ABSTRACT

Two-thirds of rural counties in the United States lost population from 2000 to 2010. At the same time, consumers are changing the way they like to receive bank products and services. With many in the younger generation having smart phones, the need to step inside a bank facility is almost nonexistent. When those two trends are combined with additional costs associated with recently passed bank regulations, there will initially be a negative impact on the profitability of agricultural banks and ultimately on the ability of those banks to continue to serve those counties.

Access to Agricultural Banks in Rural Counties in the Face of Changing Demographics, Evolving Social Preferences, and Increasing Bank Regulations

By Freddie L. Barnard & Elizabeth A. Yeager

Introduction

Imagine a local community, or even county, without a full service bank or a bank branch. Although such a situation might be difficult for many rural residents to imagine, it is a distinct possibility. In fact, that possibility has already become a reality in some counties in rural America. Approximately 40 percent of low-population, completely rural counties in the United States do not have a bank branch located in the county (Ellinger, 2012). Some of those counties have never had a bank branch, while others have had a branch and a bank but recently witnessed it merge with another bank or close.

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To illustrate the situation that currently exists in many rural counties in the United States, nearly two-thirds have lost population since 2010 (Cromartie, 2014). The total number of people leaving those counties totaled nearly 400,000. Several factors have contributed to the population decline, including falling birth rates, an aging population and a declining manufacturing base (Cromartie, 2014). Although there are pockets in the Great Plains that have experienced an increase in population as a result of energy exploration and extraction (i.e., western North Dakota), those areas are not wide spread enough to reverse the overall trend (Anderlik & Cofer, 2014).

In addition to the population decline, social changes are occurring in the country that have resulted in an increasing number of bank products and services being preferred, and even demanded, via mobile devices or online. The implication of these social changes is an increasing number of transactions have occurred, and will likely occur in the future, outside a brick and mortar bank facility. The result is that the economic reality of keeping a bank, or bank branch, open in a rural county with a stagnant or declining population becomes increasingly difficult to justify (Barnard & Yeager, 2013). In 2013, US banks cut a net 1,487 branch locations, the most closures since 2002, according to SNL Financial. Branch numbers have been steadily declining since 2009 and reached the lowest number in the middle of 2013, according to the FDIC. A major reason provided for this change is the desire of consumers for mobile and online services (Chaudhuri, 2014). This trend could be even more pronounced in rural counties with declining populations.

In addition to the demographic and social changes that are occurring in the country, the increased regulatory burden placed on commercial banks resulting from recently enacted legislation will increase operating costs (Dodd-Frank Progress Report, Various Dates). These additional costs will be particularly burdensome for smaller banks that do not have increasing deposit volume over which to spread those additional fixed costs.

This study is used to determine the number of agricultural banks in rural counties with a declining or stagnant population located in the top twenty agricultural producing states. The agricultural banks found to be in operation were then sorted into five size categories as measured by total assets. The agricultural banks with less than $250 million in total assets are then analyzed because they will be most vulnerable to the adverse effects resulting from depopulation, changing consumer preferences, and increased regulation due to their limited size and growth opportunities.

Background

Commercial banks are defined as banks that offer a broad range of deposit accounts, including: checking, savings and time deposits, and extend loans to individuals and businesses (Federal Reserve Bank of San Francisco, 2014). Community banks have certain characteristics that help to define them. Community banks are known to be more "relationship" based rather than "transactional" and focus on providing traditional banking services to their respective communities. Most of their deposits are obtained locally and most of their loans are made to local businesses allowing them to have a stronger connection with their customers and additional information for which to make credit decisions (FDIC Community Banking Study, 2012). Agricultural banks are defined

by the Federal Deposit Insurance Corporation (FDIC) as a bank whose agricultural production loans plus real estate loans secured by farmland exceed 25 percent of the banks total loans and leases (FDIC Glossary).

Commercial banks, as a group, held the largest share of total farm debt in 2009, 45.5 percent, while The Farm Credit System (FCS) held 36.7 percent. The market share for commercial banks has remained stable since 2000, whereas the market share for FCS has been increasing at the expense of other lenders, such as individuals and others such as vendor financing (Robbins, 2009). Hence, commercial banks are the major supplier of loan funds to agriculture, so changes in the number of banks, number and location of bank branches, and the delivery means of loan funds via commercial banks will impact how loan funds are accessed by agricultural producers.

