## 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 nondistressed 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.

[^0]
## 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

Appalachia Demographics Population by Race*

* 2000 Census

$\square$ African-American $\square$ Hispanic $\square$ White $\square$ Other

National Demographics Population by Race*


* 2000 Census

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-Americas 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

Composition of Small Businesses by Sector in Appalachia

$\square$ Agriculture $\square$ Manufacturing $\square$ Retail Trade $\square$ Services $\square$ Other

Composition of Small Businesses by Sector in the Nation

$\square$ Agriculture $\square$ Manufacturing $\square$ Retail Trade $\square$ Services $\quad$ Other

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 $=<1 \mathrm{mln}) /$ \#SB ( $<\$ 1 \mathrm{mln}$ ).

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

Number of Small Business Loans per Branch


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 counties ${ }^{5}$. 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.

[^1]

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
Percent of Small Businesses Receiving Loans by Minority Level of County


Source: Appendix Table 13 - column \# SB Loans/\#SB and rows 0-20\% (Nation and Appalachia), 2050\% (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 people, 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.

[^2]
## 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

Number of Persons Per Branch


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 that their peers.

[^3]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

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline State \& \multicolumn{2}{|c|}{AL} \& \multicolumn{2}{|c|}{GA} \& \multicolumn{2}{|c|}{KY} \& \multicolumn{2}{|c|}{MD} \& MS \& \multicolumn{2}{|c|}{NC} \& \multicolumn{2}{|c|}{NY} \\
\hline \& Metro \& Rural \& Metro \& Rural \& Metro \& Rural \& Metro \& Rural \& Rural \& Metro \& Rural \& Metro \& Rural \\
\hline \begin{tabular}{l}
All \\
Businesses \\
Businesses with <\$1 million
\end{tabular} \& \[
\begin{aligned}
\& 58.6 \% \\
\& \\
\& 41.8 \%
\end{aligned}
\] \& \[
\begin{aligned}
\& 48.6 \% \\
\& 38.0 \%
\end{aligned}
\] \& \[
44.7 \%
\]
27.8\% \& \[
\begin{aligned}
\& 50.6 \% \\
\& 46.5 \%
\end{aligned}
\] \& \[
\begin{aligned}
\& 37.0 \% \\
\& \\
\& 27.3 \% \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 31.2 \% \\
\& 22.7 \% \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 49.1 \% \\
\& 27.0 \% \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 48.8 \% \\
\& 31.5 \% \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 55.5 \% \\
\& 55.8 \%
\end{aligned}
\] \& \[
\begin{aligned}
\& 48.3 \% \\
\& 29.1 \% \\
\& \hline
\end{aligned}
\] \& \[
\begin{aligned}
\& 47.0 \% \\
\& 30.8 \% \\
\& \hline
\end{aligned}
\] \& 38.1\%

20.4\% \& 38.7\%

24.7\% <br>
\hline
\end{tabular}

| State | OH |  | PA |  | SC |  | TN |  | VA |  | WV |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Metro | Rural | Metro | Rural | Metro | Rural | Metro | Rural | Metro | Rural | Metro | Rural |
| All Businesses <br> Businesses with <\$1 million | $\begin{aligned} & 39.9 \% \\ & 21.9 \% \end{aligned}$ | $\begin{aligned} & 37.5 \% \\ & 22.8 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 33.2 \% \\ & 20.1 \% \end{aligned}$ | $\begin{aligned} & 35.3 \% \\ & 22.9 \% \end{aligned}$ | $\begin{aligned} & 45.1 \% \\ & 28.7 \% \\ & \hline \end{aligned}$ | $\begin{aligned} & 40.3 \% \\ & 21.5 \% \end{aligned}$ | $\begin{aligned} & 45.4 \% \\ & 33.5 \% \end{aligned}$ | $\begin{aligned} & 42.1 \% \\ & 32.1 \% \end{aligned}$ | $\begin{aligned} & 47.8 \% \\ & 40.5 \% \end{aligned}$ | $\begin{aligned} & 38.4 \% \\ & 26.3 \% \end{aligned}$ | $34.6 \%$ 20.8\% | $31.5 \%$ 21.8\% |


| State | Appalachia |  |
| :---: | :---: | :---: |
|  | Metro | Rural |
| All <br> Businesses <br> Businesses <br> with <\$1 <br> million | $26.9 \%$ | $30.9 \%$ |

Source: Appendix Table 15 columns \#SB loans/\#SB and \#SB loans to SB $=<1 \mathrm{mln} / \#$ SB ( $<1 \mathrm{mln}$ ); 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.


## 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 <br> to Small <br> Businesses | \% of Loans <br> to Smallest <br> Businesses* | \% of Loans less <br> 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

[^4]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


## 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 $=<1 \mathrm{mln} / \# S B$ ( $<\$ 1 \mathrm{mln}$ )

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.

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 <br> Tracts | LMI Census <br> 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 nondistressed 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 nondistressed 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 nondistressed 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 nonmetropolitan 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 nonmetropolitan 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 nondistressed 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.


[^0]:    ${ }^{4}$ Appalachian Regional Commission, FY 2006 Performance Budget Justification, http://www.arc.gov/index.do?nodeId=100.

[^1]:    ${ }^{5}$ 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.

[^2]:    ${ }^{6}$ 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.

[^3]:    ${ }^{7}$ 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.

[^4]:    ${ }^{8}$ For FY 2005, the Appalachian Regional Commission defines distressed counties as those counties that have a threeyear 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.

