
Small Business Finance in Rural and Urban Regions

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This discussion concerns what the Office of Advocacy is doing to solve a policy problem—the equity gap in rural America. The equity gap exists nationwide, with a couple of minor exceptions. The policy problem is that the rapidly growing firms that are generating most of the employment are not getting an adequate supply of equity capital to maintain a healthy debt-equity ratio. Thus, the economy could be growing faster if this policy problem could be solved. The policy solution is what Advocacy calls *ACE-Net*, which I will be describing in some detail.

Another potential policy problem is whether the merging of banks around the country is making it more difficult for small firms and small farms to get the credit they need to be economically successful. As of now, there are no definitive answers and, thus, no policy prescriptions.¹

As long as credit markets continue to expand in the United States, serious problems are unlikely to develop, but we are concerned about what will happen in the next tight credit period. The Federal Reserve System is obviously concerned about the potential tightening of credit in the

United States, spilling over from economic problems in the rest of the world, or it would not have reduced short-term interest rates twice by one-quarter of 1 percent. There are also indications of stiffer lending terms to large businesses among foreign-controlled banks, probably because of capital losses suffered internationally.

In addition, the latest *Fed Letter* from the Federal Reserve Bank of Kansas City stated the following: “The farm economy in the Midwest and mountain states weakened in the second quarter . . . while farm financial conditions remain healthy overall, the increase in loan demand and further weakness in loan repayments point to concern about conditions later this year.”² Therefore, the financial conditions for small firms and small farms may be changing as we meet here in Denver.

Let me start by presenting information about some databases used to do small business economic research with which you may not be familiar. These databases will help shed light on what has happened in different sectors of our economy for firms of varying sizes. Second, we will look at the distribution of credit between rural and urban areas and how our banking studies may shed some light on the potential problem of mergers in the banking industry. Third, we will consider the distribution of equity capital between rural and urban areas and why we feel that there is a serious financing gap in equity capital. Finally, I will present information about *ACE-Net*, our policy solution to this problem.

Primary responsibility for the material presented here is with Robert Berney, Chief Economist. Comments or suggestions should be sent to him via e-mail at robert.berney@sba.gov. Data and useful comments were provided by Kenneth Simonson, Brian Headd, Charles Ou, Bruce Phillips, and Alicia Robb, all in the Office of Economic Research in the Office of Advocacy.

DATABASES

To understand the issues of financing the activities of small business in rural America, you need to have data on the difference between rural and urban economic growth, as well as data on the availability of credit and equity financing for small business between the two regions. My own concern is always with comparing the differences between small and large firms and, in this case, small and large farms. This kind of analysis requires using whatever data sources shed some light on these variables to see if policy problems exist.

Comparing firms

The Office of Advocacy has spent significant amounts of energy and money over the years with the Bureau of the Census to ensure that we have accurate data on the size of firms by location and industry so that we can accurately measure economic growth. This information on a year-by-year basis is available on our web site and can be used by anyone.³ This static database is now available for 1988-95.

Using our static database we were able to separate metropolitan statistical areas (MSA) data, which covers urban and suburban areas, from non-MSA data. In the 1990-95 period, the number of small establishments and the employment in small firms in rural areas declined, while the opposite occurred for large firms. (Charts 1, 2). Our hypothesis explaining this is that small firms are having problems getting their capital needs met.

Tracking firms

Even more exciting is our dynamic database, where we follow individual firms through time; that is, we can study births, expansions, contractions, and death of firms over time. For the first

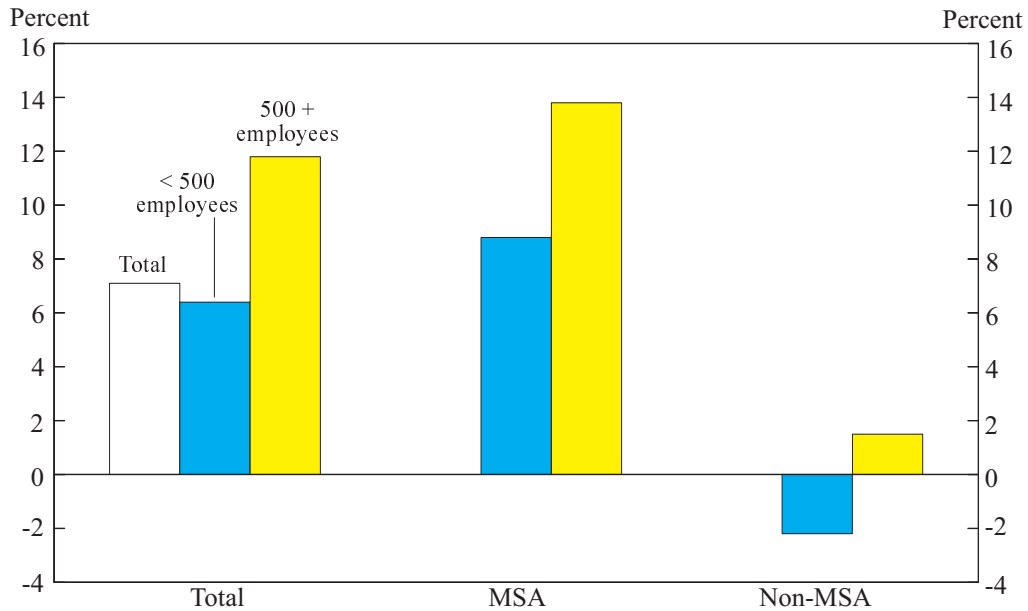
time, accurate measures of employment generation will be available. This database currently covers 1990-95 and is officially known as the LEEM file (Longitudinal Enterprise and Establishment Microdata file).⁴ Using this data, we have recently published studies on mergers and on employment generation.⁵

This new database tracks U.S. employment by firm size from 1990 to 95 (Table 1). According to the available data, total nonfarm, private employment grew by 6.9 million, or 7.3 percent. Small firms (less than 500 employees) grew at 10.5 percent, nearly three times the 3.7 percent of large firms.

Job generation. Table 2 focuses on net job generation. It shows that small business generated 76 percent of the net change, but notice that churning is occurring among the various industries. Of the 6.9 million net new jobs, over 5.8 million were added in the service industries where small firms created 62 percent of these new jobs. Meanwhile, manufacturing lost some 690,000 jobs. Large firms lost 1 million jobs (Table 1), or 154 percent of the negative net job change. Small firms grew by 376,000, offsetting 54 percent of the job loss. Table 1 shows a similar churning within these same industries over this same time period. The biggest gains in the 1990-95 period came in the 1-4 firm size, with a 36.8 percent employment gain. This is true in all the industrial sectors, even in mining, construction, and manufacturing where there were employment declines.

Employment changes. Table 3 shows employment changes across industries in the 12 Heartland states that may be more rural and is probably of more interest to you.⁶ The total net growth in employment for the Heartland from 1990 to 1995 was 1.3 million, which was a 14 percent increase. Therefore, the Heartland added jobs almost twice as rapidly as the nation

Chart 1
BUSINESS LOCATION CHANGES, 1990-95



Note: This static data illustrates the changing importance of firm sizes over time. It does not illustrate job growth as firms can grow or decline and change firm size classes over time. Longitudinal data during the same time period showed small firms (< 500 employees) created 76.5 percent of the net new jobs from 1990 to 1995.