A 2014 study found banks headquartered in depopulating counties tend to focus more on agricultural lending than community banks headquartered elsewhere (Anderlik & Cofer, 2014). The possibility of fewer agricultural banks in rural counties with a declining population should be examined because in addition to having a direct effect on the accessibility to local suppliers of credit for agricultural producers and agribusinesses, it could impact how small business owners, including family farming operations, approach the borrowing relationship with a lender. Losing an agricultural bank, likely a community bank, in a rural county could make obtaining credit more difficult because of the lost relationships and knowledge of the local area, business needs, and repayment ability that may not show up through traditional model-based underwriting (FDIC Community Banking Study, 2012). In addition, transaction costs of having to travel further to a brick and mortar bank would be higher.

Historically, many of the depository and lending needs in rural communities have been satisfied by locally-owned, full-service community banks or savings institutions, a branch of a larger bank headquartered in an urban area, or both. However, a brick and mortar facility that is full-service brings with it fixed costs (i.e., depreciation on buildings and equipment, salaries, etc.) that need to be spread over a large volume of business to be cost-effective and profitable.

Three overarching factors will likely determine the presence of a bank or bank branch facility being located in many rural counties in the US: depopulation; changing customer preferences; and increased regulatory costs. Each of these factors is discussed in the following sections.

Depopulation

The issue of rural depopulation and the implications on delivering financial services was addressed in detail in a 2004 article published in the *FDIC Banking Review* (Walser & Anderlik, 2004). Although the implications discussed in that article are aimed primarily at the Great Plains states, due to a higher rate of depopulation in that region than in other regions of the country, the situation currently experienced in other rural counties throughout the US is similar. A 2014 study came to the same conclusion with the 2004 article, "…despite the adverse effects of depopulation, rural community banks as a group have tended to perform well, but achieving growth remains a challenge" (Anderlik & Cofer, 2014 p. 44).

In the 2004 article, one of the implications of depopulation was the need for increased use of the internet in rural America to deliver bank products and

services (Walser & Anderlik, 2004). The use of the Internet in rural areas is increasing. The adoption of computers and use of the Internet in farm households is similar to that by US households in general; however, it is unlikely that the internet can entirely solve the issue of delivering bank products and services to areas affected by rural depopulation (Abbott, Yarbrough, and Schmidt, 2000).

Changing Customer Preferences

Not only is it more cost-effective to satisfy the financial needs of residents of rural counties by using technology, younger customers may actually prefer the use of technology thanks to convenience and twenty-four hour accessibility. The financial needs of technology-oriented customers are usually satisfied by mobile or online banking and the need for a brick and mortar facility is almost nonexistent. Although some of the more mature and affluent rural residents may desire a community bank or the branch of a larger bank to be located in the county, the number is decreasing and the trend is definitely toward fewer brick and mortar facilities.

The impact of technology on delivering financial products and services was found in a 2012 survey conducted by the Board of Governors of the Federal Reserve. In that survey, it was found that many younger, technology-oriented residents can satisfy their need for financial services through online or mobile banking technology. Ninety-five percent of individuals, age 18 to 24, have a mobile phone and 49 percent have a smartphone. Nearly 21 percent of mobile phone owners used mobile banking during the past twelve months; an additional 11 percent report they will definitely or probably use it in the next twelve months, and an additional 17 percent reported they will use it at some point in the future. Survey results indicated up to 42 percent[1] of mobile users will use mobile banking at some point in the near future (Gross, Hogarth, and Schmeiser, 2012).

Although the 2012 survey found mobile banking to be more popular among younger customers, online banking was more popular than mobile banking for older customers. Individuals between ages 18 to 29 and 30 to 44 accounted for approximately 44 percent and 36 percent, respectively, of mobile banking users, while individuals 60 and over account for only six percent of all mobile banking users. However, 25 percent and 30 percent of customers who use online banking were between ages 18-29 and 30-44, respectively, while 20 percent were 60 and older (Gross, Hogarth, and Schmeiser, 2012).

