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Small Business - A Key Element of the U.S. Economy

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SMALL BUSINESS - A KEY ELEMENT
OF THE U.S. ECONOMY

James Joseph Gudasky, BSEE



A Digest to the Faculty of the Graduate School of the
Lindenwood Colleges in Partial Fulfillment of the
Requirements for the Degree of Master of Science.

Digest

The purpose of this report is two-fold. First, it is to evaluate through various statistical parameters, the importance of small business to our economy and society; namely, unemployment and its effects upon business starts, worker characteristics, product quality with regard to large and small business competition, manufacturing innovation as it applies to the small business management approach the stringent hierarchy of large business and job generation. The second, this report attempts to project and/or hypothesize the direction or trend of small business, via accessible government statistics for financing, government regulations, and other related data, in order to understand the needs and requirements of economic stability.

Of approximately nine million firms in the economy today, it is estimated that about 8.5 million are defined by the U.S. government as small businesses. These small businesses are important not only because of their quantitative magnitude, but also because they serve as a vehicle by which ideas for new products and services enter into the marketplace. It is important to note that the very existence of small businesses, including new ones which are being started continually, provides constant stimulation to

competition to the economy. This competition enhances the opportunity for new jobs, better or additional training, and better product development and quality.

What can be done by government changes in regulations or policies and by small business itself will be proven to be the most important aspects to the duration and stability of small business growth and its success in the 1980's.

COMMITTEE IN CHARGE OF CANDIDACY

Associate Professor - Dr. Jack King

Chairman & Editor

Adjunct Assistant Professor - Ramona Williams

This work is dedicated to my wife, Cora, and my
daughter, EB

COMMITTEE IN CHARGE OF CANDIDACY

Associate Professor - Dr. Jack Kirk

Chairperson & Advisor

Adjunct Assistant Professor - Bernie Weinrich

This work is dedicated to my wife, Chris, and our daughter, Christina, whose love is an ever present inspiration.

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On behalf of myself and family, I greatly acknowledge the work, time, and effort given to me by Mr. Bernie Weinrich and Mr. Jack Kirk, both on the faculty of Lindenwood College. Without their guidance and patience, this work may not have been written.

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A Culminating Project Presented to the Faculty
of the Graduate School of the University of
Illinois in Partial Fulfillment of the requirements
for the Degree of Master of Business Administration

1985

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of the U.S. Economy

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I. The Present Economy & Small Business

Economic Review

In 1983, the economy was quite healthy as real gross national product (GNP) and employment increased sharply, thereby increasing businesses performance throughout the year. In particular industries where large and small businesses compete, small business employment grew at a faster rate than large businesses in a significant amount. Where large businesses suffered severe employment losses in the past years, these industries showed remarkable success in returning back to pre-1980-1982 standards. This rebound and the fact that almost all manufacturing is dominated by large businesses meant a growing demand for small businesses - produced products, goods and/or services in order to support manufacturing including distribution, sales, and outside services. There were, in 1983, six statistics that showed the strength of the economy. They are as follows: (1) real GNP rose 6.2 percent; (2) business bankruptcies declined 30 percent; (3) the unemployment rate declined from 10.7 percent to 8.2 percent; (4) non government employment increased by 3,600,000; (5) the index of industrial production rose by 15.9 percent and (6) the inflation rate, as measured by the GNP price deflated, remained relatively low at 4.2 percent.

The SOI, Statistics on Income, showed that small business income grew 18 percent over the previous reporting period which was the last 6 months of 1982 vs. 1983. Corporate profits rose 18 percent in 1983 and of course, the economy is better when unemployment is low.

In order to count businesses, government makes two distinctions: between businesses with and without employees and between businesses with more or less than \$10,000 in gross sales in recent years. Further, government requires that firms with less than 100 employees are to be considered small businesses.²⁰ While this may sound somewhat confusing, it really isn't. Government uses the figure of 500 employees as standard for an enterprise and 100 or less for a small business. Depending upon what industry is being studied, either of the two numbers may be used to more adequately describe the conditions of that industry.

There are two basic data sources used for counting small businesses. The first is the Statistics of Income (SOI), as published by the Internal Revenue Service. As an example of data stored, in 1981, 1.3 million businesses were sole proprietorships, 1.5 million were partnerships and 2.8 million were corporations. The other data base is the Small Business Data Base or (SBDB) of the Small Business Administration. This data base contained 4.4 million enterprises and 5.5 million establishments in 1982.

In order to understand the reporting process of the above, the following information is required. An establishment is defined as a single physical location where business is transacted. An enterprise, or company, is a business organization consisting of two or more establishments under the same ownership. It should be noted that the SBDB retains information on mostly all businesses in the U.S.A. which utilize the credit markets.

Omitted from SBDB, but included in the SOI, are self-employed, non-farm proprietors many of which are part-time businesses; therefore, when farm returns and tax returns with under \$10,000 in gross receipt are extracted from the SOI, the remaining number of businesses may be considered the upper limit of the number of non farm businesses.

Since the SOI and the SBDB contain information on each business or establishment, legal restrictions require that SOI or IRS data can only be disclosed in average or summary measures. Because of these restrictions, data presented from these data bases must be considered an average or trend in the explanation of what is being discussed for the time frame being referenced.

Small Business - Composition

Small businesses are changing the economy of our society and that change is an important observation to small businesses. Consider the following data as obtained from the Small Business Data Base, 1982.

