the CRA regulation in March of 2006. See the Federal Register, Vol. 70, No. 147, August 2, 2005, pp.44256-44270, and the Federal Register on Friday, March 10, 2006 Volume 71, No. 47, page 12424. The Office of Thrift Supervision (OTS) made different changes to its CRA regulation over several months starting in the summer of 2004. This report does not discuss the OTS changes because of the

bank exam will include a lending test and a community development test. The community development test will assess community development lending, investments and services. The new exam format raises a series of questions including whether the tests will be as rigorous and whether levels of community development lending and investing will increase or decrease in Appalachia.

The new exam for mid-size banks is highly significant for Appalachia. The great majority of banks located in Appalachia were mid-size banks in NCRC's sample. Mid-size banks with assets between \$250 million to \$1 billion totaled 136 banks in Appalachia while banks with assets above \$1 billion dollars totaled just 40 banks. Small banks with assets less than \$250 million were 44 of the Appalachian banks. Since the great majority of Appalachian banks now have new CRA exams, it is important that the exams remain rigorous.

Because NCRC found substantial differences in community development lending and investment levels and branching levels for banks and thrifts with different ratings, it appears that the current three tests of the large bank exam are effective in identifying quantitative differences in performance and awarding banks ratings that reflect these differences. Nationally and especially in Appalachia, the regulatory agencies must ensure that the new mid-size bank exam format is as effective as the previous large bank exam in motivating and rewarding mid-size banks and thrifts to offer community development loans, investments, and services.

A vital element of migrating to the new exams is to establish expectations that banks must be expected to maintain and improve upon their overall level of community development (CD) investing and lending. Federal agencies should make clear, for example, that banks will receive lower ratings if they dramatically decrease their combined levels of CD lending and investing in the first round of the new CRA exams. The preamble to the new CRA regulations for mid-size banks included a quote stating that the federal banking agencies "do not intend to suggest that a bank may simply ignore one or more categories of

small number of federally chartered thrifts in Appalachia and because there is a possibility that the OTS may be changing its CRA regulations again.

community development or arbitrarily decrease the level of such activities.” This guideline, reinforced recently in the Interagency Question and Answer document, must be implemented in a manner that ensures that community development lending and investing do not decrease, especially in a region like Appalachia that depends on mid-size banks.

The new community development test for mid-size banks does not have an explicit criterion for bank branching. It is not clear, for example, if the new exams will carefully scrutinize the number and percent of bank branches in LMI census tracts. Since substantial differences of bank branching in LMI tracts exist for banks with different CRA ratings, it is critically important that the new tests also have rigorous measuring mechanisms for assessing bank branching in LMI communities. The new Question and Answer document states that “the presence of branches located in low- and moderate-income geographies will help to demonstrate the availability of banking services to low- and moderate-income individuals.”²⁶ This is the closet that the regulatory agencies will come for a specific branching criterion on the new mid-size bank exam. It is an improvement over earlier language. Hopefully, it will be interpreted to mean that mid-size banks will still be assessed by the number and percent of branches in low- and moderate-income areas.

The report found that banks located in metropolitan areas had much higher levels of community development financing than banks located in non-metropolitan areas. The regulatory agencies also amended the CRA regulations to provide CRA points for community development financing in rural middle-income census tracts located in distressed and underserved counties. It is possible that community development financing may increase in non-metropolitan and distressed counties as a result of these newly eligible census tracts.

Community development financing directed to middle-income tracts in distressed rural counties may indeed be beneficial but must be considered in the overall economic context of the rural community. On the one hand, a county may be quite distressed economically and have high poverty rates, meaning that a middle-income tract still has low absolute

²⁶ Federal Register citation, March 2006 on the Interagency Question and Answers, op. cit.

income levels. In rural areas, CRA defines income levels based on a statewide median income for rural counties. This means that middle-income as defined as 80 to 120% of area median income could still be low in absolute terms. In cases in which middle-income represents low absolute income levels, community development directed to middle-income census tracts benefits these particular tracts and could have beneficial effects in surrounding low- and moderate-income tracts.

On the other hand, a middle-income tract in a distressed county could have a reasonably high absolute income level in a state in which the median income level of rural counties is also relatively high. Or the middle-income tract itself could simply have a high median income level, regardless of the rural statewide median income level. In these instances, community development financing in the middle-income tract in a distressed county would still count on CRA exams. However, CRA examiners should also ensure that a bank is financing community development activities in low- and moderate-income census tracts as well. The recently revised Interagency Question and Answer document on CRA indicates that addressing credit needs in distressed rural counties includes financing projects in low- and moderate-income areas. This Question and Answer was added to prevent the possibilities of a disproportionate amount of community development financing flowing to middle-income census tracts, particularly those that have relatively high absolute income levels.

Finally, the sample revealed that the largest share of community development lending and investments went towards meeting affordable housing goals. Affordable housing community development investments are often in the form of mortgage-backed securities (MBS), which while a qualified investment, are neither innovative nor complex. In addition, examiners should ensure that banks are not churning MBS investments. In other words, one bank will buy a MBS right before their CRA exam, and then sell the securities to another bank that is preparing for its CRA exam. Investing in MBS serves a community development need only if churning is prohibited. Also, the new community test should reward mid-size banks for pursuing a diversified portfolio of community development

investments and loans, including affordable housing, small business and economic development, and other initiatives to support low- and moderate-income areas.

Conclusion

This chapter reviewed CRA exams of banks headquartered in Appalachia in order to quantify banks' level of community development lending, investing, and branching. The chapter focused on community development lending and investing that supports small business development.

The chapter detailed bank headquarter location and asset distribution in Appalachia. Almost 30 percent of the Appalachian banks were located in Pennsylvania with the next highest portion (14 percent in Alabama). While the numbers of banks located in MSAs and NonMSAs were similar, banks located in MSAs had combined assets of \$420.6 billion versus \$73.3 billion for banks in NonMSA counties (see Appendix Table 36c). Of the more than \$5 billion in community development lending and investing that occurs during the CRA exam cycle, the great majority of it was financed by banks located in MSAs. This does not mean that NonMSA counties are starved of community development financing since banks located in MSA counties likely have CRA assessment areas extending into NonMSA counties. However, the disparities in community development lending and investment by metropolitan status of county are possibly significant. Further study should investigate if banks headquartered in MSAs have assessment areas extending into NonMSA counties and if the banks located in MSAs offer significant amounts of community development financing in NonMSAs.

The chapter found an imbalance in the amount of community development lending and investments devoted to affordable housing and small business development. For example, the chapter documented about \$807 million in affordable housing investments as opposed to \$174 million in small business investments (see Appendix Table 37c). Banks located in Appalachia should be encouraged to increase their overall level of community development financing and devote a significant portion of that increase to small business development.

Lastly, the chapter revealed that banks with different CRA exam ratings actually did have substantial differences in their levels of community development investments, loans and branches. This has important policy implications in the context of the new CRA exam for mid-size banks, which constituted a majority of the banks located in Appalachia. The chapter concluded with observations of how to ensure that the new CRA exams for mid-size banks were as rigorous as the old exams.

Alternative Financial Institutions in Appalachia

Previous chapters have discussed trends in the financial services industry that affect access to capital for small business development in Appalachia, particularly in distressed and underserved markets. As the financial services industry modernizes and becomes increasingly consolidated, there are concerns that access to capital may be threatened in lower-income markets where small business borrowers often have marginal credit or limited business histories. Improvements in technology allow for much more streamlined, cost-effective underwriting, and consolidation leads to increasingly centralized decision-making. As decision making becomes more standardized and less relationship oriented, businesses owners without strong credit or capital, particularly those in disinvested or underserved markets, may have difficulty accessing necessary capital for starting or growing their businesses. In recent decades, a diverse network of non-bank financial institutions has grown and attempted to fill such gaps in access to credit.

This chapter examines the presence of regional development finance institutions and other intermediary business development lenders in Appalachia. Such intermediaries are often loan funds which are typically operated by a mix of public, private, non-profit, or for-profit organizations and receive capital from sources such as mainstream financial institutions; federal, state, and local government agencies; and foundations. This section uses a variety of data sources to analyze the presence of different types of such institutions in the region, focusing on community development financial institutions (CDFIs), government-backed revolving loan funds (RLFs), development venture capital funds, and SBA lending intermediaries.²⁷

²⁷ In the following chapter we make a distinction between community development financial institutions (CDFIs) and revolving loan funds (RLFs). In broad terms, we consider a CDFI an institution whose primary mission is providing community development finance and technical assistance to underserved and distressed markets. RLFs also provide loans and technical assistance to businesses in underserved markets, but, frequently, RLFs are a small part of a larger quasi-government organization whose mission is to promote regional economic development. As such their primary mission is not providing community development finance. The analysis in this chapter uses data from the CDFI industry and from ARC on their RLF lending pool. While there is a modest degree of overlap between institutions in the two data sets, we feel that differences in organizational mission and available data warrant two distinct sections.

Community Development Financial Institutions (CDFIs)

The current Community Development Financial Institution (CDFI) industry emerged over decades as public and private sector players responded to the difficulties that many distressed markets, such as minority, lower-income, and rural communities, experienced in accessing mainstream financial services. CDFIs are niche financial institutions whose mission is to provide targeted financial services such as retail bank accounts, affordable housing finance, and small business capital to disinvested areas. In addition to such products, CDFIs also place a strong emphasis on building the capacity of the markets they serve through providing high levels of hands on financial literacy training, housing counseling, and entrepreneurial technical assistance.

The CDFI industry is made up of a diverse set of institutions that to varying degrees provide a mix of financial products and services and capacity building to distressed communities. The four basic types of CDFIs are community development banks, credit unions, loan funds, and development venture capital funds.

Community development banks and credit unions are regulated financial institutions with the ability to take deposits and offer loan products. Community development banks are for-profit entities whose focus is to provide targeted lending and investment geared towards the redevelopment of distressed communities. The main source of capital for community development banks is deposits received from individuals and institutions and government grants and investments. Community development credit unions (CDCUs) are non-profit cooperatives that provide affordable financial services to individuals without traditional bank accounts and help these individuals develop assets. CDCUs specialize in providing low-cost deposit accounts in communities not served by mainstream financial institutions and often extend credit at more flexible terms. CDCUs are primarily capitalized by member deposits, but also receive capital investments from other sources such as mainstream financial institutions. CDCUs offer consumer loans, vehicle loans, mortgages, and small business loans to distressed markets and often lead the way in product

innovation. CDCUs were the among the first institutions to offer low-cost, short term consumer loan products to compete with high cost payday lending operations.

Community development loan funds are not depository institutions, but are non-profit organizations that leverage investments by outside sources such as banks, foundations, corporations, and government agencies to provide lending for small business development, housing, microenterprise, or community facilities in distressed markets. Community development venture capital funds are for-profit entities who also leverage investments from outside sources to provide equity investments or equity-like loans for business development in distressed communities.

In its early years, the growing CDFI industry was primarily capitalized with government or foundation resources, but changes in government policy and the financial services industry have led to shifts in the sources of financial support for CDFIs. Mainstream financial institution participation was limited and typically involved investing in loan pools for affordable housing development and mortgage lending. The Community Reinvestment Act (CRA) changed the nature of financial industry support of the CDFIs. CRA was passed in 1977 to promote lending and investment by depository financial institutions in low- and moderate-income markets. In its early years, however, CRA's effectiveness was limited largely by weak regulatory enforcement. Substantial changes to the CRA regulation in 1995 altered the way banks were monitored for their community reinvestment performance. As related to CDFIs, the updated CRA regulation added specific components that examined banks for their levels of community development lending and investments and grants. This change served as incentive for banks and thrifts to provide low-cost loans and investments to CDFIs who were able to leverage these resources to finance activities that mainstream institutions found too risky to finance directly. CRA has often been credited with spurring the rapid growth of the CDFI industry in the 1990s which saw the establishment of the more new CDFIs than any other decade.²⁸

²⁸ The CDFI Data Project. 2005. *Providing Capital, Building Communities, Creating Impact*.

The federal government also established the CDFI Fund in 1994 under the Department of Treasury. It provides financial grants and technical assistance awards to CDFIs and implements the Bank Enterprise Award (BEA) program which rewards banks and thrifts who are active in supporting the CDFI industry. The CDFI Fund also implements the New Markets Tax Credit Program which provides tax credit allocations for community development entities to use in attracting investment in lower-income communities.

The CDFI industry has faced significant challenges recently. Sources of funding have been a particular concern. Government funding for CDFIs from sources such as the CDFI Fund and the SBA have been consistently threatened in recent federal budgets. Foundation support, a traditionally strong source of funding for the CDFI industry, has waned in recent years. Additionally, as mentioned in previous chapters, the Community Reinvestment Act has been weakened. Changes implemented by federal banking regulators put less emphasis on the importance of critical community development loans and investments for many mid-sized banks. The increasingly complex and global financial services industry now requires that CDFIs increase their level of sophistication in accessing capital markets and financing projects. In many markets, CDFIs now compete with the community development corporations of major banks for the best projects.²⁹ There has also been a growing emphasis from funders to document impact created by their investment.

CDFIs in Appalachia

The Appalachian region has a diverse set of development finance intermediaries. The following section takes a closer look at the CDFI industry in Appalachia.

An analysis of the membership lists of the major trade associations that represent different types of CDFIs gives a sense of the nature of the CDFI industry in Appalachia.³⁰ Table 5

²⁹ Moy, Kirsten and Alan Okagaki. July 2001. "Changing Capital Markets and Their Implications for Community Development Finance." Capital Xchange. Brookings Institution. Washington D.C.

