CHAPTER 2 LOAN DEMAND IN APPALACHIA

2.1 INTRODUCTION AND SUMMARY

This report has documented a significant decline in small business lending in the nation and in Appalachia. The percentage decline in lending from 2007 and 2010 was similar in the nation and Appalachia, but Appalachian small businesses experienced less access to credit for the entire 2007 through 2010 time period. This chapter assesses how much of the decrease in lending in the nation and Appalachia was due to demand factors. In other words, were small businesses more or less likely in Appalachia than the nation to be deterred from applying because they feared rejection or did small businesses in Appalachia desire and apply for lending at similar rates as their national counterparts? The chapter's analysis is based on two surveys conducted by Pepperdine University and the Kauffman Foundation specifically for this report. While we cannot offer definitive conclusions, the analysis will offer important insights and contribute to programmatic and policy recommendations.

Summary findings from the Pepperdine survey include:

- The smaller the business, the more they are affected by overall economic conditions and have greater difficulty raising both debt and equity capital. This holds true for Appalachia and the nation.

- Survey respondents were less successful in securing business loans from banks than obtaining credit cards or trade credit. For example, about 45 percent of the survey respondents in Appalachia and the nation who sought business bank loans secured them compared to 62 and 58 percent of the respondents in the nation and Appalachia, respectively, in the case of personal credit cards. Credit cards are a more expensive form of credit than bank loans.

- Much lower rates of success occurred in securing equity financing for businesses; for example, only 5 percent of the businesses who sought angel capital in Appalachia succeeded in acquiring it compared to 20 percent of firms in the national sample. For businesses with revenue of between $500,000 and $1million, none of the Appalachian respondents secured angel investments, while 12 percent of the national respondents did so.

- For the second smallest business revenue category ($500,000 to $1 million), respondents in Appalachia were strikingly less successful than their counterparts in the nation in raising debt or equity financing. For example, 35 percent and 17 percent of these businesses in the nation and Appalachia, respectively, secured business loans from banks. Likewise, 54 percent and 14 percent of the businesses in this revenue category in the nation and Appalachia, respectively, secured business credit card financing. None of the Appalachian respondents in this category secured angel investments; 12 percent of the national respondents did.

- A large difference in response between the nation and Appalachia was noted in the ability to secure financing from friends and family, with Appalachian firms having much lower rates of successfully obtaining this capital (47 percent) than do firms across the nation (71 percent). While this is not surprising in a region experiencing greater economic distress than the nation, it may also explain a large reason for differences in the success of smaller businesses in Appalachia and the nation in securing loans.

- In addition, the smallest businesses owners in Appalachia were much more likely to transfer their savings and use personal credit cards to fund their businesses than their counterparts in Appalachia or the nation. For example, 81 percent and 68 percent of small business owners with revenues between $500,000 and $1 million in Appalachia and the nation, respectively, transferred their personal savings and investments to their small businesses.

- The differences in success rates of securing financing by small businesses was greater than the differences in demand in Appalachia and the nation. While the Pepperdine survey reported less demand for financing by the second smallest revenue category in Appalachia as compared to the nation, the overall success rates for all smaller businesses in securing financing was significantly less for Appalachian businesses when compared to the nation.

- Just over 60 percent of the respondents in the nation and in Appalachia indicated that the current business financing environment was restrictive. Three quarters of the businesses in Appalachia and the nation stated that raising equity and debt financing was difficult.

Summary findings from the Kauffman survey includes:

- An increasing percentage of businesses in Appalachia and the United States desired credit but did not apply because they feared rejection. In the United States, the percentage of businesses in this category 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 were significantly higher in Appalachia (22.9 percent in 2009) compared to the United States (8.7 percent in 2009). 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, business and personal credit history were larger factors in Appalachia than the United States.

- The Kauffman survey confirms that outcomes were significantly worse for Appalachian businesses when compared to their national peers in terms of higher denial rates and less success in securing credit.

Differences in obtaining loans between Appalachian businesses and their national peers were starker than suggested by differences in demand for lending between these groups. A possible explanation for less success in securing loans in Appalachia was the relatively fewer resources available from friends and family, or from angel investors, for Appalachian businesses. More limited non-debt financing may have contributed to less collateral and higher loan rejection rates for Appalachian businesses.

2.2 Pepperdine Capital Access Index

2.2.1 Description of Sample Size

The Graziadio School of Business and Management at Pepperdine University, with the support of Dun and Bradstreet Credibility Corporation, produces a quarterly survey of the demand by small and medium sized small businesses for credit and capital and the level of accessibility of credit and capital. The survey consists of 25 questions and generated 4,686 complete responses for the United States, as a whole, and 384 responses from Appalachia during the first quarter of 2012. The year 2012 marked the first year in which Pepperdine tracked survey responses by ZIP code so this survey provides a current snapshot of demand for small business loans in Appalachia as well as the nation. Below, the Kauffman survey results covering the years 2007 and 2009 will facilitate a comparison over time between the United States and Appalachia.

Of the 383 survey responses in Appalachia to the Pepperdine survey, the plurality was small businesses with annual revenues under $500,000. Forty percent or 154 of the respondents were small businesses with revenues under $500,000, 14 percent or 54 small businesses had revenues between $500,000 and $1 million, 23 percent or 88 small businesses had revenues between $1 and $5 million, and 15 percent or 58 businesses had revenues between $5 and $100 million. The percentage of the smallest businesses is for the national survey is very similar; about 39 percent of the businesses had revenues under $500,000 and 15 percent of the businesses had revenues between $500,000 and $1 million. In general, compared to small business demographics, the Pepperdine survey over-represents the largest of the small businesses, yet the survey results nevertheless indicate general difficulties in obtaining credit and do not seem to obscure problems experienced by the smallest of the small businesses (see Figures 2-1 and 2-2).

More than half of the small businesses have less than 5 employees. While the plurality are small in terms of revenue and number of employees, most are established with more than three years in business; 13 percent are three years or younger, 25 percent have operated between three and ten years, and 62 percent have been in operations for ten or more years. In terms of industries, 33 percent are in services, 14 percent are in manufacturing, 13 percent are in construction, and 11 percent are in retail (see Figures 2-3-2-5).

The Pepperdine survey has a higher percentage of business respondents in relatively advantaged counties in Appalachia. For example, 32.9 percent of the respondents were in large metropolitan counties whereas 27.6 percent of the Appalachian businesses were in these counties. Likewise, the portion of respondents was 5.8 percentage points higher than the portion of businesses in attainment counties. In contrast, rural, distressed, and at-risk counties had a lower percentage of respondents than the percentage of Appalachian businesses. In terms of the Appalachian portion of states, Georgia and New York were over-represented by the Pepperdine survey whereas Tennessee and North Carolina were under-represented. It is perhaps surprising that the respondents are not even more skewed towards urban and large metropolitan areas and it is useful that there is a sizable representation in rural and economically disadvantaged counties. Yet, the over-representation in advantaged parts of Appalachia suggests that the results likely understate the obstacles small business face (see Table 2-1 and Figures 2-6 through 2-9).

Figure 2-1: Pepperdine Respondents Compared to Appalachian Businesses by Revenue Size

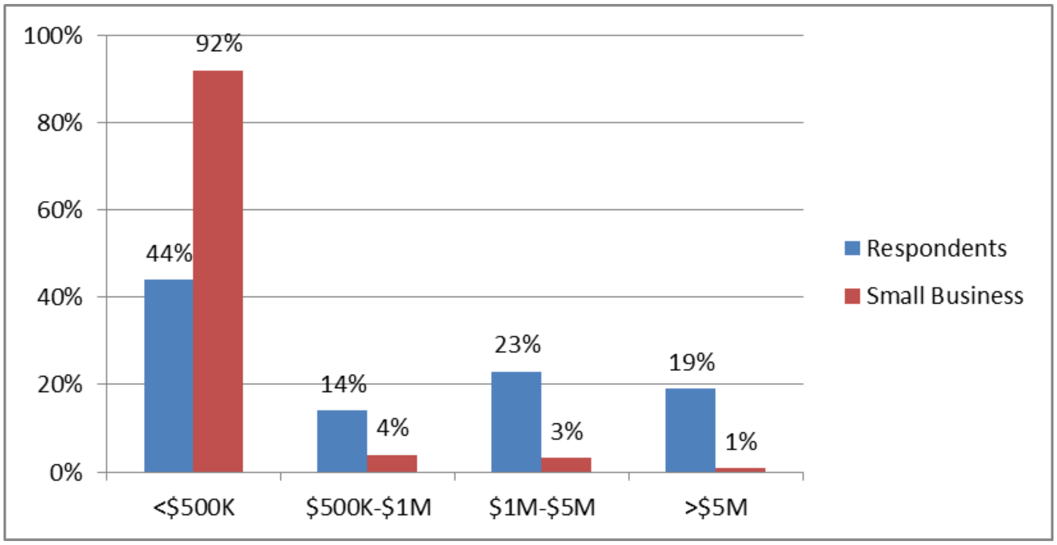


Figure 2-2: Pepperdine Respondents Compared to National Businesses by Revenue Size

