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## **The Viability of Small Banks in the United States**

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**Abstract:** Small banks have an important role in financing economic activity through their financial services for small businesses. There has been a sharp decline in the number of small banking organizations in the U.S. since the early 1980s. A continuation of this trend would raise important issues about access to financial services for small businesses.

Data on the number of banks, their profits, and the distribution of consistent high and low earning banks tend to tell the same story about the viability of small banks. The number of banks with assets less than \$100 million has been declining in recent years, and median profit rates of these very small banks are lower than the profit rates of banks with assets between \$100 million and \$1 billion. While some of the banks with consistent high earnings have total assets less than \$100 million, there are many more consistent low earning banks in this size range than consistent high earning banks.

The prospects are brighter for banks with assets between \$100 million and \$1 billion. The number of banks in this size range has increased in recent years, and profit rates for these banks tend to be higher than the profit rates of the smaller banks.

The geographic distribution of the banks that consistently report high and low profit rates indicates that the viability of small banks varies among the regions of the nation. This regional variation may have important implications for whether the small businesses located in some regions are able to receive the kind of financial services that small banks provide to small businesses in other regions of the nation.

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**Key words:** Community banks, small banks, financing small business

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# **The Viability of Small Banks in the United States**

*R. Alton Gilbert*

The U.S. and each region of the nation have an important interest in the viability of small banks. Small banks, identified in this paper as those with total assets less than \$1 billion,<sup>1</sup> have an important role in financing economic activity through their financial services for small businesses.<sup>2</sup> Small banks general lend only to businesses located in their communities.

There has been a sharp decline in the number of small banking organizations in the U.S. since the early 1980s. A continuation of this trend would raise important issues about access to financial services for small businesses.

This paper examines recent trends in the number of small banking organizations, which indicate that the decline in the number of small banking organizations has been limited primarily to the organizations with total assets less than \$100 million. Data on profit rates help explain the pattern of decline in the number of small banks: return on assets (ROA: net income after tax as a percentage of total assets) is relatively low for the banks with total assets less than \$100 million.

Another way to analyze the viability of small banks involves identifying the banks that consistently report ROA at or above median ROA for the banks with total assets in excess of \$1 billion. There are small banks in each of several asset size ranges, located in both urban and rural areas, that have been able to meet this standard of profit rates for several consecutive years. Thus, assets size alone and location in urban or rural

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<sup>1</sup> I do not use the term “community bank” because I have not attempted to verify that the banks identified as small banks in this study provide their services primarily to households and small businesses in their communities. I have excluded credit card banks and bankers’ banks from the analysis of bank profits.

<sup>2</sup> See DeYoung, Hunter and Udell (2004), Allen Berger (2004) and Avery and Samolyk (2004) for references to this literature.

communities do not prevent small banks from being consistent high earners. But there are also many small banks that report relatively ROA each year. The consistent low earning banks tend to pull down the median profit rate for small banks.

The viability of small banks appears to vary among the regions of the U.S. Some Census divisions (groups of contiguous states) have few consistent high earning banks. These observations raise questions about access to financial services for small businesses in various sections of the nation.

#### LITERATURE ON THE VIABILITY OF SMALL BANKS

This section discusses only a few studies, for two reasons. *First*, DeYoung, Hunter and Udell (2004) provide a review of the literature that is relevant for the viability of community banks. Hein, Koch and MacDonald (2005) present another overview of the literature on community banks. I would not add value by attempting another survey of the literature. *Second*, there is little controversy among those who have contributed to this literature. The consensus is that while there has been a sharp decline in the number of small banks since the 1980s, small banks will continue to be an important part of the financial services industry in the United States.

Staff of the FDIC published a large study of the viability of community banks in 2004: Critchfield, et al (2004). The authors of this FDIC study note that the number of community banks (assets less than \$1 billion, inflation adjusted as 2002 dollars) fell by half between 1985 and 2003. This trend, however, does not indicate that the viability of small banks is threatened. The community banks that remain have been able to increase their assets and achieve “respectable” earnings. These authors emphasize a continuing

entry into banking through de novo banks as a sign that investors have faith in community banking as a business model.