³⁰ The major CDFI trade associations surveyed were Association for Enterprise Opportunity, Community Development Venture Capital Alliance, National Federation of Community Development Credit Unions, National Community Capital Association, National Community Investment Fund, and the CDFI Fund. This list is not comprehensive of all development finance intermediaries. There are many small revolving loan funds or loan funds that are for-profit or government or quasi-government agencies who are not members of these associations. These institutions will be discussed in subsequent sections of this chapter.

shows CDFIs located in the region by state³¹ and type of CDFI. There are over 100 CDFIs active in the region. Appalachian Pennsylvania has 29 CDFIs while West Virginia has 14 and Alabama has 11. At the other end of the spectrum, Appalachian South Carolina has no CDFIs and Georgia, Maryland, and Mississippi each have one. Of note, there are no community development banks in the region, although there are 26 community development credit unions. Appalachian Alabama has a high concentration of CDCUs where seven of the area’s 11 CDFIs are CDCUs. The most prevalent type of CDFI in Appalachia are loan funds with a total of 71. Pennsylvania has the most loan funds with 21. Kentucky and Tennessee each have high concentrations of loan funds where nine of ten and eight of ten CDFIs respectively are loan funds. Finally, in Appalachia there are 10 institutions set up specifically for community development venture capital investment.

Table 5. Appalachian CDFIs by State and Type³²

State	Total	CD Banks	Credit Unions	Loan Funds	Venture Funds
Alabama	11	0	7	4	0
Georgia	1	0	0	1	0
Kentucky	10	0	1	9	0
Maryland	1	0	0	0	1
Mississippi	1	0	0	1	0
New York	10	0	3	5	2
North Carolina	9	0	1	6	2
Ohio	5	0	1	3	1
Pennsylvania	29	0	7	21	1
South Carolina	0	0	0	0	0
Tennessee	10	0	2	8	0
Virginia	6	0	1	4	1
West Virginia	14	0	3	9	2
Total	107	0	26	71	10

Community development loan funds offer a diverse array of products and services. Loan funds broadly serve four sectors: microenterprise, small business development, housing, and community facilities. Microenterprise lenders target very small firms, typically those with fewer than five employees, for loans of less than \$35,000. These lenders often target minority, women-owned, and start-up businesses and provide high levels of technical

³¹The region represented is only that part of each state within the Appalachian Regional Commission boundaries.

³² CDFIs were taken from the association membership lists or known sources of funding. Credit Unions were members of the National Federation of Community Development Credit Unions (NFCDCU). Microlenders were members of the Association of Enterprise Opportunity (AEO) or were a registered SBA microlending intermediary. Loan funds were members of National Community Capital Association (NCCA). Venture capital funds were members of the Community Development Venture Capital Alliance (CDVCA) or received venture capital funding from the Appalachian Regional Commission.

assistance. Other loan funds target larger or more established businesses in distressed markets and provide a mix of loan and equity products with the primary goal of creating or retaining regional jobs. In addition to standard debt products, these loan funds many also operate venture capital funds that provide equity investment to rapidly growing small or mid-sized businesses in distressed communities. Funds that target housing can provide a variety of financing to developers of affordable housing or mortgages to lower-income households for homeownership, home improvement, or refinancing out of troubled loans. Loan funds who specialize in community facilities make funding available for child care centers, clinics, or other types of community service organizations. Analysis of results from the CDFI Data Project Survey show that 58 percent of loan funds participating in the survey served multiple sectors.³³

The 71 community development loan funds in Appalachia have a strong emphasis on business lending. Table 6 categorizes the services offered by Appalachian loan funds as microlending, small business, housing, community facilities. A category has also been added for loan funds who offer equity-like venture capital financing for business development in addition to an array of other products.³⁴ Over 70 percent of Appalachian loan funds offer some type of microfinance product, while 35 percent of loan funds make larger small business loans. Just under 27 percent of Appalachian loan funds provide housing finance, while only two loan funds specifically state they do lending for community services such as daycare and health facilities. Within the region, four loan funds operate venture capital investment firms as well as offering an array of other small business lending services. These four loan funds are in addition to the ten stand-alone development venture capital firms identified above in Table 5.

³³ CDFI Data Project. *Providing Capital, Building Communities, Creating Impact*

³⁴ Information on services offered is based on a January 2006 analysis by the authors' of trade association and loan fund web sites.

Table 6. Services Offered by Appalachian Loan Funds

State	Total Loan Funds	<u>Activities Financed</u>				
		Micro Business	Small Business	Housing	Community Services	Venture Capital
Alabama	4	3	1	0	0	0
Georgia	1	1	0	0	0	0
Kentucky	9	3	6	2	0	2
Maryland	0	0	0	0	0	0
Mississippi	1	1	0	0	0	0
New York	5	5	2	4	1	0
North Carolina	6	4	3	2	0	0
Ohio	3	3	1	0	0	1
Pennsylvania	21	16	6	8	0	0
South Carolina	0	0	0	0	0	0
Tennessee	8	5	3	1	0	1
Virginia	4	3	2	2	1	0
West Virginia	9	6	1	0	0	0
Total	71	50	25	19	2	4

Analysis of Appalachian CDFIs

In order to gain a more complete understanding of CDFI activity in Appalachia, we created a special dataset that combines data from two national surveys of CDFIs. The major dataset used was from the CDFI Data Project (CDP). The CDP is an annual survey conducted by CDFI industry trade associations³⁵ that collects data on the activities, financial condition, and performance of CDFIs across the country. Where possible we enhanced this dataset with information from the CDFI Fund’s Community Investment Impact System (CIIS) survey. This survey collects institution- and transaction-level data from CDFIs who receive awards or New Markets Tax Credit allocations from the CDFI Fund.

Our combined dataset covers FY 2003 and contains information from nearly 468 of the nation’s roughly 1,000 CDFIs.³⁶ The dataset contains information on 47 CDFIs located in Appalachia. Table 7 breaks out the types of CDFIs represented in the sample and compares Appalachia to the nation. Appalachia has a slightly higher percent of total CDFIs that are either loan funds or venture capital funds than the national aggregate. Just under 43 percent of Appalachian CDFIs in the sample are loan funds compared to just over 34 percent for the national aggregate, and six percent of Appalachian CDFIs are venture funds

³⁵ Participating associations include Aspen Institute, Community Development Venture Capital Alliance, National Federation of Community Development Credit Unions, National Community Capital Association, and National Community Investment Fund.

³⁶ The CDP contains data on 459 CDFIs, 38 of which are in the Appalachian region. Where possible, we added data on nine Appalachian CDFIs from the CIIS survey that were not included in the CDP.

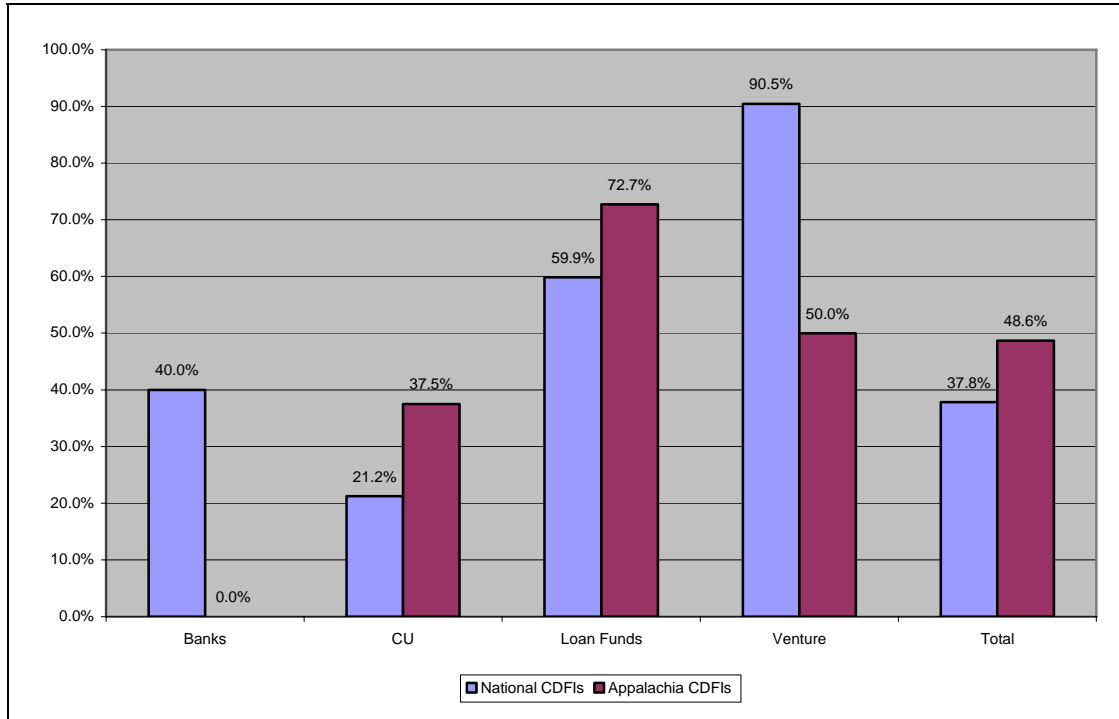
compared to just under 5 percent nationally. Appalachia has a smaller share of CDFIs that are credit unions than the nation. Just under 57 percent of national CDFI sample are credit unions compared to 51 percent for Appalachia. There are no community development banks in Appalachia.

Table 7. Types of CDFIs Represented in Combined Dataset, FY 2003

	Appalachia	National
CDCUs	51.1%	56.6%
CD Banks	0.0%	4.3%
CD Loan Funds	42.6%	34.4%
CD Venture Funds	6.4%	4.7%
Total CDFIs	47	468

The Appalachian CDFI industry is less mature than the national industry. Although Appalachia is home to many well established and influential community development finance intermediaries such as Kentucky Highlands Investment Corporation, the regional industry has developed much more recently than the national industry. Figure 20 shows that just under half of all CDFIs in Appalachia were established after 1990 compared to just under 38 percent for national CDFIs. Community development loan funds and venture capital funds have experienced tremendous growth since 1990. Just under 60 percent of national loan funds have been established since 1990 compared to nearly 73 percent of Appalachian loan funds. Nationally, over 90 percent of community development venture capital funds were established post 1990. Of the two Appalachian venture capital funds in data set, one was established after 1990.

Figure 20. Percent of CDFIs established after 1990



Appalachian CDFIs serve predominantly rural markets. Table 8 shows that in FY 2003 the activity of national CDFIs was fairly evenly distributed between major urban, minor urban, and rural markets while Appalachian CDFI clients were predominantly located in rural markets. On average, just under 50 percent of Appalachian CDFI clients were in rural areas compared to just under 34 percent for national CDFIs. Conversely, an average of less than 20 percent of Appalachian CDFI clients were from major urban areas³⁷ compared to nearly 38 percent for national CDFIs. On average, 31 percent of Appalachian CDFI clients were in minor urban areas. This reflects the rural character of the region and is consistent with the CDFI mission of targeting underserved markets. Research has consistently shown that rural business owners have difficulty accessing capital due to limited supply and a lack of experience accessing capital markets.³⁸

³⁷ The CDP defines a “major urban” area as a metropolitan area with a population over 1 million. In Appalachia, the two “major urban” areas are Pittsburgh and Birmingham. “Minor urban” areas are those metropolitan areas with less than 1 million in population. Rural areas are all non-metro areas.

³⁸ Markley, Deborah and Don Macke. March 2002. “Capital for Rural Entrepreneurs” Center for Rural Entrepreneurship. Monograph 7.

Table 8. Average Percent of Clients Located in Different Geography Types, FY2003

	Appalachia	National
Major Urban	19.4%	37.9%
Minor Urban	31.4%	28.4%
Rural	49.3%	33.7%
Total CDFIs Reporting	25	273

Appalachian CDFIs are active lenders. When controlling for asset class, Appalachian CDFIs had similar portfolio characteristics when compared to national CDFIs. Table 9 classifies CDFIs into four asset size categories and compares Appalachian CDFIs to similarly sized national institutions.³⁹ In three of the four asset classes, Appalachian CDFIs, on average, closed fewer loans in FY2003 than their national counterparts, but also made larger average loans and on average had a larger portfolios of outstanding loans. For example, the three Appalachian CDFIs with assets between \$10 and \$30 million closed an average of 259 loans in FY2003 compared to an average of 367 loans closed by national CDFIs of similar size. However, the average dollar amount of the loans closed in FY2003 by Appalachian CDFIs of this size was slightly larger than national CDFIs at \$5.2 million compared to \$5.1 million. Additionally, Appalachian CDFIs with assets between \$10 and \$30 million had average portfolios of outstanding loans of \$13.6 million compared to \$9.9 million for similarly sized national CDFIs. This indicates that while Appalachian CDFIs may have smaller annual deal flow than similarly sized national counterparts, they are still active lenders who participate in larger projects or take a more substantial stake in projects.

Table 9. Average CDFI Portfolio Characteristics by Asset Category, FY2003

Averages	<\$1M		\$1M-\$10M		\$10M-\$30M		\$30M-\$70M	
	ARC	National	ARC	National	ARC	National	ARC	National
Loans Closed	56	62	228	215	259	367	975	1,632
\$\$ Loans Closed	\$272,527	\$162,776	\$1,344,519	\$1,396,601	5,208,393	\$5,101,214	17,878,528	14,595,684
Assets	\$574,901	\$521,895	\$4,181,312	\$4,266,619	20,551,788	\$16,668,958	51,766,384	46,239,734
Portfolio Outstanding	\$324,708	\$222,969	\$2,464,277	\$2,528,346	13,625,475	\$9,894,197	36,245,748	26,761,531
CDFIs	14	120	16	195	3	60	3	36

Appalachian CDFIs placed a heavy emphasis on lending for business development.