Share of Business Locations, 1990-95 (percent)

	Total		Small		Large	
	1990	1995	1990	1995	1990	1995
MSA	79.1	80.9	78.5	80.2	83.9	85.4
Non-MSA	20.9	19.1	21.5	19.8	16.1	14.6

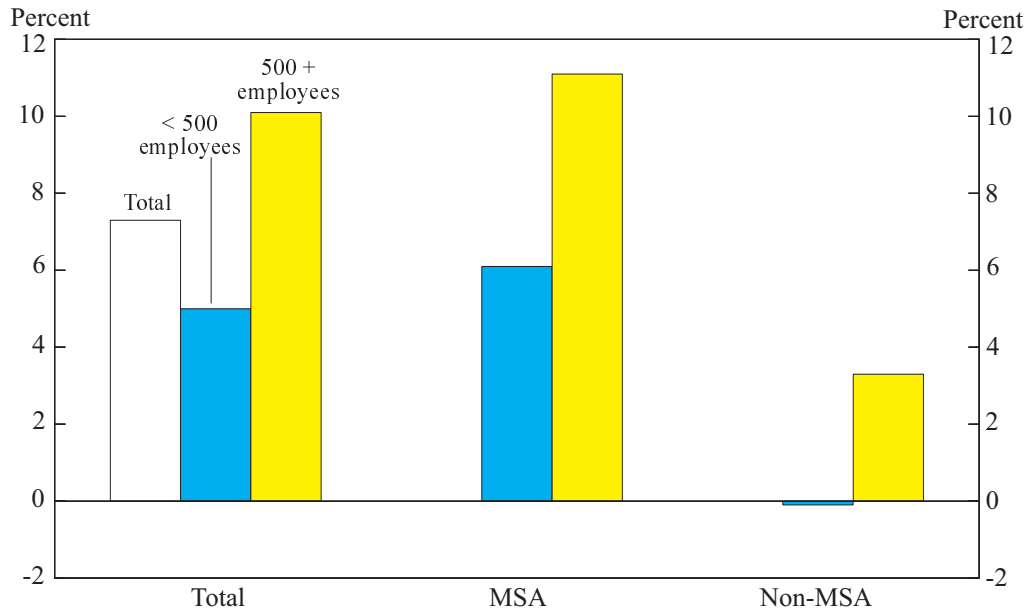
Source: Office of Advocacy, U.S. Small Business Administration, from data provided by the Bureau of the Census.

as a whole. Table 4 shows that small business generated 76 percent of the net change of employment, the same as in the country as a whole. Unique in the Heartland, in addition to the traditional strong growth in the 1-4 employee firm size at 42.8 percent (Table 3), is the more rapidly growing 20-99 employee firm size.

These tables show where the demands for equity and debt financing were growing most rapidly.

Rural growth. If we go back to the static database which allows us to separate the MSA from the non-MSA data for the Heartland states, we find strong growth in the rural areas (Table 5). All 12 states had significantly higher rates of rural job growth than the national average of 1.2 percent. The Heartland states are running counter to the national trends of deteriorating conditions in rural areas. Perhaps it is the stronger growth in small business. Whatever is happening in the Heartland needs to be replicated nationally.

Chart 2
EMPLOYMENT CHANGES, 1990-95



Note: This static data illustrates the changing importance of firm sizes over time. It does not illustrate job growth as firms can grow or decline and change firm size classes over time. Longitudinal data during the same time period showed small firms (< 500 employees) created 76.5 percent of the net new jobs from 1990 to 1995.

Source: Office of Advocacy, U.S. Small Business Administration, from 1993 NSSBF data sponsored by the Federal Reserve Board and U.S. SBA.

Share of Employment, 1990-95 (percent)

	Total		Small		Large	
	1990	1995	1990	1995	1990	1995
MSA	83.8	84.7	81.7	82.6	86.3	87.1
Non-MSA	16.2	15.3	18.3	17.4	13.7	12.9

Source: Office of Advocacy, U.S. Small Business Administration, from data provided by the Bureau of the Census.

Tracking rapidly growing firms

One of the problems of depending solely on Census data is that it is often less current than one would like for policy analysis. Thus, we are using a private data source, Cognetics, to get a more current picture of what is happening with the most rapidly growing firms. Their database has some 10 million individual records from the

Dun and Bradstreet files. In their analysis of job generation, they find that 70 percent of the net new jobs come from what David Birch of Cognetics has defined as gazelles.⁷ Nationally, there were some 360,000 of these fast growing firms in 1997, which was 4 percent of all firms that year. We are assuming that all of them will be needing additional bank credit and a quarter of them will need equity financing to maintain a

Table 1
UNITED STATES: EMPLOYMENT CHANGES ACROSS INDUSTRIES: 1990-95

	Total	Firm size class						
		1-4	5-9	10-19	20-99	100-499	<500	500+
<i>All</i>								
Total employment in 1990	93,425,129	5,108,303	6,242,213	7,534,444	17,696,242	13,541,449	50,122,651	43,302,478
Total net change	6,853,784	1,879,546	863,700	616,650	940,344	941,239	5,241,479	1,612,305
Total employment in 1995	100,278,913	6,987,849	7,105,913	8,151,094	18,636,586	14,482,688	55,364,130	44,914,783
Net change as a percentage of 1990 employment	7.3%	36.8%	13.8%	8.2%	5.3%	7.0%	10.5%	3.7%
<i>Agriculture services</i>								
Total employment in 1990	537,968	86,384	105,955	106,570	127,826	50,273	477,008	60,960
Total net change	78,548	52,742	27,290	8,667	-9,491	-2,923	76,285	78,548
Total employment in 1995	616,516	139,126	133,245	115,237	118,335	47,350	553,293	616,516
Net change as a percentage of 1990 employment	14.6%	61.1%	25.8%	8.1%	-7.4%	100.0%	16.0%	128.9%
<i>Mining</i>								
Total employment in 1990	723,257	21,590	25,810	41,182	111,608	87,278	287,468	435,789
Total net change	-73,480	4,497	-36	-4,505	-15,932	-13,996	-29,972	-43,508
Total employment in 1995	649,777	26,087	25,774	36,677	95,676	73,282	257,496	392,281
Net change as a percentage of 1990 employment	-10.2%	20.8%	-1%	-10.9%	-14.3%	-16.0%	-10.4%	-10.0%
<i>Construction</i>								
Total employment in 1990	5,255,777	603,882	724,212	843,445	1,662,128	791,514	4,625	630,596
Total net change	-194,897	222,561	83,867	10,650	-199,381	-187,438	-69,741	-194,897
Total employment in 1995	5,060,880	826,443	808,079	854,095	1,462,747	604,076	4,555,440	5,060,880
Net change as a percentage of 1990 employment	-3.7%	36.9%	11.6%	1.3%	-12.0%	-23.7%	-1.5%	-30.9%
<i>Manufacturing</i>								
Total employment in 1990	19,174,359	220,723	406,313	726,921	2,784,427	3,078,633	7,217,017	11,957,342
Total net change	-690,522	107,722	88,697	91,724	106,138	-18,571	375,710	-1,066,232
Total employment in 1995	18,483,837	328,445	495,010	818,645	2,890,565	3,060,062	7,592,727	10,891,110
Net change as a percentage of 1990 employment	-3.6%	48.8%	21.8%	12.6%	3.8%	-6%	5.2%	-8.9%

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Table 1 (continued)
UNITED STATES: EMPLOYMENT CHANGES ACROSS INDUSTRIES: 1990-95