The staff of the Federal Reserve Bank of Kansas City published a large study of the viability of community banks in 2003: Keeton, Harvey and Willis (2003). They came to conclusions similar to those in the FDIC study. While the smallest community banks have been struggling to survive, the larger community banks have been doing much better in terms of asset growth and profitability.

DeYoung, Hunter and Udell (2004) survey the literature that is relevant for the viability of community banks and provide additional empirical evidence. They conclude that the community bank business model is economically viable, if community banks focus on the segments of the financial services industry where they have comparative advantage. These segments involve personalized service and lending based on information not available to other firms in the financial services industry, because the community banks derive this information through their relationships with their customers. DeYoung, Hunter and Udell (2004) conclude that asset size is important for the survival of community banks. The community banks with assets less than \$100 million will have to be especially well run to survive in competition with much larger banks.

#### TRENDS IN THE NUMBER OF SMALL BANKS

Jones and Critchfield (2005) examine trends in the size distribution of banking and thrift organizations over the years 1984 through 2003. They report that the number of banking and thrift organizations in 2003 was about half the number in 1984. This

decline is concentrated among the organizations with total assets (in 2002 dollars) less than \$100 million. The number of organizations with assets less than \$100 million (inflation adjusted) declined continuously from 1984 through 2003.

Figure 1 presents more recent information on trends in the number of small banks. To construct Figure 1, the assets of each bank are allocated to its parent organization. If a bank is not a subsidiary of a holding company, the bank is its own parent organization. Trends in the number of small banking organizations in Figure 1 are not affected by the conversion of banks to branches within their parent organizations.

The number of organizations with assets less than \$100 million has declined since 1999. The number with total banking assets between \$100 million and \$300 million remained essentially unchanged between 1999 and 2006, and there was an increase in the number of banking organizations with assets between \$300 million and \$1 billion. Continuation of the trends in Figure 1 would imply a declining role of banking organizations with assets less than \$100 million in the financial services industry in the U.S.<sup>3</sup>

#### IMPLICATIONS OF PROFIT RATES FOR THE VIABILITY OF SMALL BANKS

Data on profitability in Table 1 provide additional perspective on the viability of small banks. Viability depends upon earning profits that meet industry standards. If banking organizations with total assets below a specific level do not meet the earnings

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<sup>3</sup> Some papers that investigate the viability of small banks project the number of small banking organizations into the future. Jones and Critchfield (2004), pp. 42-47, conclude that these projections, including the projections in their own paper, are based entirely on projections of recent trends. Such projections would not add value to this paper.

standards of larger organizations, there will be a tendency for consolidation of the smaller institutions into the larger.

The data for Table 1 are from the Uniform Bank Performance Report (UBPR), which allocates each bank to a peer group each quarter.<sup>4</sup> Each bank included in one of the peer groups represented in Table 1 was in existence at least five years prior to the call report date. The banks in each asset size group are allocated to peer groups in the UBPR based on their location in urban or rural areas and the number of their banking offices. The UBPR reduces the net income after tax of the banks that are sub-chapter S corporations (these bank pays no federal income tax; each shareholder pays tax on its share of bank income) by the amount of federal income tax they would pay if taxed like other banks. The objective of this adjustment is to make net income after tax comparable for subchapter S banks and other banks.

Profit data in Table 1 indicate that for banks in each of the asset size ranges below \$300 million, median net income after tax as a percentage of total assets (ROA) depends on location (higher ROA for banks in rural areas) and number of offices (for bank of similar asset size, higher ROA for banks with fewer offices). Rural banks may face less competition than urban banks of similar size, and the banks with relatively few offices may be located in the less competitive market areas. Small banks in urban areas tend to face more competition from credit unions than small rural banks because about three-fourth of all credit unions are located in urban areas. In general, median ROA is relatively low for the banks with total assets less than \$100 million. The exception to this

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<sup>4</sup> The peer groups in Table 1 do not include credit card banks or bankers' banks, which have their own peer groups. The UBPR presents data for individual banks, not for banking organizations. Table 1, therefore, reflects earnings data of some banks that were subsidiaries of organizations with banking assets in excess of \$1 billion.

conclusion involves the banks located in rural areas that had assets between \$50 million and \$100 million and no more than two offices. The data in Table 1 indicate why the number of small banking organizations with assets less than \$100 million has been declining (Figure 1): as a group these banks do not meet the earnings standards of larger banks.