Table 1

<u>Industry</u>	<u>Number</u>	<u>Percent Distribution</u>
All Industries	4,369,726	100.0
Agriculture, Forestry, & Fishing	123,669	2.8
Mining	36,240	0.8
Construction	622,209	14.2
Manufacturing	377,145	8.6
Transportation, Communi- cations & Utilities	154,741	3.5
Wholesale Trade	435,885	10.0
Retail Trade	1,266,821	29.1
Finance, Insurance & Real Estate	330,147	7.6
Services	1,022,869	23.4

Source: The above data is in thousands and can be obtained from the Small Business Administration, Office of Advocacy, Small Business Data Base.

According to the SBDB, the industrial composition has changed. If the data base for 1976 were compared to the 1982, as shown above, the following results would be quite dramatic. First, service firms would show an increase from

19.1 percent in 1976 to 23.4 percent in 1982. The retail trade firms declined during this period from 34.4 percent to 29.1 percent in 1982. All shares which represent other sectors of the distribution changed by less than one percent since 1976. By using the definition that less than 500 employees represent a small business, 99.7 percent of all firms in 1982 represented total enterprises, employed 47.8 percent of total non-government - non-farm employees, contributed 42 percent of sales and represented approximately 38 percent of GNP.

In 1982, the number of enterprises in the SBDB rose by 397,000 or 10 percent as compared with a non recessionary period between 1978 to 1980. It can be shown that each recession period, the number of small businesses increases from whatever the amount in prior non-recession years. Let us look at the distribution of new enterprises between 1980 and 1982.

Table 1.0

Distribution of New Firms by Major Industry 1980-1982

Industry	%
Agriculture, Services, Forestry and Fishing	1.5
Transportation, Communication, and Public Utilities	1.8
Manufacturing	3.1
Wholesale Trade	5.9
Finance, Insurance and Real Estate	4.1
Construction	19.5
Retail Trade	12.3
Services	17.8
Mining	1.9

Source: Office of Advocacy, Small Business Administration, SBA's Business Data Base for 1980-1982.

Table 2

<u>Industry</u>	<u>Total</u>	<u>Employment Size of Enterprise</u>		
		<u>1-19</u>	<u>20-99</u>	<u>100 or more</u>
All Industries	397.2	379.5	14.3	3.4
Agriculture, Forestry & Fishing	15.3	15.1	0.2	0.0
Mining	7.7	6.5	1.0	0.2
Construction	49.6	50.9	-1.0	-0.3
Manufacturing	25.1	23.3	1.7	0.1
Transportation, Communications & Utilities	15.7	14.4	1.1	0.2
Wholesale Trade	35.6	36.2	-0.2	-0.4
Retail Trade	68.5	68.1	0.1	0.3
Finance, Insurance & Real Estate	38.5	39.7	-0.4	-0.8
Services	141.2	125.3	11.8	4.1

A tabular view of the same data showing the major distribution of new firms between 1980 and 1982.

Table 1.0

Distribution of New Firms by Major Industry 1980-1982

<u>Industry</u>	<u>%</u>
Agriculture Services, Forestry and Fishing	3.8
Transportation, Communication, and Public Utilities	3.9
Manufacturing	6.3
Wholesale Trade	9.0
Finance, Insurance and Real Estate	9.7
Construction	12.5
Retail Trade	17.3
Services	35.6
Mining	1.9

Source: Office of Advocacy, Small Business Administration, Small Business Data Base for 1980-1982.

As the table indicates, 35.6 percent of small business in the period from 1980 to 1982 was service type business; real estate followed at 17 percent and construction was third at 12.5 percent. These new businesses were people that were unemployed and started new businesses in construction and trade. As shown, if most new jobs were being generated in new businesses, then those jobs which were lost from larger firms may represent an effort in some industries to find a more advantageous and profitable operating size. Further and if a supposition were in order, could it not be asked whether or not these firms were using the recession periods to increase their automation capabilities and hence reduce human operating cost by increased mechanical efficiency? Between 1982 and 1984, the automation industry was very active and profitable; according to various issues of the Wall Street Journal. Also, consider plants such as Wentzville here in Missouri and the proposed new GM plant to be built for producing the new automobile called "Saturn". If this trend were to continue, it indeed would represent a major threat and increased competition to small businesses. While these trends may be developing, the share of Gross National Product (GNP) produced by small businesses has been declining from 43 percent in 1963 to 39 percent in 1976.

While small businesses appear to be productive, large business and government are increasing their percent of GNP. Is the bureaucracy becoming more efficient, are companies that are profitable being bought off the market, and are large companies competing with small businesses?

The answer, of course, is yes. While it may be difficult to ascertain the effect of deregulation on the economy or the employment statistics, certainly the creation of small business in sectors which require little or no capital investment dollars would lend itself to increased statistical change. From what is evident thus far, deregulation is causing a major shift toward more independence and self-employment in some selected industries such as warehousing, distribution and/or trucking. It can be shown that wage and salary employment in trucking declined but the number of new enterprises rose in that same period.²³

Small Business Formation

There are two indicators of business formation; (1) business starts and (2) new business incorporations. This information can be obtained from Dunn and Bradstreet Surveys. A third method could be to count the number of income tax returns filed. Unfortunately, old data would only describe history, but if regression analysis were used, a trend could be predicted and projections of future growth

may be useful. In order to discuss business starts between 1982 and 1983, the preferred system will be used. New starts are businesses which require credit and they are added to the Master Credit information file. There are 5.5 million businesses or more which are maintained by the Dunn & Bradstreet Corporation. Though the business start service varies cyclically, business starts represent businesses that exist and are raising the credit markets regularly.

The following table will show the number of new business incorporations between 1973 and 1983.

Table 3

New Business Incorporations

Year	Number	Annual % Change
1983	596,178	5.2
1982	566,942	-3.8
1981	581,242	8.9
1980	533,520	1.7
1979	524,565	9.7
1978	478,019	9.6
1977	436,172	9.1
1976	375,766	15.1
1975	326,345	2.3
1974	319,149	-3.2
1973	329,358	

Source: Dunn & Bradstreet "New Incorporations" press release of November 14, 1983.