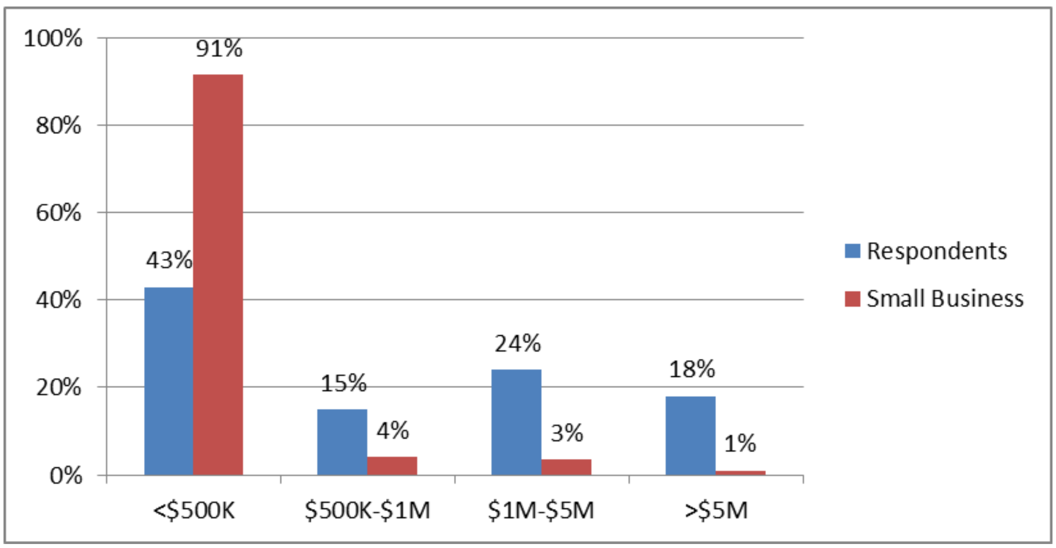


Figure 2-3: Details about the Respondents, by Number of Employees

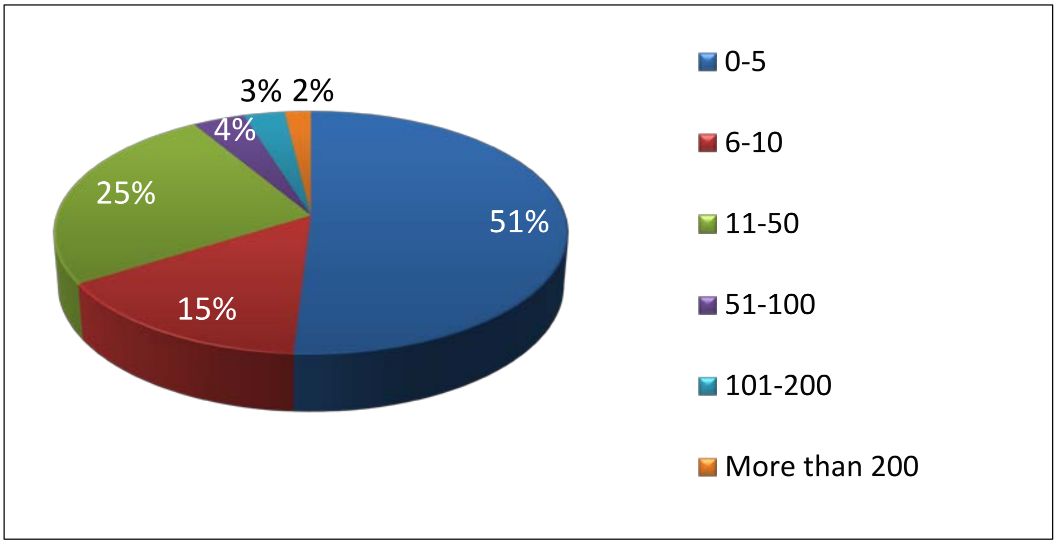


Figure 2-4: Details about the Respondents, by Firm Age

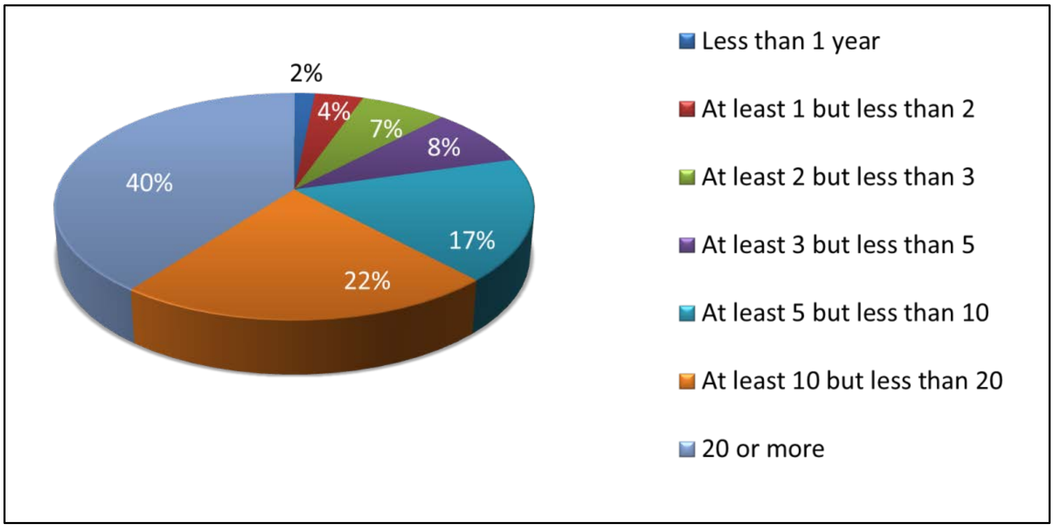


Figure 2-5: Details about the Respondents, by Industry

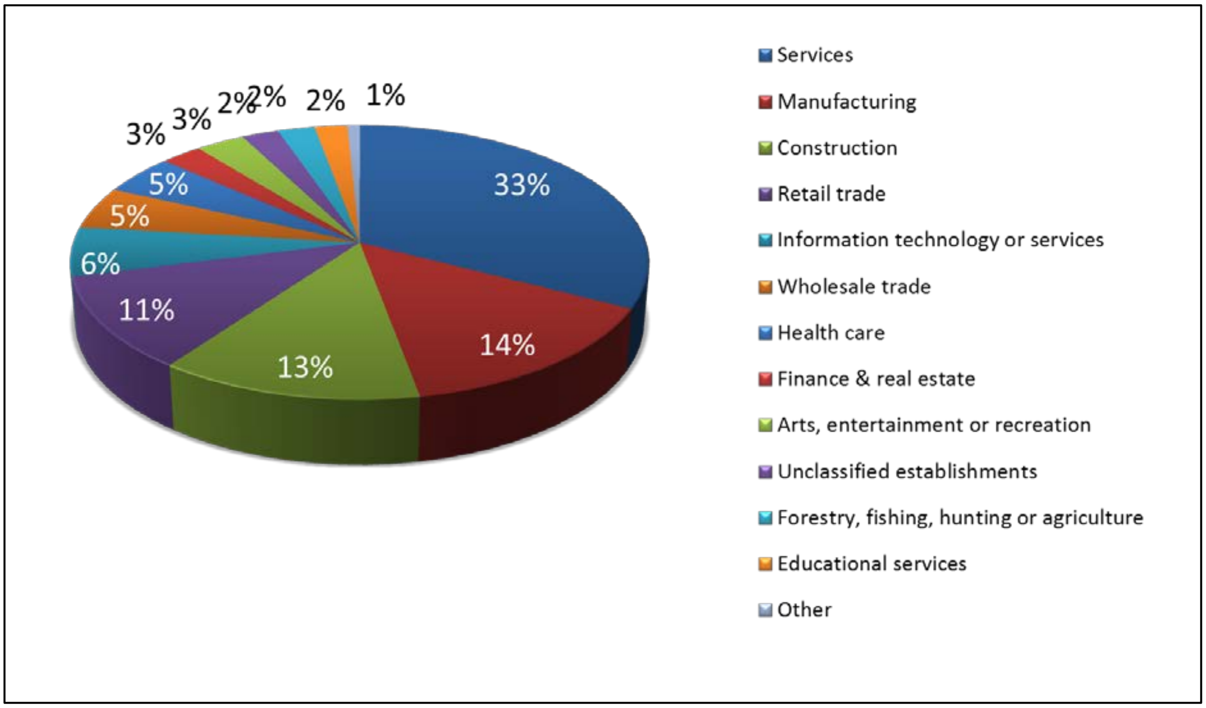


Figure 2-6: Ratio of Pepperdine Survey Respondents to Total Non-Farm Businesses by Region

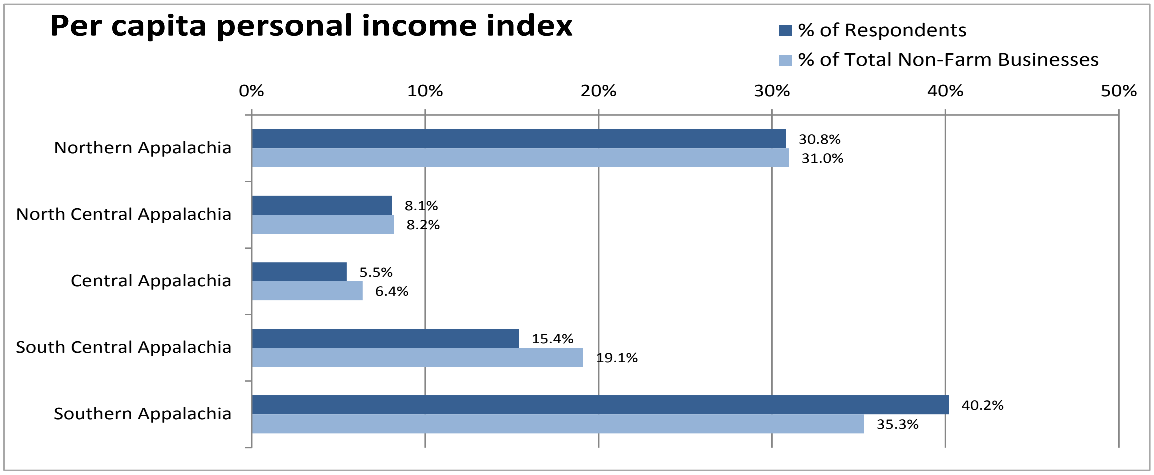


Figure 2-7: Ratio of Pepperdine Survey Respondents to Total Non-Farm Businesses by County Type

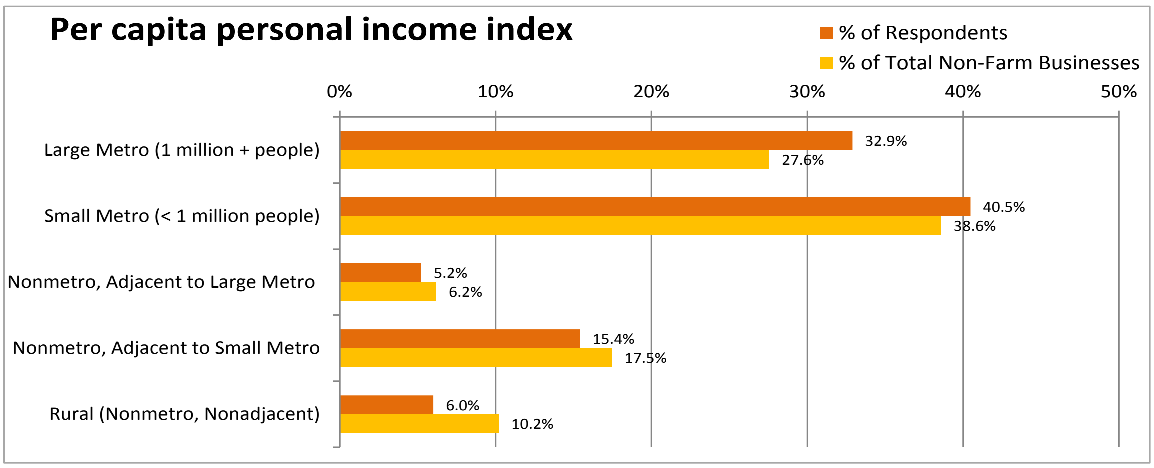


Figure 2-8: Ratio of Pepperdine Survey Respondents to Total Non-Farm Businesses by Economic Status

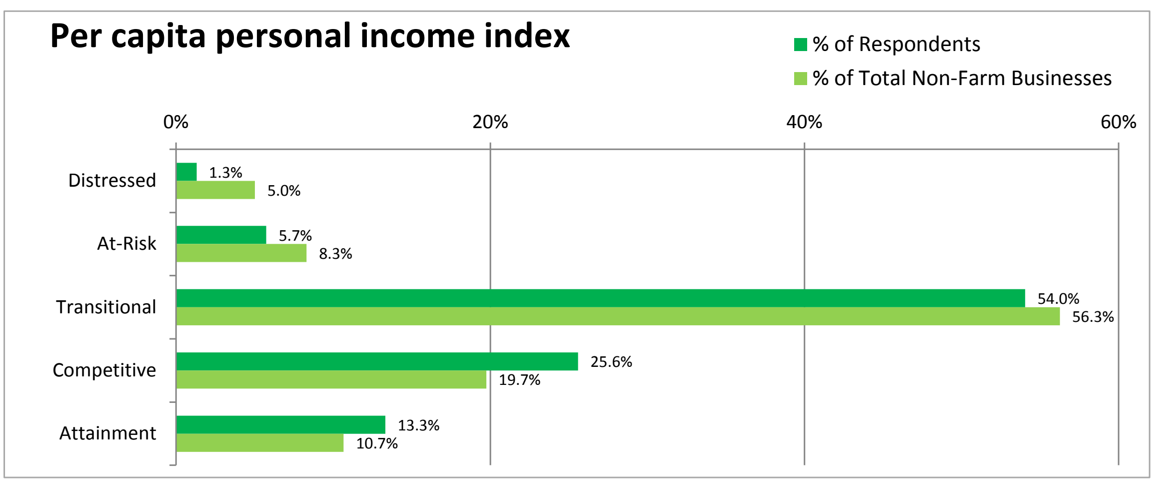


Figure 2-9: Ratio of Pepperdine Survey Respondents to Total Non-Farm Businesses by Appalachian States

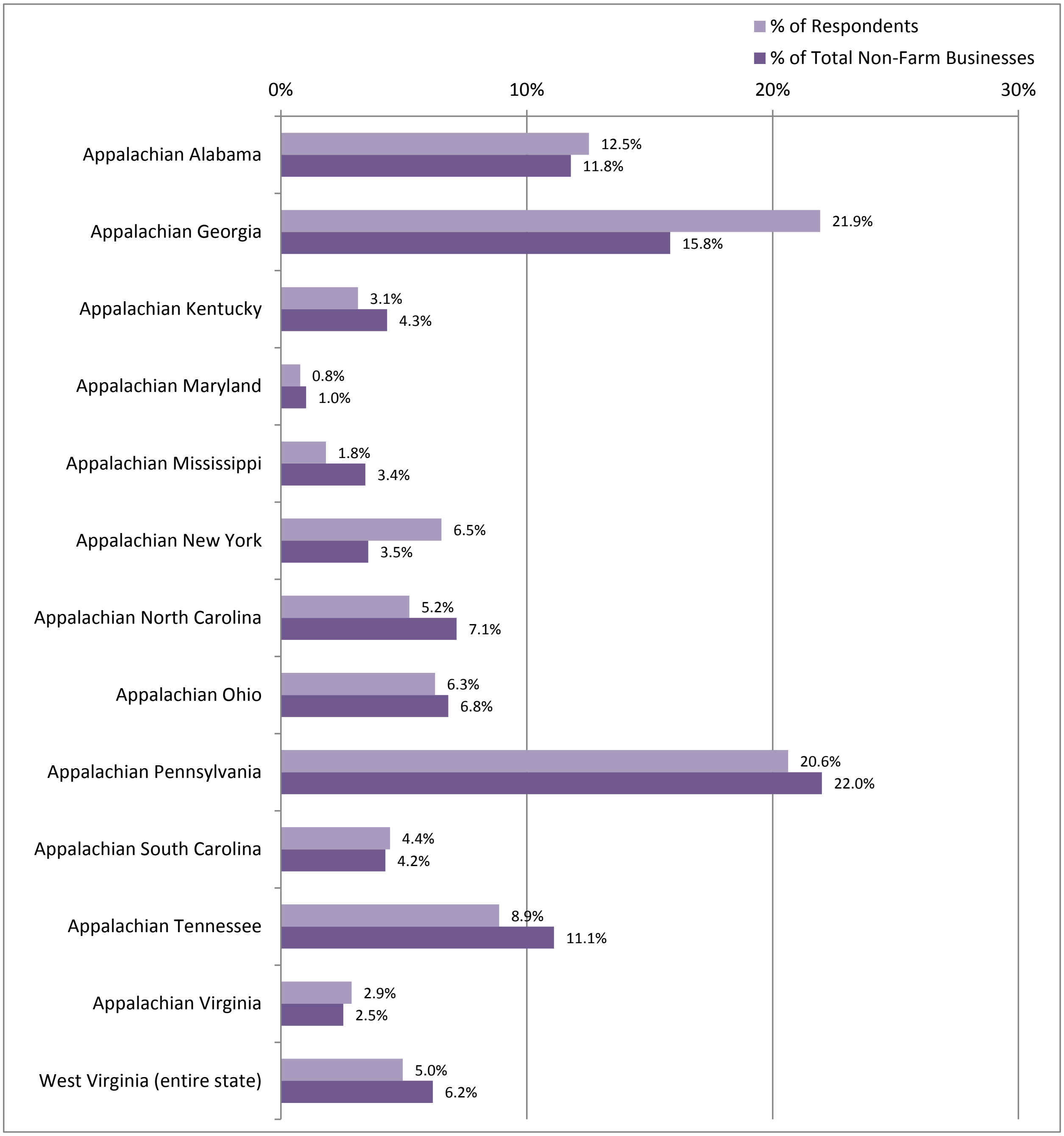


Table 2-1: Number of Respondents for Pepperdine Survey and Total Number of Non-Farm Businesses in Appalachia

	Respondents, 2012		Total Non-farm Businesses, 2011		Percentage point Differences
	Number	%	Number	%	
Appalachian Region	383	100.0%	2,370,133	100.0%	0.0%
Subregions					
Northern Appalachia	118	30.8%	734,046	31.0%	-0.2%
North Central Appalachia	31	8.1%	194,406	8.2%	-0.1%
Central Appalachia	21	5.5%	151,625	6.4%	-0.9%
South Central Appalachia	59	15.4%	453,146	19.1%	-3.7%
Southern Appalachia	154	40.2%	836,910	35.3%	4.9%
County Types					
Large Metro (1 million + people)	126	32.9%	653,148	27.6%	5.3%
Small Metro (< 1 million people)	155	40.5%	914,640	38.6%	1.9%
Nonmetro, Adjacent to Large Metro	20	5.2%	146,590	6.2%	-1.0%
Nonmetro, Adjacent to Small Metro	59	15.4%	413,861	17.5%	-2.1%
Rural (Nonmetro, Nonadjacent)	23	6.0%	241,894	10.2%	-4.2%
Economic Status					
Distressed	5	1.3%	119,009	5.0%	-3.7%
At-Risk	22	5.7%	196,926	8.3%	-2.6%
Transitional	207	54.0%	1,333,327	56.3%	-2.2%
Competitive	98	25.6%	468,080	19.7%	5.8%
Attainment	51	13.3%	252,791	10.7%	2.7%
Appalachian States					
Appalachian Alabama	48	12.5%	279,464	11.8%	0.7%
Appalachian Georgia	84	21.9%	375,318	15.8%	6.1%
Appalachian Kentucky	12	3.1%	102,484	4.3%	-1.2%
Appalachian Maryland	3	0.8%	24,381	1.0%	-0.2%
Appalachian Mississippi	7	1.8%	81,414	3.4%	-1.6%
Appalachian New York	25	6.5%	84,118	3.5%	3.0%
Appalachian North Carolina	20	5.2%	169,406	7.1%	-1.9%
Appalachian Ohio	24	6.3%	161,336	6.8%	-0.5%
Appalachian Pennsylvania	79	20.6%	521,595	22.0%	-1.4%
Appalachian South Carolina	17	4.4%	100,714	4.2%	0.2%
Appalachian Tennessee	34	8.9%	263,348	11.1%	-2.2%
Appalachian Virginia	11	2.9%	60,127	2.5%	0.3%
West Virginia (entire state)	19	5.0%	146,428	6.2%	-1.2%

2.2.2 Demand for External Financing

Interestingly, the percentage of respondents who attempted to secure outside financing in the nation and Appalachia was almost identical at 33 percent and 32 percent, respectively, during the first quarter of 2012. Within Appalachia, a lower percentage of the smallest businesses sought financing; 28 percent for small businesses with revenues under $500,000 and 23 percent for small businesses with revenues between $500,000 and $1 million. A considerably lower percentage of Appalachian than national businesses with revenues between $500,000 to $1 million sought financing; 23 percent compared to 32 percent (see Figures 2-10 and 2-11).

A lower percentage of businesses in Appalachia (13 percent) than in the nation (22 percent) did not seek financing because they feared that they would be rejected. Within Appalachia, the smallest businesses with revenues under $500,000 were most likely to report fear of rejection (19 percent). While 45 percent of the respondents in the nation stated they did not seek financing because they had sufficient cash flow, only 28 percent of respondents in Appalachia selected this reason for not seeking financing. Only 16 percent of the Appalachian smallest businesses with revenues under $500,000 did not seek financing because they thought they had sufficient cash flow to cover expenses (see Figures 2-12 and 2-13).