#### CHARACTERISTICS OF THE BANKS THAT CONSISTENTLY EARN HIGH AND LOW PROFIT RATES

The only information on the profits of each group of banks in Table 1 is the median ROA. Other facets of the distribution of profits may provide additional insight into the viability of small banks. There may be many small banks that consistently earn ROA that meets the industry standard for larger banks. These consistent high earning banks demonstrate their viability by reporting ROA for several years in a row that meets or exceeds median ROA for banks with assets in excess of \$1 billion.

In contrast, there may be other banks that pull down the median ROA of small banks because they consistently report low ROA. This section identifies the consistent high and low earning banks and describes their distribution by asset size, location in urban and rural areas, and location in the nine Census Divisions of the U.S.

To survive competition with very large banking organizations and with other providers of financial services, it is important for small banks to emulate the practices of the consistent high earning banks, and to avoid the mistakes of the consistent low earning banks. This paper makes a limited attempt to identify the practices of the consistent high and low earning banks by investigating the degree to which several financial ratios are

associated with being a consistent high earning bank or being a consistent low earning bank.

#### A Prior Study of High and Low Earning Banks

I am aware of only one study that examines the characteristics of banks that report relatively high and low profit rates: DeYoung, Hunter and Udell (2004). They identify “best practice” and “worst practice” community banks as those with ROE (net income after tax as a percentage of equity) above and below the median ROE for each of the groups of community banks in their study. All observations for their analysis were for the year 2001. The authors compare the mean values of several measures for the banks with ROE above the median to those with ROE below the median. The most important measures for distinguishing between these two groups of banks appear to be: (1) loans divided by assets, (2) non-interest income and (3) a measure of operating efficiency. Ratios of (4) core deposits to total assets and (5) small business loans to total loans do not seem to distinguish between the high and low earning banks.

This paper attempts to address the following limitations of the analysis in DeYoung, Hunter and Udell (2004) on the best practice and worst practice banks. *First*, DeYoung, Hunter and Udell use data on net income after tax that are *not* adjusted for the status of many small banks as subchapter S corporations. Hein, Koch and MacDonald (2005) present evidence that subchapter S tax status boosts the ROE of banks substantially. In the bank profits data used in this paper, in contrast, the net income after tax of each bank that is a subchapter S corporation is reduced by the amount of the federal income tax they would pay if taxed like other banks. Table 2 presents information on the growth over time in the number of small banks with tax status as

subchapter S corporations. As of the fourth quarter of 2005, over 2100 of these small banks were subchapter S corporations.

*Second*, DeYoung, Hunter and Udell identify the best practice banks as those with ROE above the median for community banks of comparable size. Some of their “best practice” banks had profit rates that were below the average profit rates of the banks that were larger than the community banks. This study, in contrast, uses a benchmark for identifying high earning banks that is based on the average profit ratios for banks with total assets in excess of \$1 billion.

*Third*, DeYoung, Hunter and Udell use data on bank profits for only one year. In contrast, I identify the high earning banks as those that meet or exceed the standard for high earning banks several years in a row. In addition, the low earning banks report ROA below the standard for low earnings for several years in a row. The purpose for identifying the low and high earning banks as those that meet earnings benchmarks each year for several consecutive years is to eliminate noise that could result from using observations on earnings for only one year.

*Fourth*, DeYoung, Hunter and Udell compare several financial ratios for the best practice banks to those ratios for the worst practice banks. They do not test the hypotheses, however, that the financial ratios of the best practice banks equal those of the worst practice banks. In contrast, I test hypotheses that several ratios for high and low earning banks are equal to these ratios for their peers in the UBPR.