Tables 10 and 11 examine the types of CDFI financing outstanding in terms of loans and

³⁹ We limited out asset categories to institution below \$70 million because the largest Appalachian CDFI is at \$64 in assets.

dollars in FY 2003. Appalachian CDFIs placed a stronger emphasis on business financing than national CDFIs.⁴⁰ Four percent of Appalachian CDFIs' financings outstanding were for business development in 2003 compared to three percent for national CDFIs. However, over 32 percent of dollars loaned went to business development compared to only 18 percent for national CDFIs, a difference of nearly 14 percentage points. This indicates that Appalachian CDFIs made larger loans or investments in business development than their national counterparts. In 2003, the percent of loans and dollars outstanding for microenterprise lending in Appalachian and national CDFIs were similar. However, for both CDFI groups, microfinancing accounted for a small share of the total outstanding loans pools.

Table 10. Breakout of Direct Financing Outstanding (Number of Loans), FY2003

	Appalachia	National	Difference Between App. and Nation
For Businesses #	4.0%	3.0%	1.0%
For Housing #	17.1%	12.0%	5.2%
For Microenterprise #	3.1%	3.3%	-0.2%
For Other #	5.9%	6.0%	0.0%
For Personal Development #	69.6%	75.1%	-5.5%
For Community Facilities #	0.2%	0.7%	-0.5%
Total Financing Outstanding #	13,877	282,164	NA
Total CDFIs Reporting	34	294	NA

Table 11. Breakout of Direct Financing Outstanding (Dollars Loaned), FY 2003

	Appalachia	National	Difference Between App. and Nation
For Businesses \$	32.2%	18.4%	13.8%
For Housing \$	40.3%	45.1%	-4.8%
For Microenterprise \$	1.9%	1.4%	0.5%
For Other \$	4.4%	3.1%	1.3%
For Personal Development \$	20.1%	23.3%	-3.2%
For Community Facilities \$	1.1%	8.7%	-7.6%
Total Financing Outstanding \$	\$200,618,712	\$4,862,012,489	NA
Total CDFIs Reporting	34	294	NA

⁴⁰ Business financing represents debt and equity financing to small or mid-sized businesses. Loans to micro businesses are considered separately.

Appalachian CDFIs’ emphasized lending to larger businesses and assist more jobs per loan.⁴¹ In FY 2003, less than 39 percent of businesses financed by Appalachian CDFIs were microbusinesses compared to over 77 percent for national CDFIs (Table 12). Therefore over 61 percent of the businesses financed by Appalachian CDFIs were larger enterprises. By focusing on financing larger businesses, Appalachian CDFIs reported being able to create or retain over 3,300 jobs in the region in FY 2003. This averages to over 11 jobs assisted per business financed. By comparison, national CDFIs, report assisting 2.8 jobs per business financed. Jobs assisted are not necessarily new jobs created, but rather a combination of jobs created and jobs retained over a given period.

Table 12. Types of Businesses Financed and Job Outputs, FY2003

	Appalachia	National
Total Businesses Financed	292	8,366
Micro Businesses Financed	113	6,477
Share Micro	38.7%	77.4%
Total Jobs Assisted	3,315	23,022
Jobs Assisted per Business Financed	11.35	2.75
CDFIs Reporting	21	168

Appalachian CDFIs were heavily reliant on the government funding for debt or investment capital. As mentioned previously, CDFIs receive debt or investment capital from a variety of sources such as depository and non-depository financial institutions; federal, state, and local governments; and foundations. CDFIs are typically heavily dependent on external sources of lending capital. Table 13 breaks out sources of capital by type of CDFI in FY 2003. Individual deposits comprised the majority of debt capital for both Appalachian and national credit unions.

⁴¹ The CDFI Data Project defines a microbusiness as firm with five or fewer employees or one receiving a loan for \$35,000 or less. A larger business as one that has greater than five employees or one that received financing greater than \$35,000 for the purpose of expansion, working capital, equipment purchase/rental, or commercial real estate development or improvement.

Table 13. Sources of CDFI Debt Capital by CDFI Type, FY 2003⁴²

	CDCUs			CDLFs			CDVCs		
	App.	National	Ratio	App.	National	Ratio	App.	National	Ratio
Banks Thrifts and Credit Unions \$	2.4%	2.4%	1.01	37.0%	46.7%	0.79	12.5%	26.0%	0.48
Corporations \$	0.5%	1.1%	0.43	0.3%	1.7%	0.15	0.0%	2.2%	0.00
Government \$	1.1%	0.7%	1.53	43.9%	13.8%	3.17	46.8%	23.4%	2.00
Foundations \$	0.9%	0.4%	2.38	6.7%	14.7%	0.46	27.7%	43.4%	0.64
Individuals \$	82.7%	88.9%	0.93	1.7%	2.9%	0.59	0.0%	0.0%	NA
National Intermediaries \$	1.7%	0.6%	2.96	2.7%	2.9%	0.92	6.6%	2.0%	3.37
Non-Depository Financial Institutions \$	0.1%	0.1%	1.26	0.0%	6.6%	0.00	6.2%	2.9%	2.17
Other \$	8.9%	4.6%	1.93	3.5%	5.5%	0.64	0.2%	0.1%	3.37
Religious Institutions \$	1.7%	1.2%	1.35	4.2%	5.2%	0.81	0.0%	0.0%	NA
Total CDFIs Reporting	13	116	NA	19	157	NA	2	19	NA

Appalachian community development loan funds and venture capital funds both received the largest share of debt or investment capital from government sources. Appalachian loan funds received over three times as much of their debt capital from government sources as their national counterparts while Appalachian venture capital funds received twice as much funding from government sources as national venture funds. Forty four percent of Appalachian loan fund debt capital came from federal, state, or local government sources while nearly 47 percent of venture capital fund capitalization was from government sources. Nationally, loan funds received less than 14 percent of debt capital from government sources while venture funds received just over 23 percent of investment capital from the government.

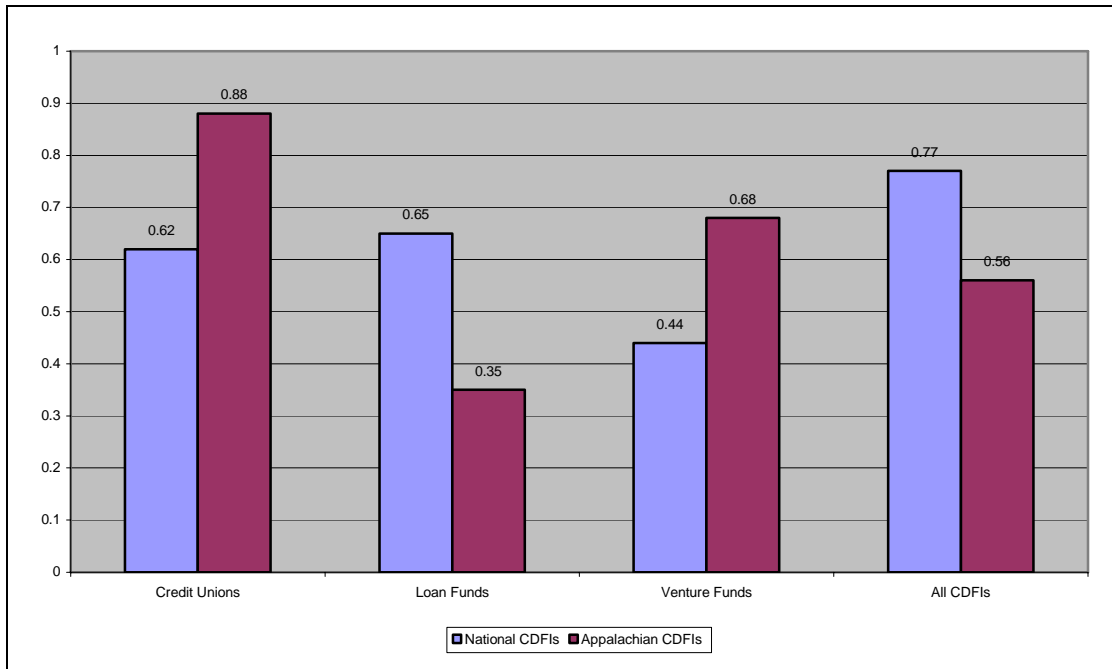
Appalachian loan funds had a smaller share of debt capital from all non-government sources than their national counterparts. Nationally, community development loan funds received a larger share of lending capital from depository financial institutions, foundations, and non-depository financial institutions than Appalachian loan funds. In particular, only 37 percent of debt capital for Appalachian loan funds came from banks and thrifts as opposed to 47 percent for national loan funds. Appalachian development venture capital funds received a larger share of investment capital from national intermediaries and non-depository financial institutions than national funds. National peer development venture capital funds, however, received much more investment capital from depository financial institutions and foundations than Appalachian funds.

⁴² One outlier loan fund was removed when calculating sources of debt capital. This loan fund received a disproportionately large amount of capital from non-depository financial institutions.

Appalachian loan funds should diversify their sources of debt capital. As mentioned previously, funding for CDFIs has consistently been threatened in recent federal budgets. Government sources along with regulated financial institutions accounted for 81 percent of Appalachian community loan fund lending capital. These same sources accounted for roughly than 60 percent national community development loan fund lending capital. This heavy dependence on government and financial institution resources may make Appalachian loan funds more vulnerable to changes in government funding cycles or bank investment in community development than their national counterparts. As mentioned previously, however, Appalachian loan funds received limited funding from foundations and no debt capital from non-depository financial institutions, while these are second and fourth largest sources of capital for national community development loan funds.

Appalachian CDCUs and CDVCs have higher levels of self-sufficiency than national peers. Given the scarcity of funding sources and the intense competition for available capital, one of the key concerns of the CDFI industry today is improving self sufficiency. One way to measure self sufficiency is to look at the percent of an institution's expenses that can be covered by earned revenue (i.e. revenue generated through lines of business and not grants or investments). A ratio of earned revenue to total expenses of 1.0 or greater indicates that an institution could support itself on earned revenue alone. Figure 21 compares the self-sufficiency of Appalachian and national CDFIs by type in FY 2003. The average self sufficiency ratio of Appalachian CDFIs was .56 compared to .77 of the national aggregate. However, this aggregate number masks the fact that Appalachian credit unions and venture capital funds had higher self-sufficiency ratios than their national counterparts. In FY 2003, Appalachian community development credit unions had a self sufficiency ratio of .88 and Appalachian community development venture capital funds had a self sufficiency ratio of .68. Both of these numbers were well above national averages of .62 and .44 for credit unions and venture capital funds respectively.

Figure 21. Self Sufficiency Ratios by CDFI Type, FY2003



Appalachian community development loan funds lagged national numbers in the ability to support themselves through earned revenue. Unlike community development credit unions and venture capital funds, Appalachian community development loan funds had a low levels of self sufficiency. Figure 21 shows that regional community development loan funds had a self-sufficiency ratio of .35 indicating that only 35 percent of total expenses could be covered by earned revenue. This number is well below that of national loan funds. This low level of self-sufficiency paired with the heavy reliance that Appalachian loan funds have on government sources for debt capital, should raise some concerns about the long term viability of Appalachian community development loan funds.

Revolving Loan Funds

Revolving loan funds (RLFs) are pools of capital provided by the public and private sectors for the purpose promoting economic development in distressed and underserved markets. RLFs are among the oldest types of development finance intermediary. Federal government agencies began funding revolving loan pools in the mid-1960s in response to

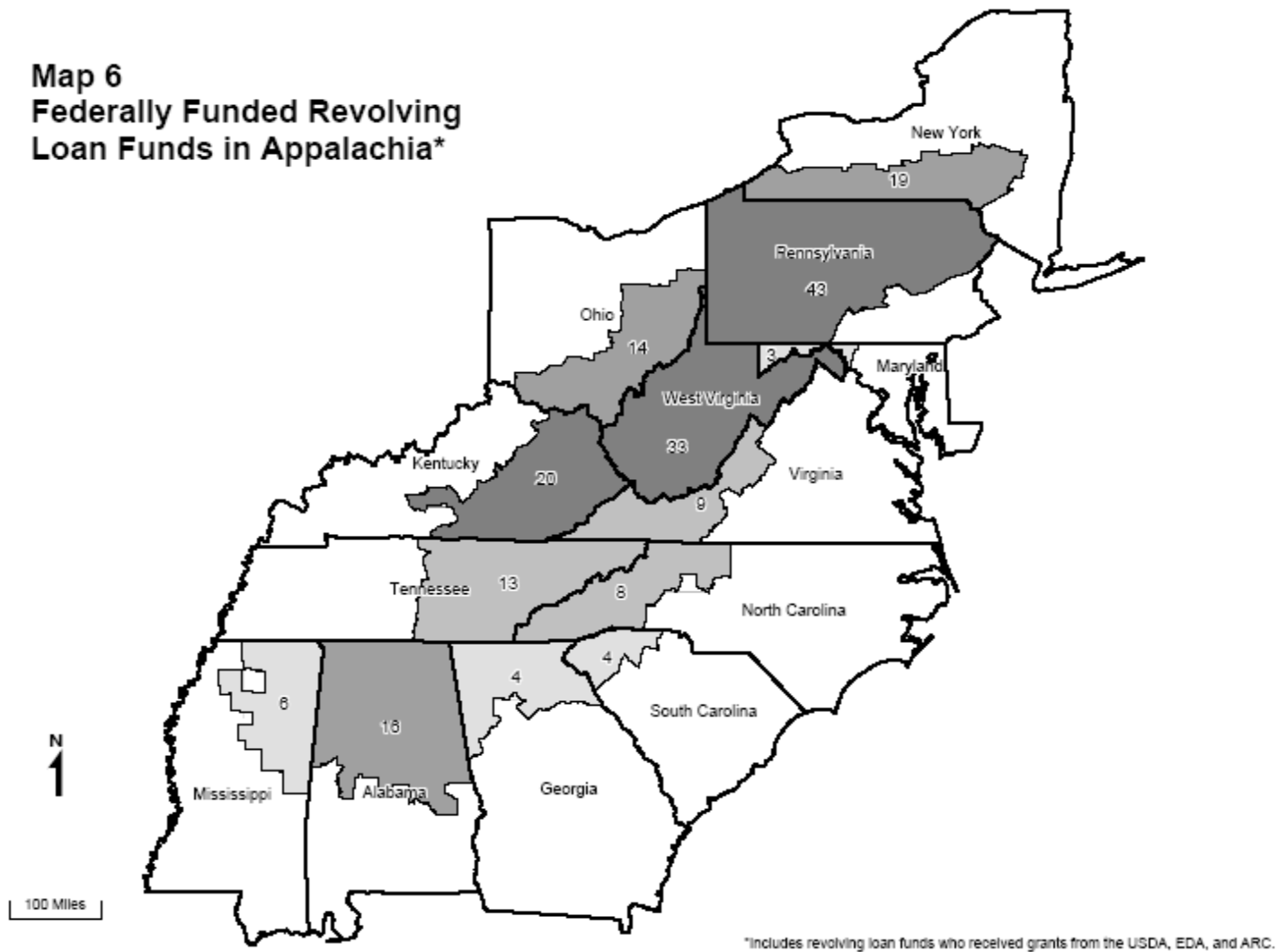
losses in jobs, tax revenue, and private investment in many urban and rural markets.⁴³

RLFs are typically capitalized by grants from federal, state, and local governments. Loans are made to business owners in distressed markets, usually at interest rates below the market rate. As the loan principal and interest are paid back to the RLF, funds are available to be re-loaned. Borrowers who receive RLF loans are often able to leverage these loans to access additional capital from private market sources. One of the main social impact goals of RLFs is job creation and retention.