Increased Regulatory Costs

The impact of increased operating costs associated with more regulatory requirements was discussed in a recent article in the *Wall Street Journal*, in which the impact of increased costs associated with additional internal personnel and outside audit and consulting work would result in increased operating costs. The adverse impact was particularly burdensome for small banks that are already dealing with a low interest rate environment that tends to squeeze the net interest margins for many of those banks (For Sale: 'Too Small to Succeed' Banks, 2014).

In an effort to estimate the impact of increased regulatory requirements on the number of compliance employees needed as a result of increased bank regulatory requirements, the Federal Reserve Bank of Kansas City surveyed community depository institutions in its area in August of 2011 (Feldman, Heinecke, and Schmidt, 2013). They asked those institutions to report

the number of FTEs currently devoted to regulatory compliance and the number they expected to be devoted to compliance in three years to meet the increased regulatory requirements. The findings, by bank asset size category, found that for banks with less than $100 million in total assets FTEs were projected to increase from 1.8 to 2.4 FTEs, or an increase of 0.6 FTE. For banks from $100 to $250 million FTEs were projected to increase from 2.2 to 3.2, or an increase of 1.0 FTE (Feldman, Heinecke, and Schmidt, 2013).

A paper published in May 2013 by officials at the Federal Reserve Bank of Minneapolis projected that 124, or 6.5 percent, of the 1,921 community banks with total assets less than $100 million would become unprofitable if an additional full-time equivalent was added to their staff at an assumed compensation rate of $70,000. Thirty-seven, or 1.9 percent, of the 1,970 community banks between $100 and $250 million in total assets would become unprofitable when two FTEs were added at the same compensation rate per employee. The number of community banks becoming unprofitable due to the addition of FTEs to respond to increased regulatory requirements for the $250-500 million and the $500 million to $1 billion size categories were seven and one, respectively (Feldman, Heinecke, and Schmidt, 2013).

The Challenge for Agricultural Banks Located in Rural Counties

Although the younger segment of the population desires mobile or online banking services, a segment of the market in rural counties prefers a bank or bank branch be located in the county to provide financial products and services. They would desire that financial institution to not only accept deposits, but also perform important roles as providers of relationship-based and information intensive banking services. There are two primary consumers of such products and services: small businesses, including some family farms; and depositors of low to moderate wealth (Keeton, Harvey, and Willis, 2003).

The owners of many small businesses, including some agricultural businesses, want loan officers to take into account a wide variety of factors when considering loan requests, including the character of the borrower and local market conditions. This is in contrast to large, money center banks that tend to rely more on credit scoring models when considering loan requests to smaller businesses. Furthermore, loans to small businesses often require close, long-term relationships with the borrower, which requires cost-increasing time and effort (Hoeing, 2003).

Depositors of low and medium wealth may also desire a relationship with a financial institution. These depositors may desire individual customer service for specialized financial products. However, specialized legal, investment, tax, trust, or other financial services needed by those customers usually requires expertise in areas such as estate planning, tax management, investment advisory services, etc. Because staffing costs typically represent 75 to 80 percent of a trust department's operating budget (Larrabee, 2006), the cost of providing such services may be beyond what can profitably be offered by some locally-owned, community banks.

Consequently, the delivery means for financial products and services to rural residents are in a state of transition. The major challenge for not only agricultural banks located in rural counties but for all providers of financial products and services is how to profitably deliver

financial products and services in a manner that satisfies the financial needs of both segments of the market.

Data

This study uses Federal Deposit Insurance Corporation (FDIC) Call Report data for agricultural banks located in the top twenty agricultural producing states in the United States. The top twenty agricultural producing states are determined by ranking the states in accordance with the value added to the US economy by the agricultural sector via the production of goods and services. Data is reported by the Economic Research Service of the United States Department of Agriculture.

With the recent release of the 2010 US Census county data, the counties located in each state with a stagnant or declining population can be determined. The number and size of the agricultural banks located in those counties can then be determined using the FDIC Call Report Data. In addition, the size of those agricultural banks is reported in terms of total assets. In order to provide structure and consistency in the discussion, the definitions used for agricultural production, rural counties, and agricultural banks are provided.

Value of Agricultural Sector Production

The value added to the US economy by the agricultural sector via the production of goods and services is used to determine the top twenty agricultural producing states. The number includes cash receipts, home consumption, and inventory adjustments for both crops and livestock. In addition, the measure includes the gross imputed rental value of farm dwellings, machine hire, custom work, and other farm income. The measure is available in nominal dollars for each state. Data used in this study is for 2012 (Value Added to the US Economy, 2014).

