

# **Access to Capital and Credit in Appalachia and the Impact of the Financial Crisis and Recession on Commercial Lending and Finance in the Region**

## **Final Report**

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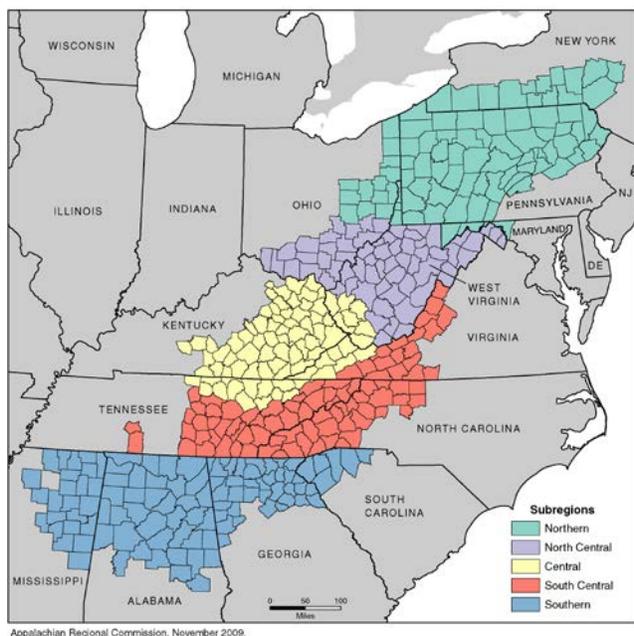
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## EXECUTIVE SUMMARY

In 2011, the Appalachian Regional Commission (ARC) engaged the National Community Reinvestment Coalition (NCRC) to carry out a study of recent trends in the availability of capital and credit for small businesses in the Appalachian Region, and to provide a comparison between conditions in 2010 and those in 2007, before the recent recession. ARC is an independent federal-state commission serving a 13-state region of the United States. Created by Congress in 1965, its mission is to improve economic and social

conditions in this chronically under-served part of the nation, which is home to some 25 million people.

**Subregions in Appalachia**



While Appalachia, as a whole, has historically underperformed the rest of the nation economically, it has shown growth and improvement over the past 50 years. This is particularly true of northern and southern Appalachia, and within larger metro areas such as Pittsburgh, Pennsylvania; Asheville, North Carolina; and Huntsville, Alabama. Much of Central Appalachia, however, remains economically distressed, and dependent on a narrower economic base.

Research conducted for ARC by NCRC before the 2007–2010 financial crisis expressed cautious optimism that disparities in access to capital and credit between Appalachia and the nation as a whole were

diminishing, and that the Region was becoming more like the nation as a whole in terms of access to lending.<sup>1</sup> This study finds that the gap has widened since the recession, particularly in counties designated as “economically distressed” by ARC.

The financial crisis affected the entire country, yet often to varying degrees. During the recession lending plummeted nationwide: more than 60 percent of small businesses received loans in 2007, while less than 20 percent received loans in 2010. But in Appalachia, lending decreased to a greater extent, standing at 18 percent below national levels at the end of the recession; while in the Region’s economically distressed counties, lending was 56 percent below national levels. Further, growing disparities were found in lending to businesses with revenues of less than \$1 million and in counties with limited access to non-credit-card bank lending.

National-level independent loan-demand surveys conducted in 2012 by Pepperdine University and the Ewing Marion Kauffman Foundation reported that over 60 percent of the respondents—both in the nation

<sup>1</sup> The previous NCRC study for ARC is online at [http://www.arc.gov/research/researchreportdetails.asp?REPORT\\_ID=8](http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=8)

as a whole and in the Appalachian Region—indicated that the current business financing environment was restrictive; and that three quarters of the businesses reported that raising equity and debt financing was difficult. The studies also reported that an increasing percentage of businesses in Appalachia and the nation as a whole desired credit but did not apply for it because they feared rejection; and that the percentage of Appalachian businesses denied credit was two and a half times higher than the national sample. Appalachian businesses also had much lower rates of success in securing equity financing for businesses: their national counterparts were up to four times more successful in obtaining capital from angel investors, venture funds, or family and friends. Perhaps not surprisingly, owners of the smallest businesses in Appalachia were much more likely to transfer their savings and use personal credit cards to fund their businesses than were their counterparts in the nation, or than the owners of larger businesses in Appalachia.

This study also looks at trends in the banking industry between 2007 and 2010. Distribution of banks by asset size is similar in the nation as a whole and in Appalachia, and despite the financial crisis, the number of bank branches in Appalachia increased between 2007 and 2010. Interestingly, the number of branches of banks not headquartered in the Region increased sharply, while the number of branches of banks headquartered in Appalachia decreased. In a confirmation of previous findings, this study found that a greater number of bank branches was statistically correlated to a higher number of loans. It appears that banks not headquartered in Appalachia opened a disproportionate number of branches in economically advantaged counties in Appalachia during this period, most likely due to more favorable economic and demographic opportunities and conditions. Lending per branch remained at a higher level in the nation than in Appalachia, with national loan rates per branch over 60 percent greater than loan rates for banks in Appalachia.

This study, in addition to presenting findings on access to capital and credit and bank lending in Appalachia, assessed the impact of strategies to address capital gaps in underserved communities, including the use of regulatory oversight for reinvestment, such as the Community Reinvestment Act (CRA); loan guarantee programs, such as the SBA 7a program; and initiatives that capitalize mission-focused lenders and community-based lenders. Findings indicate that Community Development Financial Institutions (CDFIs) appear to effectively target capital to particularly underserved areas; and that bank CRA investments in Appalachia increased during the period of study. Conversely, the SBA 7a and New Market Tax Credit (NMTC) programs were substantially underused in Appalachia compared with the nation as a whole.

The remainder of this executive summary describes the major findings from each section of the study, and presents recommendations for action that could be taken by public agencies and institutions to address the capital and credit needs of Appalachia and other underserved regions of the United States.

## **RECOMMENDATIONS**

While the Appalachian Region, particularly economically distressed counties in the Region, experienced a greater downturn in access to capital and credit than did the nation as a whole, the infrastructure for a lending rebound remains in place. However, existing programs to address these disparities in business lending have achieved uneven success.

Stakeholders such as banks and bank regulators, equity investors and entrepreneurs, state and federal policy makers, non-profit lenders, and community leaders must undertake strenuous efforts to reduce disparities in access to credit. As financial markets recover from the recession, financing gaps are likely to remain or widen if measures to aggressively combat growth in unequal access to credit and capital are not pursued.

It is recommended that stakeholders focus on increasing private- and public-sector investment to underserved areas in Appalachia in the following ways:

***Use the Community Reinvestment Act (CRA) to Better Target Underserved Areas.*** Banks' CRA ratings depend on the extent to which they lend to and invest in low- and moderate-income and distressed areas. Public agencies, nonprofit organizations, and other practitioners should work with banks to increase their programs and financing in traditionally underserved areas in Appalachia. Stakeholders should also partner with banks to increase their small-business investments, since this study found that CRA small-business investments significantly lagged CRA investments for affordable housing. As part of this report, NCRC has provided ARC with a detailed database of banks and lending levels, by county. Stakeholders can use this database to identify banks to approach for developing partnerships to address credit gaps identified by this report. An example of a partnership that can use the detailed data in this report is West Virginia's Alliance for Economic Inclusion, a partnership among the Federal Deposit Insurance Corporation, the West Virginia Development Office, financial institutions, and community-based stakeholders. In addition, bank CRA loans and investment could be targeted to support nonprofit mission-driven financial institutions such as CDFIs, as noted below.