	Total	Firm size class						
		1-4	5-9	10-19	20-99	100-499	<500	500+
<i>Transportation, communications, and public utilities</i>								
Total employment in 1990	5,593,428	169,239	209,563	286,355	761,674	552,785	1,979,616	3,613,812
Total net change	291,929	97,201	53,943	39,412	50,962	65,002	306,520	-14,591
Total employment in 1995	5,885,357	266,440	263,506	325,767	812,636	617,787	2,286,136	3,599,221
Net change as a percentage of 1990 employment	5.2%	57.4%	25.7%	13.8%	6.7%	11.8%	15.5%	-4%
<i>Wholesale trade</i>								
Total employment in 1990	6,332,723	334,495	500,022	728,882	1,693,542	977,326	4,234,267	2,098,456
Total net change	264,035	151,273	83,490	47,761	30,212	18,807	331,543	-67,508
Total employment in 1995	6,596,758	485,768	583,512	776,643	1,723,754	996,133	4,565,810	2,030,948
Net change as a percentage of 1990 employment	4.2%	45.2%	16.7%	6.6%	1.8%	1.9%	7.8%	-3.2%
<i>Retail trade</i>								
Total employment in 1990	19,856,601	1,060,825	1,514,219	1,920,975	4,270,255	2,134,371	10,900,645	8,955,956
Total net change	1,353,120	230,817	61,690	19,079	62,100	108,981	482,667	870,453
Total employment in 1995	21,209,721	1,291,642	1,575,909	1,940,054	4,332,355	2,243,352	11,383,312	9,826,409
Net change as a percentage of 1990 employment	6.8%	21.8%	4.1%	1.0%	1.5%	5.1%	4.4%	9.7%
<i>Finance, insurance, and real estate</i>								
Total employment in 1990	6,984,055	476,800	373,504	393,457	984,304	864,044	3,092,109	3,891,946
Total net change	12,853	127,750	25,663	14,420	-16,214	-1,004	150,615	-137,762
Total employment in 1995	6,996,908	604,550	399,167	407,877	968,090	863,040	3,242,724	3,754,184
Net change as a percentage of 1990 employment	.2%	26.8%	6.9%	3.7%	-1.6%	-.1%	4.9%	-3.5%
<i>Services</i>								
Total employment in 1990	28,880,280	2,103,223	2,365,307	2,472,445	5,282,742	5,002,905	17,226,622	11,653,658
Total net change	5,809,614	879,923	436,837	389,953	936,904	972,087	3,615,704	2,193,910
Total employment in 1995	34,689,894	2,983,146	2,802,144	2,862,398	6,219,646	5,974,992	20,842,326	13,847,568
Net change as a percentage of 1990 employment	20.1%	41.8%	18.5%	15.8%	17.7%	19.4%	21.0%	18.8%

Notes: Represents activity from March 1990 to March 1995. Longitudinal data for private establishments active (payroll) in the first quarter of the year. d=disclosure. (Establishments with no employment in the first quarter were excluded.) New firm births are classified by their employment size at the first quarter.

Source: Office of Advocacy, U.S. Small Business Administration, from dynamic data provided by the U.S. Department of Commerce, Bureau of the Census.

Table 2

UNITED STATES: DISTRIBUTION OF NET EMPLOYMENT CHANGE:
1990-95

	Total	Firm size class						
		1-4	5-9	10-19	20-99	100-499	<500	500+
All	6,853,784	27%	13%	9%	14%	14%	76%	24%
Agriculture services	78,548	67%	35%	11%	-12%	-4%	97%	3%
Mining	-73,480	-6%	0%	6%	22%	19%	41%	59%
Construction	-194,897	-114%	-43%	-5%	102%	96%	36%	64%
Manufacturing	-690,522	-16%	-13%	-13%	-15%	3%	-54%	154%
Transportation, communications, and public utilities	291,929	33%	18%	14%	17%	22%	105%	-5%
Wholesale trade	264,035	57%	32%	18%	11%	7%	126%	-26%
Retail trade	1,353,120	17%	5%	1%	5%	8%	36%	64%
Finance, insurance, and real estate	12,853	994%	200%	112%	-126%	-8%	1,172%	-1,072%
Services	5,809,614	15%	8%	7%	16%	17%	62%	38%

Notes: Represents activity from March 1990 to March 1995. Longitudinal data for private establishments active (payroll) in the first quarter of the year. d=disclosure.

(Establishments with no employment in the first quarter were excluded). New firm births are classified by their employment size at the first quarter.

Negative percentages on negative changes indicate positive net change. For example: In the manufacturing sector, firms with less than 500 employees had a net gain of about 373,000 jobs.

healthy debt-equity ratio so they can continue growing. For the 12 Heartland states, there were 40,308 rapidly growing firms. One-third of them were in the retail and wholesale trades, one-quarter were in the service sector, and 11 percent were in manufacturing (Table 6).

In the Heartland, all the gazelles created 1.3 million new jobs from 1992 to 1996 (Table 7). Almost all were created by the small gazelles—those firms with fewer than 500 employees. In contrast, the large gazelles, despite their rapid growth in revenue, created only 1.4 percent of the jobs.

How important are small, rapidly growing firms in the individual states? In Montana, the

small gazelles grew by almost 150 percent, creating almost 28,000 jobs, while the large gazelles were downsizing by some 9,000 jobs. An even more dramatic change was found in North Dakota, with large gazelles losing 12,000 jobs, or 137.9 percent of the net job growth, while the small gazelles generated 20,700 new jobs, or 237.9 percent of the net new jobs.

Our concern is with learning what limits the growth of the gazelles and, even more importantly, what prevents other entrepreneurs from becoming gazelles. The lack of available finance has been considered one of the major impediments to the growth of rapidly growing firms. Of course, periods of tight credit will magnify the impacts of this financial shortage.

Table 3
THE HEARTLAND STATES: EMPLOYMENT CHANGES ACROSS INDUSTRIES: 1990-95

	Total	Firm size class						
		1-4	5-9	10-19	20-99	100-499	<500t	500+
<i>All</i>								
Total employment in 1990	9,701,512	599,989	716,213	857,174	1,945,935	1,371,110	5,490,421	4,211,091
Total net change	1,363,386	256,867	141,813	130,134	282,250	223,171	1,034,235	329,151
Total employment in 1995	11,064,898	856,856	858,026	987,308	2,228,185	1,594,281	6,524,656	4,540,242
Net change as a percentage of 1990 employment	14.1%	42.8%	19.8%	15.2%	14.5%	16.3%	18.8%	7.8%
<i>Agriculture services</i>								
Total employment in 1990	45,779	10,515	11,875	8,979	d	d	d	d
Total net change	13,742	6,922	d	d	d	d	d	d
Total employment in 1995	59,521	17,437	d	d	d	d	d	d
Net change as a percentage of 1990 employment	30.0%	65.8%	d	d	d	d	d	d
<i>Mining</i>								
Total employment in 1990	138,134	6,109	6,462	8,859	20,194	15,359	56,983	81,151
Total net change	-17,330	d	d	d	d	d	d	d
Total employment in 1995	120,804	d	d	d	d	d	d	d
Net change 1990-95 as a percentage	-12.5%	d	d	d	d	d	d	d
<i>Construction</i>								
Total employment in 1990	468,670	66,945	76,176	82,704	147,515	56,494	429,834	38,836
Total net change	115,603	46,802	29,343	21,657	13,067	d	d	d
Total employment in 1995	584,273	113,747	105,519	104,361	160,582	d	d	d
Net change as a percentage of 1990 employment	24.7%	69.9%	38.5%	26.2%	8.9%	d	d	d
<i>Manufacturing</i>								
Total employment in 1990	1,826,983	23,393	41,532	68,016	239,537	272,394	644,872	1,182,111
Total net change	50,451	13,698	11,729	17,318	35,476	d	d	d
Total employment in 1995	1,877,434	37,091	53,261	85,334	275,013	d	d	d
Net change as a percentage of 1990 employment	2.8%	58.6%	28.2%	25.5%	14.8%	d	d	d