Setting the Standards: the Benchmarks for High and Low Earnings and for the Length of Time for Consistent Earnings

This section uses ROA as the measure of bank profits, a commonly used performance measure for the banking industry that is independent of leverage (the ratio of equity to assets). The number of banks identified as consistent high or low earners depends on the benchmarks set for high and low ROA and the number of years in a row that banks must report ROA that fall above or below these benchmarks to be included in the group of consistent high or low earning banks. I set the standard for high ROA at 1.25 percent, which is approximately the median ROA in Table 1 for the banks with assets in excess of \$1 billion. The standard for low ROA is set at 0.75 percent. In addition, I restrict the potential high or low earning banks to those in parent organizations with total banking assets less than \$1 billion as of the fourth quarter of 2005.<sup>5</sup>

Table 3 presents information on the number of high and low earners for alternative specifications for the length of time over which banks consistently meet the benchmarks for high or low earnings. Increasing the time horizon for consistently meeting the benchmarks for high or low ROA from three years to four or five years reduces substantially the number of banks identified as high or low earners. This paper reports the results for the banks that were consistently high or low earners for the three years 2003-2005: 906 high earners and 747 low earners.

Some readers may prefer to examine the results for banks that were consistent high or low earners over periods longer than three consecutive years. Most of the conclusions would be the same if the text focused on the results for the banks that were consistent high or low earners for four consecutive years or for five consecutive years. Some results for the banks that were consistent high or low earners for five consecutive

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<sup>5</sup> Because larger banks tend to have lower ratios of equity to assets, the number of consistently high earning banks in this paper would have been lower if ROE had been used as the measure of profit rates.

years are cited in the text as added support for some of the important conclusions. The Appendix presents information about the banks that were consistent high or low earners for five consecutive years.

#### High and Low Earners: the Influence of Asset Size and Location in Urban or Rural Areas

Table 4 presents information on the asset size of the consistent high and low earners and their location in urban and rural areas. While there are high and low earners in each cell, the consistent high earners tend to be located among the banks with total assets greater than \$100 million, and the consistent low earners tend to be concentrated among the banks with total assets less than \$100 million. @

Table 5 presents the number of banks in each cell of Table 4 as a percentage of the total number of banks in that cell that could have been recorded among the relatively high or low earners. To illustrate, the 88 rural banks with assets up to \$50 million identified as consistent high earners (Table 4) were 13.2 percent of all of the banks in this category that could have possibly been identified as high earning banks (Table 5).

The proportion of banks that are high earners tends to be higher for the larger banks. This pattern holds for both the urban and rural banks. For banks in each of the asset size groups up to \$300 million, the proportions of banks that are consistent high earners are higher for the rural banks than for the urban banks.

The proportions of banks that are consistent low earners tend to be higher for the banks with total assets less than \$100 million. For banks in each asset size group, the proportions that are consistent low earners tend to be higher for the urban banks than for the rural banks.

Tables 4 and 5 expand our information about the distribution of bank profit rates beyond that derived from median ROA in Table 1. At least some of the small banks in each size category, located in both urban and rural areas, are able to operate as consistent high earning banks. The high earning banks, however, tend to be concentrated among the small banks with assets in excess of \$100 million. In addition, these tables support the conclusion derived from Table 1 that small rural banks tend to be more profitable than small urban banks of similar asset size.

#### Geographic Distribution of High and Low Earners

The viability of small banks appears to vary among regions of the nation. This section reports the regional variation in the distribution of consistently high and low earning small banks but does not attempt to explain this regional variation.

Table 6 presents information about the distribution of consistent high and low earning banks in the nine Census divisions; Table 6 also identifies the states in the Census divisions. The consistent high earning banks have demonstrated their viability by consistently earning ROA that meets the industry standard for large banking organizations.

The East South Central Census division (Alabama, Kentucky, Mississippi and Tennessee) has the largest number of consistent high earning banks (258). Other areas with relatively large numbers of consistent high earning banks are the South Atlantic (144), West South Central (95), East North Central (89) and West North Central (167) Census divisions. In contrast, there were almost no consistent high earning small banks in New England (7) or in rural areas of the Middle Atlantic Census division (4) and the Pacific Southwest (0). These observations raise questions about the sources of financial

services for small firms in these regions of the nation. For instance, how will small firms located in rural areas of the Pacific Southwest find the kind of financial services provided by small banks in other regions of the nation?