As noted earlier, periods of high unemployment usually stimulate the formation of new businesses. Once again, it is noted that recent increases in self-employment and business formation reflect changing social values as well as revival of the entrepreneurial spirit. The flexible hours created

by new firms allow the worker more time to earn additional income or invest in other enterprises. In general, the economic system is reflecting changes in social values through increased business formations.

In order to further evaluate deregulation on businesses in our economy, the following Table 4 is presented for reference.

Table 4

New Business Starts in Deregulated Industries
1978-1983

	1982-1983	Annual % Change 1980-1982	1978-1980
All Industries	12.9	-0.1	11.8
Transportations, Communications & Public Utilities	15.2	2.5	-8.6
Trucking & Warehousing	17.3	-3.7	-4.0
Transportation by Air	-3.8	2.5	-8.6
Transportation Serv.	14.1	11.1	-4.0
Communications	31.3	16.0	5.3
Finance, Insurance, & Real Estate	33.0	-2.4	-17.2
Banking	3.7	68.9	8.4
Credit Agencies other than Banks	68.4	-2.7	0
Security, Commodity Brokers & Serv.	38.7	15.9	-3.8
Real Estate	36.6	9.0	-19.5
Insurance Agents, Brokers & Serv.	9.5	4.5	-11.0
Combo - Real Estate & Ins. Offices	26.4	6.5	-28.1

In reviewing the data in the previous Table 3, deregulation has indeed increased business starts. Consider the percentages, 33 percent in the Financial Area and 15 percent in Transportation and Communications areas as compared to 13 percent in the overall industry. Of particular importance is the 68 percent starts in the non-bank credit agencies. Once again, this shows an indication of low investment capital in starting a business, including a basic conservative trend that the population, in all classes, are becoming more aware and/or educated in business. If this indeed is the trend, then competition will become more fierce and mergers at the small business levels could produce substantially strong mid-size companies in the future.

Bankruptcy

As in any economy, there are successes and failures. In absolute terms, both bankruptcies and business failures increased between 1982 and 1983, though at a decreasing rate. Long-term structural changes in the economy are contributing toward permanently higher rates of business failures and formations.

Business turnover has increased. This is defined as the rate at which new businesses start and stop. As new businesses start and fail faster, it becomes inevitable that business growth will result in some increases in failures

and bankruptcy. Recent shifts toward self employment has been occurring since approximately 1977. As more people shift from companies toward self employment, risk of failure increases dramatically. Presently, there are no statistics that show this relationship; however, studies are being conducted by various organizations in an effort to establish this trend or relationship. The intent is to determine to what extent the 1978 bankruptcy laws, as changed, may have contributed to the increase in filings for bankruptcy petitions.

State Indicators of the Economy

While the economy and small business trends have changed on the average national level as stated previously, what can be said about improved changes to the economy and how states or regions coped with the 1981-1982 recession, including their ability to generate jobs, on a regional or state level?

Firstly, between January and June of 1983, there was a 6.6 percent increase in incorporations as compared to the same period in 1982. While this may be partly attributed to early (forced) retirements, the percentage was not determinable. Many states were hard hit economically and suffered many job losses. Ohio, Michigan, Indiana, Illinois and Wisconsin were the major ones. During 1981-1982, records show that unemployment may have helped stimulate new

business formations. Consider that in 1983 there was a 7 percent increase in incorporations and in the 1981-1982 recession period, there was an increase of 12 percent in business formations in areas or states such as Iowa, Missouri, North Dakota, Minnesota, Kansas and South Dakota. The following table will show pictorally a better relationship between new business bankruptcies and new business incorporations.

Table 5

Business Bankruptcies and New Business Incorporations by Major Census Region - Between 1982-1983. Reported as Percentage change in January-June Statistics.

U.S. GEOGRAPHICAL REGIONS

Source:	Business Bankruptcies	New Business Incorporations
U.S. Total	2	7
I. Pacific	14	2
II. Mountain	12	13
III. W. North Central	-2	12
IV. E. South Central	-14	6
V. Middle Atlantic	-21	11
VI. New England	-12	9
VII. E. North Central	-2	7
VIII. South Atlantic	-4	9
IX. W. South Central	28	-5

NOTE: The states included in each of the regions are as follows:

- I. Pacific - Washington, Oregon, California, Hawaii, Alaska

- II. Mountain - Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada
- III. W.N. Central - Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas
- IV. E.S. Central - Kentucky, Tennessee, Alabama, Mississippi
- V. Mid Atlantic - New York, Pennsylvania, New Jersey
- VI. New England - Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- VII. E.N. Central - Ohio, Illinois, Indiana, Michigan, Wisconsin
- VIII. S. Atlantic - Florida, Georgia, South Carolina, West Virginia, North Carolina, Virginia, Delaware, Maryland, District of Columbia
- IX. W.S. Central - Oklahoma, Texas, Louisiana, Arkansas

Source: Bankruptcies: Administrative Office of the U.S. Courts, Statistical Analysis and Reports Division, Unpublished data, Dunn and Bradstreet Corporation Press Release, October 11, 1983.

One interesting point that is evidenced from the table is that the recession and recovery has been an equalizer of regional trends in business formation. This is depicted in the slowdowns in business formations in the Southwestern and Western states that had higher rate starts of new businesses in earlier years between 1976 and 1980. As can be noted in the group, certain areas of the country were affected more than others. The dramatization of this fact can be observed by the 21 percent decline in the Middle Atlantic states (Region V). If Regions III and II are evaluated closely, it is obvious that there are economic differences in regions

but also differences in business philosophy. These differences could explain the variance between bankruptcies and new business incorporations in these two regions.