Table 3 (Continued)
THE HEARTLAND STATES: EMPLOYMENT CHANGES ACROSS INDUSTRIES: 1990-1995

	Firm size class							
	Total	1-4	5-9	10-19	20-99	100-499	<500	500+
<i>Transportation, communications, and public utilities</i>								
Total employment in 1990	640,546	23,713	27,318	38,428	93,225	62,797	245,481	395,065
Total net change	39,223	13,106	6,732	6,543	9,262	4,901	40,544	-1,321
Total employment in 1995	679,769	36,819	34,050	44,971	102,487	67,698	286,025	393,744
Net change as a percentage of 1990 employment	6.1%	55.3%	24.6%	17.0%	9.9%	7.8%	16.5%	-.3%
<i>Wholesale trade</i>								
Total employment in 1990	687,642	38,653	61,707	92,322	197,315	93,764	483,761	203,881
Total net change	78,978	16,032	10,432	8,865	21,199	13,073	69,601	9,377
Total employment in 1995	766,620	54,685	72,139	101,187	218,514	106,837	553,362	213,258
Net change as a percentage of 1990 employment	11.5%	41.5%	16.9%	9.6%	10.7%	13.9%	14.4%	4.6%
<i>Retail trade</i>								
Total employment in 1990	2,199,504	128,038	185,254	240,889	511,198	246,955	1,312,334	887,170
Total net change	270,706	32,614	20,868	19,923	50,349	28,900	152,654	118,052
Total employment in 1995	2,470,210	160,652	206,122	260,812	561,547	275,855	1,464,988	1,005,222
Net change as a percentage of 1990 employment	12.3%	25.5%	11.3%	8.3%	9.8%	11.7%	11.6%	13.3%
<i>Finance, insurance, and real estate</i>								
Total employment in 1990	696,964	57,383	41,594	50,597	123,718	85,547	358,839	338,125
Total net change	55,303	20,154	4,741	4,399	2,221	-4,282	27,233	28,070
Total employment in 1995	752,267	77,537	46,335	54,996	125,939	81,265	386,072	366,195
Net change as a percentage of 1990 employment	7.9%	35.1%	11.4%	8.7%	1.8%	-5.0%	7.6%	8.3%
<i>Services</i>								
Total employment in 1990	2,989,224	241,796	262,620	265,169	603,548	535,622	1,908,755	1,080,469
Total net change	754,487	104,776	53,742	50,490	152,293	152,739	514,040	240,447
Total employment in 1995	3,743,711	346,572	316,362	315,659	755,841	688,361	2,422,795	1,320,916
Net change as a percentage of 1990 employment	25.2%	43.3%	20.5%	19.0%	25.2%	28.5%	26.9%	22.3%

Notes: Represents activity from March 1990 to March 1995. Longitudinal data for private establishments active (payroll) in the first quarter of the year. d=disclosure. (Establishments with no employment in the first quarter were excluded.) New firm births are classified by their employment size at the first quarter.

Source: Office of Advocacy, U.S. Small Business Administration, from dynamic data provided by the U.S. Department of Commerce, Bureau of the Census.

Table 4

THE HEARTLAND STATES: DISTRIBUTION OF NET EMPLOYMENT CHANGE: 1990-95

	Total	Firm size class						
		1-4	5-9	10-19	20-99	100-499	<500	500+
All	1,363,386	19%	10%	10%	21%	16%	76%	24%
Agriculture services	13,742	50%	d	d	d	d	d	d
Mining	-17,330	d	d	d	d	d	d	d
Construction	115,603	40%	25%	19%	11%	d	d	d
Manufacturing	50,451	27%	23%	34%	70%	d	d	d
Transportation, communications, and public utilities	10,301	82%	42%	37%	68%	24%	253%	-153%
Wholesale trade	68,590	18%	13%	15%	31%	12%	90%	10%
Retail trade	66,133	50%	23%	14%	3%	-9%	82%	18%
Finance, insurance, and real estate	-801	-1,575%	-337%	-383%	635%	1,318%	-341%	441%
Services	307,983	24%	10%	8%	21%	14%	76%	24%

Negative percentages on negative changes indicate positive net change.

Notes: Represents activity from March 1990 to March 1995. Longitudinal data for private establishments active (payroll) in the first quarter of the year. d=disclosure. (Establishments with no employment in the first quarter were excluded.) New firm births are classified by their employment size at the first quarter.

Source: Office of Advocacy, U.S. Small Business Administration, from data provided by the U.S. Department of Commerce, Bureau of the Census.

USES OF CREDIT

There has been a limited amount of research on the differences in the availability of financing between the rural and urban sectors of the economy.⁸

Chart 3 is based on a 1993 national survey jointly sponsored by the Federal Reserve Board and the Office of Advocacy. Currently, plans are being made to update the survey using 1997 data. The National Survey on Small Business Finance (NSSBF) shows the difference in the credit availability between MSA and non-MSA

areas of the United States. According to the survey, banks are the most important source for both areas, but they are significantly more important for rural areas. Because other financial institutions are unavailable, rural areas rely less on thrift institutions, finance companies, leasing companies and other forms of trade credit.

Chart 4 shows different types of credit, with rural areas more dependent on credit lines, mortgages, and vehicle and equipment loans, while the urban areas rely more on both personal and business credit cards and loans from the owner.

Table 5
**PERCENT CHANGES IN EMPLOYMENT FOR MSAS AND NON-MSAS,
 TOTAL AND HEARTLAND STATES, 1990-1995**

State	Total				MSA				Non-MSA			
	Total	Employment size of firm			Total	Employment size of firm			Total	Employment size of firm		
		20	500	500		20	500	500		20	500	500
United States	7.3	3.5	5.0	10.1	8.5	5.6	6.1	11.1	1.2	(4.4)	(0.1)	3.3
Colorado	24.8	22.0	25.9	23.4	26.8	24.7	28.0	25.4	13.2	12.7	16.7	4.9
Iowa	12.9	3.5	11.1	15.3	11.6	3.4	9.3	13.9	14.7	3.6	13.0	17.6
Kansas	9.9	4.5	10.3	9.2	8.3	7.6	8.6	8.0	12.8	1.1	12.9	12.7
Minnesota	13.1	6.1	10.6	16.1	12.5	7.4	10.3	14.8	15.3	3.4	11.6	23.1
Missouri	7.7	3.9	7.7	7.7	7.1	5.4	7.5	6.6	10.2	.5	8.3	13.4
Montana	17.6	12.5	18.0	16.7	12.5	9.5	8.1	21.4	19.9	13.5	22.0	13.9
Nebraska	14.9	4.1	10.2	21.1	15.0	9.1	11.4	18.4	14.8	.0	8.8	28.7
New Mexico	21.2	11.8	19.1	24.6	31.5	20.8	26.6	39.0	4.4	.5	8.1	(2.7)
North Dakota	17.1	4.4	15.5	21.2	18.3	8.8	18.8	17.5	15.7	1.3	12.1	27.9
Oklahoma	12.2	7.5	14.8	8.6	13.1	9.3	14.7	11.2	9.9	4.5	15.0	.6
South Dakota	24.8	8.9	15.6	45.7	28.3	19.8	23.9	34.8	21.9	3.8	10.3	61.7
Wyoming	19.2	14.6	20.4	16.7	17.1	9.4	11.2	29.6	20.2	16.7	24.6	10.9

Source: Office of Advocacy, U.S. Small Business Administration from data provided by the U.S. Department of Commerce, Bureau of the Census.
 Note that this data is 'static' data and will differ from the dynamic data in Tables 1-4.

Table 6

GAZELLE FIRMS IN HEARTLAND STATES BY MAJOR INDUSTRY: 1997

State	Major industry					Total
	Manufacturing	Trade	FIRE	Services	Other	
Colorado	698	1,801	500	1,807	1,602	6,408
Iowa	380	1,352	255	750	956	3,693
Kansas	349	1,278	242	885	918	3,673
Minnesota	1,054	2,162	465	1,772	1,396	6,850
Missouri	794	2,301	507	1,698	1,547	6,847
Montana	130	492	80	305	379	1,387
Nebraska	196	853	191	567	615	2,423
New Mexico	164	653	130	536	618	2,101
North Dakota	77	418	63	185	253	996
Oklahoma	424	1,325	348	892	1,013	4,002
South Dakota	72	399	90	244	293	1,098
Wyoming	56	272	42	187	273	830
Total, Heartland states	4,395	13,307	2,914	9,828	9,863	40,308
(row percentages)	11	33	7	24	25	100

Note: Detail may not add to total due to rounding.