The Appalachian region is rich in RLFs. An analysis of loan funds receiving federal grants show that over 190 exist in the region. The three main federal agencies who fund revolving loan funds targeted towards economic development are the US Department of Agriculture (USDA), the Economic Development Administration (EDA) and the Appalachian Regional Commission (ARC). Through its Intermediary Relending Program (IRP), Business Enterprise Grant Program, Economic Development Grant Programs the USDA has provided grants to 146 RLFs in Appalachia. The EDA has provided grants to 59 RLFs in Appalachia through its revolving loan fund program. Since 1977, the Appalachian Regional Commission has provided grants to 38 RLFs in the region. ARC loan funds will be discussed in more detail below. Map 6 illustrates the number of loan funds who received grants from the USDA, EDA, and ARC by state in Appalachia. In addition to federally funded RLFs, there are numerous revolving loan funds capitalized through state and local funds not included in this analysis.

⁴³ National Council on Urban Economic Development. October 1995. *Revolving Loan Funds: Recycling Capital for Business Development*. Washington D.C.

Map 6
Federally Funded Revolving
Loan Funds in Appalachia*



ARC revolving loan funds have been active lenders in the region since inception. ARC made the first grant in its revolving loan fund program in 1977. Since that date, the 38 ARC capitalized loan funds have made 1,570 loans for over \$104 million. Only one loan fund that has received an ARC grant has failed to make a loan. The median loan fund received its first ARC grant in 1993. ARC loan funds have made a median of 25.5 total loans and loaned a median of nearly \$1.8 million. As of the first quarter of 2006, the median loan fund had 10 loans outstanding and a median of just over \$607,000 in loans outstanding. On average, ARC loan funds had over \$845,000 in loans outstanding and over \$200,000 in funds available to lend for an average loan pool size of just over \$1 million. The pool of ARC grantees had, on average, 19.3 percent of their funds available to lend. In aggregate, ARC loan funds have written off 3.8 percent of dollars loaned. The highest percent of loans written off was 12.6 percent. Eleven of the 38 ARC loan funds had zero write-offs. These write off numbers are comparable to industry averages for rural loan funds. A survey of rural EDA RLFs indicates a 5.5 percent of loans were written off with 28 percent of loan funds surveyed having no write offs.⁴⁴

The average deal flow of ARC revolving loan funds has declined since 2000, but their level of participation in deals has increased. Figure 22 tracks average number of loans by ARC RLFs over a seven year period starting in 2000. It shows that the average number of loans originated by ARC-funded RLFs has declined since 2000 when an average of over four loans were originated per fund. This number declined to a low of 2.6 loans per fund in 2005. In 2006, ARC RLFs made an average of 3.4 loans per fund.⁴⁵ This level of annual deal flow somewhat lags industry benchmarks. A 2002 analysis of rural EDA revolving loan funds found average deal flow of 6.1 loans per year.⁴⁶ However one important distinction to consider when examining the deal flow of ARC-funded RLFs is that they are gap lenders that provide the portion of debt in a project financing package that a bank will not. It is very rare that an ARC-funded RLF would make a loan without a bank also providing project financing with the bank almost always acting as the primary lender.

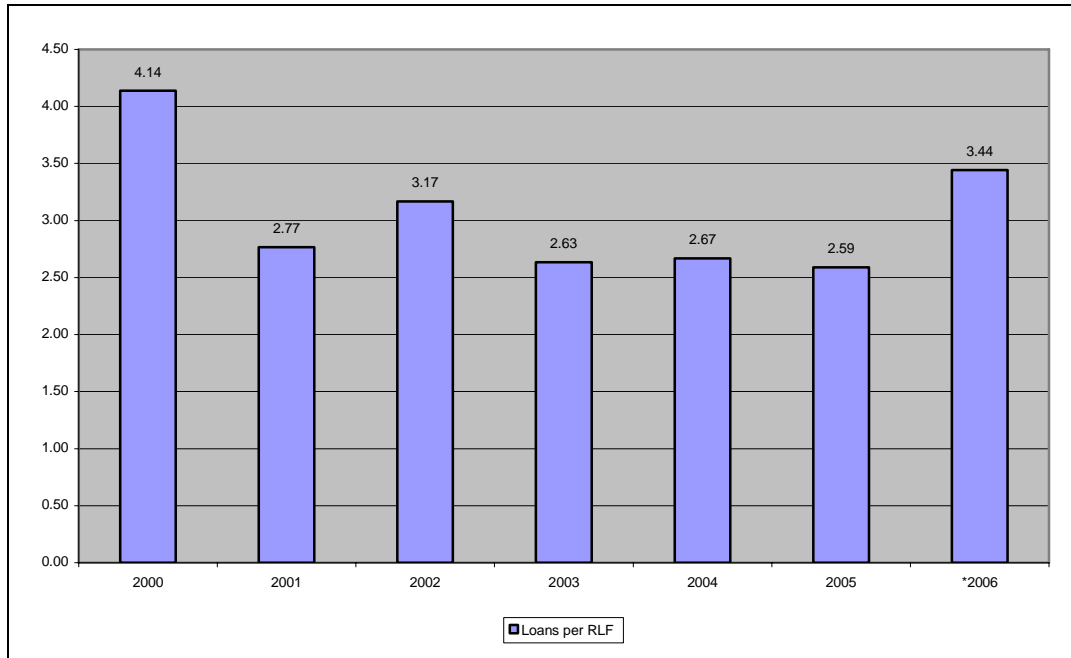
⁴⁴ National Association of Economic Development Organizations Research Foundation. March 2003. *Organizations that Manage Loan Funds Create Rural Jobs Efficiently*. Washington D.C.

⁴⁵ RLF lending data for 2006 is annualized using data through April 2006.

⁴⁶ National Association of Economic Development Organizations Research Foundation. March 2003. *Organizations that Manage Loan Funds Create Rural Jobs Efficiently*. Washington D.C.

Because of this distinction, ARC-funded RLF lending almost always tracks trends in bank lending.

Figure 22. Change in Average Annual Lending Activity by ARC-funded RLFs, 2000-2006



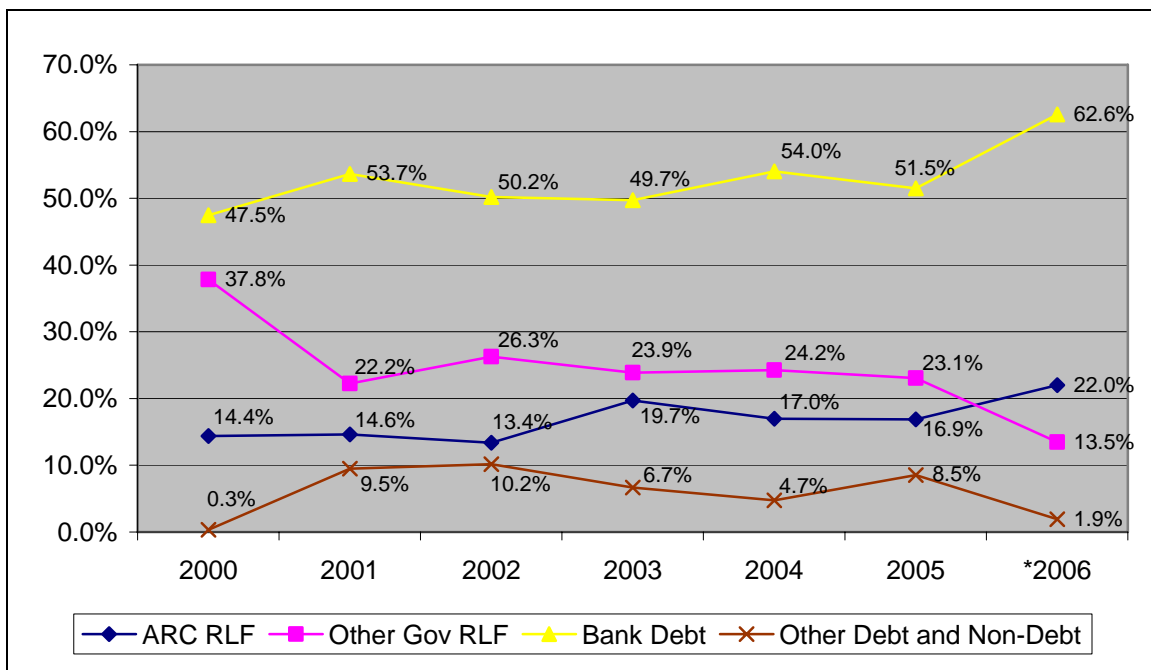
Despite a decline in deal flow for ARC RLFs, these funds have increased their average level of participation in deals particularly relative to other government RLFs. Figure 23 charts the sources of financing for projects were ARC RLFs participated between 2000 and 2006. On average loans by ARC RLFs gained an increasing share of total outside project financing⁴⁷ between 2000 and 2006. In 2000, loans from ARC RLFs made up an average of 14.4 percent of outside project financing. These levels have generally tracked upward and peaked in 2006 where on average loans by ARC RLFs accounted for 22 percent of outside project financing.⁴⁸ In fact, bank debt and ARC RLF participation were the top two sources of outside project financing in 2006 and have followed the same general upward trend over the 2000 to 2006 time period. This growing level of project participation by ARC RLFs is in contrast to declining levels of participation by RLFs

⁴⁷ “Outside project financing” includes all sources of project financing except for borrower equity.

⁴⁸ RLF loan data for 2006 based on lending through April 2006.

funded by other government agencies. In 2000 loans by RLFs funded by other government agencies were the second largest source of outside project financing making up nearly 38 percent of total outside project funds. These numbers declined through 2006 when loans by other federally funded RLFs made up 13.5 percent of total outside project financing. This indicates that despite declining deal flow, ARC RLFs have been able to play an increasingly significant role in projects where they choose to be active.

Figure 23. Change in Percent Contribution to Total Outside Project Funding by Financing Type, 2000-2006



The lending of 38 ARC capitalized revolving loan funds have created or retained a substantial number of jobs in the region.⁴⁹ A fundamental goal of RLF lending is the creation or retention of local employment. Between 2002 and the first quarter of 2006, loans from ARC capitalized revolving loan funds helped create over 3,600 jobs and retain over 8,300 jobs in the region. The number of jobs created increased from 920 to 968 and the number of jobs retained increased from 1,365 to 2,761. All but one of the 38 ARC loan

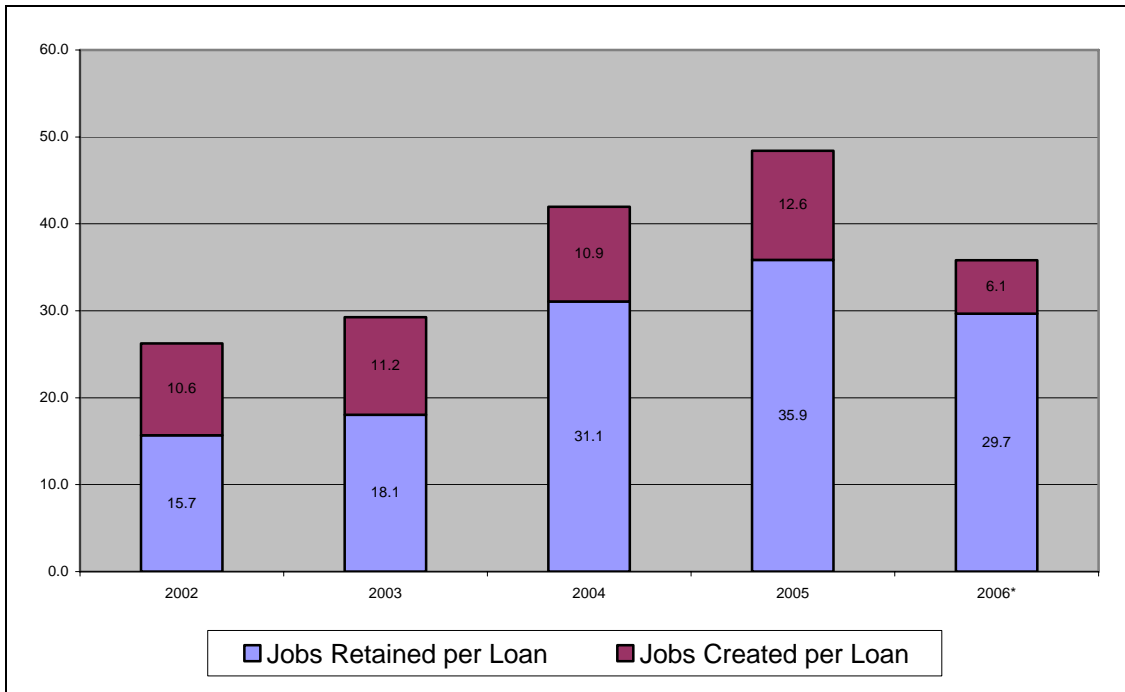
⁴⁹ “Jobs created” represent new jobs that did not exist at a firm prior to receiving financing. “Jobs retained” represent jobs that existed prior to financing and remained after financing. There is a debate about the use of “jobs retained” statistics to measure the impact of RLF lending. Some feel that it is difficult to directly tie the retention of existing jobs to RLF financing and that these numbers are used to inflate the impact of RLF lending. Others feel that it is important to measure the number of jobs influenced by RLF loans whether or not the loan was directly responsible for the retention of a specific job.

funds reported influencing at least one job. On average, ARC RLFs influenced an average of 315 jobs during this period. The median number of RLF jobs influenced was 263. The number of RLF jobs influenced ranged from 4 to 1,452.