Regions with significant economic growth, like Montana, Nevada, Utah, Colorado, Wyoming, New Mexico and Arizona usually have high rates of both business failures and bankruptcies mainly because of rapid business formations. While this may be the case for the above states, it may be that states, like the midwest states, included in regions III and VII have had failures because of poor business climate and possibly reflect the midwest aura of banking conservatism. In general, it can be shown from the data that declines in income during the recession period from 1981 to 1982, sparked a recovery in new business formations. Personal income is a key element in motivating people in general to create businesses as proprietorships. If incomes are not increasing at a rate which allows the individual to make economic gains, then there are a limited number of alternatives left to him. Consider also that corporations and unions are not looked upon in the same favorable light as in the past, mainly because of their own self interests regardless of their past records.

Between January and June of 1983, personal income rose approximately 4 percent compared with the prior six month period. This 4 percent increase in the midwest states is a

relatively good indicator of the decline or regression of the recession in those areas and reflects the change or trend of the U.S. economic condition as a whole. Farm states, such as Missouri, Kansas, Iowa, and Nebraska have increased in income growth not through large corporations but through the creation of proprietorships.²⁹ This last recession seems to have had a very strong impact on the individual such that they themselves want to control better their own resources and future.

The following Table 6 will show that the western states of Alaska, Idaho, Oregon and Washington grew 34 percent faster in proprietorships than the nation between January and June of 1983, as compared to the last six months of 1982. The most significant point to note here is that wages and salary income in the western states grew at the average rate. Therefore, it is the proprietorships which were created in this region of the Western states that lifted the region significantly above the average growth position.

The data is represented as follows: Percent change in Personal Income and Proprietorship Income by Region - July through December 1982 and January through June 1983.

- VI. New Mexico, Delaware, Texas, Louisiana, Alaska
- VII. Kansas, Iowa, Missouri, Nebraska
- VIII. Montana, Colorado, N. Dakota, S. Dakota, Wyoming
- IX. California, Nevada, Nevada, Arizona
- X. Oregon, Washington, Idaho, Alaska

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Accounts

Table 6

<u>USA Region</u>	<u>% Proprietorship Income</u>	<u>% Personal Income</u>
Region I	13.5	3.1
Region II	12.9	3.4
Region III	13.8	3.0
Region IV	13.2	4.8
Region V	14.3	3.9
Region VI	10.7	1.9
Region VII	14.7	4.0
Region VIII	14.8	4.4
Region IX	14.0	4.1
Region X	18.9	4.6
Total U.S. Average	14.08	3.72

NOTE: Definition of the 10 regions as defined by the Small Business Administration are as follows:

- I. Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
- II. New York, New Jersey
- III. Pennsylvania, Virginia, West Virginia, District of Columbia, Delaware, Maryland
- IV. Mississippi, North Carolina, Tennessee, South Carolina, Kentucky, Georgia, Florida, Alabama
- V. Wisconsin, Ohio, Minnesota, Michigan, Indiana, Illinois
- VI. New Mexico, Oklahoma, Texas, Louisiana, Arkansas
- VII. Kansas, Iowa, Missouri, Nebraska
- VIII. Montana, Colorado, N. Dakota, S. Dakota, Wyoming, Utah
- IX. California, Hawaii, Nevada, Arizona
- X. Oregon, Washington, Idaho, Alaska

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Measurement Division.

These new proprietorships created new jobs during the recession period. Eighty five percent of these jobs were created in three regions of the U.S.A.. They were the Mountain, Pacific, and West South Central Regions and further contributed to a large extent the majority value of jobs attained in the U.S. marketplace.

Firms with employees under twenty people generated effectively all of the 984,000 new jobs between 1980 and 1982, considering the increase of 2.6 million jobs in small businesses offsetting the loss of approximately 1.66 million in large firms. Without a doubt, the creation of new jobs in regions which were not growing out of the recession were helped by easing the shock of the economic adjustments that were taking place. For example, in the Middle Atlantic States and the New England region, jobs lost from large companies were completely absorbed by small firms. It is this example that reflects the trend in economic conditions not only for the regions, but for the U.S. as a whole. It therefore seems appropriate and evident that the trend in the 1980's may be to smaller, more efficient and productive companies.

That which has been reviewed thus far has been related to the national or regional economic recovery as it relates to small business development and progress. Though this information is important to small business on the scales

described, state economic indicators are more important because they represent the economic conditions faced daily by "the directors of the boards," so to speak.

States may be ranked in accordance to their relative importance to business in our economy. In general, large business states have the fewest small businesses. Conversely, those states with large dependent populations and businesses have a greater percentage of small firms or businesses. Without providing data, let it be known that Missouri ranks about middle class in the average small business employment category. This means that between 30 and 35 percent of total employment is in small business firms of under 100 employees.²²

Changes in personal income is most important to small businesses and individuals not to mention the Internal Revenue Service. Therefore, it is necessary to look at two tables to make some interesting observations. Table 7 will describe changes in wages and salary plus proprietorships by U.S. Region.