Source: Office of Advocacy, U.S. Small Business Administration, based upon Cognetics, Inc., data prepared under contract.

A recent study by the Department of Agriculture on rural home mortgage markets came to the following conclusions:

“The smaller size and greater remoteness of many rural areas can raise lender costs. Additionally, rural financial markets . . . generally have fewer competitors than urban markets do. Higher borrowing costs that result from the less competitive nature of rural markets, however, both shift income from borrowers to lenders and reduce overall efficiency.”⁹

While that study spoke in terms of consumer credit, the same conditions may exist for the borrowing of small firms.

To further explore the workings of the bank credit market in rural areas, we decided to

extend the methodology of our small business banking studies to farm loans and to release the *Small-Farm-Friendly Banks in the United States, 1997 Edition*. Like past Office of Advocacy banking studies, we analyzed individual bank behavior relative to a total of four variables: 1) a small farm loan to asset ratio, 2) a small farm loan to total farm loan ratio, 3) the dollar amount of these small farm loans and, 4) the number of small farm loans. The goal for all these studies is to provide more information to both borrowers and lenders on where the loans are being made, so both can make better decisions.

Data from that study raise concerns about the disappearance of small community banks. Table 8 shows that the ratio of small farm loans to total assets and the ratio of small farm loans to total farm loans fall dramatically as the banks'

Table 7

JOB CREATION BY "GAZELLES" IN HEARTLAND STATES BY FIRM SIZE: 1992-96

(Data in thousands)

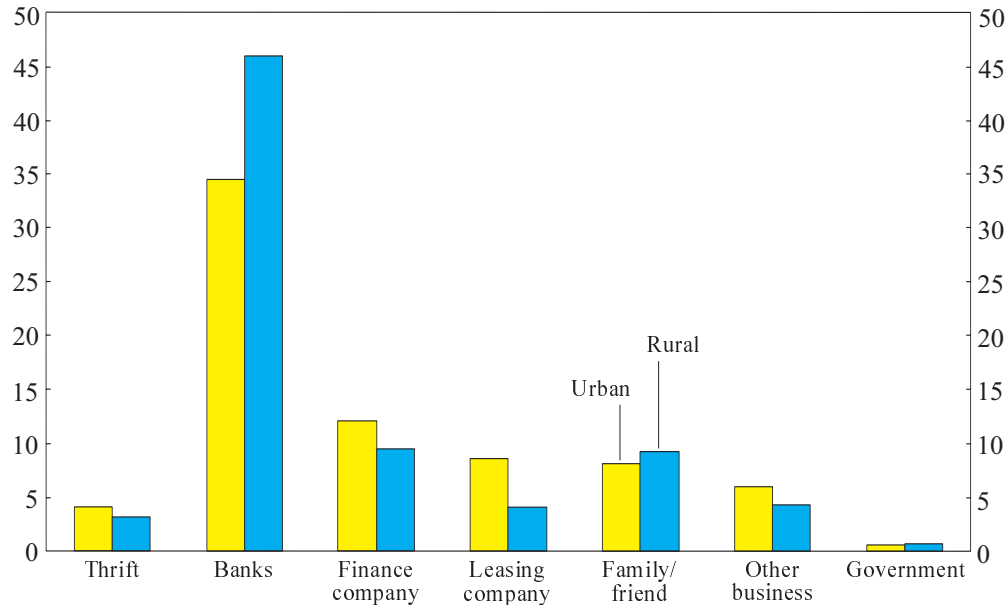
State	Total all sizes	Firm size (no. of employees)						
		1-4	5-19	20-49	50-99	100-499	<500	500+
Colorado	430.1	177.4	60.5	30.3	10.2	81.4	359.8	70.3
Iowa	67.5	-16.1	14.0	8.8	14.0	31.6	52.3	15.7
Kansas	69.1	15.7	17.9	9.9	4.0	29.5	77.0	-7.9
Minnesota	179.3	92.4	41.4	19.4	11.0	56.0	220.2	-41.0
Missouri	217.1	79.1	47.4	22.1	10.4	71.7	230.7	-13.6
Montana	18.6	15.8	7.1	1.9	1.8	1.2	27.8	-9.2
Nebraska	113.2	24.7	12.9	6.2	4.4	16.5	64.7	48.5
New Mexico	80.2	58.0	16.2	9.2	3.3	14.3	101.0	-20.8
North Dakota	8.7	8.5	3.9	1.5	3.0	3.8	20.7	-12.0
Oklahoma	85	34.9	22.5	14.6	5.6	12.8	90.4	-5.4
South Dakota	28.2	8.6	6.0	3.0	.8	12.2	30.6	-2.3
Wyoming	14.6	12.2	4.7	1.7	.2	-.2	18.6	-4.0
Totals	1,311.6	511.2	254.5	128.6	68.7	330.8	1,293.8	18.3
<u>Percentages</u>								
Colorado	100.0	41.2	14.1	7.0	2.4	18.9	83.7	16.3
Iowa	100.0	NA	20.7	13.0	20.7	46.8	77.5	23.3
Kansas	100.0	22.7	25.9	14.3	5.8	42.7	111.4	-11.4
Minnesota	100.0	51.5	23.1	10.8	6.1	31.2	122.8	-22.9
Missouri	100.0	36.4	21.8	10.2	4.8	33.0	106.3	-6.3
Montana	100.0	84.9	38.2	10.2	9.7	6.5	149.5	-49.5
Nebraska	100.0	21.8	11.4	5.5	3.9	14.6	57.2	42.8
New Mexico	100.0	72.3	20.2	11.5	4.1	17.8	125.9	-25.9
North Dakota	100.0	97.7	44.8	17.2	34.5	43.7	237.9	-137.9
Oklahoma	100.0	41.1	26.5	17.2	6.6	15.1	106.4	-6.4
South Dakota	100.0	30.5	21.3	10.6	2.8	43.3	108.5	-8.2
Wyoming	100.0	83.6	32.2	11.6	1.4	NA	127.4	-27.4
Totals	100.0	39.0	19.4	9.8	5.2	25.2	98.6	1.4

Note: Detail may not add to totals due to rounding.

Source: Office of Advocacy, U.S. Small Business Administration, based upon Cognetics, Inc. data prepared under contract.

Chart 3

PERCENT OF SMALL FIRMS USING CREDIT FROM DIFFERENT SUPPLIERS
IN URBAN OR RURAL AREAS, 1993



Source: Office of Advocacy, U.S. Small Business Administration, from 1993 NSSBF data sponsored by the Federal Reserve Board and U.S. SBA.