Figure 24 charts the change in jobs created and retained per loan by ARC RLFs between 2002 and first quarter 2006. In 2002, ARC RLFs influenced 26.1 jobs per loan and loaned \$3,254 per job. In 2005, ARC RLFs influenced 48.4 jobs per loan and loaned \$1,797 per job influenced. Between 2002 and 2005, the number of jobs retained per loan increased from 15.7 to 35.9 jobs retained per loan. Over this same period, the number of jobs created per loan increased from 10.6 to 12.6. The efficiency of ARC RLFs at influencing local employment is on par with or exceeded other government funded RLF pools. An analysis of rural EDA RLFs conducted by the National Association of Development Organizations (NADO) showed that they on average created or saved 16 jobs per loan with 20 percent of rural RLFs creating or saving more than 30 jobs per loan. The same analysis showed that each job created or retained cost the loan fund \$4,502.⁵⁰ The increased ability of ARC loan funds to affect job retention and creation may be tied to the growing level of participation ARC RLFs are taking in projects they finance.

⁵⁰ National Association of Economic Development Organizations Research Foundation. March 2003. *Organizations that Manage Loan Funds Create Rural Jobs Efficiently*. Washington D.C.

Figure 24. Jobs created and retained per loan, 2002-2006 YTD



On a state by state basis, loan funds in Pennsylvania impacted the most regional jobs, but Kentucky and West Virginia funds created and retained jobs at the highest rate.

Table 14 breaks out the state-by-state impact of ARC RLFs. Pennsylvania loan funds impacted 567 jobs per fund between 2002 and 2006 1Q. However, loan funds in Kentucky were the most efficient at impacting jobs by influencing nearly 110 jobs per loan and costing roughly \$700 per job over this period. West Virginia funds were also efficient, influencing nearly 50 jobs per loan and costing less than \$1,300 per job. On average, ARC loan funds created nearly 315 jobs per fund and influenced 32 jobs per loan at a cost of under \$2,700 per job.

Table 14. Jobs Impacted by ARC RLF Lending by State, 2002-2006 1Q

State	ARC RLFs	Jobs Impacted Per RLF 2002-2006 1Q	Jobs Impacted Per RLF Loan 2002-2006 1Q	Dollars Loaned Per Job Impacted 2002-2006 1Q
Alabama	3	67.3	22.4	\$2,129
Georgia	1	151.5	25.3	\$7,789
Kentucky	3	401.7	109.5	\$704
Maryland	1	172.0	21.5	\$3,756
Mississippi	4	216.3	18.4	\$4,473
North Carolina	1	37.0	12.3	\$10,270
New York	5	230.8	25.1	\$3,049
Ohio	4	107.8	13.1	\$5,102
Pennsylvania	8	567.4	44.5	\$1,854
South Carolina	3	506.3	20.8	\$5,448
West Virginia	5	336.2	49.4	\$1,277
ARC Total	38	314.6	32.1	\$2,669

Community Development Venture Capital Funds

A significant and growing subset of the CDFI industry are community development venture capital funds (CDVCs). These institutions specialize in providing equity or equity-like investments to businesses in distressed or underserved communities. Such equity products differ from the more traditional loan products offered by banks and many community development loan funds and are a significant driver of business growth. An expanding business needs significant capital to grow, but may not have a regular cash flow that would allow the firm to repay a substantial monthly debt service. Venture capital firms provide such businesses with a direct infusion of cash in exchange for a share of ownership. Such investments provide firms with the necessary capital to grow as well as the increased participation and expertise of the venture capital firm who are typically specialists in a given industry. CDVCs differ from traditional venture capital firms in their focus on financing businesses in distressed communities.

Access to traditional venture capital has been limited by industry type and firm location. Venture capital firms typically focus on financing a small number of high growth industries often in high technology sectors. More traditional sectors of the economy such as manufacturing are slower growth industries and rarely benefit from venture capital

financing. Additionally, venture capital financing is highly geographically concentrated. States with high concentrations of technology firms are regions that have benefited most from venture financing. A report from the Community Development Venture Capital Alliance (CDVCA) shows that between 1991 and 2000, over 65 percent of all venture capital financing went to five states (California, Massachusetts, New York, Texas, and Colorado) with well established technology sectors.⁵¹ In addition to high levels of concentration in a few states, traditional venture capital financing also has a very strong urban focus. A rule of thumb is that venture capital firms rarely invest in companies more than a two hour drive away giving a distinct disadvantage to more geographically dispersed non-metropolitan firms. The same report by CDCVA shows that of all firms receiving investment from traditional venture capital firms in 2001, over 98 percent were in metropolitan counties while less than two percent were in semi-rural counties and none were in rural areas.

In Appalachia, the dearth of available equity capital was identified in a report produced by Mt. Auburn Associates for the Appalachian Regional Commission (ARC). The report identified gaps in capital needs for regional entrepreneurs. While a small subset of firms in the region sought some type of equity or risk capital, these firms had substantial difficulty in obtaining it.⁵² Limited access to equity capital can affect the ability of the region to develop, attract, or retain small- or mid-sized firms in high growth industries. The report recommended that ARC invest in socially oriented venture funds.

In response to this recommendation, ARC began an entrepreneurship initiative that focused on promoting the growth of CDVCs in the Appalachian region. To this end, ARC initiated a partnership building effort through a series of conferences focused on access to equity capital in rural markets that brought together foundations, financial institutions, and economic development organizations. ARC also worked with the Community Development Venture Capital Alliance to enhance the capacities of area CDVC

⁵¹ Schmidt, Brian. May 2003. "Assessing the Availability of Traditional Venture Capital in the U.S.: A Preliminary Analysis." Community Development Venture Capital Alliance: New York, NY.

⁵² Mt. Auburn Associates. February 1998. *Capital and Credit Needs in the Appalachia Region*. Appalachian Regional Commission: Washington, DC.

management teams. Additionally, as of October 2004, ARC had granted \$4.4 million to 13 CDVCs (11 active funds) in seven states in the region. These funds have a total capitalization of \$96 million and have invested \$13.6 million in 59 regional businesses. These investments have created over 1,000 jobs in the region.⁵³

The previous analysis of CDFIs in Appalachia identified some key issues in CDVC sources of capitalization and levels of self-sufficiency. Appalachian CDVCs received twice as much funding from government sources as national CDVCs, while national CDVCs were more heavily capitalized by depository financial institutions and foundations than Appalachian funds (see Appendix Table 9). This indicates there may be opportunity for Appalachian CDVCs to diversify into these sources of investment capital. Additionally, the above analysis showed that Appalachian CDVCs had a higher level of self-sufficiency than their national counterparts. Appalachian CDVCs had a .68 self sufficiency ratio compared to .44 for national CDVCs. This means that Appalachian CDVCs could support 68 percent of their operating expenses through earned revenue. While this is not the optimal level of 1.0 or greater, it shows that Appalachian CDVCs perform at a high level relative to national peers.

SBA Loan Programs

The U.S. Small Business Administration administers a number of programs to help businesses in underserved markets access necessary capital. The SBA's 7(a) program has been discussed previously. This section takes a closer look at two programs that require the presence of an intermediary: the SBA Microloan Program and the 504/CDC Loan Program.

The SBA Microloan program makes funds available to non-profit community-based intermediaries for the purpose of making very small loans (under \$35,000) to businesses. These loans are intended to go to very small firms and target business owners who traditionally have difficulty accessing capital such as start-up businesses and minority- and

⁵³ Source: Internal ARC data on Development Venture Capital Funds in Appalachia.

women-owned firms. The SBA disperses funds to community based, non-profit lending intermediaries. These intermediaries make all credit decisions and have some discretion over loan terms. In recent federal budgets, funding for the SBA Microloan program has been eliminated only to be later returned. The future of the program remains uncertain.⁵⁴

SBA microlending intermediaries are effective at serving distressed counties, but have difficulty reaching minority-owned businesses. Table 15 shows the number of microloans per 10,000 businesses and per 10,000 microbusiness (fewer than 5 employees) in 2003-2004. The analysis shows that in Appalachia distressed counties have high levels of SBA-guaranteed microlending compared to non-distressed counties. Distressed counties received 10.1 microloans per 10,000 microbusinesses compared to 5.6 per microloans per 10,000 microbusinesses in non-distressed counties. Overall, Appalachia had high levels of SBA-guaranteed microlending. The region had 6.1 loans per 10,000 microbusinesses compared to 4.6 per 10,000 microbusinesses nationally. In distressed counties, start-up businesses and those that are majority women owned received loans at levels comparable to the rest of the region and nation. Minority-owned businesses, however, seem to have more limited access to microfinance, particularly in distressed counties. Only 8.3 percent of microloans in distressed counties went to minority-owned businesses compared to 21.3 percent in the region and 50 percent for the nation. Map 7 shows microlending in the region and plots the locations of intermediaries serving Appalachia. The highest levels of microlending appear in parts of central Appalachia, particularly in parts of Virginia, Kentucky, and North Carolina. New York also has high levels of microlending. Businesses in the southern part of Appalachia would appear to have more limited access to SBA-guaranteed microfinance with many parts of the region having zero microloans.

⁵⁴ Bernard, Tara Siegel. April 25, 2006. "Microloans are Again a Point of Budget Dispute." *American Banker*.

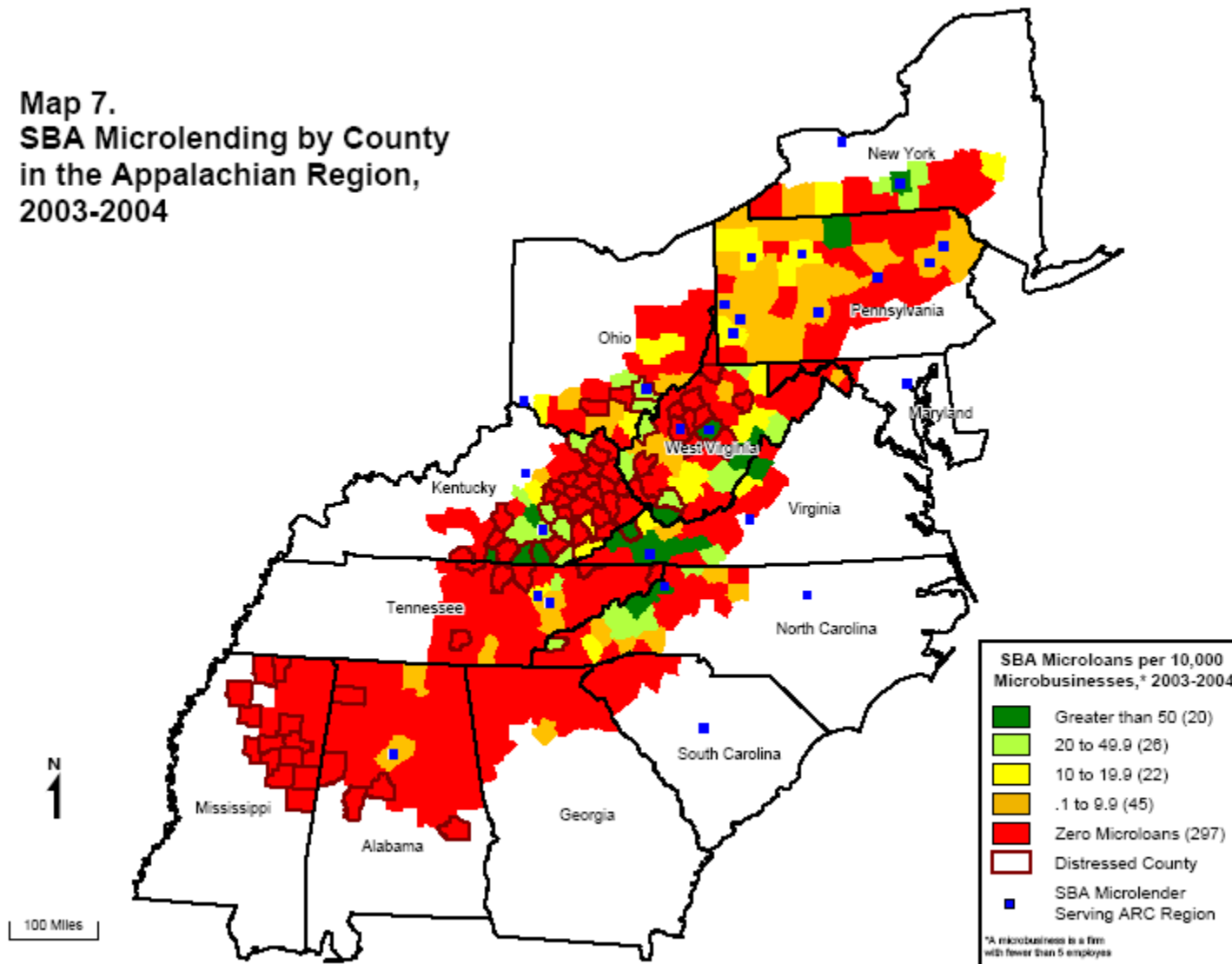
Table 15. SBA Micro Lending Activity in Appalachia, 2003-2004

	Appalachia			USA
	Distressed Counties	Non-Distressed Counties	All	
Loans per 10,000				
Micro Business (1-4 employees)	10.1	6.0	6.1	4.6
All Businesses	6.0	3.5	3.6	2.7
Percent loans made to:				
Start-ups	36.1%	43.8%	43.2%	43.5%
Minority-Owned Business	8.3%	22.4%	21.3%	50.0%
Majority Woman-Owned Business	41.7%	38.8%	39.0%	44.9%

The SBA 504 loan program provides long term financing for large fixed costs such as a land acquisition, construction, infrastructure improvements or large equipment. Loans through the 504 program are structured to require a private lender to be senior lien holder and to finance up to 50 percent of a project. A Certified Development Company (CDC) serves as junior lien holder for up to 40 percent of the project cost. The CDC loan is guaranteed 100 percent by the SBA. The business is required to produce at least 10 percent of project costs. Generally, businesses are required to create or retain at least one job per \$50,000 guaranteed by the SBA. Use of the 504 loan program varies widely regionally. In many regions of the country the product is not well known. Smaller community banks have constraints on the size of loans they can make. The loan fees are high, and some lenders feel that the SBA paperwork and approval process slows down deals.⁵⁵

⁵⁵ Office of the Controller of the Currency. February 2006. "SBA 504 Loan Program: Small Businesses' Window to Wall Street" *Community Development Insights*. Washington D.C.