Region IV			
W&S	457,107	470,486	1.03
Prop	36,965	31,876	0.86
Total	494,072	502,362	1.02
Region V			
W&S	617,231	627,280	1.02
Prop	41,244	47,884	1.16
Total	658,475	675,164	1.03
Region VI			
W&S	381,798	388,110	1.02
Prop	28,540	25,273	0.88
Total	410,338	413,383	1.01

Table 7

Changes In Personal Income for SBA Regions by Source of Income Pre-Recovery (July to December 1982) to Post Recovery (January to June 1983)

Wage & Salary (W&S) and Proprietorship (Prop.)
Income in (Millions of Dollars)

	<u>Total</u> <u>July-Dec. '82</u>	<u>Total</u> <u>Jan.-June '83</u>	<u>% Change</u> <u>Jan.-June '83</u> <u>July-Dec. '82</u>
United States			
W&S	3,153,303	3,246,648	2.96
Prop	219,326	249,334	13.68
Total	3,372,729	3,459,982	3.66
Region I			
W&S	183,047	187,596	2.49
Prop	10,548	11,973	13.51
Total	193,595	199,569	3.09
Region II			
W&S	391,000	402,359	2.91
Prop	19,683	22,220	12.89
Total	410,683	424,579	3.38
Region III			
W&S	345,699	354,135	2.44
Prop	18,999	21,525	13.77
Total	364,618	375,660	3.03
Region IV			
W&S	452,127	470,486	4.06
Prop	36,965	41,826	13.15
Total	489,092	512,311	4.75
Region V			
W&S	612,231	631,581	3.16
Prop	41,944	47,954	14.33
Total	654,175	679,535	3.88
Region VI			
W&S	361,790	366,333	1.26
Prop	26,540	29,374	10.68
Total	388,330	395,707	1.02

Region VII

W&S	144,890	148,752	2.67
Prop	17,965	20,599	14.66
Total	162,855	169,361	3.99

Region VIII

W&S	99,076	102,446	3.40
Prop	9,219	10,579	14.75
Total	108,295	113,025	4.37

Region IX

W&S	451,642	467,506	3.51
Prop	27,488	31,335	14.00
Total	479,130	498,941	4.11

Region X

W&S	111,801	115,454	3.27
Prop	10,055	11,950	18.85
Total	121,856	127,404	4.55

Note: The 10 regions of the Small Business Administration are as stated in earlier data/graphs from Table 6.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economics Measurement Division. Data excludes employer pension contributions and other labor income sources.

From Table 7 above, Table 8 can be described: Percent change in Personal Income by SBA Area.

Table 8

July-December 1982 vs. January-June 1983
Percent Change for Personal Income by SBA Region

Region	Total Personal Income	Wage & Salary Income	Proprietorship Income
U.S. Total	3.66	2.96	13.98
Region I	8	8	7
Region II	7	6	9
Region III	9	9	6
Region IV	1	1	8
Region V	6	5	4
Region VI	10	10	10
Region VII	5	7	3
Region VIII	3	3	2
Region IX	4	2	5
Region X	2	4	1

Note: This data set excludes pension contributions and other non-labor income items and is derived from the previous data set.

The regions of the Small Business Administration are as previously described in the first data set.

Source: U.S. Department of Commerce, Bureau of Economic Analysis Regional Economics Measurement Division.

Data sets Table 7 and Table 8 can now be used to discuss changes in personal income by region or area. In reviewing the results of the U.S. economy, it is clear that total personal income increased by 3.7 percent, salary and wages by three percent and proprietorship income by 13.7 percent during the last six months of 1983. There are large differences in the rate by which regions in general are recovering from the recession period of 1980-1982. Personal income also changes dramatically with cyclic businesses and income potential or growth is directly related to the

availability of jobs. For instance, the West South Central Region generated the most new jobs between 1980 and 1982 yet had the smallest income increase of approximately 2 percent. This is attributable to income and employment effects related to declines in the mining industries. Further, this bears out the fact that cyclical firms and employment are directly and proportionally related.

In considering Region VII, which includes such states as Iowa, Kansas, Missouri and Nebraska, proprietorship income has increased by 14 percent, whereas wages and salaries have increased by only 2.7 percent; well below the national average. While it seems that this rate of change different in income is quite substantial, it should be recognized that proprietorships are usually heavily financed and usually represent a 65 to 70 percent debt to equity ratio.²⁸ Whether or not this debt to equity ratio is reflective regarding a reduction in income is by itself relatively unimportant as compared to the fact that proprietorships do show substantially greater rates of income than wage and salary incomes. Many of the total income figures mask out the rapid increases in proprietorship incomes. In the states mentioned above, the resurgence of farm proprietorship income greatly stimulated the overall rate of personal income growth in that region.

Pretty much the same thing happened in the states of Oregon, Idaho, Washington and Alaska. These states ranked

second of the ten regions in income between the second half of 1982 and mid-1983, basically because the proprietorship income (that income derived from business transactions, retained earnings and asset depreciation) grew at a rate of 40 percent faster than the nation in total. Yet, wage and salary income grew at a rate just above the national average of 3 percent.

Recession Effects on Small Business

The recession of 1980-1982 began a trend toward self-employment as can be verified in the data of the previous tables. In the recessionary period, self-employment grew while wage and salary employment decreased by approximately one percent. Non-farm self employment grew by four percent. Because manufacturing states were the hardest hit, Illinois for example, saw self employment rise by five percent, which was above the national average. The last recession was quite unique because more states than in previous recessions substituted proprietorship income for wage and salary incomes due to declines in employment. Self employment income growth exceeded wage and salary income in twenty-two states during the last recession as compared to only three in 1974-1975. In the 1983 Small Business Report, these occurrences reflect a continuation of long-term trend toward more self employment.

The jobs that were generated by regions and/or state areas are quite interesting to observe. Of the 948,000 new jobs created between 1980-1982, above 85 percent came from three regions of the country, namely, the Mountain, Pacific and West South Central regions. The West South Central states of Arkansas, Texas, Oklahoma and Louisiana generated about 48 percent of total employment, even though they only comprised 11 percent of total employment. Consider the following Table 9 and the effects of the statement just made regarding small firms under 100 employees.