The Census divisions with relatively large numbers of consistent high earning small banks are also the areas with relatively large numbers of consistent low earning banks (Table 7). Table 6 presents another measure of the viability of small banks in the nine Census divisions: the number of consistent high earning banks (which reflects the positive influences of the environment in the region for the viability of small banks) minus the number of consistent low earning banks (which reflects the negative influences). The net of these two positions is negative in the New England, Middle Atlantic and South Atlantic Census divisions. In contrast, the net position is positive in both the rural and urban areas of four of the nine Census divisions.

#### Comparing Consistent High Earners to their Peers

We may gain additional insight into the factors that influence whether a bank is a consistent high earner, or consistent low earner, by comparing various financial ratios for these banks to the financial ratios of their peers. This section investigates the characteristics that distinguish the consistent high earning banks from their peers in the UBPR (Table7).

The first of five characteristics considered is the efficiency ratio, which is a measure of annual overhead expenses as percentage of net interest income plus non-interest income (a measure of revenue net of interest expense). The more efficient banks have lower values for this ratio. On average this measure of efficiency is about 11 percentage points lower for the consistent high earning banks than their peers, with a t-

statistic of 33 (a t-statistic of 2 or higher is generally interpreted as an indicator of statistical significance). Table 7 also indicates that the average yield on loans was significantly higher for the consistent high earning banks than for their peers, and the ratio of loans to assets was significantly higher for the high earning banks.

It is not appropriate to argue that these ratios *cause* banks to be consistent high earners. Rather, all that we can establish is *associations* between the ratios and the status of banks as consistent high earners. The reasons why these banks are consistent high earners may be determined by other influences that are correlated with these financial ratios.

During recent years many community banks have increased their real estate loans substantially. The results in Table 7 do not support the hypothesis that the consistent high earning banks as a group have higher ratios of real estate loans to total assets than their peer banks.

One way that high earning banks may be able to sustain their relatively high ROA each year is through high ratios of core deposits to total assets, because interest rates are relatively low on core deposits. The results in Table 7, however, do not support this hypothesis. Table 8 highlights the financial ratios of the consistent high earning banks that are significantly different (t-statistic higher than two) from the ratios of their peers. The results are the same in terms of signs and statistical significance using data for the banks that were consistent high earners for five years.

#### Comparing Consistent Low Earning Banks to their Peers

The efficiency ratio is over 17 percentage points higher for the consistent low earning banks than their peers, with a t-statistic of almost 30 (Table 7). The consistent

low earners have lower ratios of loans to assets than their peers on average, and higher ratios of core deposits to total deposits than their peers. Any advantages that these banks derive from relatively high core deposit ratios are more than offset by their relatively high operating costs, reflected in the efficiency ratio. Table 8 highlights the financial ratios of the consistent low earning banks that are significantly different from the ratios of their peers. The results are the same in terms of signs and statistical significance using data for banks that were consistent low earners for five years, with one exception: the t-statistic for core deposits as a percentage of total assets is not statistically significant in the calculations based on data for these banks.

#### Possible Extension of the Work on High and Low Earning Banks

The conclusion that the consistent high earning banks have lower operating expenses relative to revenue than their peers must be interpreted carefully. This conclusion does not imply that each small bank could become a consistent high earning bank by cutting the wages of its employees and letting the condition of bank facilities deteriorate. The association between consistent high earnings and the efficiency ratio implies that the consistent high earning banks receive more revenue (net of interest expense) per dollar of operating costs than their peers. But this association does not provide information on *how* the consistent high earning banks are able to achieve this measure of efficiency relative to their peers.