Just over 60 percent of the respondents in the nation and Appalachia indicated that the current business financing environment was restrictive. The smallest businesses with revenues under $500,000 were most likely to respond that the current environment was restrictive; 76 percent of these Appalachian businesses thought so (see Figure 2-14). A smaller percentage (69 percent) of national businesses in this revenue category thought that the financing environment was restrictive. Businesses between $500,000 and $1 million in revenue also thought that the current business financing environment was restrictive, with 64 percent of businesses nationally reporting this assessment, while 58 percent of Appalachian businesses reported these concerns (see Figure 2-15).

Three quarters of the businesses in Appalachia and the nation stated that raising equity and debt financing was difficult. Within Appalachia, the smallest businesses again indicated the most difficulty; 87 percent of the respondents with revenues less than $500,000 said raising debt or equity financing was difficult (see Figure 2-16). A greater percentage of the smallest business with revenues under $500,000 in Appalachia than the nation responded that it was difficult to raise equity and debt financing. For businesses with revenues of $500,000 to $1 million, a greater percentage of national businesses reported these difficulties (see Figure 2-17).

On a scale of 1 to 4, the survey respondents in the nation and Appalachia indicated a “moderate” level of demand for access to credit for various purposes such as planned growth, working capital fluctuations, or refinancing existing loans. The responses did not vary significantly by revenue category of businesses in the nation or within Appalachia (see Figures 2-18 and 2-19). Businesses interested in accessing financing in Appalachia and the United States were most likely to seek financing for planned growth and working capital and least likely to seek financing to endure worsening operating conditions or refinancing existing loans. Within Appalachia, the smallest businesses with revenues under $500,000 were most likely to desire financing for planned growth or working capital (see Figures 2-20 and 2-21).

Figure 2-10: Percentage of Respondents Who Attempted to Raise Outside Financing in the Last Three Months

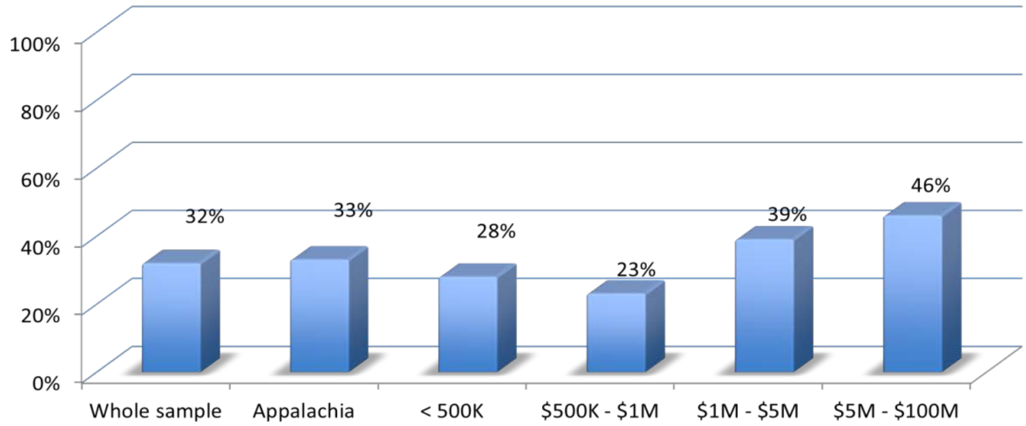
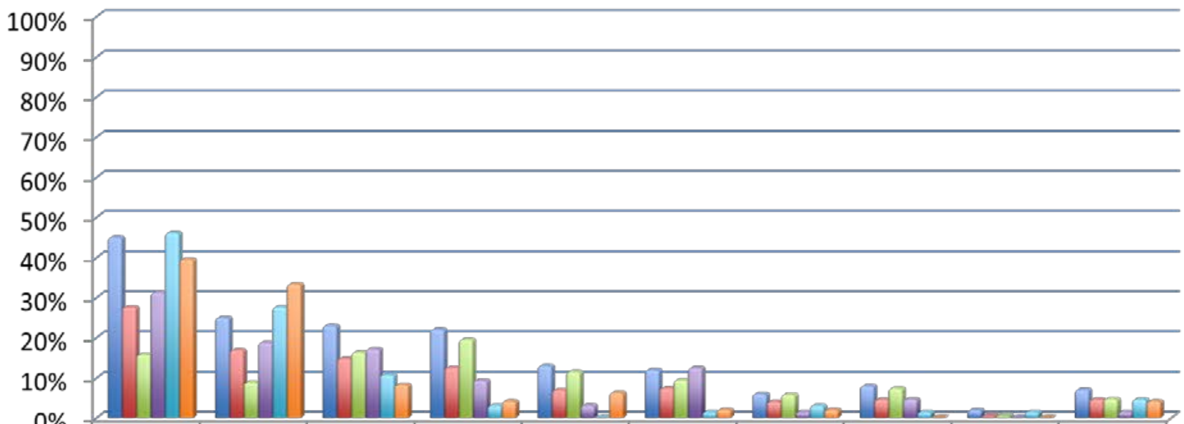


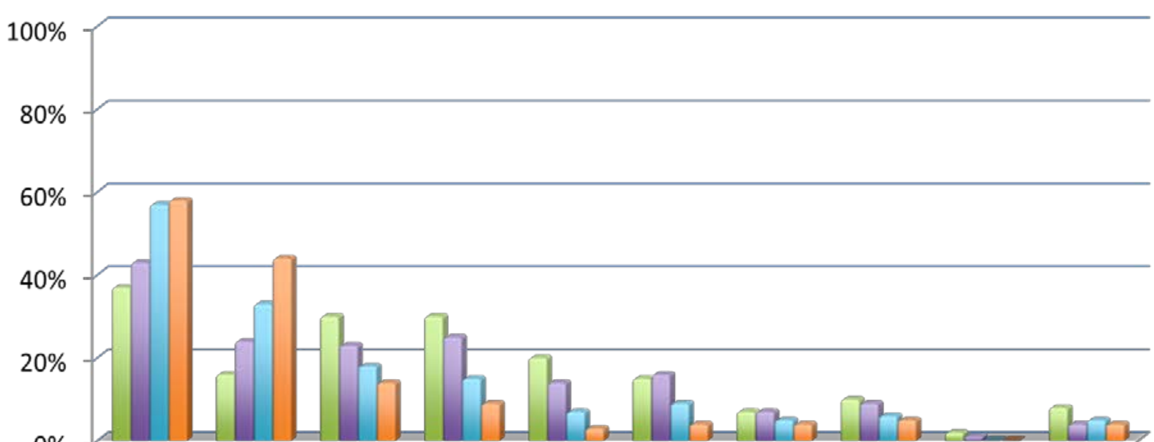
Figure 2-11: Percentage of Respondents Who Attempted to Raise Outside Financing in the Last Three Months, National Revenue Breakouts

Figure 2-12: Reasons for Businesses Not Attempting to Raise External Financing (Multiple Selections)



	Enough cash flow	Sufficient financing in place	Weak economy	Business would be rejected	Lack of expertise	Not enough time	Loss of control / flexibility	Waiting for cheaper financing	Cease operation / liquidate	Other
Whole sample	45%	25%	23%	22%	13%	12%	6%	8%	2%	7%
Appalachia	28%	17%	15%	13%	7%	7%	4%	5%	1%	5%
< 500K	16%	9%	16%	19%	12%	9%	6%	7%	1%	5%
$500K - $1M	31%	19%	17%	9%	3%	13%	2%	5%	0%	2%
$1M - $5M	46%	28%	11%	3%	0%	2%	3%	2%	2%	5%
$5M - $100M	40%	33%	8%	4%	6%	2%	2%	0%	0%	4%

Figure 2-13: Reasons for Businesses Not Attempting to Raise External Financing (Multiple Selections), National Revenue Breakouts



	Enough cash flow	Sufficient financing in place	Weak economy	Business would be rejected	Lack of expertise	Not enough time	Loss of control / flexibility	Waiting for cheaper financing	Cease operation / liquidate	Other
< 500K	37%	16%	30%	30%	20%	15%	7%	10%	2%	8%
$500K - $1M	43%	24%	23%	25%	14%	16%	7%	9%	1%	4%
$1M - $5M	57%	33%	18%	15%	7%	9%	5%	6%	0%	5%
$5M - $100M	58%	44%	14%	9%	3%	4%	4%	5%	0%	4%

Figure 2-14: Percentage Indicating "Yes" to "Is the current business financing environment restricting…"

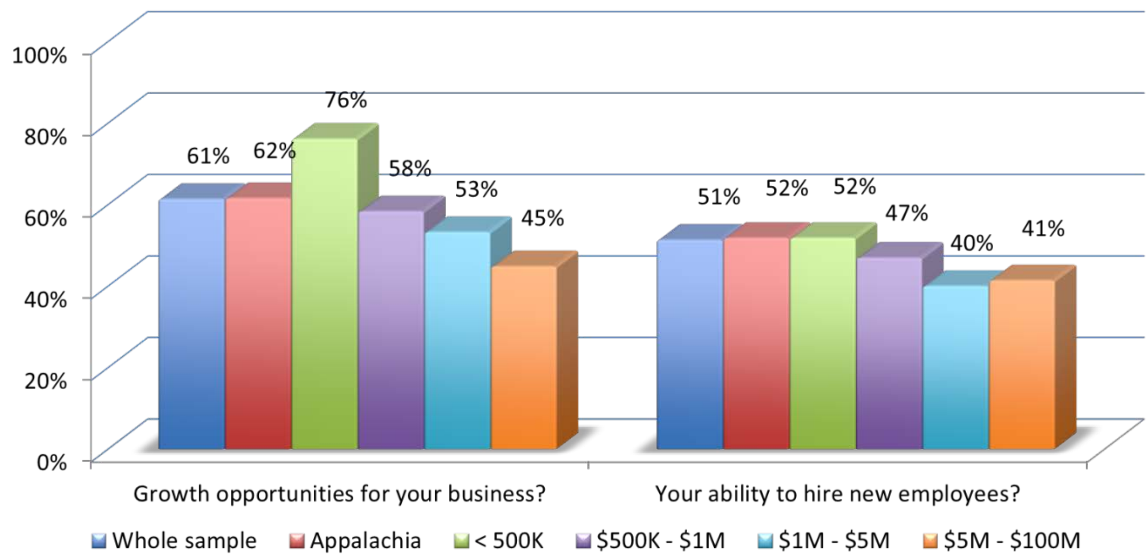
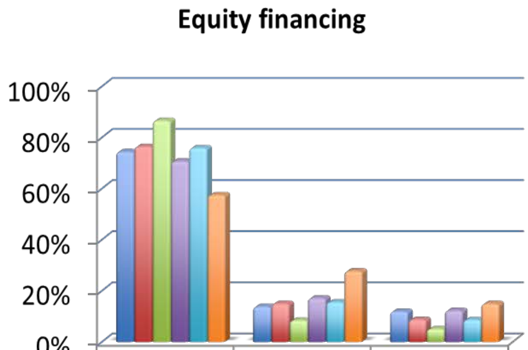
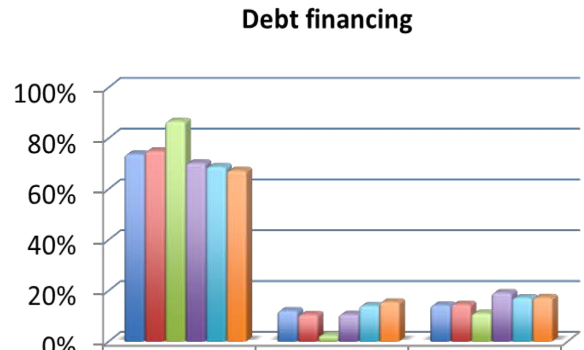


Figure 2-15: Percentage Indicating "Yes" to "Is the current business financing environment restricting…," National Revenue Breakouts

Figure 2-16: Is it Difficult or Easy to Raise New External Financing?

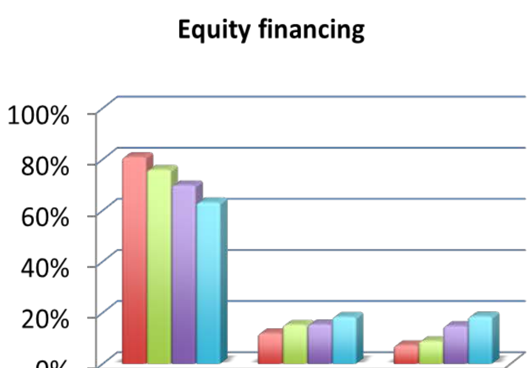


	Difficult	Neither difficult nor easy	Easy
Whole sample	74%	14%	12%
Appalachia	76%	15%	9%
< 500K	87%	8%	5%
$500K - $1M	71%	17%	12%
$1M - $5M	76%	16%	9%
$5M - $100M	57%	28%	15%

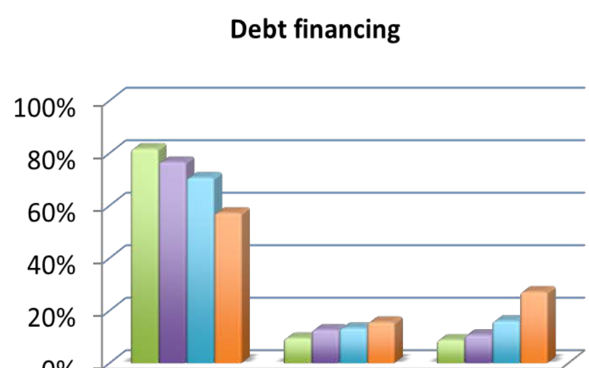


	Difficult	Neither difficult nor easy	Easy
Whole sample	74%	12%	14%
Appalachia	75%	11%	15%
< 500K	87%	2%	11%
$500K - $1M	70%	11%	19%
$1M - $5M	69%	14%	17%
$5M - $100M	67%	16%	17%

Figure 2-17: Is it Difficult or Easy to Raise New External Financing? National Revenue Breakouts



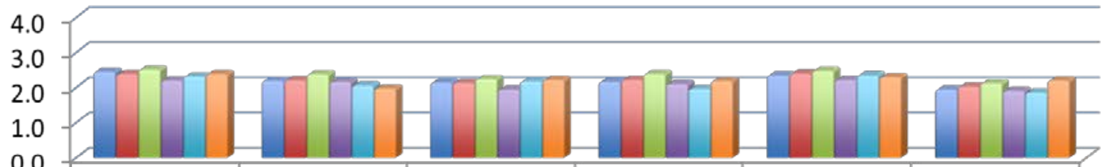
	Difficult	Neither difficult nor easy	Easy
< 500K	81%	12%	7%
$500K - $1M	76%	15%	9%
$1M - $5M	70%	15%	15%
$5M - $100M	63%	18%	19%



	Difficult	Neither difficult nor easy	Easy
< 500K	82%	9%	9%
$500K - $1M	77%	13%	11%
$1M - $5M	71%	13%	16%
$5M - $100M	57%	16%	27%