Table 9

Share of Employment vs. Share Growth for All Firms and Small Firms (Reported from 1980-1982 in percent)

	All Firms		Small Firms	
	<u>Share of Employment</u>	<u>Share of Growth</u>	<u>Share of Employment</u>	<u>Share of Growth</u>
Total USA	100.0	100.0	100.0	100.0
New England	6.1	4.1	5.6	5.4
Mid.Atl.	16.5	5.3	16.4	14.5
E.N. Cent.	18.8	0.0	16.3	5.7
W.N. Cent.	7.3	0.0	8.0	3.4
S. Atl.	15.4	7.3	15.4	19.6
E.S. Cent.	5.3	0.0	5.0	2.5
W.S. Cent.	11.3	47.6	11.8	22.0
Mountain	4.9	16.9	5.8	8.3
Pacific	14.4	18.8	15.7	18.6

Note: The above indicates employment loss for the above reporting period.

The states represented in the above areas/regions are as follows:

New England - Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut

Middle Atlantic - Pennsylvania, New York, New Jersey

East North Central - Ohio, Illinois, Indiana, Michigan, Wisconsin

West North Central - Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

South Atlantic - Delaware, Maryland, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida

East South Central - Alabama, Mississippi, Tennessee, Kentucky

West South Central - Arkansas, Oklahoma, Louisiana, Texas

Mountain - Montana, Idaho, Colorado, Arizona, New Mexico, Nevada, Utah, Wyoming

Pacific - Oregon, California, Alabama, Hawaii, Washington

Source: Small Business Administration, Office of Advocacy, Small Business Data.

During this period, the West North Central states, the East North Central states, and the East South Central states lost 685,000 jobs, but small firms with under 20 employees generated 471,000 new jobs which helped, once again, to offset large firm unemployment. Once again, small firms came to the aid of employment and the economy.

In looking at business births and expansions in the previous table, the West North Central area is of importance. Business incorporations in the states of Iowa, Kansas, Missouri and Nebraska increased 11.7 percent. This region ranked last of ten in the recession period and yet in 1983 has recovered to the top one-third position.

In general, the following comments may describe better the statistics presented thus far. First, the Middle Atlantic states are experiencing a relatively strong revival from the recession according to jobs generated and business incorporations.

Second, the New England and Middle Atlantic Regions have increased their share of new businesses basically at the expense of other regions.

Third, the dominance of the Pacific States was not as strong from 1980-1983 as it was in 1976 to 1980.

Fourth, the West South Central States and Mountain States contributed the largest share of both business starts and new jobs both in 1976-1980 as well as 1980-1983.

And finally, new businesses declined from January to June of 1983 in the West South Central states.

In summary, it seems to the writer that the economy during 1983 improved as described in the areas of GNP, personal income and employment. In this recovery of 1983, small businesses generated above average gains in jobs and income, especially in those geographical regions of the country that were adversely affected by the 1981-1982 recession.

Endnotes - I

20 Small businesses are defined as using one hundred employees per enterprise and five hundred per enterprise as standard. Five hundred employees per firm may be a more useful small business definition in manufacturing, whereas, one hundred employees per firm may be more useful in services, depending upon the degree of impact of small firms that are being studied.

21 U.S. Small Business Administration, Office of Advocacy, Small Business Data Base.

22 U.S. Small Business Administration, Office of Advocacy, Small Business Data Base.

23 Dunn and Bradstreet Corporation press release of December 6, 1982, and December 5, 1983.

28 U.S. Department of Commerce, Bureau of Economic Analysis; The Regional Economic Measurement Division.

29 Bankruptcies: Administrative Office of the U.S. Courts, Statistical Analysis and Reports Division, Unpublished Data, Dunn and Bradstreet Corporation Press Release, October 11, 1983.

II. Small Business - Changing Size and Composition Economic Performance

Shifts in businesses, the economy and employment have taken place in our economy. It has been observed that small business is an integral part of our society and the economy. Further, in some regions, it is the mainstay of that economy. The questions that might be asked then are: (1) how will the small business perform now and in the future; (2) what small businesses are most important to the economy; (3) how will employment be realized over time; and (4) what parameters best describe small businesses.

Between 1958 and 1977, consumer's demand for highly specialized and personal services, such as computers, data processors, computer programming, legal services and health services led to a sharp increase in new small businesses in these areas of service or expertise.

In order to evaluate economic performance, the study of long-term changes from an industrial organization perspective is required. This data is published by the U.S. Bureau of Census in Enterprise Statistics (ES) from 1958 through 1977. These are the latest years available.

The ideal situation would be to track historical trends of companies from their early beginnings to the present. Regardless, the data provided by ES and other major data sources are supplemental to ES variables. The other sources

include useful parameters such as the nation's industrial output and business population. If one were to review data series with ES, this review should eliminate some of dimension constraints of the data collected since it would show a trend over a time period and data could be evaluated accordingly.

The nation's economic performance is usually measured by the output of the producing industries. The most used measure of output is the market value of goods and services produced or to use a most familiar name, gross national product or GNP. There is another term, however, that is probably less well known, that is, GPO or gross product organizing. This entity of GNP measures the value that each sector or industry adds to production, that is, value added or the sectors sales less what is bought from other sectors. This value is return in the form of income to the factors of production, land, labor and capital. The returns to factors included in GPO are indirect business taxes, profit-type return, capital consumption allowances and net interest.