One approach to learning more about the high earning banks might involve adding additional ratios and determining whether they are significantly different for the high earning banks than for their peers. I do not believe, however, that this approach would be fruitful. I believe that more thorough analysis of the financial statements of the

individual high earning banks would reveal substantial differences in the focus of these banks. That is, there is more than one way for small banks to achieve consistent high earnings. To illustrate, the business plans of some consistent high earning banks may focus on real estate loans. They will tend to have higher real estate loan ratios than their peers. The business plans of other consistent high earning banks, in contrast, may not focus on real estate loans; their real estate loan ratios will tend to be lower than those of their peers. Such variation in financial ratios among the consistent high earning banks would tend to yield the result in Table 7: as a group the consistent high earning banks do not have higher real estate loan ratios than their peers.

I believe that a more fruitful approach to learning about what works for the consistent high earning banks would involve doing case studies of individual high earners. This work might indicate that the consistent high earning banks can be grouped into a small number of categories, with each category reflecting a distinct focus for their banking activities. I would not expect this type of analysis to be as fruitful for the consistent low earning banks, because there are probably many more ways to perform badly than there are to perform well.

## CONCLUSIONS

Data on the number of banks, their profits, and the distribution of consistent high and low earning banks tend to tell the same story about the viability of small banks. The number of banks with assets less than \$100 million has been declining in recent years, and median profit rates of these very small banks are lower than the profit rates of banks with assets between \$100 million and \$1 billion. While some of the banks with

consistent high earnings have total assets less than \$100 million, there are many more consistent low earning banks in this size range than consistent high earning banks.

The prospects are brighter for banks with assets between \$100 million and \$1 billion. The number of banks in this size range has increased in recent years, and profit rates for these banks tend to be higher than the profit rates of the smaller banks.

Some of the consistent high earning banks have assets below \$100 million, including several in urban areas. The distribution of the consistent high earning banks indicates that it is possible for small banks in each size category, and in both urban and rural areas, to earn profit rates that consistently meet the industry standard for much larger banks. The most important characteristic that distinguishes the high earning banks from their peers is control of operating expenses. These observations indicate that the viability of small banks depends on their ability to learn from the high earning banks and to adopt their strategies for success.

There is evidence to support an argument that the viability of small banks varies among the regions of the nation. This paper does not attempt to explain the regional variation in the number of consistent high earning small banks relative to the number of consistent low earning small banks. This regional variation, however, may have important implications for whether the small businesses located in some regions are able to receive the kind of financial services that small banks provide to small businesses in other regions of the nation.

Table 1: Median Net Income after Tax as Percentage of Total Assets

(millions of dollars)	Urban or rural	Number of offices	IV 2004	IV 2005	IV 2006
Over \$3,000	NA	NA	1.30%	1.29%	1.23%
\$1,000 to \$3,000	NA	NA	1.23	1.31	1.27
\$300 to \$1,000	NA	NA	1.17	1.21	1.22
\$100 to \$300	Urban	3 or more	1.02	1.07	1.07
\$100 to \$300	Rural	3 or more	1.17	1.18	1.15
\$100 to \$300	Urban	2 or less	1.11	1.26	1.20
\$100 to \$300	Rural	2 or less	1.29	1.29	1.28
\$50 to \$100	Urban	3 or more	0.84	0.94	0.94
\$50 to \$100	Rural	3 or more	1.06	1.03	1.02
\$50 to \$100	Urban	2 or less	0.90	1.03	1.08
\$50 to \$100	Rural	2 or less	1.17	1.22	1.19
Up to \$50	Urban	2 or more	0.72	0.70	0.76
Up to \$50	Rural	2 or more	0.94	0.94	0.92
Up to \$50	Urban	1	0.84	0.94	0.96
Up to \$50	Rural	1	1.07	1.07	1.04

Table 2: Number of Small Banks that have Tax Status as Subchapter S Corporations

Date (fourth quarter of each year)	Total assets (in millions of dollars)			
	Up to \$50	\$50 to \$100	\$100 to \$300	\$300 to \$1,000
1997	304	171	89	7
1998	497	307	188	16
1999	567	395	258	26
2000	597	448	320	41
2001	636	506	392	66
2002	637	558	474	89
2003	647	588	555	115
2004	626	620	619	143
2005	630	631	665	178