***Support Bank Branching in Appalachia.*** This report finds a statistically significant relationship between the number of bank branches and the number of small business loans on a county level in Appalachia, a relationship that was identified in a previous NCRC study for ARC.<sup>2</sup> Bank branching in distressed and rural counties should be promoted by using the CRA as an incentive for branch development. Banks' ratings are influenced by how many branches they locate in distressed areas and in low- and moderate-income communities. This report found that there was significant branch growth by banks with headquarters not in Appalachia, but that much of the branch growth was occurring in relatively advantaged Appalachian counties. The use of the CRA, together with subsidy programs (when necessary), could perhaps direct some of this branch expansion to disadvantaged counties. For example, New York's Banking Development District Program provides partial property tax exemptions and encourages local public deposits for banks opening branches in underserved areas.<sup>3</sup>

***Expand Support for Public Sector Financing Programs and Nonprofit Intermediaries.*** Public-sector programs and nonprofit intermediaries do not have the capacity to lend at the volumes of private-sector institutions or to fill credit gaps by themselves. Yet the public programs and nonprofit intermediaries are important components of collective efforts to target lending and investments to underserved counties. This report generally finds that programs such as the CDFI Fund and the SBA Microloan Program, which support organizations whose mission is to serve disadvantaged populations, are more effective at targeting

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<sup>2</sup> The previous NCRC study for ARC is online at [http://www.arc.gov/research/researchreportdetails.asp?REPORT\\_ID=8](http://www.arc.gov/research/researchreportdetails.asp?REPORT_ID=8)

<sup>3</sup> See <http://www.dfs.ny.gov/banking/bdd.htm> for information on New York's Banking Development District Program.

underserved counties than are programs that provide subsidies or guarantees to predominantly private-sector institutions, such as the SBA 7a or the New Markets Tax Credit programs. Therefore, it is recommended that support for nonprofit intermediaries in Appalachia be increased through a range of strategies, including building investor consortia or financing intermediaries to aggregate the CRA and leverage philanthropic capital; and developing new mechanisms—perhaps with public support—to access market-based financing. In addition, the SBA 7a and NMTC programs should devise methods to increase the effectiveness of targeting resources to underserved communities. The SBA, for example, could increase its outreach and training to banks located in rural counties, and increase and promote the use of packagers and servicers to lower transaction costs and increase participation among community banks. The NMTC program could provide additional prioritization for tax credit allocations to Community Development Entities (New Markets Funds) located in the rural regions they serve, and reduce the transaction costs of investments to increase the feasibility of using NMTC credits in the smaller transactions typically found in rural communities.

***Increase Equity Financing in Underserved Areas.*** This report finds that equity financing is concentrated in high-technology corridors that are home to prominent research universities, and that limited access to equity financing may be a factor in higher rates of loan denials in Appalachia. Efforts should be undertaken to increase equity investments in the rural and underserved areas of Appalachia, including expanding venture capital financing and angel investing, and enhancing access to capital from family and friends. Some effective strategies could include fostering the formation of Angel Investment Funds composed of local accredited investors; supporting the formation or recapitalization of development venture capital funds in Appalachia, that focus on “triple bottom line” investments targeting rural and underserved geographies; and reviewing best-practice models for increasing access to investment from family and friends.

***Increase Technical Assistance to Small Businesses.*** The Pepperdine University and Kauffman Foundation surveys found that Appalachian businesses had less success in acquiring loans than national businesses did, and that small Appalachian businesses had greater rates of high-cost credit card lending than of non-credit-card lending. In addition, Appalachian businesses had fewer resources from friends and family than national businesses did, which most likely contributed to their lower amounts of collateral and less success in securing financing. Technical assistance to businesses could help address these deficiencies by focusing on topics such as business planning, assistance in securing collateral, and advice for boosting creditworthiness. The technical assistance could be provided by a range of non-profit and for-profit organizations.

***Improved Data Collection on Business Lending.*** CRA examinations for large banks tend to overlook rural areas or areas without bank branches. CRA exams should increase the attention and weight rural communities receive when determining bank ratings. In addition, improved data on small business lending is imperative. The new Consumer Financial Protection Bureau (CFPB) is required per the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 to improve the publicly available small-business data by including the race and gender of the small-business owner, and indicating the purpose of the loan, and whether the loan was approved and rejected. The CFPB has not yet issued a proposed regulation for this data, which would have been very helpful for this report’s analysis of loan demand and lending to minority- and women-owned small businesses. More information on loan terms and conditions also would have greatly informed the credit card lending analysis in this report regarding the

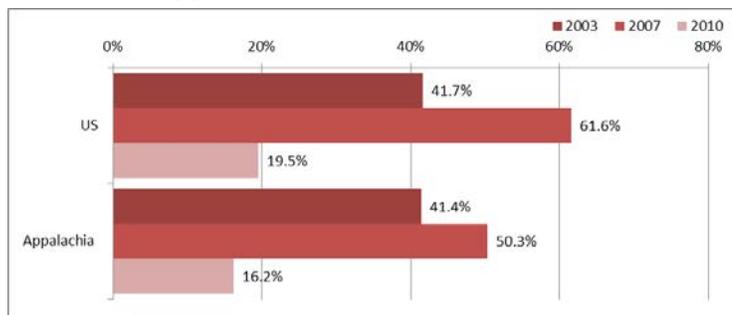
sustainability and affordability of credit-card small-business lending. The data reporting requirement for mid-size banks should be reinstated so future reports can better analyze the contributions of these important banks for rural areas. Finally, all public agencies should collect detailed data on community development lending and investing, so future research can capture this financing on a county level and more precisely distinguish between financing for affordable housing and financing for small businesses.

**MAJOR THEMES AND SUMMARY OF KEY FINDINGS**

**1. Small-business lending declined sharply in Appalachia between 2007 and 2010—from over 800,000 loans totaling \$24 billion to 255,000 loans totaling \$13 billion. As a result, the percentage of small businesses receiving loans in Appalachia during this period trailed the percentage for the nation as a whole. This trend was more pronounced in Central Appalachia and in economically distressed counties throughout the Region.**

- In 2003, 41 percent of small businesses, both in the nation as a whole and in Appalachia, received loans. In both 2007 and 2010, small-business lending in Appalachia was about 18 percent lower than lending nationally.

**Percent of Small Businesses Receiving Loans, Appalachia and Nation as a Whole**



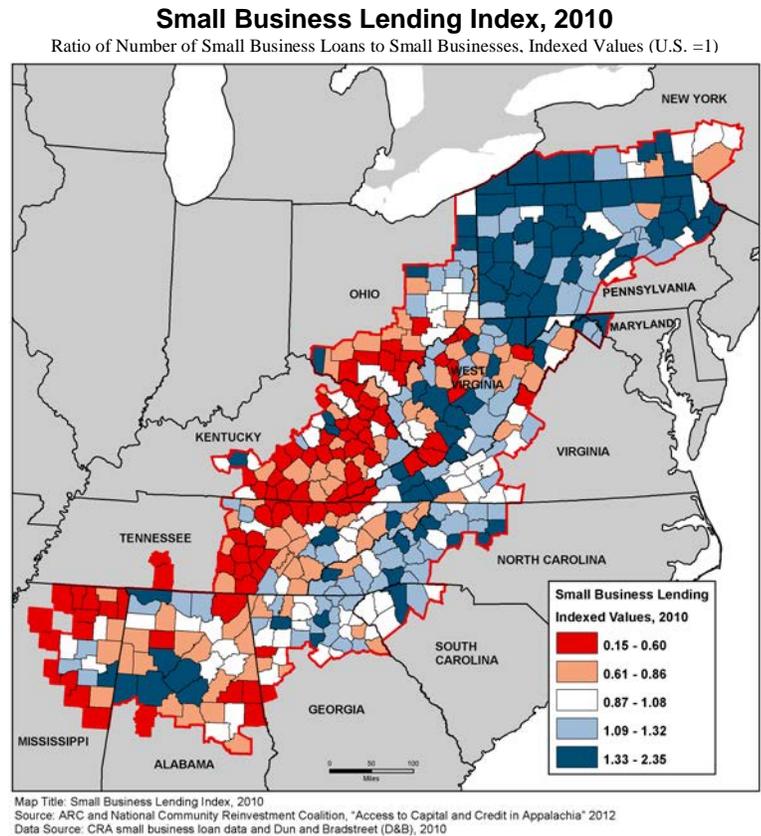
- Small-business lending, both nationally and in Appalachia, plummeted between 2007 and 2010. For the nation as a whole, the percentage of small businesses receiving loans was almost 62 percent in 2007, but only 19.5 percent in 2010. For Appalachia, the statistics were 50 percent and 16 percent.