A report was prepared for the U.S. Small Business Administration's Office of Advocacy which changed annual estimates of GPO for the eight major private non-farm sectors of the U.S. Economy. In each industry sector, the GPO was estimated separately for small business, defined as enterprises independently owned and operated, and having fewer than 500 employees. This report as stated then uses

the definition of business sizes within the 500 employee definition. As a result, the GPO data can be used to measure output by two size dimensions, sector size and business size. Note that the amount of GPO contributed by each of the eight sectors is expressed in absolute terms and each small business contribution in each sector by relative terms. The information is presented in table form and is expressed as follows:

Table 10
Gross Product Organizing by Industry Sector and
Its Small Business Component, 1958 and 1977

Industry	1958		1977	
	Sector Total (Billions\$) ¹	Small Business Component (%) ²	Sector Total (Billions\$) ¹	Small Business Component (%) ²
Total	374.0	51	1,595.9	47
Small-Business Dominated				
Wholesale Trade	30.7	89	138.6	80
Retail Trade	44.5	75	183.7	60
Construction	21.0	88	86.6	80
Services	38.0	86	228.4	79
Large-Business Dominated				
Manufacturing	123.8	28	464.8	20
Transportation, Communication, & Public Utilities	40.4	19	170.9	18
Mining	12.4	52	47.4	30
Finance, Insurance, and Real Estate	62.4	49	275.5	48

1. Represents current dollars

2. Represents business with less than 500 employees.

Source: Joel Popkin and Company, "Estimates of Gross Product Organizing in Small Business: 1977 Benchmark and Revision of Intervening years since 1972 (Washington DC: Report prepared for the Office of Advocacy, SBA, under award No. SBA 2624-0A-79, September 1982).

Absolute terms are values expressed in dollar values that represent the comparison of variables over a time frame. Absolute changes, therefore, are changes in the size of a variable in a prior time frame. Consider the data presented in the previous table. The absolute total GPO was approximately \$1.2 trillion, which represents an annual growth rate of 7.9 percent. While this may be correct, it is more useful to examine the data in a little different way. The following table is provided to illustrate

One way is to express a variable that is part of a composite as a percentage of the total composite. For example, small business contributed 51 percent of the total GPO in 1958. This percentage or percent share declined to 47 percent in 1977. Now that these relative changes have been reviewed and their importance to the small business component of the industry sector are established, a complete review of the table will be presented.

Small business accounted for 47 percent of the total of \$1.6 trillion in the total GPO. This was a decrease from the 1958 value of 51 percent. While there was a wide variance in the small business GPO sector, from 18 percent to 80 percent, small business dominated four of the eight sectors of industry.¹

In small business dominated sectors, there is a decline in share of GPO. The two sectors which are most alarming are retail trade, down 15 percent and mining, down 22 percent.

An analysis of this decline leads to unique problems in each industry sector. In wholesale trade, the decline is blamed upon the small wholesaler's share of non-durable consumer goods; in retail trade, the decline is reflective of a shift from small businesses to large chains in eating place and service stations.²⁴ Employees' compensation, a major component of GPO, has declined for small businesses in all industry sectors from 1958 to 1977.

The following tables are provided in order to understand more clearly the relationship of distribution of sales/receipt by enterprise size class and the distribution of sales/receipts by enterprise employment size class.

Table 28

Enterprise Employment Size Class	Distribution of Sales/Receipts	
	1958	1977
	Percent	Percent
0	2.7	2.5
1-19	28.2	20.2
20-99	18.0	18.1
100-249	7.5	7.4
250-499	4.7	4.4
500+	38.9	47.4

Source: Department of Commerce, Bureau of Census, Enterprise Statistics: General Report on Industrial Organization (Washington Printing Office, 1958 and 1977).

Table 29

Distribution of Sales/Receipts by Enterprise Employment Size Class, 1958 and 1977

	Employment Size of Enterprise (Percent)							Grand Total
	0-19	20-99	100-249	250-499	Under 500	500+		
<u>Total All Covered Industries</u>								
1958	2.7	28.2	18.0	7.5	4.7	61.1	38.9	100
1977	2.5	20.2	18.1	7.4	4.4	52.6	47.4	100
Change	-0.2	-8.0	0.1	-0.1	-0.3	-8.5	8.5	--
<u>Small Business Dominated Industries¹</u>								
1958	5.3	47.4	22.9	6.6	3.1	85.3	14.7	100
1977	5.6	32.8	25.8	8.4	4.2	76.8	23.2	100
Change	0.3	-14.6	2.9	1.8	1.1	-8.5	8.5	--
<u>Large Business Dominated Industries²</u>								
1958	0.0	6.0	12.1	8.4	6.6	33.1	66.9	100
1977	0.1	3.9	8.5	6.0	4.6	23.1	76.9	100
Change	-0.1	-2.1	-3.6	-2.4	-2.0	-10.0	10.0	--

¹Includes wholesale trade, retail trade, and selected services; construction is excluded because data for both years was not available.

²Includes manufacturing and mineral industries.

Source: U.S. Department of Commerce, Bureau of Census, Enterprise Statistics (Washington, D.C., Government Printing Office, 1958 and 1977).

Sales/Receipts data from the ES confirm that the sales share of firms fell from 28 percent in 1958 to 20 percent in 1977 for firms with less than 20 people/employees. It should be noted that firms with more than twenty employees but less than 500 maintained a constant share of the market.

In summary, both the small business share of output and small business share of sales declined over the 1958-1977 period. Intermediate size businesses and large businesses dominated industries of minerals, and manufacturing did lose sales share in each category. Lastly, increasing sales share in the small business dominated industries in all categories above 1-19 employees, suggests that the optimum size of small business is becoming larger. While this may be a startling statistic, if small businesses are viewed as highly competitive in their own field, then economic stability can be more easily achieved through acquisition or mutual market share satisfaction or both.