Rural County Definition

Any classification system used to define rural, rural/mixed, and urban counties has limitations, since many counties have a mix of both urban and rural areas (Cromartie & Bucholtz, 2008; Isserman, 2005; Waldorf, 2007). However, the system that appears to be most applicable for evaluating rural counties that depend primarily on agricultural production was used in a 2013 study conducted by Ayres, Waldorf, and McKendree. The criterion used in the 2013 study is used in this analysis to determine rural counties and is provided in Table 1.

Many rural counties have experienced either a stagnant or declining population growth over the past decade. That trend has had, and continues to have, an impact on the economic feasibility of opening, or even continuing to operate, a brick and mortar facility in that county. The US Census county data for 2000 and 2010 will be used to determine the population growth rate for each rural county (United States Census Bureau, 2000 & 2010). Those counties with a declining or zero population growth rate are used in the study.

Agricultural Bank Definition

According to the FDIC, an agricultural bank is defined as a bank whose agricultural production loans plus real estate loans secured by farmland exceed 25 percent of its total loans and leases (FDIC Glossary, No Date). From December 31, 2002 through December 31, 2012, the number of agricultural banks in the US declined by 16.9 percent from 1,823 to 1,515 (FDIC Call Report Data, Various Dates).

The majority of agricultural banks tend to be small in size. Of the top 100 agricultural banks, by concentration

of their loan portfolios, only fourteen had total loan volumes greater than $100 million. Agricultural loan concentrations for those top 100 agricultural banks ranged from 75.97 to 96.92 percent (American Bankers Association, 2013). Over the next decade, the number of agricultural banks located in rural counties is likely to continue to decline. That will particularly be the case in rural counties with stagnant or declining population growth.

At the same time, large commercial banks have a substantial share of the agricultural loans made by banks. Of the 100 largest US banks in 2008, only one satisfied the definition of an agricultural bank. However, those 100 largest commercial banks held 26 percent of the banking industry's agricultural loans (Cofer, Walser, and Osborne, 2008).

Results

The top twenty agricultural states, by value added to the US economy, are listed in Table 2, along with the number of agricultural banks located in those respective states, as of the March 31, 2014 FDIC call report. Of the 1,505 agricultural banks in the US on that date, 1,407 (93.5 percent) are located in those twenty states. The top five states in terms of number of agricultural banks in decreasing order are Iowa, Illinois, Nebraska, Kansas, and Minnesota. There are no agricultural banks in North Carolina and fewer than ten in California, Florida, Michigan, and Washington. However, that should not be interpreted as an absence of agricultural lending by commercial banks in those states. Instead, the percentage of agricultural loans to total loans for individual banks located in those states did not result in any banks exceeding 25 percent, which is the definition used by the FDIC for an agricultural bank.

The number of agricultural banks located in counties with decreasing population from 2000 to 2010 is 731, which is 52 percent of the agricultural banks in those twenty states. Although there is concern about the long-term financial viability of all banks located in counties with decreasing population, those that are particularly vulnerable are the smaller banks. As reported in Table 3, 648 (88.6 percent) of the 731 agricultural banks located in counties with declining population are smaller than $250 million in total assets. Of the remaining 83 (11.4 percent) that are larger than $250 million in total assets, fourteen are larger than $500 million and five of those are larger than $1 billion in total assets (Table 3).

Of the 648 agricultural banks located in counties with decreasing population and less than $250 million in total assets, 430 (66.4 percent) are less than $100 million and 218 (33.6 percent) are between $100 and $250 million in total assets. Of the 648 banks with less than $250 million in total assets, 432 (66.7 percent) or two-thirds are located in five states: Iowa, Illinois, Kansas, Minnesota, and Nebraska (Table 3).

The average size in terms of total assets for the 648 banks is $85.9 million, ranging from $63.7 million in Oklahoma to $134.3 million in Arkansas. As can be seen from Table 4, average total assets for banks less than $100 million is only $52.6 million, with average size per state ranging from $40.6 million in Minnesota to $74.9 million in Wisconsin. In fact, the average size is below $50 million in five states: Kansas, Minnesota, Nebraska, South Dakota, and Texas. The average size for the $100-250 million size category is $151.4 million, ranging from $111 million in Georgia to $169.1 million in Illinois. Note that the $215.2 million bank in Michigan is the only bank in that size category for the state of Michigan.