Map 7.
SBA Microlending by County
in the Appalachian Region,
2003-2004

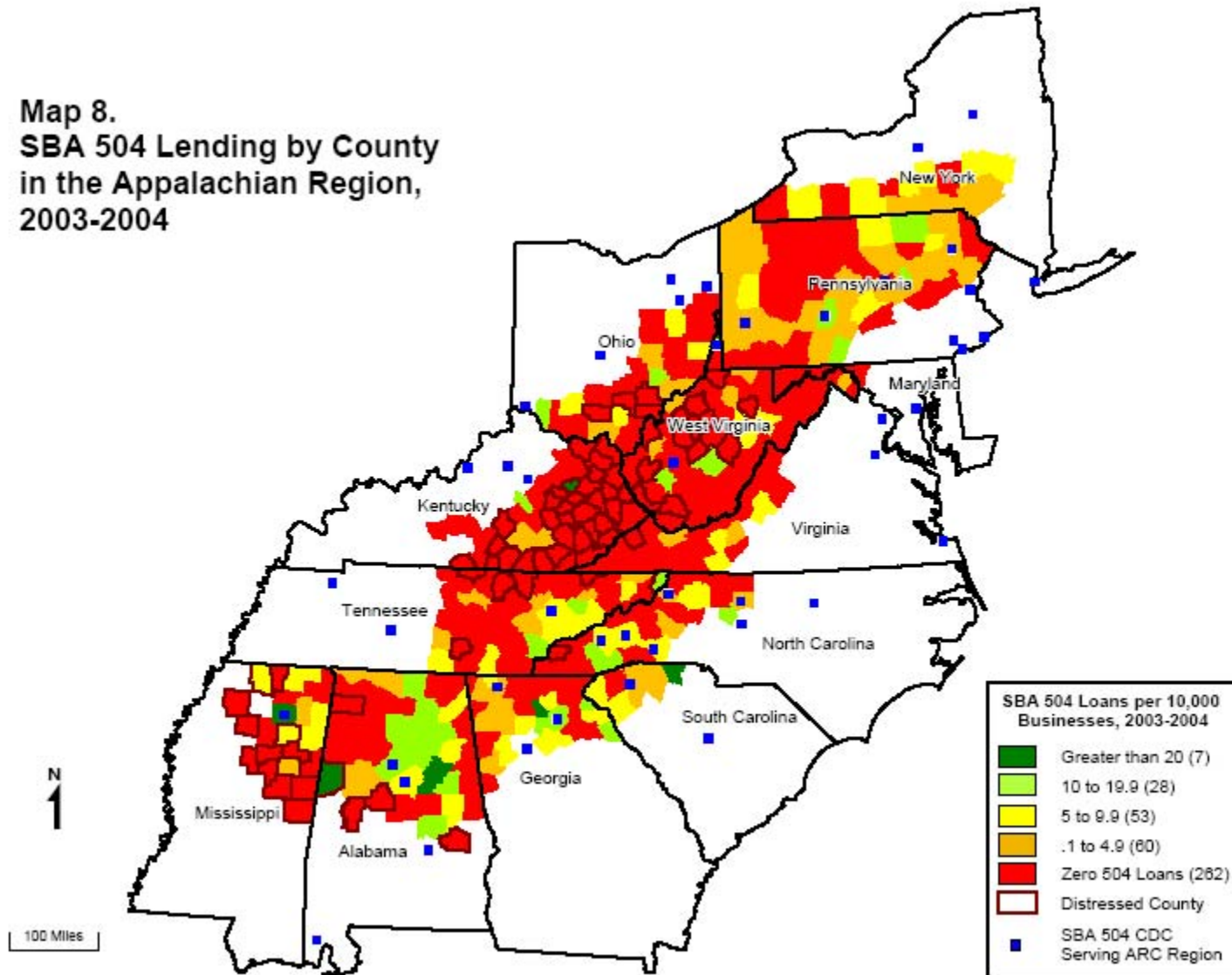


There were few SBA 504 loans to distressed counties and minority and women-owned businesses received no 504 loans in 2003-2004. Table 16 shows that 504-guaranteed lending levels in Appalachia lags national averages except in lending to majority women-owned businesses. Within Appalachia, lending in distressed counties substantially lags that in non-distressed counties. Distressed counties received 1.2 504 loans per 10,000 business compared to 4.1 for the region. Although minority- and majority-women owned businesses in non-distressed Appalachian counties had access to 504-guaranteed lending on par with or well above national averages, similar businesses in distressed counties received no 504 loans. Map 8 illustrates levels of 504 lending in the region. Unlike microlending, southern Appalachia has high levels of 504 lending, particularly in Alabama, Georgia, and South Carolina with the lowest levels of 504 lending seen in Virginia, West Virginia, and Kentucky.

Table 16. SBA 504 Lending Activity in Appalachia, 2003-2004

	Appalachia			USA
	Distressed Counties	Non-Distressed Counties	All	
504 Loans per 10,000 Businesses	1.17	4.27	4.13	8.14
Percent of Loans to:				
Minority-Owned Business	0.0%	21.4%	21.1%	21.9%
Majority Woman-Owned Business	0.0%	35.1%	34.6%	16.9%

Map 8.
SBA 504 Lending by County
in the Appalachian Region,
2003-2004



Conclusion

CDFIs

The community development financial institution industry in Appalachia is less mature than the national industry. Appalachian CDFIs largely target rural markets for their lending. Appalachian CDFIs lend at levels on par with national counterparts of similar size, but have a much stronger emphasis on lending for small and mid-sized businesses development. Financing larger businesses with greater than five employees has allowed Appalachian CDFIs to impact substantially more jobs than national CDFIs. Appalachian community development loan funds and venture capital funds have a strong reliance on capital from government sources. Appalachian loan funds also have low levels of self-sufficiency, particularly when compared to national counterparts.

RLFs

Although revolving loan funds who received grant money from the Appalachian Regional Commission have smaller deal flow than some national indicators, they report being able to influence a substantial number of jobs in the region. The efficiency at which ARC RLFs influence jobs has increased over time, surpassing industry numbers in jobs created per loan and the dollars loaned per job influenced.

SBA Intermediaries

SBA microlending intermediaries are effective at lending in Appalachian distressed counties, but substantially lag in terms of lending to minority-owned businesses in distressed counties. SBA 504 lending in Appalachia substantially lags national averages. Of particular concern is the fact the zero 504 loans were made to minority- or women-owned firms in Appalachian distressed counties.

Conclusion

The Appalachian Regional Commission (ARC) contracted with the National Community Reinvestment Coalition (NCRC) to conduct this study as part of ARC's effort to develop Appalachia through increasing access to credit and capital for small businesses.

Heightened capital flows to small businesses would bolster the economic development of the region by creating jobs, diversifying the economy, and further developing an entrepreneurial class in Appalachia. This study found that banks have committed substantial amounts of community development financing to the region and are responding well to the credit needs of Appalachian small businesses in minority communities. The study recommends that stakeholders work together to close remaining credit gaps and needs in Appalachia.

Mid-size community banks were particularly responsive to the needs of small businesses in lower income and distressed rural communities in Appalachia. These lending institutions demonstrate that small business lending is profitable and rewarding for banks. The challenge for stakeholders is to encourage all lending institutions to expand upon profitable lending opportunities and to further finance an infrastructure for supporting small business and economic development.

This study is cautiously optimistic that stakeholders can work together to close remaining credit gaps. The reasons for optimism include a favorable comparison between Appalachia and the nation on some indicators of lending. In addition, Appalachia has a lending infrastructure that includes about 227 banks and savings and loans with more than \$500 billion in assets, and a sector of alternative lending institutions featuring over 100 community development financial institutions (CDFIs) and 190 revolving loan funds (RLFs).

The Community Reinvestment Act (CRA) has had a substantial impact in leveraging increases in community development lending and investing in the Appalachian Region. This study finds that banks and thrifts headquartered in Appalachia issued about \$5.4

billion in lending and investing for affordable housing, small business development, and economic revitalization each CRA exam cycle (about 2.5 years). In addition, small business lending exhibited a positively unique and puzzling trend in Appalachia. In contrast to most other regions in the country, small business lending was higher where the minority population was higher on a county level in Appalachia.

Despite signs of progress, differences in small business lending within Appalachia must be overcome by concerted and persistent efforts undertaken over a multi-year time period. Within Appalachia, small business lending is less accessible in non-metropolitan counties and counties experiencing economic distress. In addition, the smallest businesses with revenues under \$1 million and businesses in low- and moderate-income communities experience the least access to credit. A series of policy initiatives are needed for overcoming the unequal access to credit including a program of branch building in underserved and non-metropolitan counties, the preservation of a community banking sector of mid-size banks, an intensified focus of Small Business Administration (SBA)-guaranteed lending in counties with high levels of minorities, and the vigorous application of the Community Reinvestment Act (CRA) to address the need for small business development in non-metropolitan and distressed counties.

The NCRC study updates the report commissioned by ARC in 1998 and conducted by Mt. Auburn Associations entitled *Capital and Credit Needs in the Appalachian Region*. The Mt. Auburn study motivated a follow-up study focusing on bank financing because one of the key findings of the Mt. Auburn study was that “Appalachian businesses are heavily dependent on the banking industry for financing.” In addition, the Mt. Auburn study identified significant credit needs as “insufficient financing appears to have a serious impact on the investment decisions of about one in five established companies.” Further, the Mt. Auburn study indicated that small firms with less than 10 employees had higher levels of unmet funding needs than their larger counterparts.

The Mt. Auburn study broke important ground through its use of surveys of Appalachian small businesses. The study did not benefit, however, from publicly available data on CRA small business lending. The CRA data for the year 1996 first became available in summer

of 1997 when the Mt. Auburn study was well underway. In addition, researchers became much more familiar with the strengths and weaknesses of the database over the next several years. Thus, this study provides an important update to the Mt. Auburn report by utilizing the small business lending data and probing to what extent the unmet credit needs overall and for very small businesses still exist in Appalachia.

Since the Mt. Auburn study, new trends and challenges confront Appalachia. The heightened pace of globalization, consolidation in the banking industry, the high cost of energy, and rising interest rates pose significant challenges as well as new opportunities for business development. Changes in the Community Reinvestment Act (CRA) and federal economic development programs likewise present a series of challenges and opportunities. For example, the federal New Markets Tax Credit program promises to provide a significant amount of resources for development in Appalachia. The program authorizes the Department of Treasury to provide tax credits of 39% on up to \$15 billion of private investments in low-income areas for business development activities and small business lending. Nonprofit and private sector entities in Appalachia are just beginning to take advantage of this new program.

NCRC's study was able to consider the impact on small business lending of a number of these large economic changes such as consolidation in the banking industry and the growing use of credit scoring in small business lending. However, future studies will be needed to further evaluate the impact on access to credit of changes in federal programs and banking regulations as well as globalization and other economic structural adjustments.

Methodology and Findings

This report employed a number of datasets and created datasets for the quantitative analysis. For the analysis of small business lending trends, NCRC used the publicly available data on CRA small business lending. This data was combined with U.S. Census data on population demographics and Dun and Bradstreet data on business demographics and credit scores. In addition, data was obtained from the Small Business Administration (SBA) on SBA lending programs. Branch and deposit data was obtained from the web

page of the Federal Deposit Insurance Corporation (FDIC). The section of the report analyzing community development lending and investing created a database consisting of data pulled from CRA exams of banks and thrifts located in Appalachia. Finally, the chapter on alternative financial institutions used data collected by public agencies, ARC, and trade associations of Community Development Financial Institutions (CDFIs).

The CRA small business lending data analysis used the year 2003. A longitudinal data analysis was not employed because changes in the definitions of loans in the CRA small business data had a significant impact on annual loan volumes. In addition, the number of lenders required to report the data has changed. It is recommended that ARC commission a future study, using the CRA small business data as one of the resources. Such a study should carefully assess the influence of changes in the database on similarities and differences in lending patterns found in this current study and the future one. A similar caveat applies to the CRA exam analysis. The most recent CRA exam was used for each lender in this study. A future study can assess if levels of community development financing by banks increased or decreased by using the subsequent exams for each lender headquartered in Appalachia.