Figure 2-18: Strength of Demand for Financing

(among those indicating demand)
Scale 1-4: slight, moderate, high, extremely high need



	Planned growth or expansion, including acquisitions (not yet realized)	Working capital fluctuations	Growth due to increased demand (already realized)	Finance worsening operating conditions	Refinance existing loans or equity	Withdraw wealth for owners
Whole sample	2.5	2.2	2.1	2.2	2.4	1.9
Appalachia	2.4	2.2	2.1	2.2	2.4	2.0
< 500K	2.5	2.4	2.2	2.4	2.5	2.1
$500K - $1M	2.2	2.2	1.9	2.1	2.2	1.9
$1M - $5M	2.3	2.1	2.2	2.0	2.4	1.9
$5M - $100M	2.4	2.0	2.2	2.2	2.3	2.2

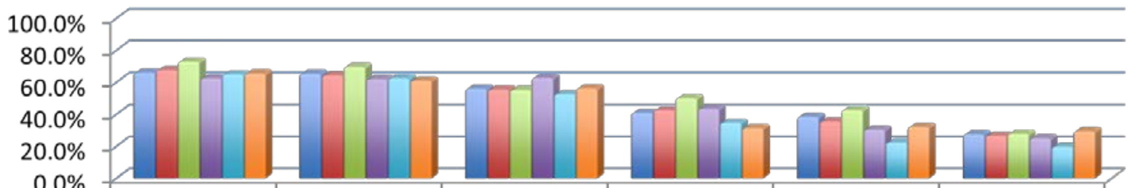
Figure 2-19: Strength of Demand for Financing, National Revenue Breakouts

(among those indicating demand)
Scale 1-4: slight, moderate, high, extremely high need

	Planned growth or expansion, including acquisitions (not yet realized)	Working capital fluctuations	Growth due to increased demand (already realized)	Finance worsening operating conditions	Refinance existing loans or equity	Withdraw wealth for owners
< 500K	2.5	2.3	2.1	2.3	2.4	2.0
$500K - $1M	2.4	2.2	2.1	2.1	2.5	1.8
$1M - $5M	2.3	2.1	2.1	1.9	2.3	1.8
$5M - $100M	2.4	2.1	2.1	2.0	2.3	2.0

Figure 2-20: Demand for Financing by Purpose and Size

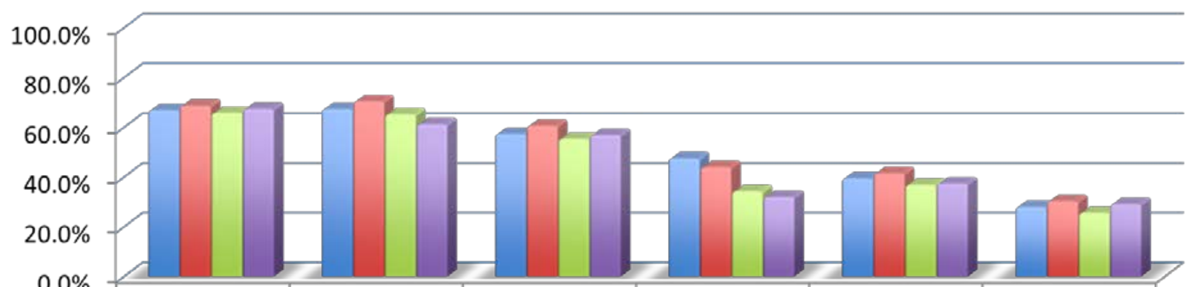
(% with any need reported)



	Planned growth or expansion, including acquisitions (not yet realized)	Working capital fluctuations	Growth due to increased demand (already realized)	Finance worsening operating conditions	Refinance existing loans or equity	Withdraw wealth for owners
US	66.1%	65.3%	56.0%	40.9%	38.4%	27.5%
Appalachia	67.6%	64.3%	55.5%	42.5%	35.4%	26.7%
< 500K	72.9%	69.7%	55.2%	50.0%	42.6%	27.7%
$500K - $1M	62.5%	62.0%	62.7%	43.5%	30.4%	25.0%
$1M - $5M	64.9%	62.5%	52.6%	34.7%	22.4%	19.7%
$5M - $100M	65.5%	61.0%	56.1%	31.4%	32.1%	29.4%

Figure 2-21: Demand for Financing by Purpose and Size, National Revenue Breakouts

(% with any need reported)



	Planned growth or expansion, including acquisitions (not yet realized)	Working capital fluctuations	Growth due to increased demand (already realized)	Finance worsening operating conditions	Refinance existing loans or equity	Withdraw wealth for owners
< 500K	66.8%	67.2%	57.2%	47.4%	39.4%	27.9%
$500K - $1M	68.6%	70.4%	60.6%	43.9%	41.4%	30.3%
$1M - $5M	65.8%	65.1%	55.3%	34.2%	36.8%	25.5%
$5M - $100M	67.3%	61.2%	56.8%	31.9%	37.3%	29.0%

2.2.3 ACCESSIBILITY/SUCCESS RATE

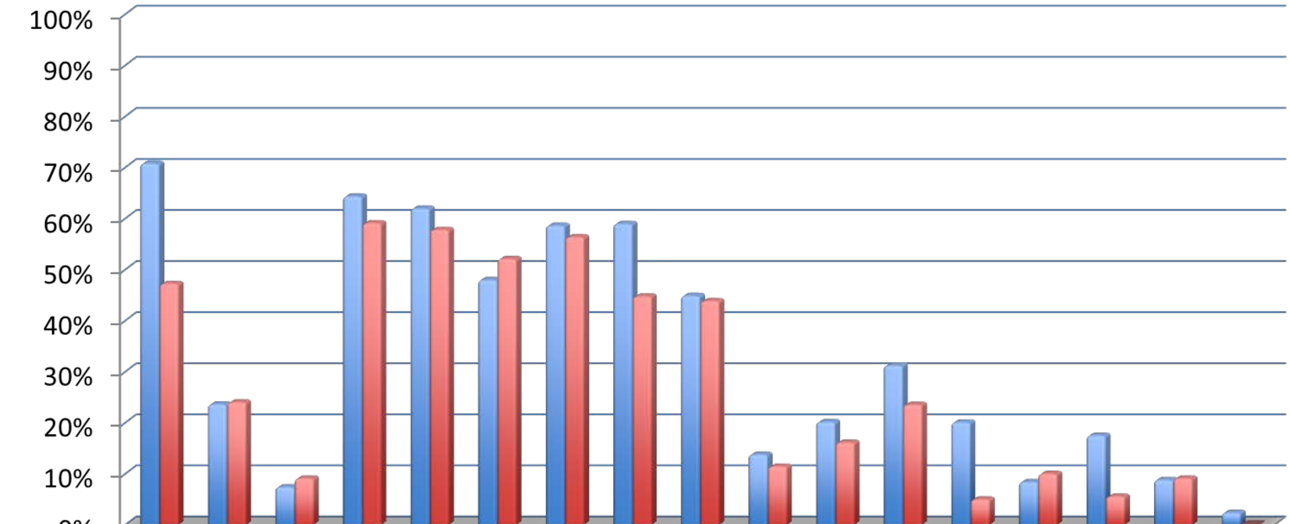
In terms of types of financing secured in the prior three months, survey respondents in the nation and Appalachia were most successful in securing trade credit, personal credit cards, business credit cards, and personal loans. Survey respondents were less successful in securing business loans from banks than obtaining credit cards or trade credit. For example, about 45 percent of the survey respondents in Appalachia and the nation who sought business bank loans secured them compared to 62 and 58 percent of the respondents in the nation and Appalachia, respectively, that secured personal credit cards. Much lower rates of success occurred in securing equity financing for businesses; for example, only 5 percent of the businesses who sought angel capital in Appalachia succeeded in acquiring it. The largest difference in responses from the nation and Appalachia occurred in securing financing from friends and family, with much lower rates of securing this capital in Appalachia, which is not surprising in a region experiencing higher rates of economic distress than the nation as a whole (see Figure 2-22).

For the second smallest business revenue category ($500,000 to $1 million), respondents in Appalachia were strikingly less successful than their counterparts in the nation in raising debt or equity financing. For example, 35 percent and 17 percent of these businesses in the nation and Appalachia, respectively, secured business loans from banks. Likewise, 54 percent and 14 percent of the businesses in this revenue category in the nation and Appalachia, respectively, secured business credit card financing. However, none of the Appalachian respondents in this category secured angel investments, while 12 percent of the national respondents did so (see Figures 2-23 and 2-24).

Another way of gauging the degree of success in securing financing is the extent to which business owners feel compelled to transfer their personal assets to their businesses. In the nation and Appalachia, about 42 percent and 45 percent of the respondents, respectively, transferred their personal assets to their businesses within the last month. Within Appalachia, about 55 percent of the smallest businesses with revenues less than $500,000 followed closely by businesses with revenues between $500,000 and $1 million transferred assets to the businesses. A lower percentage of owners of small businesses in these two revenue categories from the national sample transferred assets to their businesses (see Figures 2-25 and 2-26).

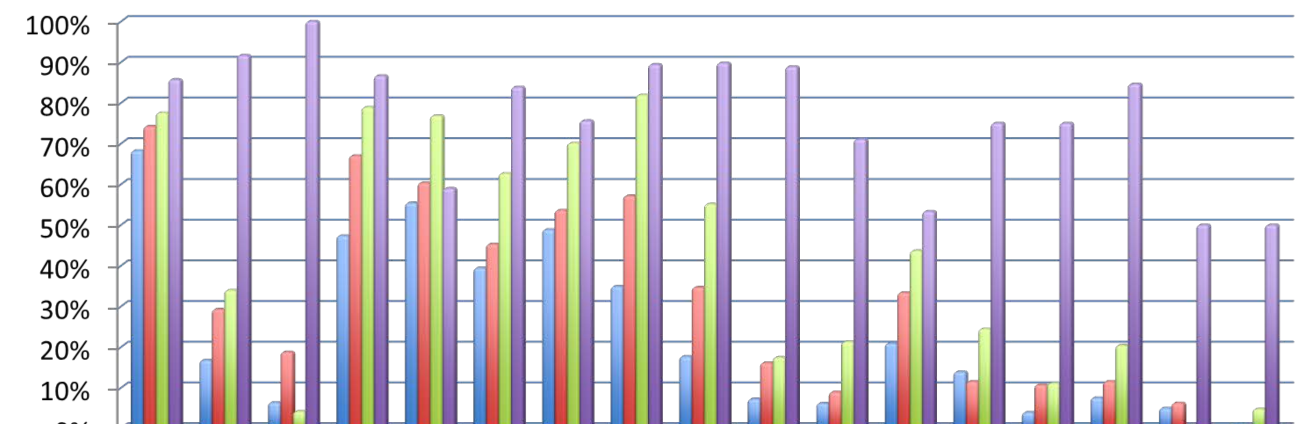
This higher rate of asset transfers by the smaller businesses is most likely due to less success than their larger counterparts to secure the amount of credit needed by their business (see Figure 2-26). In addition, the smallest businesses owners in Appalachia were much more likely to transfer their savings and use of their personal credit cards to fund their businesses than their counterparts in Appalachia or the nation (see Figure 2-27). For example, 81 percent and 68 percent of small business owners with revenues between $500,000 and $1 million in Appalachia and the nation, respectively, transferred their personal savings and investments to their small businesses. Likewise, 52 percent and 44 percent of the owners of small businesses with revenues under $500,000 in Appalachia and the nation, respectively, used their personal credit cards for financing their businesses (see Figures 2-27 and 2-28).

Figure 2-22: Financing Success Rates by Type and Business Size for Prior Three Months



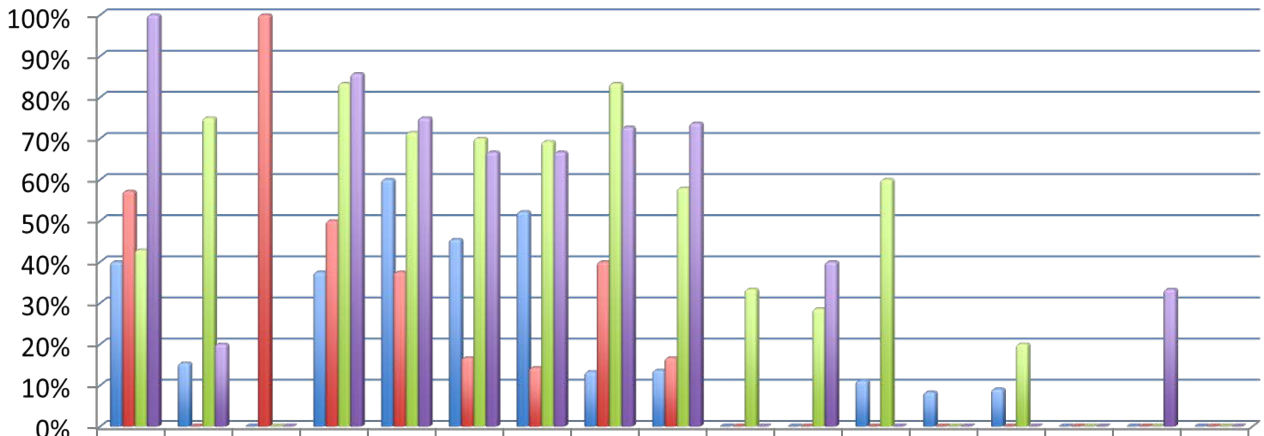
	Friends and family	Grants (SBIR, STTR, etc.)	Crowd funding	Trade credit	Credit card - pers.	Loan - pers.	Credit card - biz.	Lease	Bank loan - biz.	CDFI/ Credit union	Asset based lender	Factor	Angel capital	Vent. capital	Private equity group	Mezz. lender	Hedge fund
Whole sample	71%	24%	7%	64%	62%	48%	59%	59%	45%	14%	20%	31%	20%	8%	17%	9%	2%
Appalachia	47%	24%	9%	59%	58%	52%	56%	45%	44%	11%	16%	24%	5%	10%	6%	9%	0%

Figure 2-23: Financing Success Rates by Type and Business Size for Prior Three Months, National Revenue Breakouts



	Friends and family	Grants (SBIR, STTR, etc.)	Crowd funding	Trade credit	Credit card - pers.	Loan - pers.	Credit card - biz.	Lease	Bank loan - biz.	CDFI/ Credit union	Asset based lender	Factor	Angel capital	Vent. capital	Private equity group	Mezz. lender	Hedge fund
< 500K	68%	17%	6%	47%	55%	39%	49%	35%	18%	7%	6%	21%	14%	4%	8%	5%	0%
$500K - $1M	74%	29%	19%	67%	60%	45%	54%	57%	35%	16%	9%	33%	12%	11%	12%	6%	0%
$1M - $5M	78%	34%	4%	79%	77%	63%	70%	82%	55%	17%	21%	44%	24%	11%	20%	0%	5%
$5M - $100M	86%	92%	100%	87%	59%	84%	76%	89%	90%	89%	71%	53%	75%	75%	85%	50%	50%

Figure 2-24: Financing Success Rates by Type and Business Size for Prior Three Months, Appalachian Revenue Breakouts