The remainder of this study will focus on agricultural banks smaller than $250 million in total assets that are located in counties with declining populations. The long-term financial viability of those banks is a concern, since the probability of increasing the size of those banks without a merger or acquisition is less for agricultural banks located in counties with increasing population. Furthermore, the relatively small size of those banks makes it difficult to benefit from economies of scale, increasing their lending to commercial farmers and ranchers due to relatively low legal lending limits and diversifying their loan portfolios.

Impact of Additional Regulatory Costs

With declining population growth in many rural counties, it is unlikely deposit volumes will increase substantially. In addition to their small size, declining population, and changing customer desires, these banks also have to deal with the additional fixed costs associated with increased bank regulations. A recent study conducted by the Federal Reserve Bank of Minneapolis staff analyzed the impact on community banks of increased regulatory costs.

They assumed additional costs would result from hiring additional staff to comply with increased regulations and extra audit and consulting services. Their approach considered two additional inputs: the number and compensation rate of additional staff. They assumed the compensation costs for one additional FTE for rural banks would be $70,000 and would apply to all banks less than $100 million in total assets. The added compensation is then subtracted from net income to determine the impact on each bank's profitability. For banks $100 to 250 million in total assets, it was assumed two additional employees would be hired at a total compensation of $140,000 (Feldman, Heinecke, and Schmidt, 2013). The simplicity of the analysis excluded the tax savings from the increase in operating expense due to different specific tax situations for each bank. This approach also does not consider any adjustments to fees that may be charged as a means to recover additional regulatory costs.

Feldman, Heinecke, and Schmidt applied two tests to evaluate the impact of additional costs due to increased regulation (2013). The first test subtracted the additional costs from net income and recalculated the return on assets (ROA). The number of banks that fell below the "minimum required ROA" of the Minneapolis Federal Reserve Bank of 40 basis points (bp) before and after applying the additional regulatory costs were counted and compared. The second test also applied the additional costs of $70,000 per FTE and counted the number of banks that shifted from profitable to unprofitable to determine the impact of the additional compensation costs (Feldman, Heinecke, and Schmidt, 2013).

The same approach is used in this study using 2013 income data and balance sheet data from the December 31, 2012 and 2013 call reports. In the current study, the number of banks less than $250 million and below a ROA of 40 bp increased by forty-three (46.2 percent), from 93 to 136 as a result of increased regulatory costs. Most of the increase, thirty-nine banks or 90.7 percent, is for banks with less than $100 million in total assets. Only four of the additional banks are in the $100 to 250 million size category (Table 5). It is also important to note that 34 (79 percent) of the additional banks whose ROA would fall below 40 bp are located in five states (Table 6). Each of those states would experience three or more additional banks with ROA below 40 bp. Total agricultural loan volume for the ninety-seven banks in

those five states with ROA below 40 bp would be $847.9 million. The average total agricultural loan volume per bank would be $8.7 million.

Although the ninety-seven agricultural banks in those five states with ROA less than 40 bp are each heavily involved in agricultural lending, the total amount of loans outstanding for production and farm real estate loans is small relative to total loan amounts outstanding for the agricultural sector. The total amount of non-real estate and real estate debt for the agricultural sector held by commercial banks on December 31, 2012 was $59.9 billion and $59.0 billion, respectively (USDA/ERS Farm Income and Wealth Statistics, 2014). Total loans outstanding for those ninety-seven banks ($847.9 million), as a percentage of total agricultural loans outstanding at commercial banks for farm non-real estate and real estate loans ($118.9 billion), would be only 0.7 percent.

As can be seen in Table 7, thirty (4.7 percent) of the 633 agricultural banks less than $100 million in total assets who experienced positive earnings during 2013 without the added cost of increased regulation would experience negative earnings if earnings are reduced by $70,000. Net income was reduced $140,000 for banks $100-250 million in total assets and none of the 217 banks who experienced positive earnings in 2013 became unprofitable.