The major findings in this report include:

Appalachia Compared to the Nation

Small business demographics in the nation and in Appalachia were remarkably similar. The two largest small business sectors in the nation and in Appalachia were services and retail. Similarly, almost 60 percent of the small businesses in Appalachia and the nation were very small, consisting of 1 to 4 employees.

Appalachia compares favorably against the nation on some lending indicators. Appalachia compares favorably against the nation when considering small business loan-to-deposit ratios and small business lending in minority counties. The small business loan-to-deposit ratio for Appalachia was 7% in contrast to 5.2% for the nation, or 35% higher in

Appalachia than the nation. In addition, banks made loans to 39.4% of the businesses in counties in which less than 20% of the population is minority in Appalachia, which was similar to national loan penetration rates of 41% for these counties. However, in counties in which more than 20% of the population is minority, banks made loans to 51.4% of the businesses in Appalachia, compared to national loan penetration rates of 42%. The lending levels within high minority population counties were 22% higher in Appalachia than the nation.

Nationally, banks provided significantly more small loans per branch than did banks in Appalachia, but Appalachian banks provided more loans per branch in non-metropolitan counties. In 2003, banks across the country originated 85.6 loans per branch, which was 35% higher than the 63.6 loans per branch for banks in Appalachia. But for non-metropolitan counties, banks loaned at higher levels in Appalachia. Banks in Appalachian non-metropolitan counties provided 57.5 loans per branch, which was 8% higher than the 53.2 loans per branch for similar counties in the nation.

Trends within Appalachia

Within Appalachia, businesses in low- and moderate-income census tracts and businesses with revenues under \$1 million experienced particular difficulties accessing credit. In 2003, 14% fewer businesses in low- and moderate-income census tracts received loans as compared to businesses throughout the region (35.4% compared to 41% for the region). In addition, only 23.6% of the small businesses with less than \$1 million in revenues located in low- and moderate-income tracts received loans, which was 43% below lending levels for the Region as a whole.

Banks have more difficulty serving non-metropolitan and distressed counties than metropolitan and non-distressed counties. In the Appalachian portion of nine states, the ratio of loans per small business was lower in non-metropolitan counties than metropolitan counties. For example, in Alabama, 58.6% of the businesses received loans in metropolitan counties while 48.6% of the businesses received loans in non-metropolitan

areas during 2003. In addition, just 32.1% of the small businesses in distressed counties obtained small business loans in contrast to 41.9% of the businesses in non-distressed counties (Distressed counties have higher unemployment, higher poverty rates, and lower income levels).

Banking industry structure impacts access to credit for small businesses in Appalachia. It is more likely that small businesses will receive loans in counties in which banks compete vigorously for customers by building and maintaining branches than in counties dominated by fewer banks that are less concerned with their branch presence. The study finds that small business lending was higher in counties with higher levels of bank branches. In counties with above median number of branches, the median number of loans by all banks was 1,287. In counties with below median number of branches, the median number of loans was 235. In contrast, overall lending was lower in counties with higher levels of bank concentration or consolidation. In Appalachian counties with below median levels of concentration (as measured by the Herfindahl-Hirschman index), the median number of small business loans was 1,120. In counties with above median levels of concentration, the median number of small business loans was 287 during 2003.

The econometric analysis in the report reaffirmed the finding that lending in Appalachian counties was higher in counties with higher numbers of minorities. The federal government reports that minority-owned firms are expanding at a rapid clip across the country. Perhaps the rapid growth contributes to more lending in counties with high minority populations in Appalachia. Perhaps counties with greater diversity have more robust economies. This dynamic needs further exploration since it appears to be unique to Appalachia, and is a strength that can be built upon by stakeholders in Appalachia.

Role of Small and Mid-Size Banks

Another asset in Appalachia is its significant sector of small and mid-size banks. The literature suggests that small and mid-size banks are particularly oriented to the needs of

small businesses in underserved communities. This study tends to confirm the distinct lending focus of smaller banks in Appalachia. The findings from the study include:

Banks with assets between \$250 million to \$1 billion (mid-sized banks) had a higher percentage of total loans in non-metropolitan counties (12.3% of all loans) than metropolitan counties (6.5% of all loans) during 2003. Mid-size banks also had a higher market share of loans in distressed counties (14.7% of all loans) than non-distressed counties (8.4% of all loans) during 2003.

In contrast to their loan penetration in non-metropolitan and distressed counties, mid-size banks were not as uniformly successful in counties with significant numbers of minorities. Mid-size banks made almost 30% of the loans in counties with more than 50% minorities but had their lowest market share of 6.7% of the loans in counties with 20% to 50% minorities. Mid-size banks therefore had mixed success reaching minority counties in Appalachia during 2003.

As predicted in the literature, mid-size banks did not base their lending in Appalachia on the distribution of small business credit scores on a county level whereas all banks had higher levels of lending in counties with the greatest portions of low risk businesses. In addition, mid-size bank lending levels were not dependent on the size of small businesses whereas all banks had higher levels of lending in counties with a greater portion of businesses with 10 to 19 employees. This suggests that mid-size banks may be more oriented to the smaller businesses that may not have established credit histories. The mid-size banking sector in Appalachia is therefore an important sector to start-ups and smaller businesses seeking to grow and expand.

Trends in Small Business Administration (SBA) Lending

The major lending program of the Small Business Administration (SBA) was more successful in reaching non-metropolitan counties than minority small businesses during 2003. In Appalachia, African-Americans were 8.3% of the population but were issued just

2.1% of the SBA 7(a) loans. SBA-guaranteed lending fared better in serving non-metropolitan counties as the SBA 7(a) market share of loans was higher in non-metropolitan counties than metropolitan counties during 2003.

In contrast to overall lending, SBA 7(a)-guaranteed lending was not higher in counties with greater portions of minorities. It is possible that the relatively low levels of SBA-guaranteed loans to minority-owned businesses or businesses in minority counties were due to relatively high levels of conventional lending to these businesses. In contrast to the findings for minorities, SBA-guaranteed lending exhibited more of a focus on non-metropolitan counties.

Role of the Community Reinvestment Act

In addition to measuring how many home and small business loans banks and thrifts make to low- and moderate-income borrowers, the Community Reinvestment Act (CRA) exams scrutinize banks' level of financing for affordable housing, and small business and community development. NCRC's study found substantial levels of community development financing in Appalachia due to CRA.

Banks and thrifts in Appalachia made about \$3.52 billion and \$1.69 billion in community development lending and investing during a time period of approximately once every 2.5 years (which is the average time period evaluated by CRA exams in the study). In other words, lenders made about \$5.4 billion in community development lending and investing every 2.5 years. This figure of more than \$5 billion represents a significant financial resource for economic development in Appalachia.

Banks with higher ratings on CRA exams were found to have substantially higher levels of community development lending, investing and branches in low- and moderate-income communities. Through the rating system, CRA exams are providing motivation and public recognition for banks to increase their level of community development financing in Appalachia.

Despite the overall benefits of CRA, disparities remain in community development financing. Non-metropolitan and distressed counties had considerably smaller shares of bank assets. Banks located in the metropolitan counties had combined assets of \$420.6 billion (117 banks) versus \$73.3 billion for assets of banks located in non-metropolitan counties (103 banks). Only 11 banks with combined assets of \$4.3 billion were headquartered in distressed counties in Appalachia. The substantial differences in bank assets translated into non-metropolitan and distressed counties receiving less community development financing than metropolitan counties.

Despite the large total dollar amount for community development financing, relatively fewer dollars were devoted to small business development. In total, all banks and thrifts in Appalachia made \$297 million in community development loans that financed affordable housing versus \$117 million in community development loans for small businesses in Appalachia. Similarly, banks and thrifts issued \$807 million in investments for affordable housing as opposed to \$174 million in investments for small businesses in Appalachia.

Role of Alternative Financial Institutions in Appalachia

This report also examined the characteristics and abilities of alternative financial institutions in financing small businesses in Appalachia. Alternative financial institutions consist of Community Development Financial Institutions (CDFIs), community development credit unions, loan funds and others that specialize in serving hard-to-reach populations and small businesses. The report documents that alternative financial institutions were effective in serving Appalachian small businesses and in creating and preserving jobs. At the same time, they did not serve the smallest of the small businesses to the same extent as their national peers. This study also documents that mainstream banks had difficulties serving the smallest businesses with revenues under \$1 million; thus alternative financial institutions have a gap to fill that perhaps they are not filling as much as they could. Also, alternative financial institutions in Appalachia were not financed by banks to the same extent as their national peers. This suggests that CRA has a role to play

in encouraging mainstream banks to increase their levels of debt and equity financing for small businesses directly and through the alternative financial institutions.

The community development financial institution (CDFI) industry is made up of a diverse set of institutions that specialize in providing a mix of financial products and services to distressed communities. There were over 100 CDFIs in the Appalachian region. Seventy-one of these were community development loan funds. Appalachian loan funds had a strong emphasis on business lending with over 70 percent offering a microfinance product for very small enterprises (typically five or fewer employees) and 35 percent offering loan products for larger businesses (typically greater than five employees). In the region, Pennsylvania had the largest number of loan funds with 21. Kentucky and Tennessee also had high concentrations of loan funds. Finally, in Appalachia there were 10 institutions set up specifically for community development venture capital investment.

Appalachian CDFIs predominantly focused on rural markets and had been established more recently than counterparts in the national industry. Appalachian CDFIs loaned at levels on par with national counterparts of similar size. Appalachian CDFIs had lower loan levels by number of loans, but loaned more in terms of dollars and had larger outstanding loan pools.

Appalachian CDFIs were successful in reaching small businesses but were not as successful in serving the smallest of the small businesses with less than five employees. In FY 2003, over 32 percent of Appalachian CDFI loan dollars outstanding were dedicated to small or mid-sized business development compared to only 18 percent for national CDFIs, a difference of nearly 14 percentage points. Additionally, in FY 2003, over 61 percent of the businesses financed by Appalachian CDFIs were enterprises⁵⁶ with more than five employees compared to 23 percent for national CDFIs who focused more heavily on financing micro businesses (with under five employees).

⁵⁶ The CDFI Data Project defines a larger business as one that has greater than five employees or one that received financing greater than \$35,000 for the purpose of expansion, working capital, equipment purchase/rental, or commercial real estate development or improvement. A microbusiness would be a firm with five or fewer employees or one receiving a loan for \$35,000 or less.

Financing businesses with greater than five employees allowed Appalachian CDFIs to impact more jobs. By focusing on financing businesses with greater than five employees, Appalachian CDFIs reported being able to create or retain over 3,300 jobs in the region in FY 2003. Appalachian CDFIs reported assisting over 11 jobs per business financed. By comparison, national CDFIs, assisted 2.8 jobs per business financed.

Appalachian CDFIs, particularly loan funds, had a heavy dependence on government funding and received less bank financing. Forty four percent of Appalachian loan fund debt capital came from federal, state, or local government sources while nearly 47 percent of venture capital fund capitalization was from government sources. Nationally, loan funds received less than 14 percent of debt capital from government sources while venture funds received just over 23 percent. Therefore, Appalachian loan funds received over three times as much of their debt capital from government sources as their national counterparts while Appalachian venture capital funds received twice as much funding from government sources as national venture funds. At the same time, Appalachian loan funds received 37 percent of their debt capital from banks while national loan funds obtained 47 percent of their debt capital from banks.

Appalachian community development credit unions and venture capital funds were more self-sufficient than their national peers while Appalachian community development loan funds had lower self-sufficiency rates than the national averages. In FY 2003, Appalachian community development credit unions had a self sufficiency ratio of .88 and Appalachian community development venture capital funds had a self sufficiency ratio of .68. Both of these numbers were well above national averages in their respective industries. In contrast, Appalachian community development loan funds had a very low self-sufficiency ratio of .35 indicating that only 35 percent of total expenses could be covered by earned revenue. This number was well below that of national loan funds which had self-sufficiency rates of .65.

Within the sector of alternative financial institutions, ARC supported revolving loan funds were performing admirably. ARC funded revolving loan funds had declining deal flow,

but had taken a more active position in the projects in which they participate. The average number of loans originated by ARC-funded RLFs had declined since 2000 when an average of over four loans were originated per fund. This number declined to low of 2.6 loans per fund in 2005, but grew somewhat in 2006 where the average increased to 3.4 loans per fund.

Despite this decline in deal flow, ARC RLFs had increased their average level of participation in deals particularly relative to other government-funded RLFs. Between 2000 and 2006, the percent of outside project financing tied to ARC RLF lending increased from 14.4 percent to over 22 percent. This growing level of project participation by ARC RLFs was in contrast to declining levels of participation by RLFs funded by other government agencies. Loans through RLFs funded by other government agencies contributed nearly 38 percent of total outside project financing in 2000, but this number declined to less than 13.5 percent by 2006.

ARC funded RLFs had been effective at influencing job creation and retention in the region. Between 2002 and the first quarter of 2006, loans from ARC capitalized revolving loan funds helped create over 3,600 jobs and retain over 8,300 jobs in the region. In 2002, ARC RLFs influenced 26.1 jobs per loan and loaned \$3,254 per job influenced. In 2005, ARC RLFs influenced 48.4 jobs per loan and loaned \$1,797 per job influenced. This means that ARC RLFs were influencing more jobs per loan, but spending less per job influenced.

The Appalachian Regional Commission has worked to improve access to equity capital in the region. In response to lack of available equity capital in Appalachia, ARC began an entrepreneurship initiative that focused on promoting the growth of community development venture capital funds in the region. To this end, ARC initiated a partnership building effort through a series of conferences focused on access to equity capital in rural markets that brought together foundations, financial institutions, and economic development organizations. ARC also worked with the Community Development Venture Capital Alliance to enhance the capacities of area CDVC management teams.