	Friends and family	Grants (SBIR, STTR, etc.)	Crowd funding	Trade credit	Credit card - pers.	Loan - pers.	Credit card - biz.	Lease	Bank loan - biz.	CDFI/ Credit union	Asset based lender	Factor	Angel capital	Vent. capital	Private equity group	Mezz. lender	Hedge fund
< 500K	40%	15%	0%	38%	60%	45%	52%	13%	14%	0%	0%	11%	8%	9%	0%	0%	0%
$500K - $1M	57%	0%	100%	50%	38%	17%	14%	40%	17%	0%	0%	0	0%	0%	0	0	0
$1M - $5M	43%	75%	0	83%	71%	70%	69%	83%	58%	33%	29%	60%	0%	20%	0%	0%	0%
$5M - $100M	100%	20%	0%	86%	75%	67%	67%	73%	74%	0%	40%	0%	0%	0%	0%	33%	0%

Figure 2-25: Percentage of Owners Who Transferred Personal Assets to Business over Prior Six Months

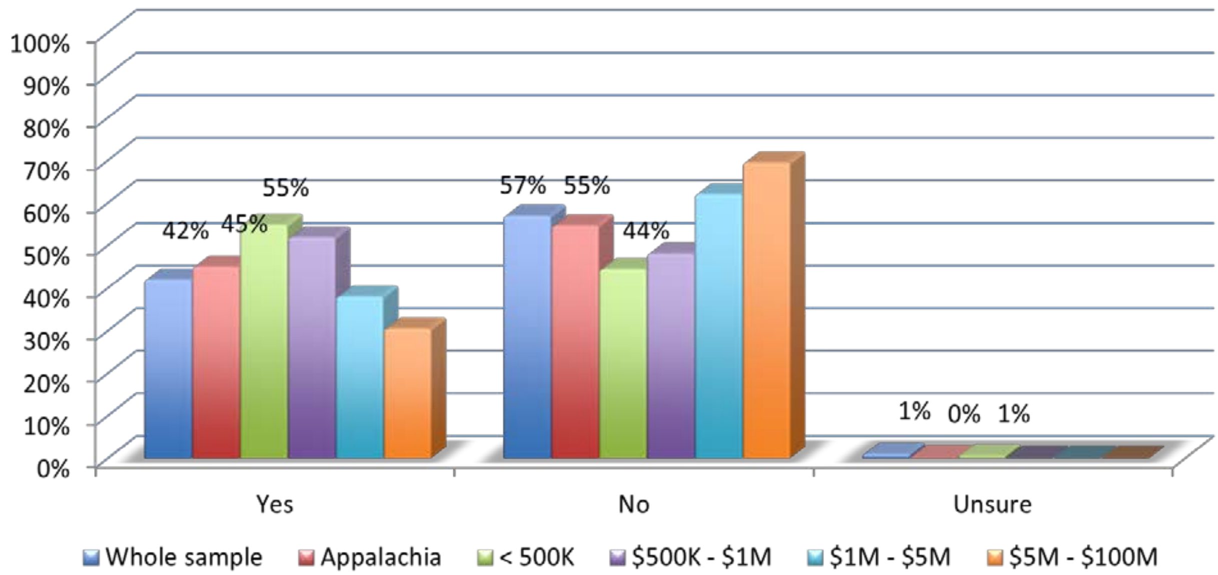


Figure 2-26: Percentage of Owners Who Transferred Personal Assets to Business over Prior Six Months, National Revenue Breakouts

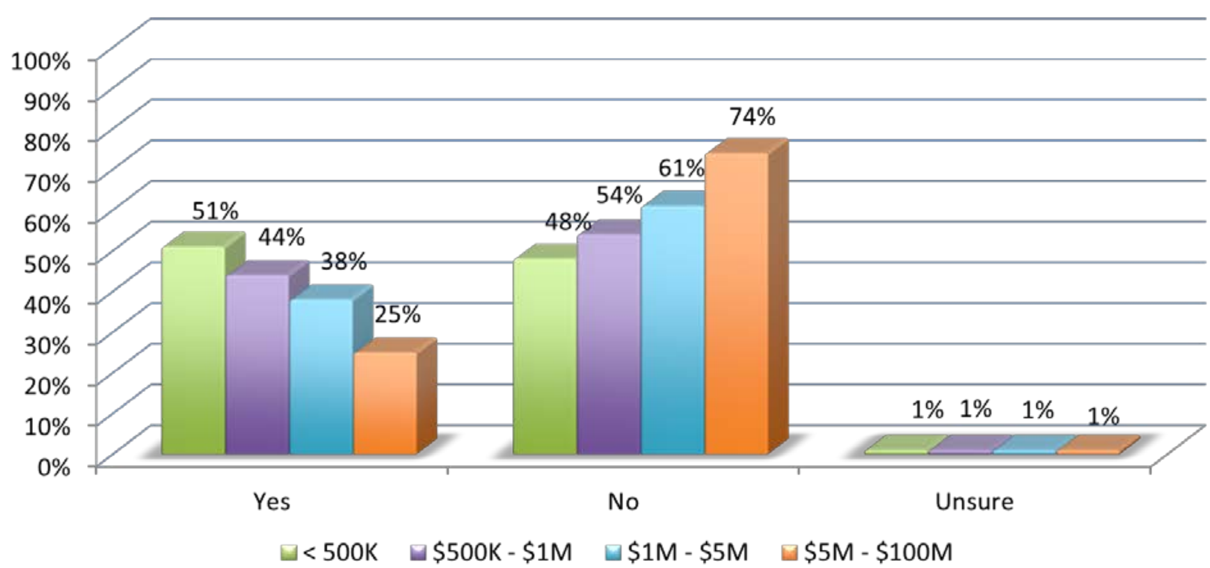
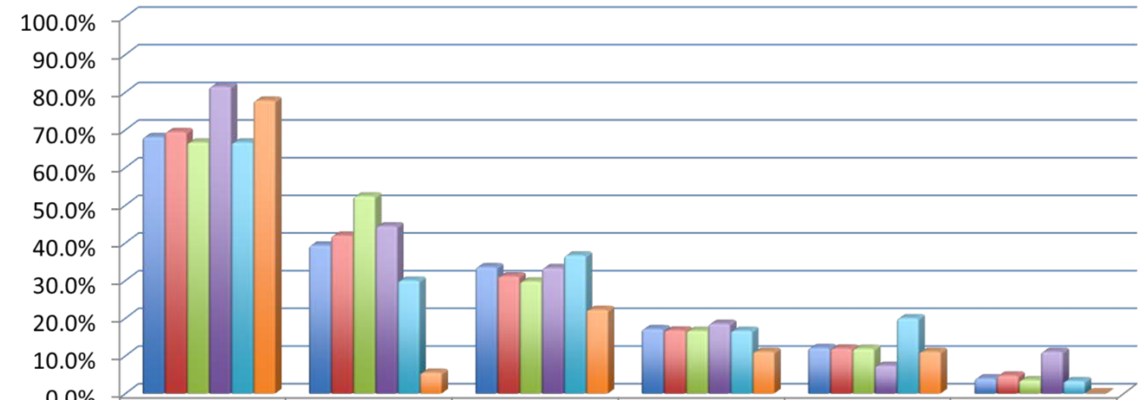
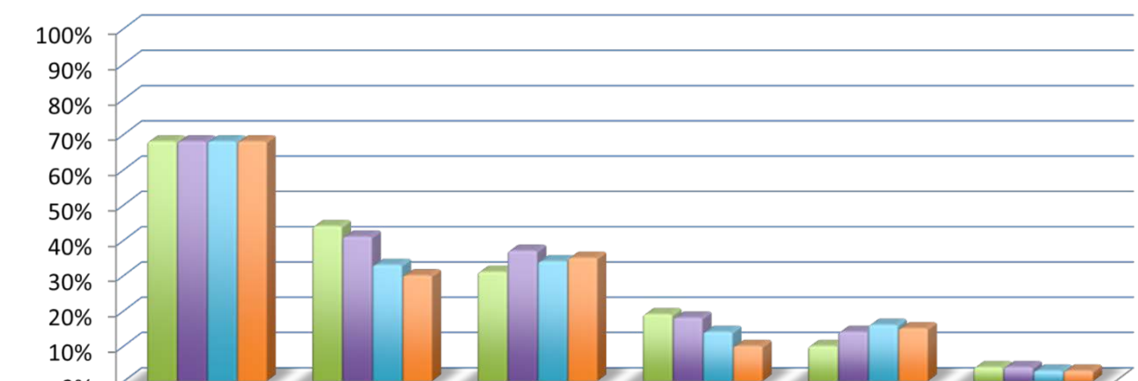


Figure 2-27: Type of Personal Assets Transferred to Business during Prior Six Months (Multiple Selections)



	Personal savings / investments	Personal credit card purchases	Personal loan	Cash from the sale of personal assets	Home equity loan	Other
Whole sample	68.1%	39.4%	33.6%	17.1%	12.1%	4.0%
Appalachia	69.5%	41.9%	31.1%	16.8%	12.0%	4.8%
< 500K	66.7%	52.4%	29.8%	16.7%	11.9%	3.6%
$500K - $1M	81%	44%	33%	19%	7%	11%
$1M - $5M	67%	30%	37%	17%	20%	3%
$5M - $100M	78%	6%	22%	11%	11%	0%

Figure 2-28: Type of Personal Assets Transferred to Business during Prior Six Months, (Multiple Selections), National Revenue Breakouts



	Personal savings / investments	Personal credit card purchases	Personal loan	Cash from the sale of personal assets	Home equity loan	Other
< 500K	68%	44%	31%	19%	10%	4%
$500K - $1M	68%	41%	37%	18%	14%	4%
$1M - $5M	68%	33%	34%	14%	16%	3%
$5M - $100M	68%	30%	35%	10%	15%	3%

2.2.4 EXPECTED FUTURE DEMAND

During the next six months, the percentage of business respondents in the United States who plan on seeking financing was almost the same (31 percent) as the percentage who sought financing in the last three months (33 percent). In contrast, the percentages diverge somewhat in Appalachia with 32 percent seeking financing during the first quarter of 2012 and 28 percent planning on seeking financing during the next six months. The smaller businesses in Appalachia with revenues between $500,000 and $1 million were the least likely to plan to seek financing in the next six months (23 percent) and were even less likely than businesses with revenues under $500,000 (see Figure 2-29). In addition, the businesses in the two smallest revenue categories in Appalachia were significantly less likely to seek financing than their counterparts in the nation (see Figures 2-29 and 2-30).

On a scale of 1 to 4, both businesses in the nation and Appalachia reported a moderate level of interest in seeking financing in the next six months (see Figure 2-31). There were not significant differences by revenue category of businesses.

Another interesting survey finding is that 68 and 64 percent of the respondents seeking financing in the nation and Appalachia, respectively, believed they would secure bank business loans (see Figure 2-32). Compared to any other category of financing, the highest percentage of respondents seeking financing thought that they would approach banks. This is a stark contrast to success rates for securing financing from banks, which was reported to be 45 percent.. Perhaps respondents believe that obtaining credit from banks will become easier, which may be based either on perceptions or actual experience from their peers. Similarly, a much higher percentage of respondents thought they would approach equity sources of financing than those that reported successfully securing equity funding (see Figure 2-32).

In terms of adding workers, the number of workers projected to be added is modest. About one third of the businesses in the nation and Appalachia plans to add no additional employees, and an additional third plans to add one to two employees. About one fifth plan to hire three to five employees, and ten percent of firms to hire 6 to10 employees. A pessimistic interpretation is that two thirds of respondents plan to hire between zero and two employees; an optimistic interpretation is that one third of firms plan to hire three to ten employees. It must be added that almost half of the Appalachian smallest businesses with revenues under $500,000 do not plan to add employees and these businesses constitute about 40 percent of the respondents in Appalachia (see Figure 2-33). The bottom line is that a sizable percentage of respondents in Appalachia plan to add a modest number of employees, but another sizable percentage will not add employees.

Figure 2-29: Percentage of Businesses that Are Planning to Raise Financing in the Next Six Months

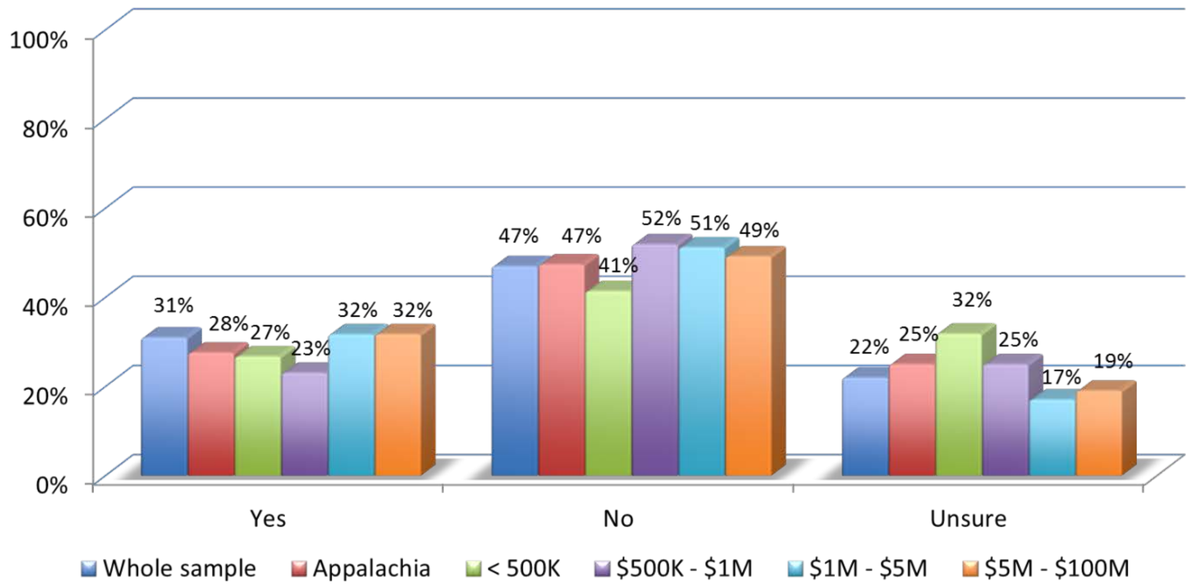


Figure 2-30: Percentage of Businesses that Are Planning to Raise Financing in the Next Six Months, National Revenue Breakouts