- Lending to businesses with revenues under \$1 million contracted to the greatest extent during this period, both in Appalachia and in the nation as a whole. In 2010, only 8 percent of these businesses received loans, a rate that was less than 50 percent of both national and regional lending rates overall to all small businesses.

- In 2010, the business lending rate in economically distressed counties in Appalachia was just 44 percent of the national rates, and lending in Central Appalachia was 43 percent lower than lending nationally. The percentage of businesses in ARC-designated economic attainment counties (i.e., better performing counties) that received loans in 2010 was 1.85 times greater than the percentage of businesses in economically distressed counties that received loans. In 2007, the percentage was 2.25.

- Small businesses in Northern Appalachia had the greatest access to credit, while small businesses in Central Appalachia had the least access, both before and after the recession. For example, in 2007 about 55 percent of the small businesses in Northern Appalachia received loans, while just 33.3 percent of the small businesses in Central Appalachia received loans. In 2010, the rates were 19.4 percent in Northern Appalachia and 11.1 percent in Central Appalachia.

- An examination of lending by state showed that the Appalachian portions of Pennsylvania and Maryland had the greatest access to loans, while the Appalachian portions of Kentucky and Mississippi had the least access to loans.
- In 2007 and 2010, higher levels of credit card lending generally occurred in counties where higher levels of non-credit-card bank lending also occurred, indicating that credit card lending was not acting as a credit substitute in these counties. In some clusters of counties with limited access to non-credit-card lending, borrowers used credit cards at a higher rate than the national average to meet their borrowing needs. Maps of credit card lending indicate that credit card lending concentrations were highest in the counties with the least access to overall small-business credit, including a number of counties in Kentucky and Tennessee.
- A higher number of bank branches was statistically correlated to a higher number of loans. Previous studies have also identified this relationship.



**2. This study and national loan demand surveys from Pepperdine University and the Ewing Marion Kauffman Foundation suggest that there is significantly higher unmet loan demand in Appalachia than in the nation as a whole.**

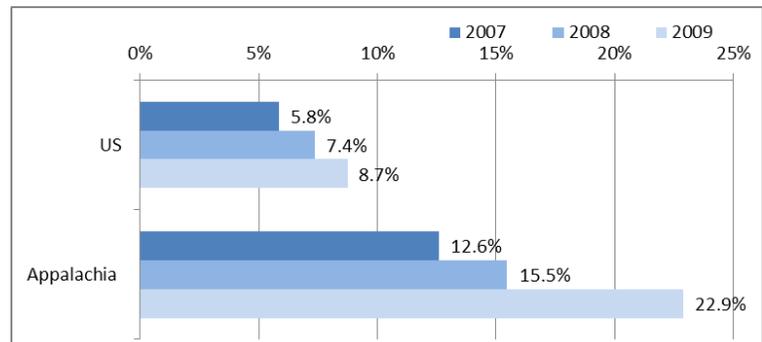
Appalachian businesses appear to have less success in obtaining loans than businesses nationally. One possible explanation is that there are fewer non-bank financing resources available from family and friends, angel investors, and venture capital investors in the Region, which may contribute to higher loan-rejection rates for Appalachian businesses.

- The smaller the business, the more likely it is to be affected by overall economic conditions and to have greater difficulty raising both debt and equity capital. This holds true both in Appalachia and in the nation as a whole. Just over 60 percent of respondents to a national survey—both in Appalachia and in the nation as a whole—indicated that the current business financing environment was restrictive. Three quarters of the businesses in Appalachia and in the nation as a whole stated that raising equity and debt financing was difficult.

- From 2007 through 2009, an increasing percentage of businesses in Appalachia and the United States desired credit but did not apply because they feared rejection. In the nation as a whole, the percentage of businesses not applying for loans due to fear of rejection increased from 15.7 percent in 2007 to 21.1 percent in 2009; in Appalachia the figures were 18.1 percent in 2007 and 23.1 percent in 2009.

- The percentage of firms denied credit in 2009 was significantly higher in Appalachia (22.9 percent) than the percentage of firms in the nation as a whole (8.7 percent). Due to low sample sizes, it is not possible to offer a statistically significant conclusion as to reasons for denial, but it appears that insufficient collateral and business and personal credit history were larger factors in Appalachia than in the nation as a whole.

**Percent of Respondents Denied Loans, Appalachia and Nation as a Whole**

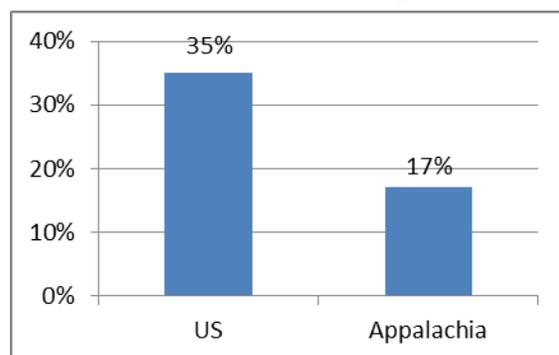


Source: Kauffman Firm Survey data; special tabulations provided to NCRC in 2012

- Survey respondents were less successful in securing business loans from banks than in obtaining credit cards or trade credit. For example, about 45 percent of the survey respondents, both in Appalachia and in the nation as a whole, who sought business bank loans in 2012 secured them, compared with the 62 percent of respondents in the nation and the 58 percent of respondents in Appalachia who successfully secured personal credit cards.
- Appalachian businesses had much lower rates of success in securing equity financing in 2012. For example, only 5 percent of the businesses in Appalachia that sought angel capital succeeded in acquiring it, compared with 20 percent of businesses in the national sample. None of the Appalachian respondents with revenues between \$500,000 and \$1 million secured angel investments, while 12 percent of the national respondents did so.

- In the second-smallest business revenue category (\$500,000 to \$1 million), respondents in Appalachia were strikingly less successful than their counterparts in the nation as a whole in raising debt or equity financing in 2012. For example, 35 percent of these businesses in the nation as a whole secured business loans from banks, while only 17 percent of their Appalachian counterparts did so. Likewise, 54 percent of these businesses secured credit-card financing, while just

**Percent of Businesses with Revenues of \$500,000 to \$1 Million Receiving Loans, 2012**



Source: Pepperdine Capital Access Index, special tabulations provided to NCRC in 2012

14 percent of their Appalachian counterparts did so. None of the Appalachian respondents in this category secured angel investments, while 12 percent of respondents in the nation as a whole were successful in securing angel financing.

- Appalachian businesses experienced much lower rates in obtaining capital from friends and family (47%) in 2012, compared with firms across the nation (71%). While this is not surprising in a region experiencing greater economic distress than the nation, it may explain one reason for the more limited success smaller businesses in Appalachia had in securing loans.
- Owners of the second-smallest businesses in Appalachia, those with revenues between \$500,000 and \$1 million, were much more likely to transfer their savings and use personal credit cards to fund their businesses than were their counterparts in the nation as a whole or than owners of larger businesses in Appalachia. For example, 81 percent of these business owners in Appalachia transferred their personal savings and investments to their small businesses in 2012, compared with 68 percent of their counterparts in the nation as a whole.