All thirty banks that became unprofitable due to increased regulatory costs are located in eight states (Table 8). All of the states are located in either the Great Plains or the Corn Belt, with only Illinois located east of the Mississippi River. Again, eighteen of the thirty banks (60 percent) are located in Kansas and Nebraska.

Summary

Three overarching factors will likely determine the presence of a bank or bank branch facility in many rural counties in the US. Those factors are declining population, changing customer desires, and increased regulatory costs. The ability of agricultural banks in rural counties with declining populations to address these concerns will determine which banks survive the challenges ahead. The twelve key findings from this study are listed below.

- Of the 1,505 agricultural banks in the US on March 31, 2014, 1,407 (93.5 percent) are located in the top twenty agricultural producing states;
- Of the 1,407 agricultural banks in the top twenty agricultural producing states, 731 (52 percent) are located in counties in which the population decreased from 2000 to 2010;
- Of those 731 agricultural banks in counties with declining population, 648 (88.6 percent) are smaller than $250 million in total assets;
- Of the 648 agricultural banks less than $250 million in total assets, 432 (66.7 percent) are located in five states: Illinois, Iowa, Kansas, Nebraska, and Minnesota;
- The average size in terms of total assets for those 648 banks is $85.9 million, ranging from $63.7 million in Oklahoma to $134.3 million in Arkansas;
- Average total assets for banks less than $100 million is only $52.6 million, with average size per state ranging from $40.6 million in Minnesota to $74.9 million in Wisconsin;
- Average size for banks less than $100 million in total assets is below $50 million in five states; Kansas, Minnesota, Nebraska, South Dakota, and Texas;
- The number of banks that would have a ROA

below 40 bp in the less than $250 million total assets category would increase from 93 to 136 due to increased regulatory costs, with thirty-nine of the forty-three additional banks in the less than $100 million total asset category;

- Thirty-four of those 43 banks (79 percent) are located in five states: Illinois, Iowa, Kansas, Nebraska, and Minnesota;
- The total agricultural loan volume outstanding for the ninety-seven total agricultural banks in those five states with a ROA less than 40 bp is $847.9 million with $532.8 million (62.8 percent) in two states, Kansas and Nebraska;
- The total agricultural loan volume outstanding for the ninety-seven agricultural banks with a ROA below 40 bp in those five states, as a percentage of the total agricultural loans outstanding in the agricultural sector on 12/31/2012, would be 0.7 percent; and
- Thirty (4.7 percent) of the 633 agricultural banks less than $100 million in total assets, who experienced positive 2013 earnings would experience negative earnings if costs increased by $70,000 to hire one additional compliance officer, with eighteen (60 percent) located in Kansas and Nebraska.

The likely decrease in the number of agricultural banks and reluctance of larger commercial banks to open a branch in rural counties with stagnant or declining population growth will likely result in the loss of an identifying institution for the local communities and an inconvenience for the agricultural loan customers. Although the total amount of agricultural debt affected will be less than one percent of the total agricultural debt in the country, the impact on small community business owners, including many family farming operations, will likely result in the need for borrowers to change their approach to borrowing. This will be needed since many small business owners desire that a number of qualities be taken into account when arriving at a decision to approve a loan. This often results in establishing a borrowing relationship with the lender that includes not only personal knowledge of the business but also of the borrower's character.

Implications

The likely implications of this for farm managers and rural appraisers located in these counties will be increased transaction costs in terms of time to travel to a brick and mortar facility as well as the potential for more of a transaction based rather than relationship based experience with their savings and lending institutions. This will result in the need to supply more comprehensive, timely, and accurate farm records, financial statements, and business information that can be quantified and used in loan analysis tools, since personal knowledge and experience with the operation on the part of the lender will likely not be possible.

Consequently, such a transition will provide opportunities for other lending institutions such as other commercial banks, the Farm Credit System, and various input suppliers located in those, or adjacent, counties. The identification of such opportunities will enable the financial institutions that remain to better focus resources and project future lending opportunities. Furthermore, the financial product and service needs of residents in those rural counties will likely be satisfied increasingly through electronic delivery means. The adoption of computers and the use of the internet and mobile devices such as smart phones will enable providers of financial products and services to deliver financial products and services to rural counties where locating a branch would not be feasible.

Endnotes

[1] The denominator varies for each question regarding mobile banking; therefore, the potential adoption rate is less than the sum of the percentages (Gross, Hogarth, and Schmeiser, 2012).