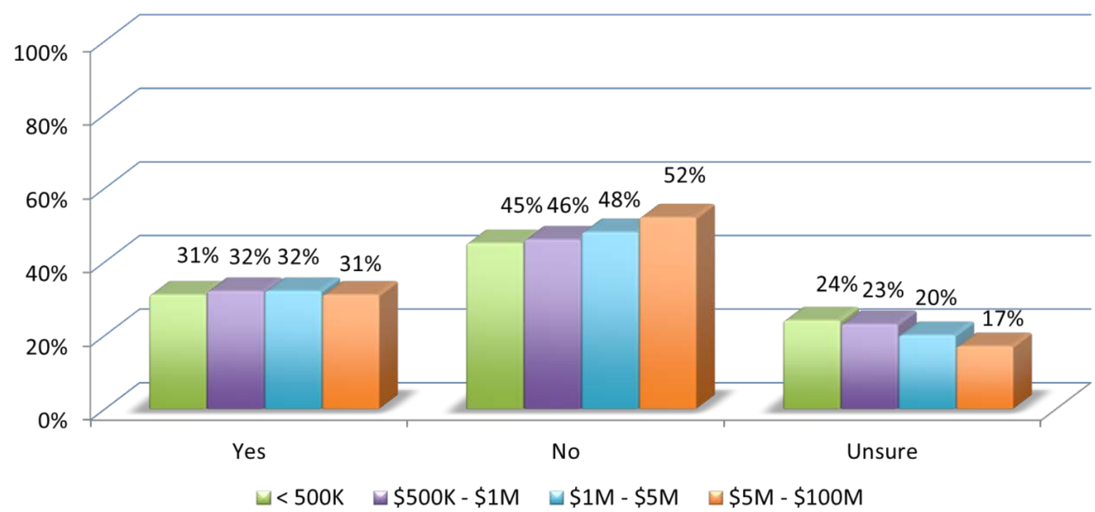
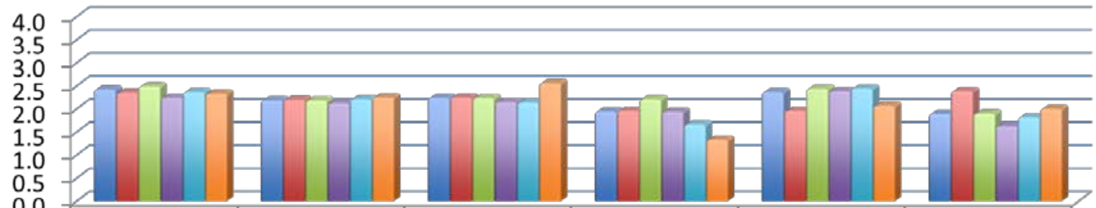
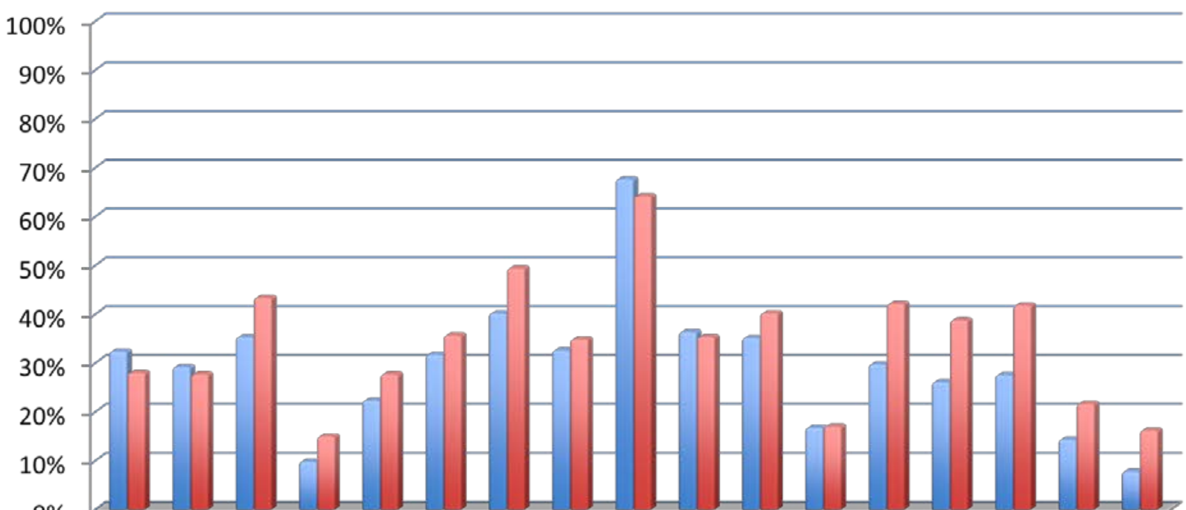


Figure 2-31: Strength of Expected Demand for New External Financing in the Next Six Months
(Scale 1-4: Slight, Moderate, High, Extremely High)



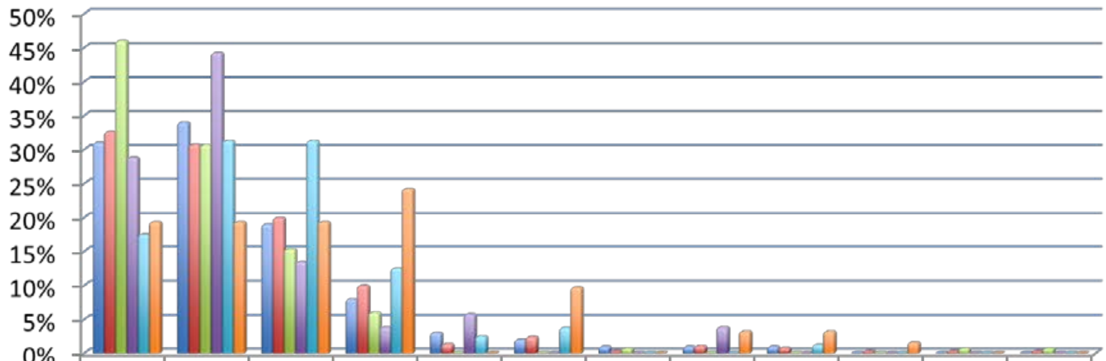
	Planned future growth or expansion	Expected working capital fluctuations	Growth due to expected increased demand	Expected worsening operating conditions	Refinance existing loans or equity	Withdraw wealth for owners
Whole sample	2.4	2.2	2.2	1.9	2.4	1.9
Appalachia	2.4	2.2	2.2	2.0	2.0	2.4
< 500K	2.5	2.2	2.2	2.2	2.4	1.9
$500K - $1M	2.2	2.1	2.1	1.9	2.4	1.6
$1M - $5M	2.4	2.2	2.1	1.7	2.4	1.8
$5M - $100M	2.3	2.3	2.6	1.3	2.1	2.0

Figure 2-32: Likely Sources of Financing



	Friends and family	Grants (SBIR, STTR, etc.)	Crowd funding	Trade credit	Credit card - pers.	Loan - pers.	Credit card - biz.	Lease	Bank loan - biz.	CDFI/ Credit union	Asset based lender	Factor	Angel capital	Vent. capital	Private equity group	Mezz. lender	Hedge fund
Whole sample	32%	29%	35%	10%	22%	32%	40%	33%	68%	36%	35%	17%	30%	26%	28%	14%	8%
Appalachia	28%	28%	43%	15%	28%	36%	49%	35%	64%	35%	40%	17%	42%	39%	42%	22%	16%

Figure 2-33: Number of Employees Planned to Be Hired in the Next Six Months



	0	1-2	3-5	6-10	11-15	16-20	21-30	31-40	41-50	51-75	76-100	101-200
Whole sample	31%	34%	19%	8%	3%	2%	1%	1%	1%	0%	0%	0%
Appalachia	33%	31%	20%	10%	1%	2%	0%	1%	1%	0%	0%	0%
< 500K	46%	31%	15%	6%	0%	0%	1%	0%	0%	0%	1%	1%
$500K - $1M	29%	44%	13%	4%	6%	0%	0%	4%	0%	0%	0%	0%
$1M - $5M	18%	31%	31%	13%	3%	4%	0%	0%	1%	0%	0%	0%
$5M - $100M	19%	19%	19%	24%	0%	10%	0%	3%	3%	2%	0%	0%

2.2.5 SUMMARY OF PEPPERDINE RESULTS

Overall, total business demand for loans appears to be similar in Appalachia and the nation. However, small businesses in the two smallest revenue categories in Appalachia have lower levels of demand for loans than do firms in the nation as a whole. While the smallest businesses in Appalachia indicated they sought financing at lower rates then businesses in the national as a whole, the smallest businesses in Appalachia and the nation reported similar perceptions regarding barriers to financing. In addition, the smallest businesses in Appalachia experienced much less success than those in the nation in obtaining financing.

The box below summarizes the findings of the Pepperdine survey, comparing the national and Appalachian samples, and focuses on the two smallest revenue categories of businesses:

Summary of Results: Pepperdine Survey

- Percentage of respondents who attempted to raise financing – fewer Appalachian firms
- Firms fearing rejection of loan requests – hard to interpret
- Is current financing environment restricting – national and Appalachian perspectives similar
- Difficult or easy to raise debt/equity financing – national and Appalachian perspectives similar
- Success rate of securing debt and equity financing – disadvantage Appalachia, particularly businesses in $500,000 to $1 million revenue category.
- Transferring personal assets to business – disadvantage Appalachia
- Percentage of businesses planning to raise financing – fewer Appalachian firms
- Adding employees in next 6 months – national and Appalachian perspectives similar

2.3 Kauffman Firm Survey

2.3.1 Description of Sample Size

Kauffman Firm Survey (KFS) data are a comprehensive longitudinal study of small businesses in the United States. The sample for the survey was created by a random sampling approach from Dun & Bradstreet's (D&B) database of new firms established in 2004. From approximately 256,000 such firms, Kauffman researchers selected a random sample of 32,469 firms for the baseline survey, conducted between July 2005 and July 2006. In order to proportionally represent high-technology industry and woman-owned businesses in the sample, KFS utilized a stratified sampling approach.

KFS researchers completed detailed interviews for 4,928 firms and conducted the first follow-up for those firms between June 2006 and January 2007. The subsequent interviews were conducted annually for the firms that survived. The survey focuses on the business characteristics, strategy and innovation, demographics of the owners, and business finances. The business finance section, the main focus of the questionnaire, includes topics on debt financing and equity investments.[8]

The survey samples firms in 2007, 2008, and 2009. More than 200 small businesses based in Appalachia responded in 2007 and 2008 and 178 responded in 2009. Like Pepperdine's respondents, the Kauffman sample tends to be over-represented in advantaged counties but perhaps not to the same extent as Pepperdine's. For the 2009 survey, Northern Appalachia has a higher percentage of respondents, while businesses in Central Appalachia are underrepresented. Interestingly, the survey had an over-representation in large metropolitan areas and an under-representation in small metropolitan areas. The disparity between the portion of respondents and businesses in rural counties is smaller in the Kauffman survey than in the Pepperdine survey, but like Pepperdine, attainment counties are over-represented. When considering the Appalachian portion of states, Georgia, New York, and Ohio businesses are over represented, while West Virginia, North Carolina, and Alabama businesses are underrepresented. Overall, Kauffman survey results likely understate the difficulties small businesses in Appalachia encounter, but perhaps not to the same extent as do the Pepperdine data (see Table 2-2 and Figures 2-34 through 2-37).

The percentage of African American owned firms in the sample was similar for Appalachia and the nation, but a lower percentage of Hispanic owned firms was in the Appalachian sample. A slightly higher percentage of Appalachian firms responding to the survey were women-owned. The median number of employees for respondent firms was small, at 3.5 to 4 employees, in the United States and Appalachian samples, respectively (see Tables 2-3 through 2-5 and Figures 2-38 through 2-42).

[8] For more information see "Mulcahy, Timothy M., Robb, Alicia and DesRoches, David, Kauffman Firm Survey: Fifth Follow-Up (August 15, 2011). Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1934895

Figure 2-34: Ratio of Kauffmann Survey Respondents to Total Non-Farm Businesses by Region, 2009

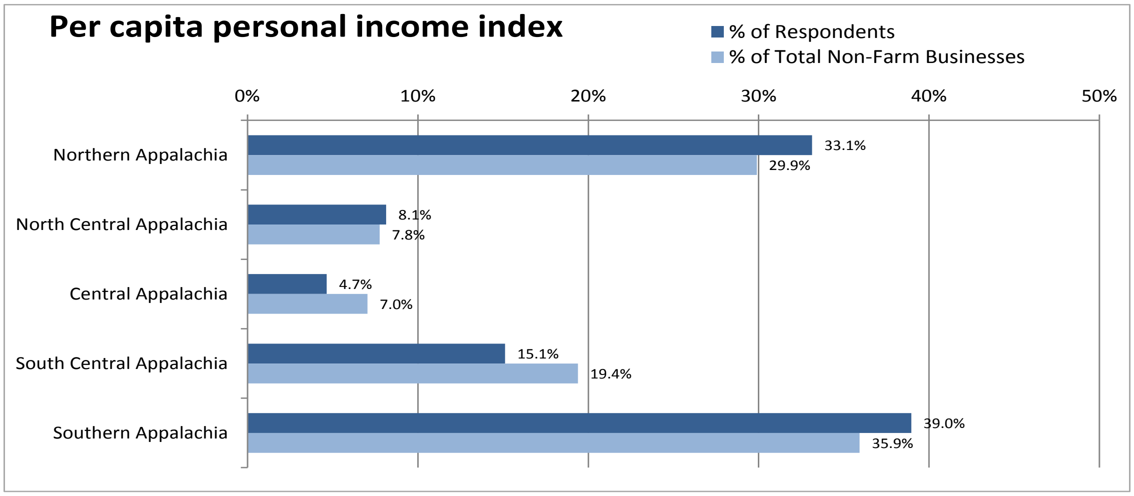


Figure 2-35: Ratio of Kauffmann Survey Respondents to Total Non-Farm Businesses by County Type, 2009

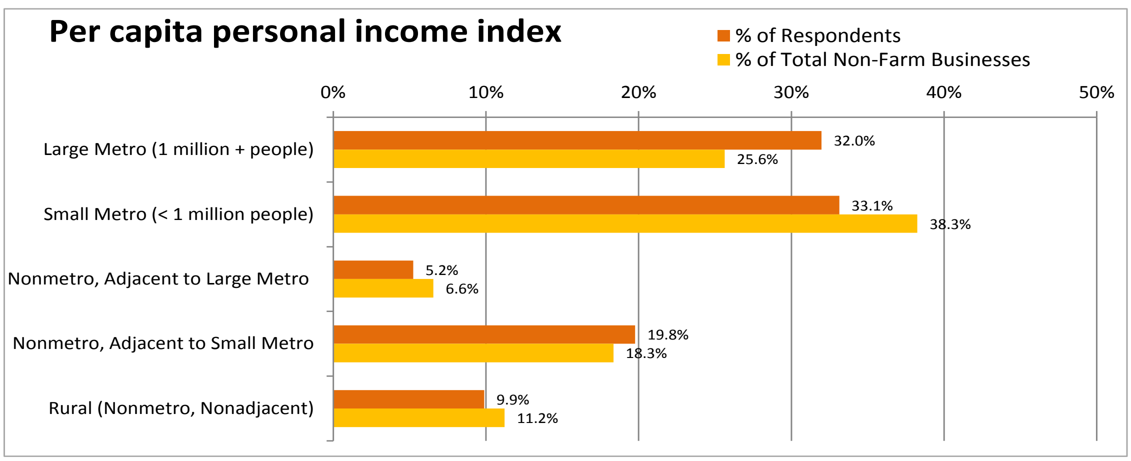


Figure 2-36: Ratio of Kauffmann Survey Respondents to Total Non-Farm Businesses by Economic Status, 2009