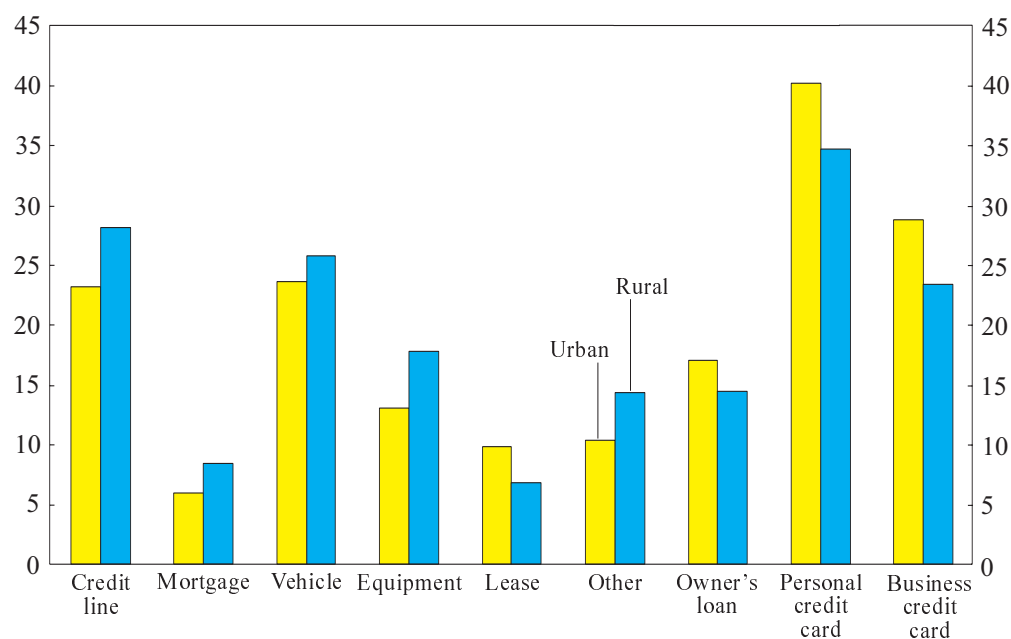
asset sizes get larger. The startling fact from Table 9 is that over 53 percent of small farm loans come from the smallest banks, those with less than \$100 million in assets. For small business loans, the comparable number is 19 percent. So the disappearance of small community banks could impact the small farmer more than it impacts other small firms. Additionally, the loss of credit to the small farmer will mean a loss of sales from small business in the rural community, further weakening community banks. That in turn will leave banks more vulnerable to takeover or closure, reducing credit supplies even further.

MERGERS OF BANKS

While the empirical results are less than conclusive, the economic theory is straightforward. All banks should invest their funds where the real rate of return adjusted for risk in the long run is the highest. National and large regional banks will move funds from local areas whenever more attractive investment opportunities appear in the short run. They will move money into a local area only when the returns in the short run are more attractive. Today, for instance, when the returns to agricultural and agribusiness are low, money will tend to move out of those areas, therefore increasing their

Chart 4

PERCENT OF SMALL FIRMS USING DIFFERENT TYPES OF CREDIT IN URBAN OR RURAL AREAS, 1993



Source: Office of Advocacy, U.S. Small Business Administration, from 1993 NSSBF data sponsored by the Federal Reserve Board and U.S. SBA.

economic problems. The converse is also true: when farming and agribusiness are booming, money will flow into these areas.

The economic problem is that short-run returns are not perfect forecasts of long-run returns. Bankers, like others in the economy, misjudge the amount of credit risk, given the general feelings of optimism and pessimism. The result is that the press continually reports on how large banks overinvest in the short run and then lose money.

Thus, excessive credit expansions and contractions will be particularly difficult for the

small farmer and the small firm in rural areas. Regional credit flows will be like international credit flows, magnifying the boom and causing more serious recessions.

Community banks have less opportunity to move funds out of the region unless they have correspondent relations with a national or regional bank. Additionally, since they have less opportunity to move funds out of the community in bad times, funds are more likely to remain available as long as the expected returns are greater than can be obtained by investing in U.S. Treasury bills. Thus, if community banks merge with other community banks, the money

Table 8

**RATIOS OF SMALL FARM
LOANS TO ASSETS AND
TO TOTAL**

Farm loans by bank size, June 1997

<u>Bank size</u>	<u>Small farm loans/total assets</u>	<u>Small farm loans/total farm loans</u>
< \$100 Million	.1146	.794
\$100 Mil-\$500 Mil	.0323	.619
\$500 Mil-\$1 Bil	.0117	.499
\$1 Bil-\$10 Bil	.0049	.411
\$10 Bil	.0013	.296

is likely to stay in the region; but if they are acquired by a large national or regional bank, the money will tend to flow out in bad times.

While I have not seen research on community bankers, we know that small business owners tend to be more active in community affairs. Assuming that community bankers are more active in community affairs, and are therefore more concerned about the health of the community, they are more likely to make loans there even though the returns elsewhere might be higher. We certainly know that community bankers make character loans, while the branch banks are more likely to make asset-based loans or loans to people that score high on their credit scoring model.

On the empirical analysis of mergers, two variables seem most important. If the merger is with an out-of-state bank, local small firm lending tends to fall; and if the acquiring bank is not active in small firm lending, small loans will fall. The Office of Advocacy conducted a conference in October 1997 on mergers and acquisitions in banking. We had some of the leading scholars on the issue present their research

results. If you are interested in more empirical results on this topic, the information is available in *The Impact of Mergers and Acquisitions on Small Business Lending: A Conference Report*. This study is also available on our web site.¹⁰

USE OF EQUITY FINANCING

The National Survey of Small Business Finance gives us data on the difference in equity financing between rural and urban regions for the country as a whole. Chart 5 shows the difference between rural and urban equity financing. Rural areas are less likely to get funding from shareholders or internal sources, and are less likely to use venture capital or other external sources. Most importantly, there is very little equity financing available in rural areas. This lack of equity financing reduces the ability of small, rural gazelles or firms that might grow to become gazelles to expand as rapidly as they could with more adequate equity financing.

The next set of figures looks at the equity financing of the gazelles. Chart 6 shows the number of gazelles in the nation and the number of measurable equity deals in the nation—355,846 for the gazelles and a total of 8,609 deals per year, that is 2.4 deals per 100 gazelles.¹¹ Although we recognize that not all gazelles will need equity financing every year, we estimate that about a quarter of them will need it, which is about 90,000.

What is not measurable is the number of deals done in the informal angel capital market or investments by family members. Rapidly growing firms need to maintain a reasonably stable debt to equity ratio, and a lack of equity financing will limit the further availability of bank credit. Thus, a firm's growth will be limited or the firm will consider selling out to a larger firm that can more easily tap into the various financial markets.

Table 9

BANK'S SHARE IN SMALL FARM LOANS, BY BANK SIZE, JUNE 1997

Bank size	SBL\$	SBL\$(%)	SFL\$ (%)	SFL\$ (%)	TA	TA(%)	NO. BKs
<\$100 Million	34.81	18.9	25.85	53.5	273.22	6.8	6,047
\$100 Mil-\$500 Mil	52.19	28.3	13.91	28.8	508.25	12.6	2,590
\$500 Mil-\$1 Bil	13.82	7.5	2.26	4.7	199.15	4.9	292
\$1 Bil-\$10 Bil	34.68	18.8	3.64	7.5	914.28	22.6	300
\$10 Bil	48.77	26.5	2.70	5.6	2,151.48	53.2	64
All Banks	184.28	100.0	48.36	100.0	4,046.39	100.0	9,293

Note: SFL – small farm loans; SBL – small business loans; TA – total assets; \$ - dollar amounts in millions.

Source: From the *Small Farm Friendly Banks in the United States*, 1997 edition.

In the Heartland, the number of gazelles was 40,300, while the number of measurable deals was 674 or 1.7 percent (Chart 7). That is 70 percent of the national rate (Chart 6). In Colorado there were 6,408 gazelles, but only 195 measurable equity deals, or 3 percent (Chart 8). In Montana, there were 1,387 gazelles, but only 12 measurable equity deals or 0.8 percent. (Chart 9).