**3. The banking industry is undergoing significant changes Appalachia as well as in the nation as a whole, with significant implications for meeting future loan demand and supporting economic growth.**

- Access to banks is integral to access to credit, as a higher level of bank branches is correlated with a higher number of loans in Appalachia.
- The distribution of banks by asset size is similar in the nation as a whole and in Appalachia. In 2007 and in 2010, about two thirds of all banks, both in Appalachia and in the nation as a whole, were small, with assets of less than \$250 million. The percentage of banks with assets above \$1 billion is also similar in the nation as a whole and in Appalachia.
- The percentage of mid-size banks—those with assets between \$250 million and \$1 billion—is modestly higher in Appalachia than in the nation as a whole. A statistically significant correlation existed between the percentage of mid-size banks and lending levels on a county level.
- Despite the financial crisis, the number of bank branches in Appalachia increased modestly between 2007 and 2010, from 8,580 to 8,677. During that time, the number of branches of banks not headquartered in the Region increased by 19.5 percent, while the number of branches of banks that were headquartered in Appalachia decreased by 7.2 percent. Banks not headquartered in Appalachia opened branches in economically advantaged counties in Appalachia at a disproportionate rate during that time period, most likely due to the more favorable economic and demographic opportunities and conditions in those counties. Continuation of this trend could pose growing credit access issues for small businesses located in more rural or more economically disadvantaged portions of the Region.
- Lending on a per-branch basis remained at a higher level in the nation as a whole than in Appalachia: in 2010, the national rate was 41 small business loans per branch, while the rate for Appalachian banks was 25 loans per branch.

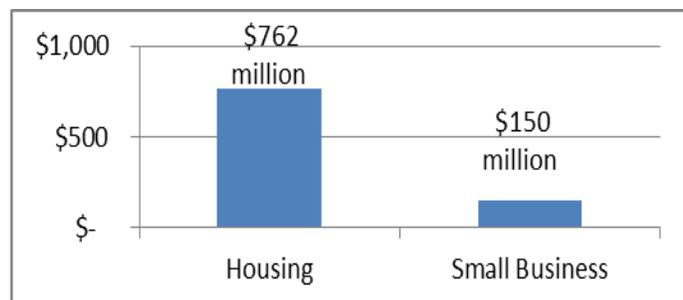
- The small-business loan-to-deposit ratios in Appalachia declined from 5.4 percent in 2007 to 2.7 percent in 2010, while the national ratio declined from 4.5 percent to 2 percent during the same time period. Within Appalachia, the small-business loan-to-deposit ratio was the lowest in Central Appalachia (1.6 percent) in 2010. The gap in the small-business loan-to-deposit ratio between distressed counties and attainment counties in 2010 was substantial, reporting ratios of 1.3 percent and 3.7 percent, respectively.
- The number of credit unions in Appalachia shrank from 2007 to 2010. In addition, Appalachia in 2007 and 2010 had a lower proportion of the largest credit unions, (those with assets over \$100 million), than did the nation as a whole. Credit unions could represent an untapped resource for Appalachian businesses, particularly in Central Appalachia, which had a higher percentage of large credit unions other subregions. Credit union lending patterns cannot be fully analyzed, as credit unions are not required to publicly report small-business lending.

**4. Community Reinvestment Act (CRA) investing is surprisingly strong in Appalachia, compared with the nation as a whole, but most of this investing is targeted to affordable housing, not to small-business and community economic development investing.**

- Banks can make community development loans for construction financing for economic development purposes (industrial parks, incubators, etc.) as well as equity investments handled by Small Business Investment Corporations (SBICs).
- Banks in Appalachia undergoing CRA exams are a significant resource for investment and community development lending. Large banks (those with assets over \$1 billion) headquartered in Appalachia have a total of \$433 billion in assets and mid-size banks (assets between \$250 million and \$1 billion) have combined assets of \$68 billion.
- Despite the financial crisis, the level of community investing and lending over a CRA exam time period of approximately three years was greater during this study than in previous studies conducted during 2007. In the sample for this study, total community development financing was \$8.8 billion, compared with \$5.4 billion during the previous study. An important caveat is that much of the increase was due to the growth in assets of the five largest banks headquartered in Appalachia, which have a wide geographical reach including several counties and states beyond Appalachia. It is not clear to what degree this financing was in Appalachian counties.

- The level of community development financing (investment and lending) was much greater for housing than for small businesses from 2007 through 2011. For example, large banks headquartered in Appalachia invested \$762 million in housing compared with the

**Community Development Investment by Large Banks Headquartered in Appalachia, 2007 through 2011**



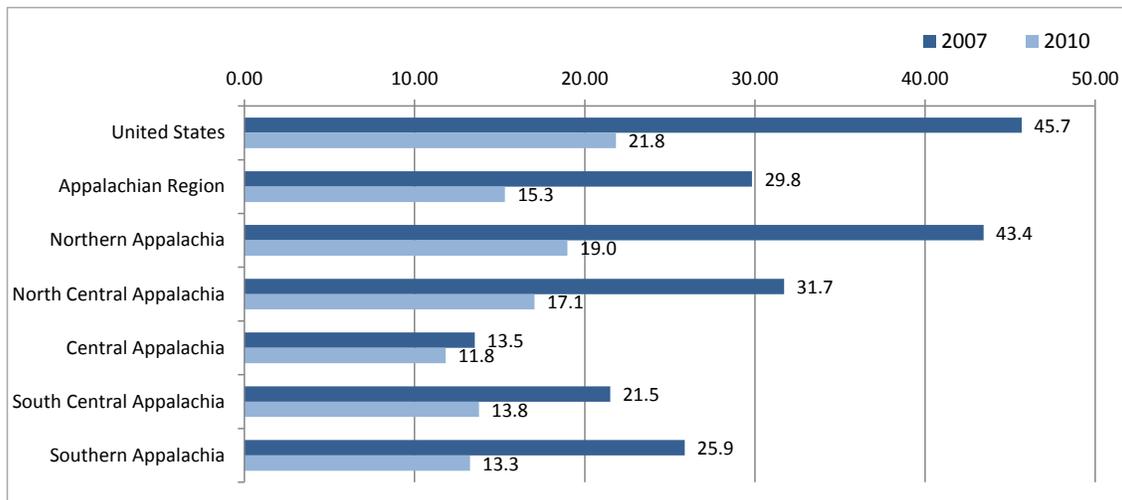
\$150 million they invested in small-business development on their most recent CRA exams. While it would not be desirable to decrease the amount targeted for housing development, stakeholders can work with banks in Appalachia to increase investments for small businesses.

- Banks with higher overall CRA ratings and high ratings on their investment tests or community development tests offered greater amounts of community development financing on a per-asset basis. Large banks had their lowest ratings on the investment tests; thus, an opportunity exists to work with large banks to improve their investment test ratings and their level of equity investments for small businesses.
- Disparities in community development financing mirror disparities identified for general business lending in the Region. Counties in Central Appalachia and economically distressed counties throughout Appalachia have banks with total assets of \$14 billion and \$3 billion, respectively, while other counties have banks with assets in the tens or hundreds of billions of dollars. Banks located in Central Appalachia, rural counties, and economically distressed counties invested much less than banks located in metropolitan or economically advantaged counties.