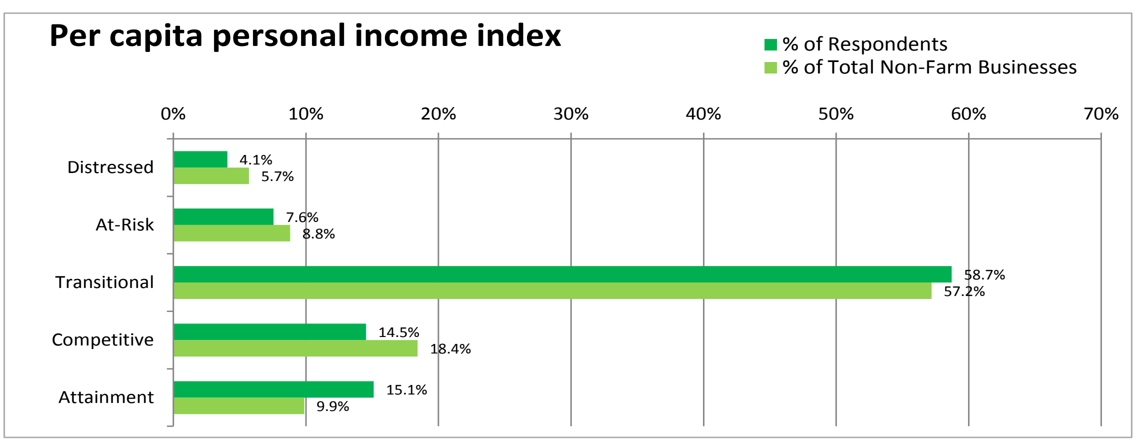


Figure 2-37: Ratio of Kauffman Survey Respondents to Total Non-Farm Businesses by Appalachian States, 2009

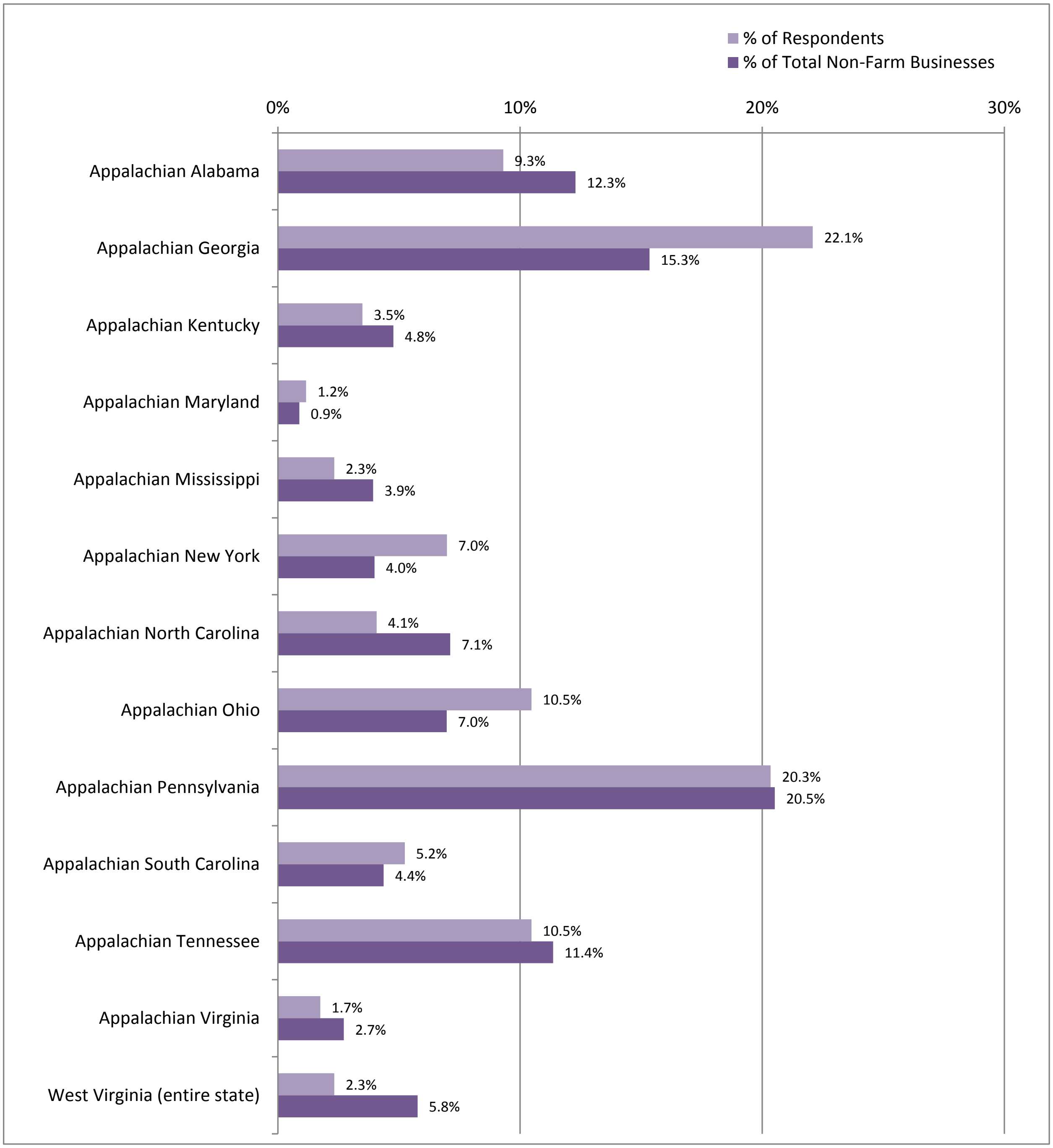


Table 2-2: Number of Respondents for Kauffman Survey and Total Number of Non-Farm Businesses in Appalachia

	Respondents, 2007		Respondents, 2008		Respondents, 2009		Number of Total Non-farm Businesses, 2009		Percentage Point Differences for 2009
	Number	%	Number	%	Number	%	Number	%	
Appalachian Region	206	100.0%	198	100.0%	172	100.0%	1,896,006	100.0%	0.0%
Subregions									
Northern Appalachia	70	34.0%	67	33.8%	57	33.1%	566,597	29.9%	3.3%
North Central Appalachia	15	7.3%	15	7.6%	14	8.1%	146,998	7.8%	0.4%
Central Appalachia	9	4.4%	9	4.5%	8	4.7%	133,545	7.0%	-2.4%
South Central Appalachia	30	14.6%	29	14.6%	26	15.1%	367,703	19.4%	-4.3%
Southern Appalachia	82	39.8%	78	39.4%	67	39.0%	681,163	35.9%	3.0%
County Types									
Large Metro (1 million + people)	68	33.0%	64	32.3%	55	32.0%	485,930	25.6%	6.3%
Small Metro (< 1 million people)	70	34.0%	66	33.3%	57	33.1%	725,240	38.3%	-5.1%
Nonmetro, Adjacent to Large Metro	10	4.9%	10	5.1%	9	5.2%	124,355	6.6%	-1.3%
Nonmetro, Adjacent to Small Metro	37	18.0%	37	18.7%	34	19.8%	347,838	18.3%	1.4%
Rural (Nonmetro, Nonadjacent)	21	10.2%	21	10.6%	17	9.9%	212,643	11.2%	-1.3%
Economic Status									
Distressed	9	4.4%	9	4.5%	7	4.1%	108,061	5.7%	-1.6%
At-Risk	16	7.8%	16	8.1%	13	7.6%	166,976	8.8%	-1.2%
Transitional	118	57.3%	112	56.6%	101	58.7%	1,084,519	57.2%	1.5%
Competitive	32	15.5%	32	16.2%	25	14.5%	349,302	18.4%	-3.9%
Attainment	31	15.0%	29	14.6%	26	15.1%	187,148	9.9%	5.2%
Appalachian States									
Appalachian Alabama	21	10.2%	20	10.1%	16	9.3%	233,034	12.3%	-3.0%
Appalachian Georgia	44	21.4%	41	20.7%	38	22.1%	290,899	15.3%	6.8%
AppalachianKentucky	7	3.4%	7	3.5%	6	3.5%	90,314	4.8%	-1.3%
Appalachian Maryland	2	1.0%	2	1.0%	2	1.2%	16,748	0.9%	0.3%
Appalachian Mississippi	7	3.4%	7	3.5%	4	2.3%	74,511	3.9%	-1.6%
Appalachian New York	14	6.8%	14	7.1%	12	7.0%	75,529	4.0%	3.0%
Appalachian North Carolina	9	4.4%	9	4.5%	7	4.1%	134,841	7.1%	-3.0%
Appalachian Ohio	20	9.7%	20	10.1%	18	10.5%	132,051	7.0%	3.5%
Appalachian Pennsylvania	45	21.8%	42	21.2%	35	20.3%	389,103	20.5%	-0.2%
Appalachian South Carolina	10	4.9%	10	5.1%	9	5.2%	82,719	4.4%	0.9%
Appalachian Tennessee	20	9.7%	19	9.6%	18	10.5%	215,470	11.4%	-0.9%
Appalachian Virginia	3	1.5%	3	1.5%	3	1.7%	51,490	2.7%	-1.0%
West Virginia (entire state)	4	1.9%	4	2.0%	4	2.3%	109,297	5.8%	-3.4%

Figure 2-38: Percent of African American respondents

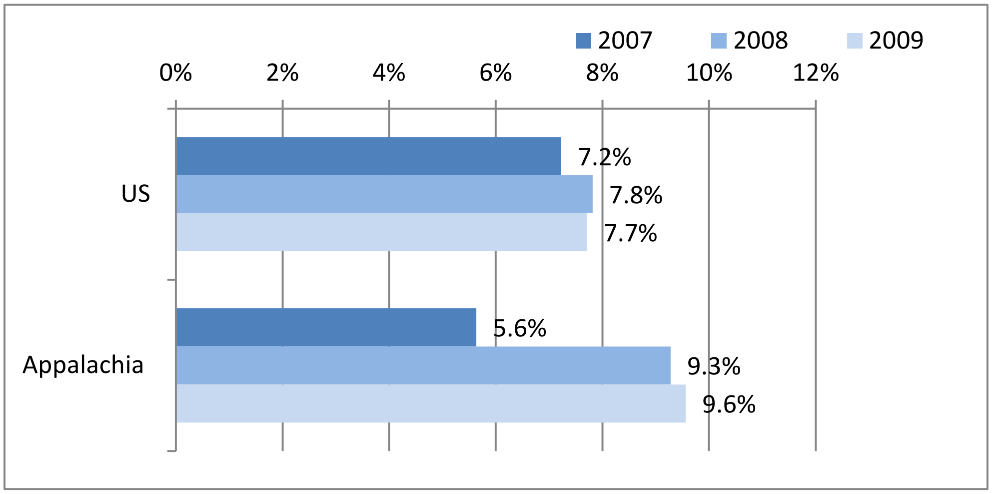


Figure 2-39: Percent of Hispanic respondents

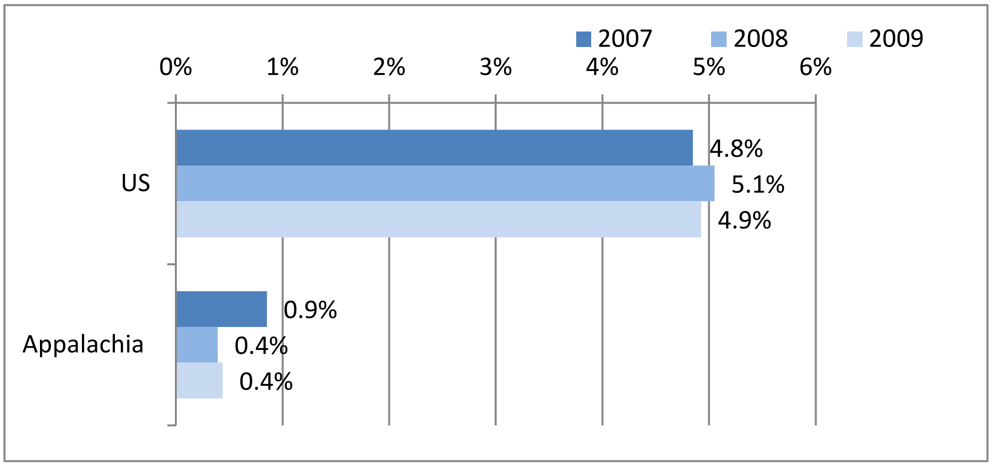


Figure 2-40: Percent of Asian respondents

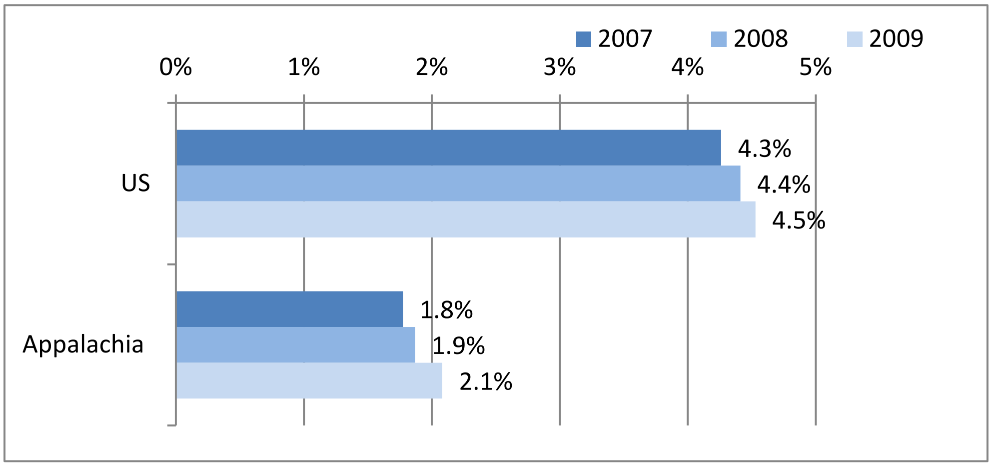


Figure 2-41: Percent of female respondents

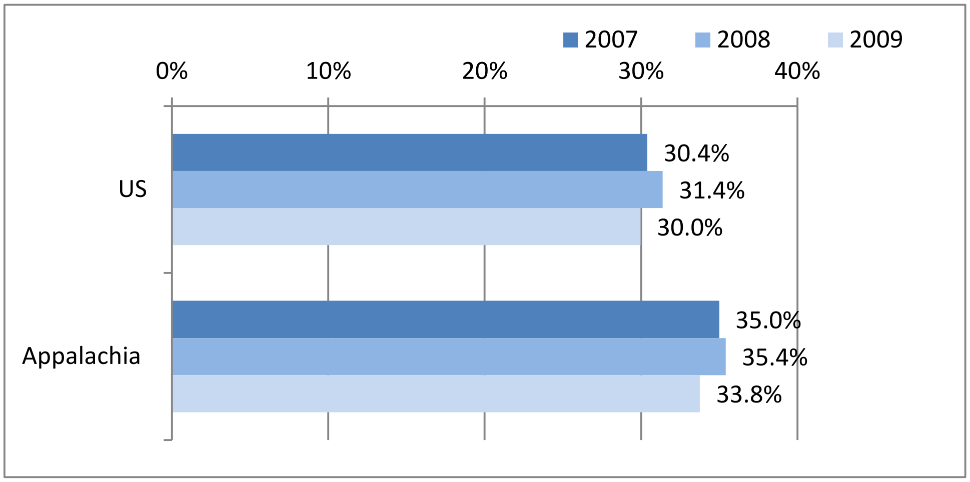


Figure 2-42: Median number of employee in Kauffman Survey in Appalachia and US

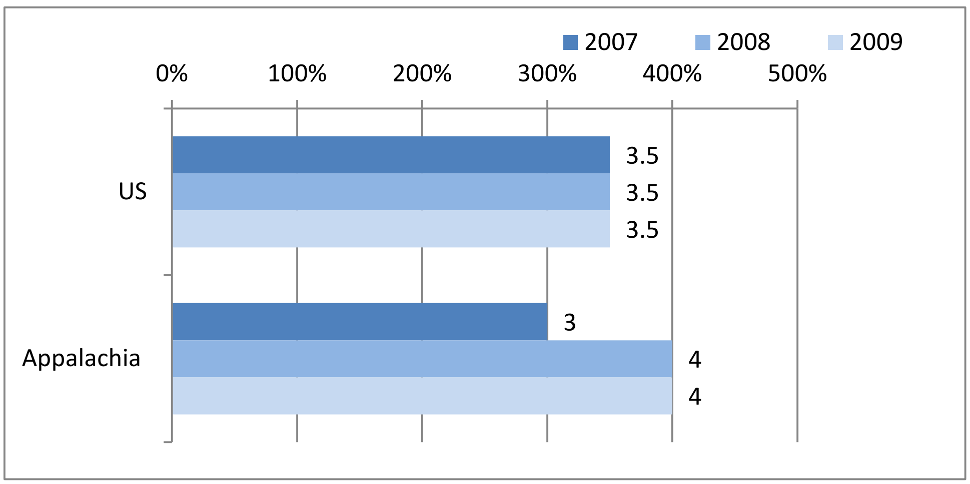


Table 2-3: Percent of respondents in Kauffman Survey by race and ethnicity in Appalachia and US