Additionally, as of October 2004, ARC had granted \$4.4 million to 13 CDVCs (11 active funds) in seven states in the region. These funds had a total capitalization of \$96 million and have invested \$13.6 million in 59 regional businesses creating over 1,000 jobs in the region.

SBA programs using alternative financial institutions recorded mixed success. SBA funded microlenders were effective at lending to distressed markets, but SBA microlending and 504 lenders provided only limited support to minority businesses in distressed counties. In Appalachia, distressed counties received 10.1 SBA microloans per 10,000 microbusinesses compared to 6.0 per 10,000 microbusinesses in non-distressed counties. However, minority owned businesses in distressed counties received far fewer microloans than did other businesses throughout the region. Additionally, no SBA 504 loans were originated to minority- or women-owned businesses in Appalachian distressed counties, while over 20 percent of SBA 504 loans were originated to minority or women-owned businesses through the rest of the region.

Data Limitations

The CRA small business data has limitations that must be kept in mind when conducting research. Firstly, the definition of a loan origination changed over the years. The regulatory agencies allowed banks to count one loan renewal for a small business borrower as an origination in a given year. This means that if a sizable number of borrowers of a particular bank refinanced in one year as opposed to another year, the annual loan volume of a particular bank can fluctuate dramatically. When NCRC was starting this report, the yearly loan volume of all banks and thrifts in a couple of test cases (New York and West Virginia) fluctuated substantially. Because the definition of a loan origination caused a significant amount of this fluctuation, NCRC and ARC decided against a time series analysis. Nevertheless, it is acknowledged that a one-year snapshot limits the descriptive and statistical data analysis.

A second data limitation is that the CRA small business data does not include the race and gender of the small business owner unlike the SBA data. It is therefore not possible to compare SBA and CRA small business lending patterns to women- and minority-owned small businesses. A third data limitation, as discussed above, was the elimination of the requirement for mid-size banks to collect and publicly report their CRA small business data.

A fourth issue that may be related to a data limitation was the lack of a relationship in the regression equations between lending levels and sector of small businesses. Small businesses in different sectors such as retail as opposed to heavy machinery have needs for different types of loans. This report tried various versions of a small business sector variable but did not generate any statistically significant results for that variable. If we had more data on the type or purpose of the loans (such as loans for establishing stable cash flow as opposed to purchasing new equipment), the sector variable may have become significant. A future study should attempt to procure more detail on the purpose of the loan and/or perhaps experiment with specifying various dollar amounts of loans.

A fifth issue related to data limitations and time constraints is a full investigation of the use of credit scoring by in-market versus out-of-market banks and financial institutions. The report investigated the use of credit scoring by mid-size banks with branches located in Appalachia but did not expand this inquiry to scrutinize the use of credit scoring by all banks with branches within Appalachia versus lenders lacking a branch presence in Appalachia. This is an area worthy of additional investigation to determine if the use of credit scoring corresponds to branch presence as well as the asset size of a bank.

Another constraint regarding time series analysis involves the CRA exam analysis. NCRC conducted an analysis using the most recent CRA exam for each bank and thrift in the sample. If resources had permitted, the study could have considered bank lending and investing over two CRA exams (the most recent exam and the previous exam). That would have permitted the study to assess trends over time in different categories of counties. For example, the study found that the levels of community development lending and investing

in non-metropolitan areas were lower than the levels of community development financing in metropolitan areas. Nevertheless, the study cannot comment upon whether levels of community development financing in non-metropolitan areas had been increasing over time since the study did not use the most recent and previous CRA exams for the banks and thrifts headquartered in Appalachia. It is possible that levels of community development lending and financing have been increasing in non-metropolitan areas due to the increased attention CRA received in the late 1990s and into the 21st century. Future studies will be able to pick up this important analysis commenced by the NCRC study.

Policy Options

Based upon the report's findings, the following policy options are offered to increase access to credit and capital in non-metropolitan areas, distressed counties, and among small businesses with revenues under \$1 million. A number of these recommendations can be implemented by ARC working together with stakeholders in the Appalachian region. These stakeholders include state agencies, elected officials, lending institutions, Federal Home Loan Banks, federal regulatory agencies, the U.S. Department of Treasury, financial intermediaries, public finance markets, development organizations, and the Federal Reserve Banks:

Increase Branch Presence, particularly in non-metropolitan areas and distressed counties

– The report found that lending is higher in counties with higher number of branches. Building bank branches, particularly in non-metropolitan and distressed counties, should be regarded as an important part of an economic development program. Public and private sector stakeholders should work together on a branch building program. Banks have been expanding their branch networks in the last 3 or 4 years; the challenge is to build branches in minority and low- and moderate-income communities. ARC, state agencies, and lending institutions should investigate New York State's Banking Development District (BDD) Program. Begun in 1998, the BDD program offers partial property tax exemptions for branches opening in geographical areas in need of banking services. Local governments can also agree to earn below market rates of return on Certificates of Deposits in these

branches. The New York State Banking Department reports significant increases in banking services including 256 loans per BDD branch and financial education services delivered out of these branches.⁵⁷

Growth of a Community Banking Sector – Since mid-size banks with assets between \$250 million to \$1 billion played important roles in small business financing, stakeholders therefore should ensure that the mid-size and smaller bank sector remain viable and vibrant. Incentives could be developed to support existing mid-sized banks, or encourage the formation of new banking institutions in underserved areas. For example, the Federal Home Loan Bank System should consider additional advances and other incentives to support the small business lending of mid-size banks. Currently, the Federal Home Loan Bank of Pittsburgh operates a Banking on Business (BOB) program that provides financing for bank loans that would not otherwise be made due to insufficient cash flow from the small business. Since its inception, BOB has provided \$20.5 million in funding, creating and retaining 3,500 jobs.⁵⁸ Likewise, the Federal Home Loan Bank of Atlanta runs the Economic Development Program that helps provide financing to small businesses.⁵⁹ ARC could also work to stimulate the formation of development banks in the Region. In addition, the New York State program for expanding branches mentioned above could serve as a model and be especially adapted for mid-size banks headquartered in Appalachia. Finally, private sector incentives and investments for mid-size banks can play an important role in the preservation and expansion of the community banking sector.

Increase levels of community development financing for small business development – The report found banks located in Appalachia devoted significantly higher levels of community development lending and investing for affordable housing than small business development. This finding does not mean that community development financing levels for affordable housing should go down so that levels for small businesses can go up.

⁵⁷ See <http://www.banking.state.ny.us/pr980226.htm> and <http://www.banking.state.ny.us/pr050810.htm>. Last accessed July 3, 2006.

⁵⁸ See <http://www.fhlp-pgh.com/housing-and-community/real-life-stories/banking-on-business.html>, last accessed December 21, 2006.

⁵⁹ http://www.fhlatl.com/fhlp_content.cfm?lev1=5cis&lev2=bcedp&lev3=2edp, last accessed December 21, 2006.

Instead, it suggests that banks should be encouraged to increase their overall levels of community development financing and then could devote substantial portions of the increases towards small business development. Stakeholders including ARC, state agencies, and lending institutions should work together to expand community development financing for small business development and support.

Diversify sources of debt and investment capital for community development loan funds and venture capital funds. Appalachian CDFIs need to diversify their funding base. Community development loan funds and venture capital funds are heavily reliant on government sources for debt and investment capital. These same institutions, however, lag national counterparts in accessing capital from depository financial institutions, non-depository financial institutions, and foundations in the case of loan funds and depository financial institutions and foundations in the case of development venture capital funds. ARC can develop relationships with potential investors and regulatory agencies to encourage increased investment within Appalachia, including partnerships with financial intermediaries such as the Community Reinvestment Fund, participation in public secondary markets, and continue efforts to utilize tax credit financings such as the New Markets Tax Credit program. Additionally, ARC should review other potential barriers to diversifying CDFI capitalization such as product offerings and loan pricing and structuring. Finally, CRA should be used to encourage banks to provide more financing to alternative financial institutions.

Appalachian loan funds must increase operational self sufficiency. Appalachian loan funds, both Revolving Loan Funds and microenterprise funds, must increase levels of self sufficiency by reducing operating costs or increasing revenues. Costs can be reduced through consolidation of back office operations, a growing trend among national CDFIs. Costs could also be reduced by undertaking joint marketing efforts among independent loan funds. Operating revenues could be increased by increasing loan volume. This would likely require increased levels of capitalization or access to new financing through intermediaries.

Continue to grow capacity of Appalachian development venture capital funds. Available literature shows that there remains a significant gap in access to equity financing in non-metropolitan markets. ARC's efforts to develop regional equity investment funds are important in bridging this gap and increasing regional entrepreneurship levels. ARC should continue to seed these investment funds, but also continue to build the capacity of regional fund managers and develop networks and relationships with key investment partners outside the region to reduce the reliance of Appalachian venture capital funds on government investment. ARC should also closely monitor the performance of these funds as they mature.

Maintain Integrity of CRA exams – Maintaining CRA exam integrity is important since substantially different levels of community development financing were recorded by banks with different CRA ratings. Most banks headquartered in Appalachia are banks with \$250 million to \$1 billion in assets. The federal regulatory agencies have implemented new CRA exams for these mid-size banks. Stakeholders must ensure that the new CRA exams require these mid-size banks to maintain and increase their levels of community development financing in Appalachia. In addition, the regulatory agencies recently amended the CRA regulations to provide CRA points for community development financing in rural middle-income census tracts located in distressed and underserved counties. Stakeholders should monitor CRA exams to ensure that rural low- and moderate-income areas as well as middle-income areas receive community development financing. In addition, stakeholders should ensure that metropolitan-based banks are also serving rural areas. Finally, more detailed data on the purposes of community development financing is needed on CRA exams to assess if the financing is responding to community needs. NCRC found that much more detail was available on the purposes (whether for housing or small business development) of community development investments than lending. Congressional oversight and hearings regarding CRA exam quality would also bolster the integrity of CRA exams.

Restoration of Small Business Lending Data for Mid-Size Banks –The study finds positive and important findings of the lending patterns of mid-size banks. In 2005, federal

regulators deleted the small business loan data reporting requirements for banks and thrifts with assets between \$250 million and \$1 billion in assets. It is counterproductive to eliminate this data because studies in future years will not be able to carefully examine the lending patterns of mid-size banks and fully and accurately assess their role in Appalachia. Federal regulators should consider ways to continue to collect this important economic data. In addition, federal regulators and Congress should consider requiring banks and thrifts to report upon the race and gender of the small business borrower. Lending to minority- and women-owned businesses would likely increase just as lending to minority and women homebuyers increased because the Home Mortgage Disclosure Act (HMDA) was amended in 1988 to require the reporting of race and gender of the borrower. Finally, the regulatory agencies need to establish stability in the definitions of loan originations and other aspects of the small business data so that time series analysis can become possible. It would also be preferable to require separate reporting of loan originations and renewals/refinances as is done with HMDA data.

While data collection imposes costs, the benefits can exceed those costs. The data can document positive trends and highlight new opportunities as revealed by this study. Moreover, data reporting motivates banks to maintain and increase their lending levels to small businesses.

Encourage Small Business Administration (SBA-guaranteed lending to Minority-Owned Businesses – The SBA should investigate ways to increase SBA-guaranteed lending to minority-owned businesses and in minority counties. It is possible that the relatively low levels of SBA-guaranteed loans to minority-owned businesses or businesses in minority counties were due to relatively high levels of conventional lending to these businesses. Also, there may be fewer lenders in minority counties that use SBA products. Alternatively, it is possible that there are still certain types of credit needs that are not being satisfied by the conventional lending, opening up new opportunities for the SBA-guaranteed lending. In Appalachia, the counties with high levels of minorities are in Mississippi, Alabama, Georgia, South Carolina, and North Carolina. SBA regional offices in those states should work with ARC, state officials, lending institutions, nonprofit

counseling organizations, and other stakeholders to investigate credit needs and see if it is possible to increase SBA-guaranteed lending in minority counties and to minority-owned businesses.

Increase SBA microloans to minority-owned businesses and SBA 504 lending in distressed counties, particularly to minority- and women-owned businesses. No SBA 504 loans were originated to women or minority-owned businesses in distressed counties, and, overall, distressed counties saw very low levels of 504 lending. In contrast, SBA microloans reached distressed counties but were not as successful in reaching minority-owned businesses in distressed counties. ARC should investigate possible barriers to 504 lending in distressed counties and access for minority-owned businesses to microloans in distressed counties. It is possible that lenders in distressed counties are unfamiliar with the 504 product or are discouraged due to concerns about the length of underwriting or program fees. Also, if smaller banks in distressed counties are unable to make 504 loan deals, it may be necessary to recruit larger institutions to participate in these loans if demand exists.

Financial Counseling and Technical Assistance for Small Businesses – Lending was higher in counties with higher portions of small businesses with the lowest risk credit scores. This suggests that lending will increase to small businesses overall if small businesses improved their credit scores. High quality financial counseling efforts are therefore important in Appalachia as a means to improve the credit scores of small businesses. In addition, technical assistance should be provided to improve the knowledge and skill level of the small business entrepreneurs regarding cash flow, understanding financials, business planning and taxation issues. ARC, state officials, lending institutions, and community organizations should work together to intensify financial counseling directed towards small businesses in Appalachia.

Better Understanding of Lending in Minority Counties in Appalachia – The report's finding about higher levels of lending in counties with higher levels of minorities was a surprising and positive finding. Future research should be conducted to more fully understand why lending is unusually successful in reaching firms in counties with high

levels of minorities in Appalachia. Lessons from this research should be applied to other regions of the country since the literature overall suggests serious barriers in access to small business lending for minority-owned firms.

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Appendices