ACE-NET

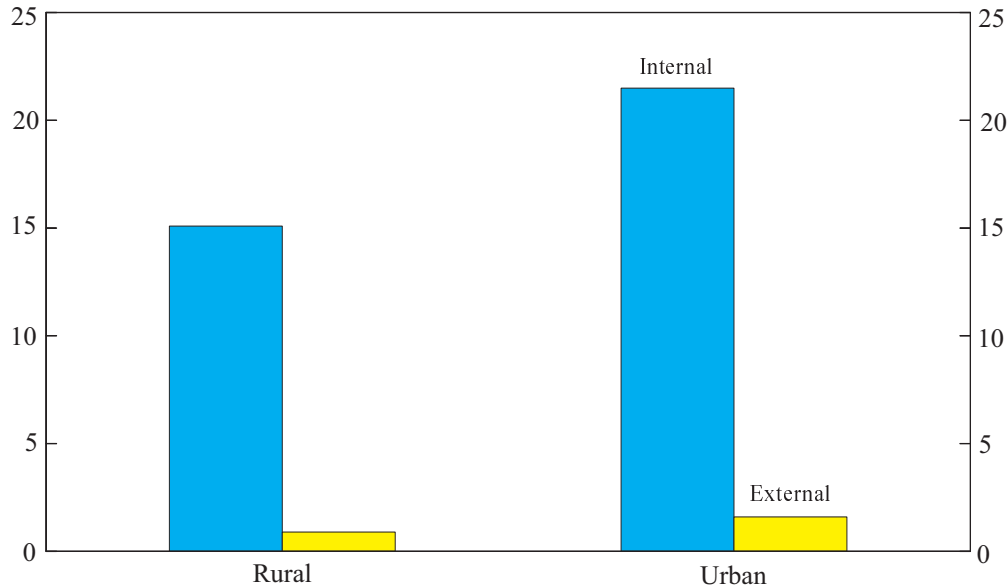
ACE-Net stands for the Access to Capital Network. It is Advocacy's solution to the lack of equity financing for the gazelles, as well as those firms which are not well served by the existing angel and venture capital markets, such as rural areas and the traditionally disadvantaged groups in the financing of small business. It was developed because of the equity gap between the level of financing that can be obtained from family, credit cards, bank and trade credit; and the venture capital market, where the average size deal is running around \$10 million. Venture capital deals are also concentrated in the high tech areas of this country, which means these deals are unavailable in most of the Heartland states.

ACE-Net was designed to make angel capital investing more efficient by opening up investment possibilities to a nationwide audience of angels. We are trying to change the informal angel investment community into a nationwide system for entrepreneurs and investors. It was designed to reduce the cost to entrepreneurs so they do not have to hire lawyers in each state to register the offering; registering in one state allows national coverage. It reduces the cost to the investors in that they can scan hundreds of deals from their computer, thus focusing their due diligence on firms that most nearly meet their investment goals. This means that Heartland firms will be able to secure angel capital funding from states that have more active angel investors and venture capital investors.

The system is a secure Internet-based service, using a system of passwords that we are in the process of developing. This Internet system links institutional and individual accredited investors with the fast growing firms that need equity capital. Currently, we have 29 states that have agreed to a uniform set of disclosure documents so that investors in these states can look at

Chart 5

PERCENT OF SMALL FIRMS GENERATING INTERNAL AND EXTERNAL EQUITY IN URBAN VS. RURAL AREAS, 1993



Source: Office of Advocacy, U.S. Small Business Administration, from 1993 NSSBF data sponsored by the Federal Reserve Board and U.S. SBA.

deals nationwide. We have also recruited 32 network operators, all of which are state funded, to work with entrepreneurs and potential angel investors increasing the potential amount of equity capital to the underserved areas of the country. The latest count of investors is some 600, including all the SBICs in the country. Currently we have some 70 firms on-line with another 200 firms working on the necessary forms. The goal, of course, is to get all states to agree to the model accredited investor exemption and to have thousands of firms and angel investors getting together via the Internet—a dating service, so to speak.

The first task for the Office of Advocacy legal team was to obtain a “no action” letter from the

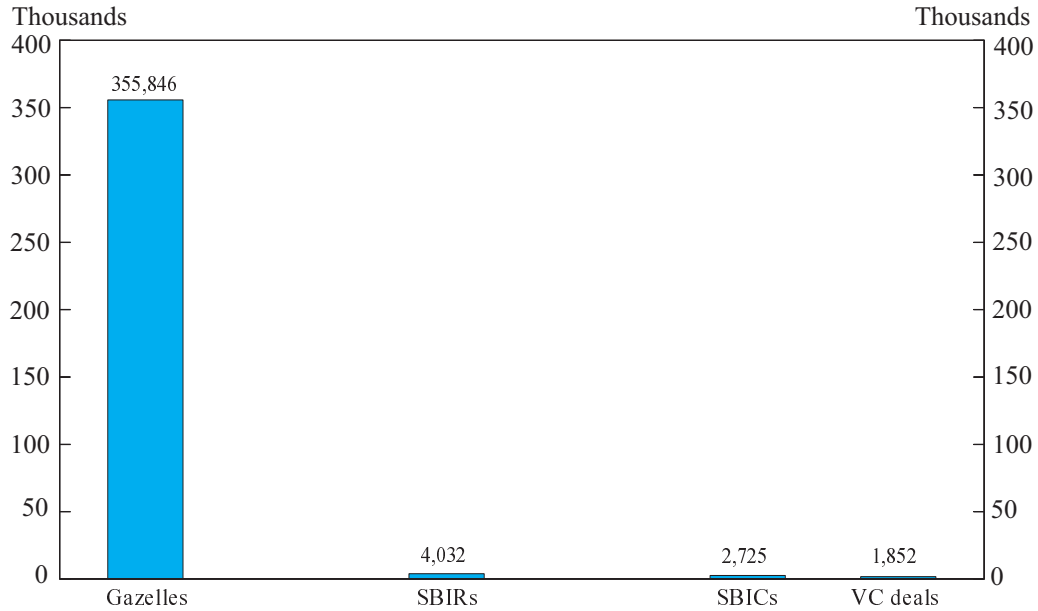
SEC. The ongoing task is to get the remaining state securities regulators to agree to the model accredited investors exemption.

CONCLUSIONS

The Regulatory Flexibility Act stated that the Office of Advocacy must be concerned about the regulatory impacts on small entities.¹² Up to now that has meant that we have investigated the impacts on small business and small governmental units. Our current research efforts have expanded the definition to include small farms and small firms in rural areas.

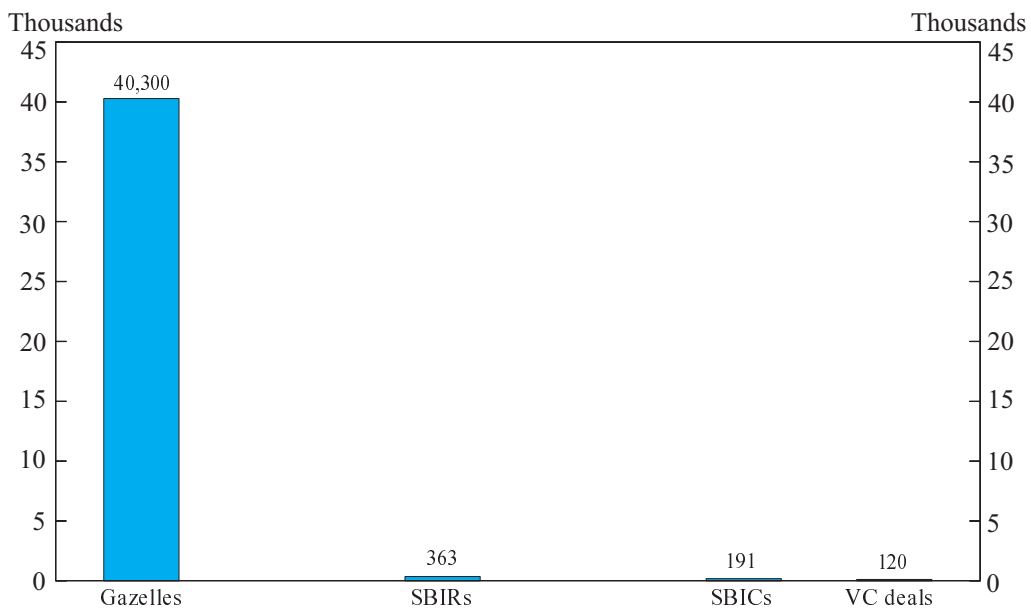
SBA has been active in reaching out to underserved groups in the cities. Now the SBA’s