	African American			Hispanic			Asian		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
US	7.2%	7.8%	7.7%	4.8%	5.1%	4.9%	4.3%	4.4%	4.5%
Appalachia	5.6%	9.3%	9.6%	0.9%	0.4%	0.4%	1.8%	1.9%	2.1%
	Sample Size								
	2007	2008	2009						
US	2,669	2,585	2,380						
Appalachia	201	187	172						

Table 2-4: Percent of female respondents in Kauffman Survey in Appalachia and US

	2007	2008	2009
US	30.4%	31.4%	30.0%
Appalachia	35.0%	35.4%	33.8%
	Sample Size		
	2007	2008	2009
US	2,659	2,571	2,372
Appalachia	200	186	172

Table 2-5: Median number of employee in Kauffman Survey in Appalachia and US

	2007	2008	2009
US	3.5	3.5	3.5
Appalachia	3	4	4
	Sample Size		
	2007	2008	2009
US	1,255	1,253	1,074
Appalachia	107	88	77

2.3.2 Demand for Financing

A small percentage of firms in the sample set in both the United States and Appalachia applied for loans. The percentage of firms applying for credit increased slightly in the United States from 11.8 percent in 2007 to 12.2 percent in 2009 whereas in Appalachia the trend was reversed. About 11 percent of firms in the sample in Appalachia applied for credit in 2007 and 9.8 percent applied in 2009 (see Table 2-6 and Figure 2-43).

An increasing percentage of businesses in Appalachia and the United States desired credit but did not apply because they feared rejection. In the United States, the percentage of businesses in this category 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 (see Table 2-6 and Figure 2-44).

As shown in Table 2-7 and Figure 2-46, the percentage of firms denied credit was significantly higher in Appalachia (22.9 percent in 2009) compared to the United States (8.7 percent in 2009). 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, business and personal credit history were larger factors for loan denial in Appalachia than in the United States.

Just as in the United States, very small percentages of firms in Appalachia received equity investments from any sources. As in the United States, the most frequent sources of equity investments were from spouses, parents, or other individuals, which was the source of equity investments for between 1 to 2 percent of the businesses in Appalachia. The median amount of equity investments have low sample sizes in Appalachia but it appears that the median amounts of equity investments from spouses and parents in Appalachia and the United States are similar (see Tables 2-9 and 2-10).

Figure 2-43: Percent of respondents applying for loans in Appalachia and US

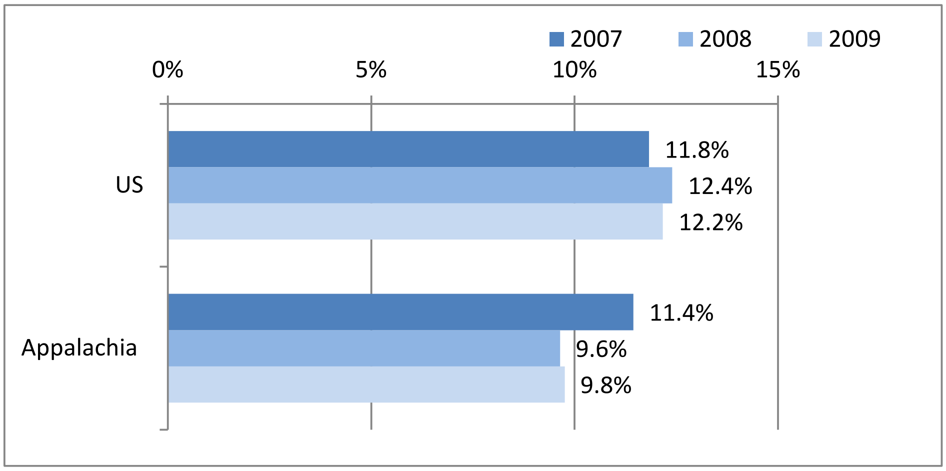


Figure 2-44: Percent of respondents desiring credit, but not applied because feared rejection in Appalachia and US

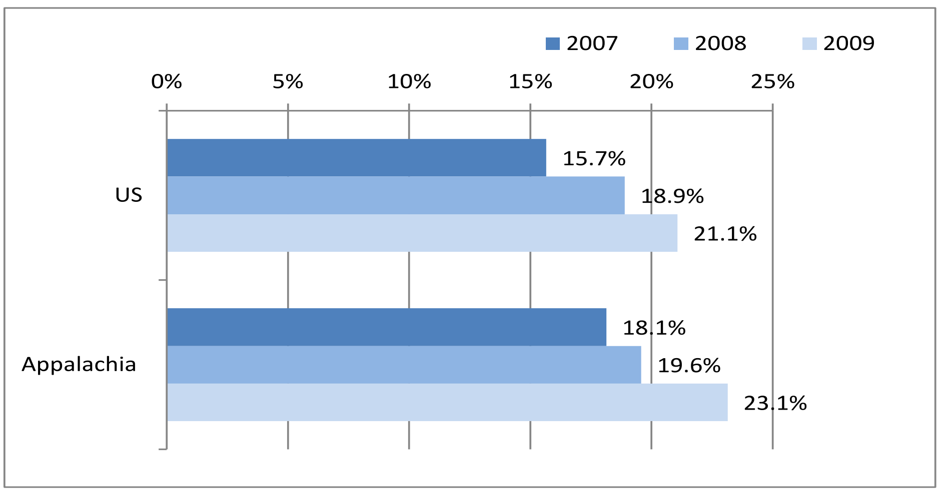


Figure 2-45: Percent of respondents applied for loans and always approved in Appalachia and US

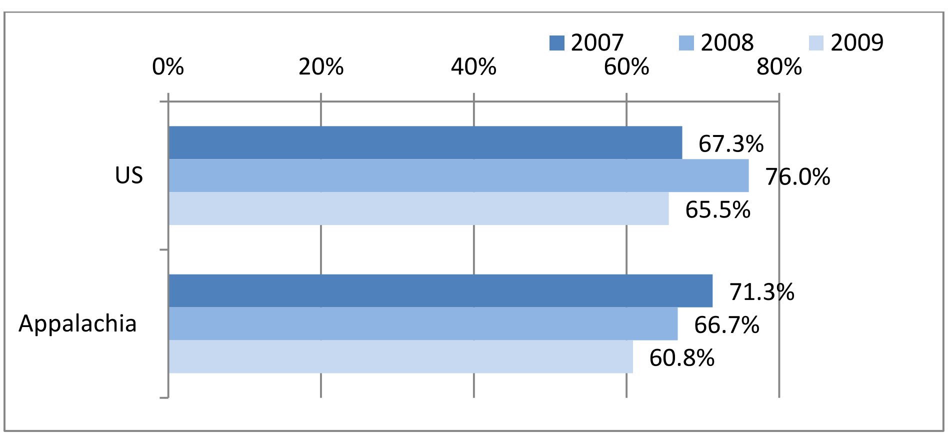


Figure 2-46: Percent of respondents applied for loans and always denied in Appalachia and US

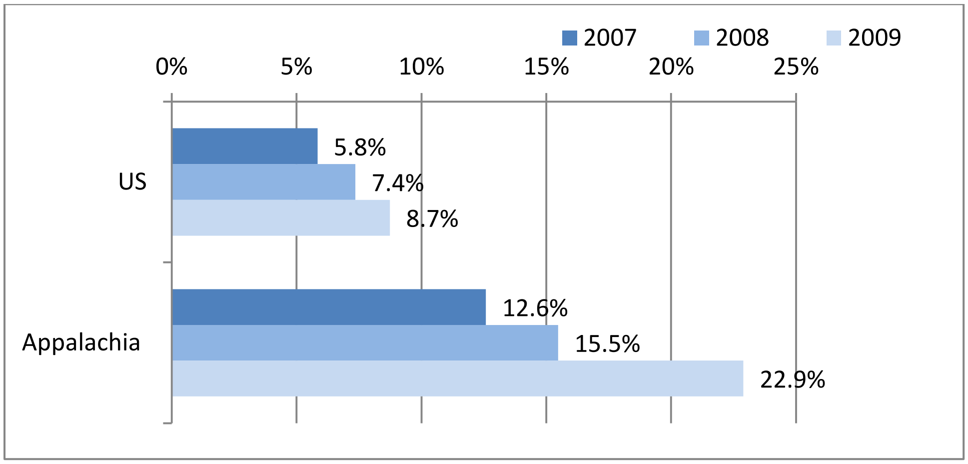


Table 2-6: Percent of respondents applying and not applying loan in Appalachia and US

	Applied for new loans			Needed credit, but not applied because feared rejection		
	2007	2008	2009	2007	2008	2009
US	11.8%	12.4%	12.2%	15.7%	18.9%	21.1%
Appalachia	11.4%	9.6%	9.8%	18.1%	19.6%	23.1%
	Sample Size					
	2007	2008	2009			
US	2,669	2,605	2,408			
Appalachia	203	186	172			

Table 2-7: Percent of respondents approved and denied for loans

	Always approved			Sometimes approved and sometimes denied			Always denied		
	2007	2008	2009	2007	2008	2009	2007	2008	2009
US	67.3%	76.0%	65.5%	26.9%	16.7%	25.7%	5.8%	7.4%	8.7%
Appalachia	71.3%	66.7%	60.8%	16.1%	17.8%	16.3%	12.6%	15.5%	22.9%
	Sample Size								
	2007	2008	2009						
US	338	342	310						
Appalachia	24	19	18						

Table 2-8: Percent of loan denied respondents by denied reason in Appalachia and US

Loan denied reason*	US			Appalachia		
	2007	2008	2009	2007	2008	2009
Insufficient collateral	43.1%	34.3%	41.0%	68.2%	100.0%	50.5%
Loan requested was too large	30.9%	26.3%	17.8%	33.2%	69.4%	15.1%
Inadequate documentation	5.0%	15.4%	5.4%	0.0%	37.7%	3.5%
Business credit history	25.6%	33.0%	34.8%	41.8%	28.2%	67.7%
Personal credit history	45.8%	47.7%	44.2%	74.5%	58.8%	78.3%
Not being in business long enough	31.2%	12.5%	13.7%	17.6%	3.5%	0.0%
Others	8.1%	18.9%	3.6%	0.0%	0.0%	0.0%

	Sample Size		
	2007	2008	2009
US	89	108	103
Appalachia	7	4	6

*Note: Out of the denied loans sample

Table 2-9: Percent of firms receiving equity investment from various sources in Appalachia and US

Obtained equity financing from	US				Appalachia			
	2007	2008	2009	Average	2007	2008	2009	Average
Spouses of owners	0.72%	1.11%	1.44%	1.08%	0.55%	1.55%	2.02%	1.35%
Parents of owners	2.18%	1.70%	1.43%	1.78%	4.20%	3.42%	1.46%	3.06%
Individuals, not spouses of owners	1.55%	1.10%	1.10%	1.26%	0.24%	1.64%	1.84%	1.22%
Other companies	1.05%	1.13%	0.82%	1.00%	0.13%	1.55%	0.00%	0.55%
Government agencies	0.20%	0.13%	0.13%	0.15%	0.49%	0.11%	0.00%	0.21%
Venture capitalists	0.20%	0.17%	0.35%	0.23%	0.00%	0.00%	0.49%	0.16%
Other sources	0.09%	0.49%	0.33%	0.30%	0.00%	0.00%	0.00%	0.00%

	Sample Size		
	2007	2008	2009
US*	1,870	1,806	1,700
Appalachia	123	115	113

*Average sample size for US

Table 2-10: Median equity amount from spouses, parents, and angels in Appalachia and US

Median equity amount from	US			Appalachia		
	2007	2008	2009	2007	2008	2009
Spouses	$20,000	$5,000	$10,000	$12,501	$1,000	$5,200
Parents	$20,000	$20,000	$18,000	$20,000	$52,500	$100,000
Angels	$87,500	$300,000	$100,000	$2,050,000	$2,500,000	$440,000

Sample Size

	US			Appalachia		
	2007	2008	2009	2007	2008	2009
Spouses	13	16	21	2	1	2
Parents	41	31	21	4	4	2
Angels	38	27	29	2	4	4

2.4 COMPARING PEPPERDINE AND KAUFFMAN SURVEYS

The Kauffman survey reports a considerably lower percentage of businesses seeking financing than does the Pepperdine survey, but Pepperdine's data include all types of financing sought, not just loans, and Pepperdine is reporting data for 2012 which most likely reflects increases in demand for financing due to more favorable economic conditions. Yet, even at higher rates of demand, Pepperdine's data show only about one third of small and medium size businesses seek financing. The approval rates for receiving loans are difficult to compare across the two surveys due to differences in the phrasing of survey questions. Businesses that did not apply for financing because of a fear of rejection were of similar magnitude in the two surveys (between 13 and 20 percent). In both surveys, only a small percentage of the respondents used equity financing.

2.5 CONCLUSION

During the last five years, demand for financing was tepid in both the nation and Appalachia. Differences in demand for credit do not appear to account for sizable differences in access rates in the nation and Appalachia. The Pepperdine survey reported a smaller percentage of businesses with revenues between $500,000 and $1 million in Appalachia than the nation seeking financing but differences in other revenue categories were not as pronounced. The Kauffman survey reported low levels of demand in the nation and Appalachia and also suggested that demand did not vary between Appalachia and the nation.

Considering the results of both Pepperdine and Kauffman, it is likely that demand for financing is somewhat less in Appalachia than the nation, particularly among the smallest businesses. Yet, the differences in successfully obtaining financing between businesses in Appalachia and the nation are starker than the differences in demand would suggest. The Pepperdine survey reported that the smaller businesses in Appalachia were less likely to secure financing and were more likely to transfer their personal assets to their businesses than were their counterparts in the nation as a whole.

Small businesses were considerably more successful in acquiring credit card loans than bank loans according to the survey research. This raises concerns since credit card loans are more expensive and are of shorter term than small business bank loans.