**5. The key Small Business Administration (SBA) loan programs—7a Loan Guarantees and the 504 Loan program—are used sparingly in Appalachia, particularly in disadvantaged counties.**

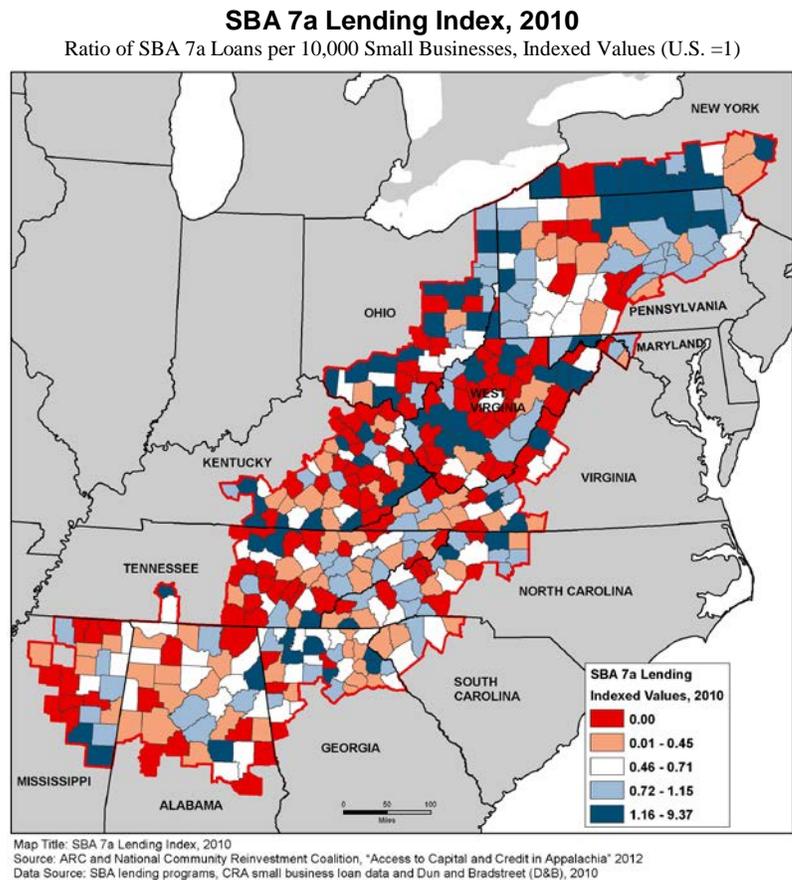
- The SBA 7a program guarantees a small volume of loans, when compared with overall business lending. Loans receiving SBA 7a guarantees were approximately 1 percent of the loans reported by banks covered by CRA for 2007 and 2010, both nationally and in Appalachia. This reflects the complexity of these programs for banks to administer and the changing rules and guidelines that accompany the programs.
- The use of SBA programs was weaker in Appalachia than nationally, as measured by loans per 10,000 small businesses. SBA 7a lending levels were 30 percent less in Appalachia than the nation in 2010. In 2010, about 15.3 SBA 7a loans were issued per 10,000 small businesses in Appalachia, compared with 21.9 loans per 10,000 small businesses in the nation as a whole.

**Number of SBA 7a Loans per 10,000 Small Businesses, by Region**



- Within Appalachia, the SBA 7a lending rate per 10,000 small businesses was lower in distressed, rural, and Central Appalachian counties than in attainment, metropolitan, and Northern Appalachian counties. In 2010, lenders made 9.7 SBA 7a loans per 10,000 small businesses in distressed counties, while they made 20.2 loans per 10,000 small businesses in attainment counties.

- In 2007, SBA 7a lending was provided in proportion to the percentage of the minority population-in Appalachia, but by 2010, lending to minority-owned businesses had dropped and was no longer in proportion to the minority population. However, the gap between the percent of SBA 7a lending to minority-owned businesses and the percent of minorities in the population in 2007 and in 2010 was greater for the nation than for Appalachia. SBA 7a lending to woman-owned businesses in 2007 and in 2010 was not in proportion to the percentage of woman in the population, and this gap was greatest in disadvantaged counties such, as distressed counties and those counties in Central Appalachia.

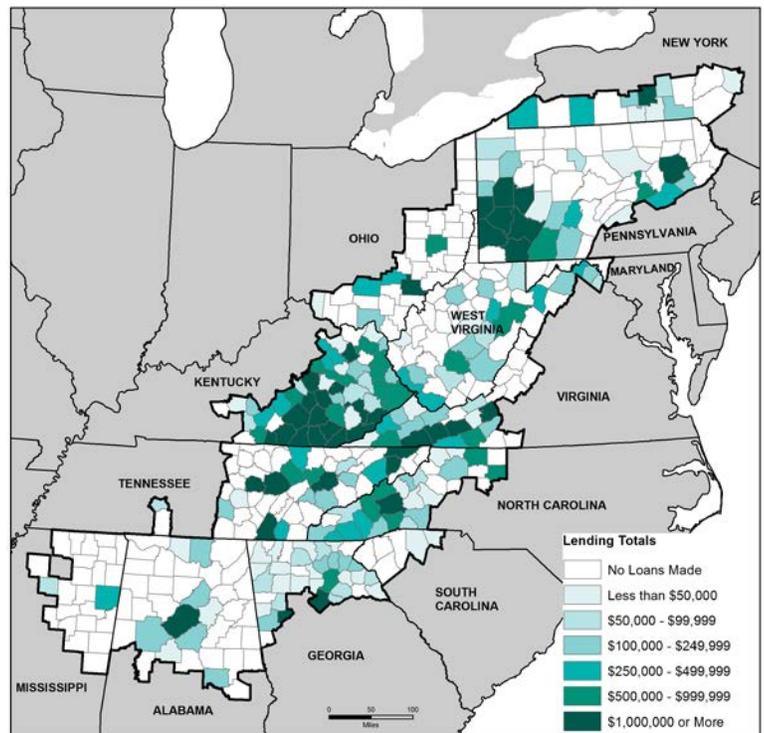


- Only 325 SBA 504 loans were offered in Appalachia in 2010. SBA 504 lending volumes were the lowest in Central Appalachia, rural counties, and distressed counties. In 2007, lenders made one SBA 504 loan per 10,000 small businesses in distressed counties, while they made 6.5 loans per 10,000 small businesses in attainment counties. The disparity in 2010 was similar.

**6. There is growing community development lending capacity in Appalachia through the presence of an expanding Community Development Financial Institutions (CDFI) and revolving loan fund network, but this network is still undercapitalized for the needs and demands of small businesses. The New Markets Tax Credit, a major federal resource for economic development, is used only in a very limited way in Appalachia. CDFIs have a primary mission of community or economic development, are accountable to low income communities, and are certified by the U.S. Department of Treasury.**

- There are 71 CDFIs headquartered in the Appalachian Region. However, the vast majority of loans CDFIs made in Appalachia in 2007 and 2010 were from institutions that did most of their lending outside of Appalachia.
- CDFI lending in Appalachia increased by 88 percent from 2007 to 2010, from \$197 million to \$371 million.
- CDFIs lend in the majority of counties in Appalachia and have increased their targeting of disadvantaged counties. For example, CDFIs increased the amount they lent in Central Appalachia by 52 percent between 2007 and 2010, from \$90.6 million to \$137.4 million. CDFIs increased lending in rural counties by over 50 percent between 2007 and 2010, from \$82.3 to \$124.2 million.
- CDFIs issued 4,613 loans in Appalachia during 2007, and 4,661 loans in Appalachia during 2010. Of the 2007 loans, 1,416 (30.7 percent) were for small businesses, and of the 2010 loans, 2,363 (50.7 percent) were for small businesses.
- The majority of CDFI loans for businesses in Appalachia, in both 2007 and 2010, were directed to Central Appalachian counties, while the plurality of dollars CDFIs lent to businesses went to businesses in rural counties.
- The percentage of CDFI lending for microenterprise was higher in Appalachia than in the nation as a whole in 2007 and 2010, but was still only 4 percent of the CDFI loan dollars in Appalachia.