Table 3: Number of Banks Classified as High and Low Earners

Years over which the banks met the performance criteria	High earners	Low earners
2003- 2005 (three consecutive years)	906	747
2002-2005 (four consecutive years)	797	528
2001-2005 (five consecutive years)	642	417

Table 4: Consistent High and Low Earning Banks for the years 2003-2005

High Earning Banks (906)

Asset Group	RURAL	URBAN	Total
Up to \$50 million	88	64	152
\$50-\$100 million	109	102	211
\$100-\$300 million	123	237	360
\$300-\$1000 million	23	160	183
Total	343	563	906

Low Earning Banks (747)

Asset Group	RURAL	URBAN	Total
Up to \$50 million	154	190	344
\$50-\$100 million	74	127	201
\$100-\$300 million	34	128	162
\$300-\$1000 million	3	37	40
Total	265	482	747

Table 5: Percentage of Banks that were Consistent High and Low Earning Banks for the years 2003-2005

Percentage that were high earning banks

Asset Group	RURAL	URBAN	Total
Up to \$50 million	13.2%	9.4%	10.9%
\$50-\$100 million	17.4	13.0	15.0
\$100-\$300 million	22.5	18.1	19.4
\$300-\$1000 million	22.8	23.7	23.6
Total	17.2	16.3	16.7

Percentage that were low earning banks

Asset Group	RURAL	URBAN	Total
Up to \$50 million	21.5%	27.9%	24.6%
\$50-\$100 million	11.8	16.2	14.3
\$100-\$300 million	6.2	9.8	8.7
\$300-\$1000 million	3.0	5.5	5.2
Total	13.3	14.0	13.7

Table 6: Consistent High and Low Earning Banks by Census Division for the Years 2003-2005

Census Division	<u>No. of Consistent</u>		Net
	High earning banks	Low earning banks	
New England			
Rural	2	1	1
Urban	5	9	-4
Middle Atlantic			
Rural	4	4	0
Urban	28	36	-8
South Atlantic			
Rural	39	40	-1
Urban	105	119	-14
East South Central			
Rural	128	112	16
Urban	130	136	-6
West South Central			
Rural	33	16	17
Urban	62	46	16
East North Central			
Rural	40	21	19
Urban	49	38	11
West North Central			
Rural	72	61	11
Urban	95	79	17
Pacific Northwest			
Rural	25	9	16
Urban	49	13	36
Pacific Southwest			
Rural	0	1	-1
Urban	40	12	28

The states in the Census Divisions are as follows:

New England: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Middle Atlantic: New Jersey, New York and Pennsylvania.

South Atlantic: Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia and West Virginia.

East South Central: Alabama, Kentucky, Mississippi and Tennessee.

West South Central: Arkansas, Louisiana, Oklahoma and Texas.

East North Central: Illinois, Indiana, Michigan, Ohio and Wisconsin.

West North Central: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

Pacific Northwest: Alaska, Idaho, Montana, Oregon, Washington and Wyoming.

Pacific Southwest: Arizona, California, Colorado, Hawaii, Nevada, New Mexico and Utah.

Table 7: Comparison of the Characteristics of the High and Low Earning Banks to their Peers in the Uniform Bank Performance Report

Ratio	High Earning Banks	Low Earning Banks
	Mean (t-statistic)	Mean (t-statistic)
Efficiency ratio	-11.2 (33.1)	17.4 (29.9)
Loan yield	0.4 (7.7)	0.4 (0.8)
Loans to assets	4.1 (6.9)	-2.3 (3.4)
Real estate loans to assets	-0.5 (0.9)	-0.7 (1.1)
Core deposits to assets	-0.4 (1.1)	1.8 (5.1)

Notes: The 906 consistent high earning banks had ROA of 1.25 percent or higher during the years 2003-2005. The 747 consistent low earning banks had ROA of less than 0.75 percent each year for the years 2003-2005.

The ratios are defined as follows:

Efficiency ratio: annual overhead expenses as percentage of net interest income plus non-interest income (a measure of revenue net of interest expense).

Loan yield: total revenue from interest on loans as a percentage of average total loans.

Loans to assets: loans not held for sale as a percent of total assets.

Real estate loans to total assets: calculated as a percentage.