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Table 1. Criteria for Classifying Counties as Rural, Rural/Mixed and Urban

Measure	Rural	Rural/Mixed	Urban
Population	Less than 40,000	40,000 - 100,000	Over 100,000
Density (people per sq. mi.)	Less than 100	100 - 200	Over 200
Population of largest city	Less than 10,000	10,000-30,000	Over 30,000

Source: Ayres, J., B. Waldorf, and M. McKendree. 2013. Defining Rural Indiana – First Step, Center for Rural Development. Purdue University. EC-766-W.

Table 2. Value Added to the U. S. Economy by the Agricultural Sector via the Production of Goods and Services in 2012 for the Top Twenty Agricultural States and Number of Agricultural Banks, as of March 31, 2014

State	Agricultural Value Added ($1,000)	Number of Agricultural Banks
California	$47,917,703	6
Iowa	33,404,346	237
Texas	27,633,211	92
Nebraska	25,582,008	166
Minnesota	23,770,657	142
Illinois	19,949,935	172
Kansas	18,653,909	162
North Carolina	13,494,517	0
Wisconsin	13,474,088	49
Indiana	13,015,150	22
North Dakota	11,708,716	66
Missouri	11,543,653	88
Georgia	11,528,008	19
South Dakota	11,265,874	58
Ohio	11,210,625	14
Washington	10,363,320	5
Arkansas	10,306,982	23
Michigan	9,327,393	9
Florida	9,084,148	5
Oklahoma	8,506,253	72
Total	**$341,740,496**	**1,407**

Sources: Economic Research Service of the United States Department of Agriculture, 2014 and Federal Deposit Insurance Corporation Call Report, March 31, 2014.

Table 3. Number of Agricultural Banks Headquartered in Counties with Declining Population from 2000 to 2010, by Total Asset Category, as of March 31, 2014

State	Total	<100M	100-250M	250-500M	500M-1B	>1B
California	0	na	na	na	na	na
Iowa	122	56	49	15	1	1
Texas	41	27	8	4	0	2
Nebraska	99	63	25	8	2	1
Minnesota	67	49	13	3	2	0
Illinois	76	41	26	9	0	0
Kansas	122	78	32	11	1	0
North Carolina	0	na	na	na	na	na
Wisconsin	7	3	3	0	1	0
Indiana	8	1	3	4	0	0
North Dakota	52	33	14	4	1	0
Missouri	36	18	15	3	0	0
Georgia	9	5	3	1	0	0
South Dakota	36	20	12	2	1	1
Ohio	3	3	0	0	0	0
Washington	0	na	na	na	na	na
Arkansas	13	3	8	2	0	0
Michigan	4	2	1	1	0	0
Florida	0	na	na	na	na	na
Oklahoma	36	28	6	2	0	0
Total	**731**	**430**	**218**	**69**	**9**	**5**

Sources: U.S. Census Bureau, County Data, 2000 and 2010 and Federal Deposit Insurance Corporation Call Report, March 31, 2014.

Table 4. Average Total Assets of Agricultural Banks less than $250 Million in Total Assets Headquartered in Counties with Declining Population from 2000 to 2010, by Total Asset Categories, as of March 31, 2014

State	Total	<100M	100-250M
		$1,000	
California	na	na	na
Iowa	$103,985	$60,405	$153,791
Texas	72,509	49,680	149,557
Nebraska	77,944	48,945	151,022
Minnesota	67,496	40,644	168,705
Illinois	102,806	60,760	169,110
Kansas	77,821	48,186	150,058
North Carolina	na	na	na
Wisconsin	117,366	74,931	159,802
Indiana	111,162	59,646*	128,334
North Dakota	84,174	60,845	139,166
Missouri	95,879	59,722	139,268
Georgia	76,056	55,079	111,017
South Dakota	81,581	49,354	135,292
Ohio	74,457	74,457	na
Washington	na	na	na
Arkansas	134,322	61,102	161,780
Michigan	114,517	64,195	215,162*
Florida	na	na	na
Oklahoma	63,681	50,673	124,387
Total	**$85,874**	**$52,634**	**$151,439**

* Denotes only one bank in the state in that size category

Sources: U.S, Census Bureau, County Data, 2000 and 2010 and Federal Deposit Insurance Corporation Call Report, March 31, 2014.