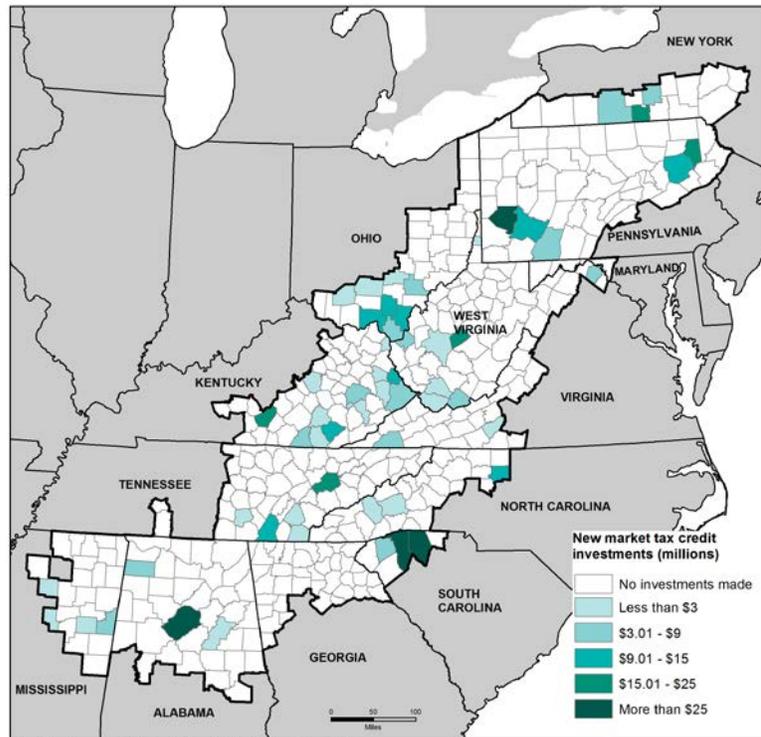
**Amount of Loans by CDFIs to Businesses, by County, 2010**



Map Title: CDFI Lending to Businesses in Appalachian Counties, 2010  
 Data Source: Program Community Investment Impact System Transaction Level Reports for 2010

- There are only 12 Community Development Entities (CDEs) (organizations certified through the NMTC program) located in Appalachia, and they have received a total allocation of \$321 million in credit authority, out of \$30 billion in tax credits allocated through 2010—just 1 percent of the credit authority allocated.
- Forty-seven CDEs have invested \$706 million in 351 projects located in 62 Appalachian counties, about 3.4 percent of the total amount of credit authority invested nationwide.

**New Market Tax Credit Investments, by County, 2000-2010**

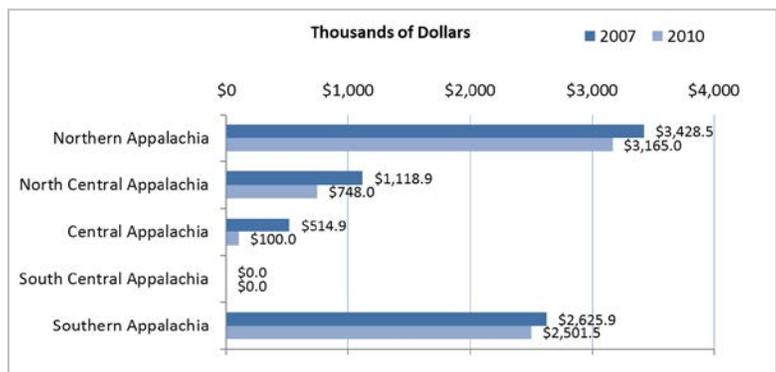


Map Title: Investment Dollars Made with New Market Tax Credit  
Data Source: CDFI Fund 2011

- Within this relatively limited NMTC investment pool, the targeting of disadvantaged counties in Appalachia decreased between 2007 and 2010. For example, NMTC funding in Central Appalachia declined from 25 percent of investments in Appalachia in 2007, to just 7 percent of investments in 2010. A similar decrease occurred in rural counties.

- Another federal program used by CDFIs and other development lenders is the SBA microloan program. In Appalachia, the SBA microloan program financed 163 loans in 2007, and 244 loans in 2010.

**Amount of Loans from ARC-Funded Revolving Loan Funds, by Region**



- The SBA microloan program was effective in targeting disadvantaged counties. Central Appalachia, rural counties, and distressed counties received the most microloans per small business during 2007 and 2010.

- The 35 ARC-funded RLFs in Appalachia made 87 loans totaling \$7.7 million in 2007, and 73 loans totaling \$6.5 million in 2010, leveraging an additional \$52.1 million in 2007 and \$60.8 million in 2010 from banks and other sources.
- The great majority of ARC RLF funding in 2007 and 2010 was in Northern and Southern Appalachia, in transitional counties, and in small metropolitan counties and rural counties.
- There were 69 EDA-funded RLFs in 54 Appalachia counties in 2011, with an aggregate capital base of nearly \$120 million. Over half of this capital was held by just 8 RLFs.

**7. There is a very limited base of venture and other forms of equity capital available to businesses and entrepreneurs in Appalachia, which constitutes a major barrier to new business and job creation.**

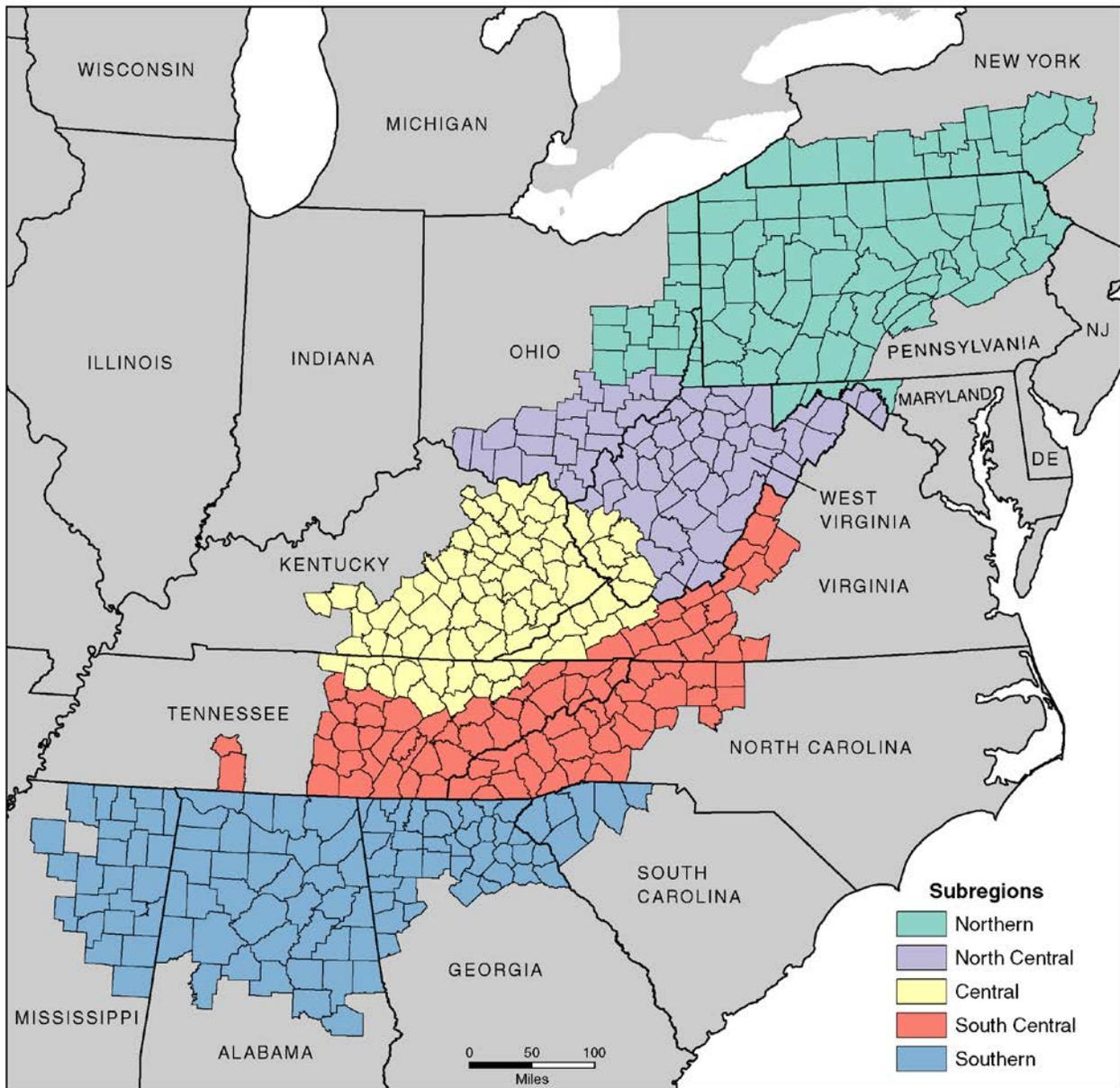
Two sources of equity investment for businesses were examined in this study: venture capital funds and angel investors. The total amount of investment in Appalachia by venture capital funds declined by about 27 percent between 2007 and 2010. Because venture capital funds tend to invest in high growth fields, such as biotechnology, health care, and information technology, their investments are highly concentrated in Northern Appalachian cities, including Pittsburgh, Pennsylvania, and Ithaca, New York; and in large metropolitan and ARC-designated transitional or economically competitive counties. Angel investments in Appalachia also declined between 2007 and 2010, by about 23 percent, with the majority of investments in software, healthcare, and biotechnology sectors. Because angel investors tend to invest near where they live, and because most live near urban areas or universities, they appear to be a limited source of equity investment for businesses in rural and distressed communities. The key findings with respect to venture fund and angel investors are:

- Less than 2 percent of Appalachian venture fund investments were in rural counties and less than 1 percent were in Central Appalachia or at-risk counties.
- Venture capital investment was concentrated in larger metropolitan areas within Appalachia—Allegheny County, Pennsylvania, (which includes the city of Pittsburgh) dominates venture fund investment in Appalachia, followed by other knowledge-based or medical centers, including Jefferson County, Alabama (which includes city of Birmingham), Gwinnett County, Georgia (a suburb of Atlanta), Tompkins County, New York (which includes the city of Ithaca), and Clermont County, Ohio (a suburb of Cincinnati)—where greater opportunities exist for investment in companies in fields such as health care, information technology, and energy technology.
- The pattern of venture fund investment in Appalachia is consistent with the geographic distribution of biomedical, information technology, and knowledge-based industries.
- While less is known about angel investments because of their informal nature, the data suggest that their pattern is similar to that of venture capital fund investments: concentrated near large metropolitan areas and universities, and leaving distressed and rural counties underserved.

## **PREFACE: MAPS OF APPALACHIA**

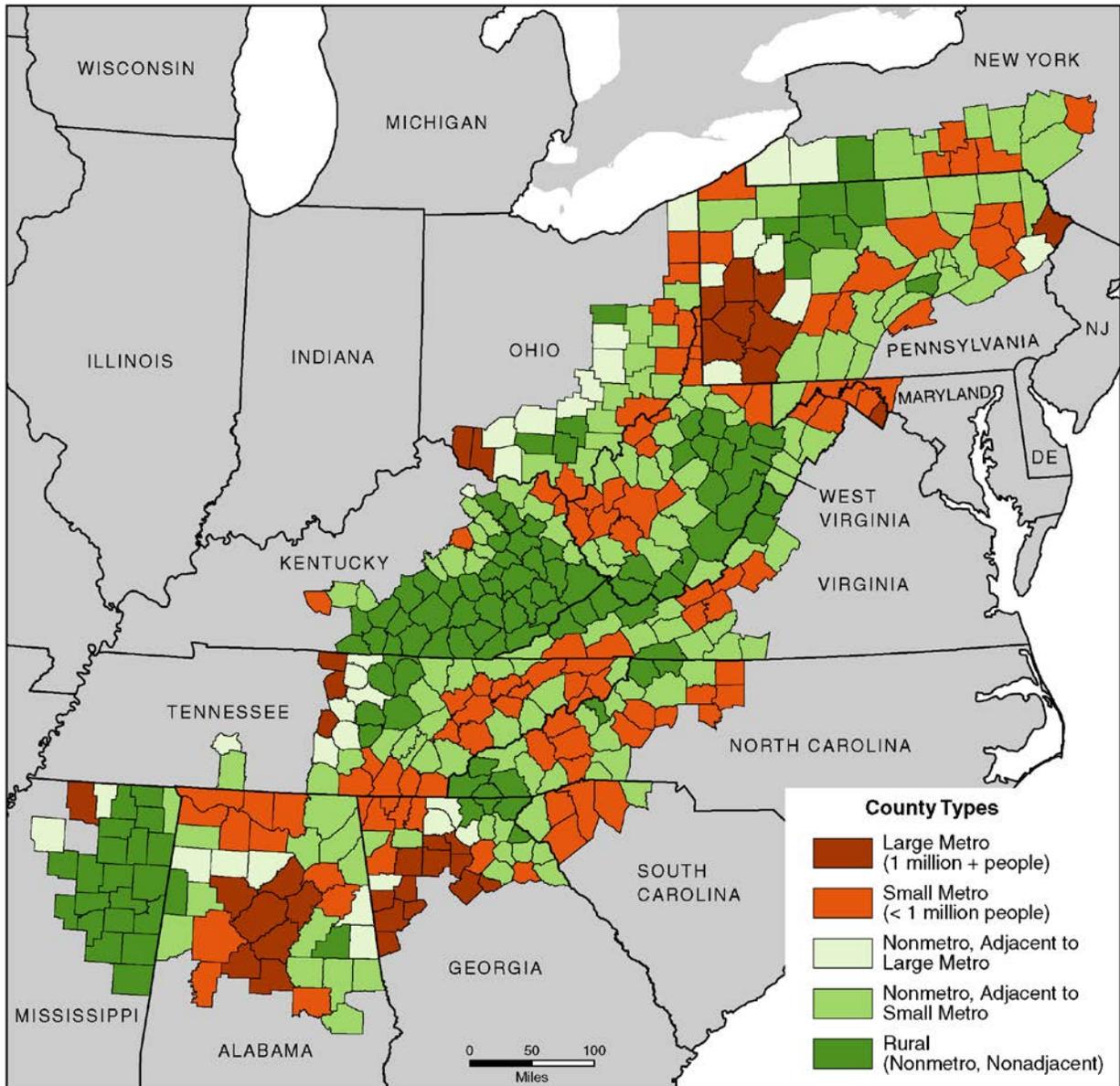
This preface contains maps of Appalachia that describe the various subregions and county classifications used by this report. The maps describe subregions in Appalachia, county types (typology of urban and rural counties), and counties by economic status. The report describes trends in lending and investing in the subregions and county classifications. The analysis, maps, tables, and figures generated from these classifications are based on ARC's current geographic boundary, which consists of 420 counties. The only exception is the economic status classification on tables and figures with 2007 data, which are based on the 410 counties in ARC's boundary in 2007.

**Map 0-1: Subregions in Appalachia**



Appalachian Regional Commission, November 2009.