Core deposits to total assets: core deposits include all demand and savings deposits (including money market deposits) plus time deposits in denominations \$100,000 or less. Core deposits calculated as a percentage of total assets.

Table 8: Conclusions Concerning the Consistent High and Low Earning Banks

Consistent high earning banks:

Are more efficient than their peers

Have higher average yield on loans than their peers

Have higher ratios of loans to assets than their peers

Consistent low earning banks:

Are less efficient than their peers

Have lower ratios of loans to assets than their peers

Have higher ratios of core deposits to total assets than their peers

Appendix: Results for the Banks that Were Consistent High or Low Earners for Five Consecutive Years, 2001-2005

Table IA: Consistent High and Low Earning Banks for the years 2001-2005

High Earning Banks (642)

Asset Group	RURAL	URBAN	Total
Up to \$50 million	58	42	100
\$50-\$100 million	77	64	141
\$100-\$300 million	92	187	279
\$300-\$1000 million	15	107	122
Total	242	400	642

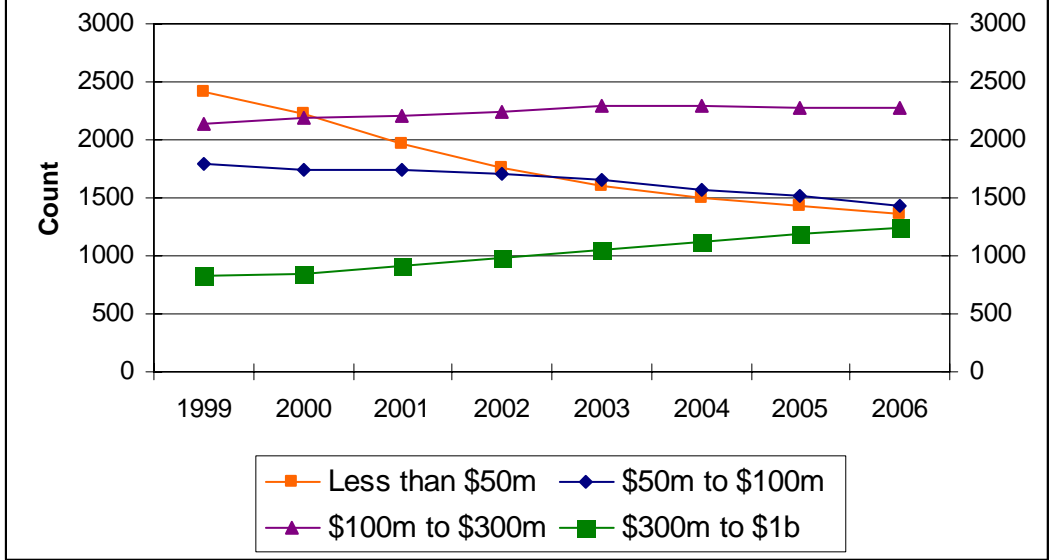
Low Earning Banks (417)

Asset Group	RURAL	URBAN	Total
Up to \$50 million	102	113	215
\$50-\$100 million	42	72	114
\$100-\$300 million	14	55	69
\$300-\$1000 million	1	18	19
Total	159	258	417

Table IIA: Regional Distribution of the Consistent High and Low Earning Banks for the Years 2001-2005

Census Division	<u>No. of Consistent</u>		Net
	High earning banks	Low earning banks	
New England			
Rural	2	1	1
Urban	4	4	0
Middle Atlantic			
Rural	2	2	0
Urban	21	22	-1
South Atlantic			
Rural	30	21	9
Urban	71	67	4
East South Central			
Rural	86	69	17
Urban	95	63	32
West South Central			
Rural	21	9	12
Urban	45	23	22
East North Central			
Rural	26	13	13
Urban	36	19	17
West North Central			
Rural	56	36	20
Urban	71	47	24
Pacific Northwest			
Rural	19	8	11
Urban	37	6	31
Pacific Southwest			
Rural	0	0	0
Urban	20	6	14

**Figure 1**  
**Number of Banking Organizations in the U.S.**  
 Dates are of Year End



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