Chart 6
FAST GROWING FIRMS (U.S. TOTAL), 1997



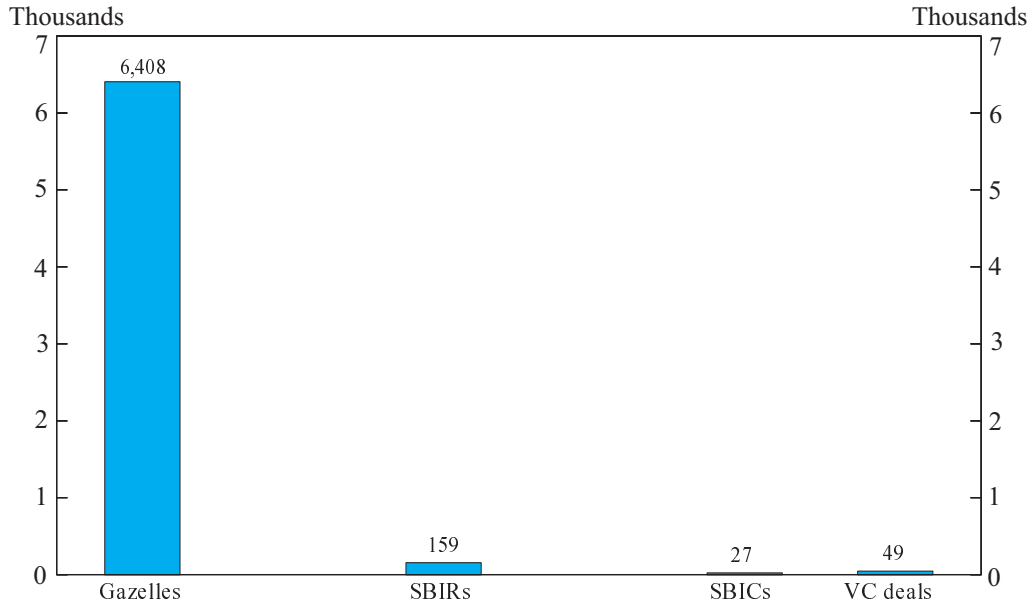
Source: Office of Advocacy, U.S. Small Business Administration, based on data provided by the National Venture Capital Association, U.S. SBA, and Cognetics, Inc.

Chart 7
FAST GROWING FIRMS IN HEARTLAND STATES, 1997



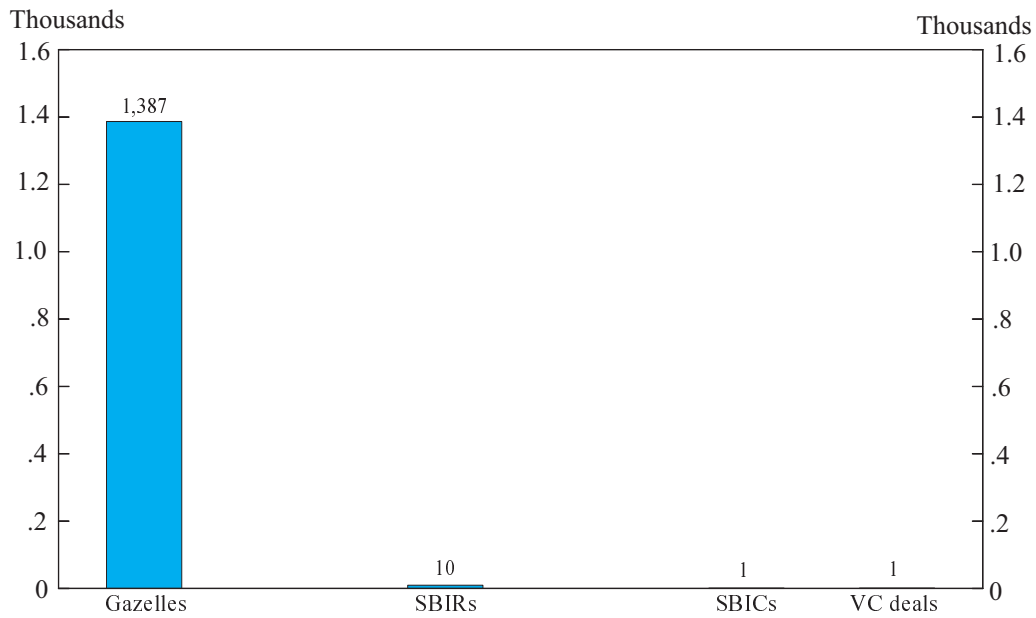
Source: Office of Advocacy, U.S. Small Business Administration, based on data provided by the National Venture Capital Association, U.S. SBA, and Cognetics, Inc.

Chart 8
FAST GROWING FIRMS BY STATE (COLORADO), 1997



Source: Office of Advocacy, U.S. Small Business Administration, based on data provided by the National Venture Capital Association, U.S. SBA, and Cognetics, Inc.

Chart 9
FAST GROWING FIRMS BY STATE (MONTANA), 1997



Source: Office of Advocacy, U.S. Small Business Administration, based on data provided by the National Venture Capital Association, U.S. SBA, and Cognetics, Inc.

Office of Advocacy is also focusing on underserved groups in rural areas. Thus, the Office will help to develop effective policies for rural America. Our goal is to help all rapidly growing small entities in the world of growing merger activity and global movement of funds. It is

crucially important for the health of the economy that the entrepreneurial innovators in both the rural and urban parts of the country be allowed to grow their businesses, so that they can continue to generate the jobs needed to maintain our full-employment economy.

ENDNOTES

¹ For information on this issue see Office of Advocacy, U.S. Small Business Administration, *The Impact of Bank Mergers and Acquisitions on Small Business Lending: A Conference Report*, January 1998.

² Federal Reserve Bank of Kansas City, *Fed Letter*, Sept. 1998.

³ <http://www.sba.gov/advo/stats>.

⁴ Since this file contains individual firm data, only Census agents can use it.

⁵ Office of Advocacy, U.S. Small Business Administration, *Mergers and Acquisitions in the United States, 1990-1994*, October 1998, and U.S. Government Printing Office, "New Data for Analysis of Small Business Job Creation," *The State of Small Business, 1997, A Report of the President*, forthcoming.

⁶ The Heartland states are Colorado, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, and Wyoming.

⁷ A gazelle is a rapidly growing firm that has doubled in

size within four years, starting with a revenue base of at least \$100,000.

⁸ Recent examples are Federal Reserve Bank of Kansas City, *Financing Rural America*, April 1997, and U.S. Department of Agricultural, *Credit in Rural America*, Agricultural Economic Report no. 749, 1997.

⁹ U.S. Department of Agriculture, *Can Federal Policy Improve the Performance of Rural Mortgage Markets*, Agricultural Information Bulletin No. 724-12.

¹⁰ <http://www.sba.gov/advo/stats>.

¹¹ Records are kept on the venture capital deals (VC), the Small Business Innovative Research (SBIR) deals, the Small Business Investment Company (SBIC) deals, but not on the angel capital deals which we estimate in the 30,000 to 40,000 range. Since these are the numbers of deals with all firms, the problems for gazelles are underestimated.

¹² *The Regulatory Flexibility Act*, 5 U.S.C. 605 (b).