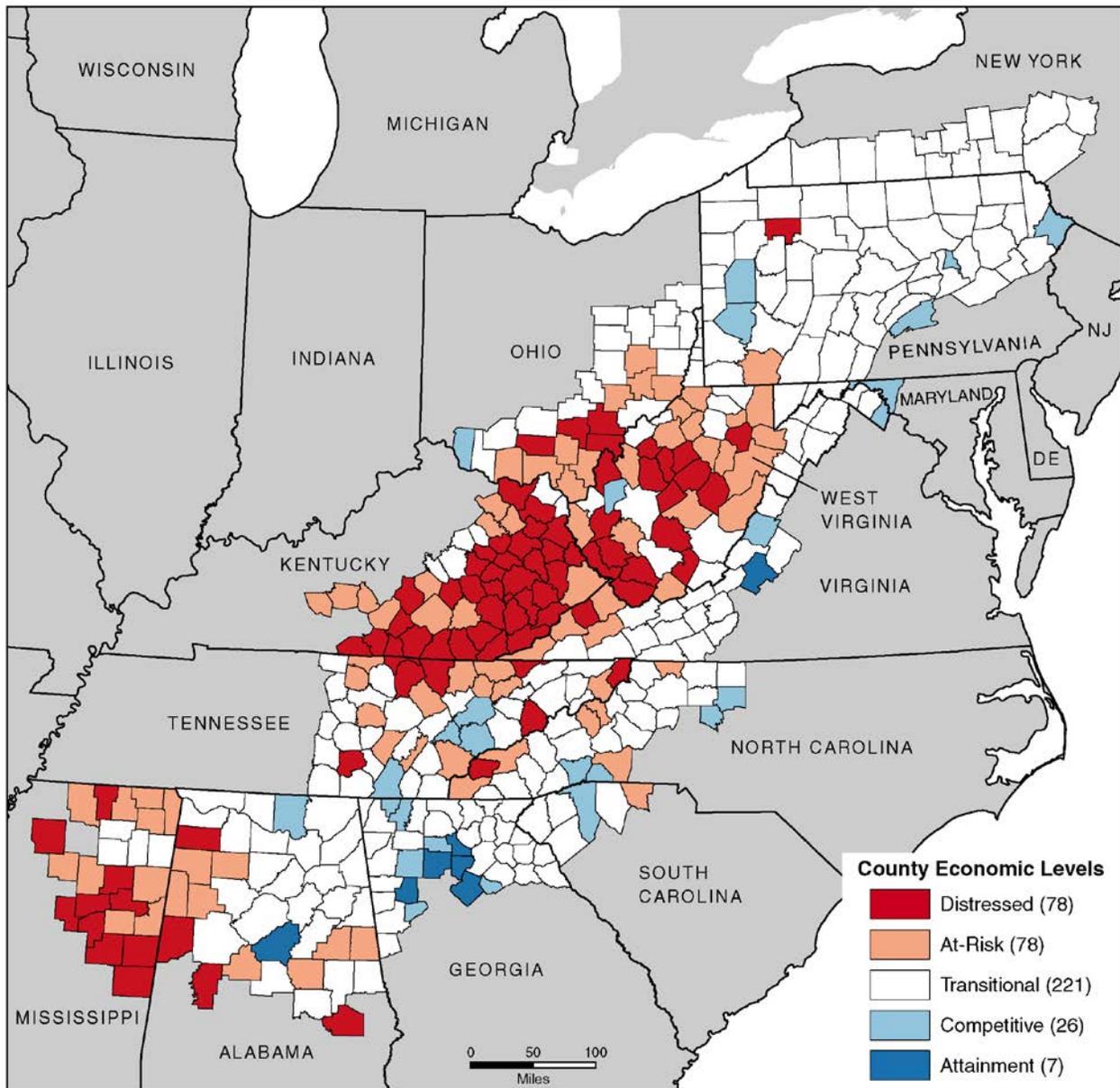
**Map 0-2: County Types in Appalachia**



Appalachian Regional Commission, 2010.

Data Sources: U.S. Census Bureau data compiled by U.S.D.A. Economic Research Service.

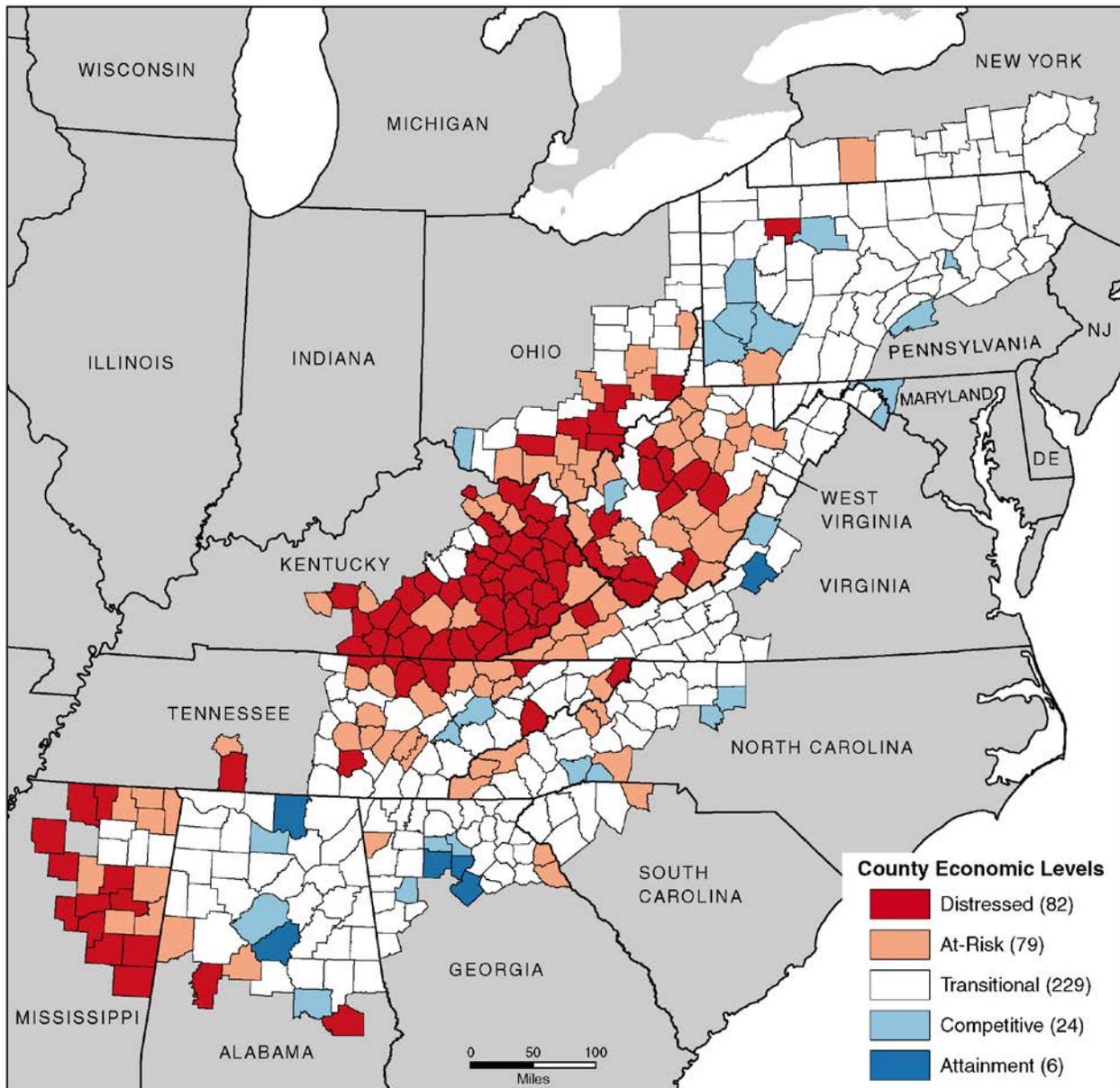
**Map 0-3: ARC's County Economic Status Designations in Fiscal Year 2007**



Map by: Appalachian Regional Commission, September 2006.  
 Data Sources: U.S. Bureau of Labor Statistics, LAUS, 2002-2004;  
 U.S. Bureau of Economic Analysis, REIS, 2003;  
 U.S. Census Bureau, 2000 Census, SF3.

Effective October 1, 2006  
 through September 30, 2007.

**Map 0-4: ARC's County Economic Status Designations in Fiscal Year 2010**



Appalachian Regional Commission, October 2009.  
 Data Sources: U.S. Bureau of Labor Statistics, LAUS, 2005-2007;  
 U.S. Bureau of Economic Analysis, REIS, 2006;  
 U.S. Census Bureau, 2000 Census, SF3.

Effective October 1, 2009  
 through September 30, 2010.

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