Table 5. Number of Agricultural Banks with ROA less than 40 Basis Pints without and with the Additional Regulatory Costs for Banks Smaller than $250 Million in Total Assets, by Total Asset Category, as of March 31, 2014

	Less Than $250M		<$100M		$100-$250M	
	Less than 40 BP		Less than 40 BP		Less than 40 BP	
State	w/o Reg.	w/Reg.	w/o Reg.	w/Reg.	w/o Reg.	w/Reg.
California	na	na	na	na	na	na
Iowa	13	16	12	15	1	1
Texas	9	11	8	10	1	1
Nebraska	10	20	10	18	0	2
Minnesota	7	12	7	12	0	0
Illinois	10	13	9	12	1	1
Kansas	23	36	21	34	2	2
North Carolina	na	na	na	na	na	na
Wisconsin	0	0	0	0	0	0
Indiana	0	1	0	0	0	1
North Dakota	6	6	6	6	0	0
Missouri	1	3	1	3	0	0
Georgia	3	3	3	3	0	0
South Dakota	6	7	6	7	0	0
Ohio	0	0	0	0	na	na
Washington	na	na	na	na	na	na
Arkansas	0	0	0	0	0	0
Michigan	2	2	2	2	0	0
Florida	na	na	na	na	na	na
Oklahoma	3	6	3	5	0	1
Total	**93**	**136**	**88**	**127**	**5**	**9**

Sources: U.S, Census Bureau, County Data, 2000 and 2010 and Federal Deposit Insurance Corporation Call Report, March 31, 2014.

Table 6. States with Three or More Additional Agricultural Banks with ROA less than 40 Basis Points with the Additional Regulatory Costs for Banks Smaller than $250 Million in Total Assets, by Total Asset Category, as of March 31, 2014 and Agricultural Loan Volume Held by All Banks with ROA less than 40 Basis Points

State	Number of Additional Banks	Total Number of Banks	Agricultural Loans Production	Agricultural Loans Secured by Farm RE
			----------1,000's----------	
Kansas	13	36	$175,918	$156,907
Nebraska	8	20	124,415	75,607
Minnesota	5	12	37,144	33,240
Illinois	3	13	80,025	93,068
Iowa	3	16	64,161	70,460
Total	**32**	**97**	**$418,663**	**$429,282**

Source: Federal Deposit Insurance Corporation Call Reports, March 31, 2014.

Table 7. Number of Profitable Agricultural Banks with and without the Additional Costs Resulting from Additional Regulatory Requirements for Banks Smaller than $250 Million in Total Assets, by Total Asset Category, as of March 31, 2014

	<$250M Profitable		<$100M Profitable		$100-250M Profitable	
State	w/o Reg.	w/Reg.	w/o Reg.	w/Reg.	w/o Reg.	w/Reg.
California	na	na	na	na	na	na
Iowa	103	101	54	52	49	49
Texas	32	32	25	25	7	7
Nebraska	86	79	61	54	25	25
Minnesota	60	58	47	45	13	13
Illinois	66	63	40	37	26	26
Kansas	107	96	75	64	32	32
North Carolina	na	na	na	na	na	na
Wisconsin	6	6	3	3	3	3
Indiana	4	4	1	1	3	3
North Dakota	47	46	33	32	14	14
Missouri	33	33	18	18	15	15
Georgia	7	7	4	4	3	3
South Dakota	32	30	20	18	12	12
Ohio	3	3	3	3	na	na
Washington	na	na	na	na	na	na
Arkansas	11	11	3	3	8	8
Michigan	3	3	2	2	1	1
Florida	na	na	na	na	na	na
Oklahoma	33	31	27	25	6	6
Total	**633**	**603**	**416**	**386**	**217**	**217**

Sources: Federal Deposit Insurance Corporation Call Report, December 31, 2013.

Table 8. State Locations of the Thirty Banks Less Than $100 Million in Total Assets that Became Unprofitable Due to Increased Regulatory Costs, by Total Asset Category, as of March 31, 2014

State	Number of Banks
Kansas	11
Nebraska	7
Illinois	3
Iowa	2
Minnesota	2
Oklahoma	2
South Dakota	2
North Dakota	1
Total	**30**