Number of Interviews
Percent Share of Sales

Industry Sector	1977	Range From 1958 (Percent)	1958	1977
Total, All Concerned Ind. ¹	4,389,017	25.5	100	100
Small Business (1-19)				
Total	2,460,517	56.3	58	56.3
Wholesale Trade	1,000,180	40.6	34	40.6
Retail Trade	1,276,753	52.0	44	52.0
Selected Services	1,183,584	48.0	40	48.0
Large Business (20-999)				
Total	1,928,500	43.7	42	43.7
Mineral Industries	1,200,000	62.3	51	62.3
Manufacturing	728,500	37.7	31	37.7

¹ Includes industries where complete data was available.

Source: U.S. Department of Commerce, Bureau of Census, *Corporate Statistics* (Series: Sales of Industrial Organization) (Washington, D.C.) (Biennial Publication, 1958 and 1977).

Business Population and Economy - Overtime

The business population is reported by three sources. The sources are (1) ES and SOI or Statistics of Income as reported by IRS, and (2) County Business Patterns as compiled by the Bureau of Labor Statistics and (3) Enterprise Statistics as compiled by the Census Bureau.

The following Table 11 will express more clearly the state of the business population changes from 1977 as changed from 1958. Note: This is the latest data available.

Table 11

The Number and Distribution of Enterprises by Industry Sector, 1977 and Change from 1958

Industry Sector	Number of Enterprises 1977	Percent Distribution of Enterprises		
		Change From 1958 (Percent)	1977	Change From 1958 Percentage Points
Total, All Con- cerned Ind. ¹	4,399,017	36.5	100	0.0
Small Business Dominated				
Total	4,080,513	39.7	92.8	2.0
Wholesale Trade	293,522	36.1	6.7	0.0
Retail Trade	1,776,253	2.6	40.4	-13.4
Selected Services	2,010,738	106.2	45.7	15.5
Large Business Dominated				
Total	318,504	6.2	7.2	-2.0
Mineral Industries	22,358	-25.9	0.5	-0.4
Manufacturing	296,146	9.8	6.7	-1.6

¹ Includes industries where comparable data was available.

Source: U.S. Department of Commerce, Bureau of Census, Enterprise Statistics: General Report on Industrial Organization (Washington D.C.: Government Printing Office, 1958 and 1977).

It can be immediately observed that the small business dominated selected service sector ranks first in number of enterprises in 1977 and accounted for the greatest share of enterprise. In contrast, retail trade accounted for 54 percent of the enterprises in 1958 or 1.7 million firms and slipped to second place because of its low growth, 2.6 percent over a 19 year period.

In all, the service and retail sectors' high GPO contribution is attributable to the high number of independent enterprises which populate these sectors. Further, the manufacturing enterprises' capability to generate the largest GPO reflects the higher number of establishments owned by manufacturing firms.

While sales share declined in size from 1-19 as noted earlier, this decrease does not reflect a reduction of class size but a slower rate of growth. Further, in small business dominated sectors, almost all sizes in each sector grew admirably.

Small Business and Enterprise Employment - Overtime

Small business employment reflects economic activity and economic growth. Employment per enterprise ratios indicate whether the employment of the average business within a size class change from 1958 to 1977. Note that a change in the ratio can be considered a change in employment within the average firm. By size class, employment share

reflect employment growth in large firms that appeared in the increase in the employment per enterprises ratio.

Let us now look at the employment composition by industry. The following Table 12 will display the rapid formation for discussion.

Table 12

Enterprise Employment by Industry Sector
1958 and 1977

Industry Sector	Total 1958	Number of Employees 1977	Percent Change 1958-1977
Total of All Covered Ind. ¹	30,856,619	45,888,544	48.72
Small Business Dominated			
Total	13,002,231	23,290,309	79.13
Wholesale Trade	2,100,827	3,571,992	70.03
Retail Trade	8,031,960	13,560,387	68.83
Selected Serv.	2,869,444	6,157,930	114.60
Large Business Dominated			
Total	17,854,388	22,598,235	26.57
Mineral Ind.	569,789	645,975	13.37
Manufacturing	17,284,599	21,952,260	27.00

¹Includes industries for which comparable data was available.

Source: U.S. Department of Commerce, Bureau of Census, Enterprise Statistics (Washington D.C., for Print Office, 1958 and 1977).

Once again, it is clear from the data presented that small business expanded more rapidly than the large business industry.

While retail trade contributed to the most jobs, 5.6 million, the number of new retail enterprises grew very

little during the 19 year period. The second most active sector is the service group, which contributed 3.2 million jobs with a 1977 total of 6.2 million, more than double the 1958 level of employment. Wholesale trade expanded by approximately 1.5 million jobs. It is interesting to note that the rate of growth of 70.8 percent is almost double the rate of other firms in the sector. In general, it can be seen that the small-business-dominated sectors expanded their employment share unequally across the board.

Small-Business-Dominated Industries

Trends at the industry sector level are composites or net changes that generally hide patterns of growth and decline at the most detailed levels. The following Table is presented for clarity and discussion.

As nearly as can be determined, of approximately 22 small-business-dominated industries tracked from 1958 to 1977, only eleven registered an increase in their business employment share over the period. Only seven manufacturing industries are also shown for industries whose small business employment shares have declined over the time period stated.

In conclusion, regarding the economic performance, such as GNP and sales, these 11 leading sectors expanded their

Table

Percentage Change in Employment in Small Business
Dominated and Large Business Dominated
Industries, 1958 and 1977

Industry Sector	All Firms	Enterprise Employment Size				
		1-19	20-99	100-249	250-499	500+
Total, All ¹ Covered Industries	60.8	48.7	66.2	47.9	37.2	70.2
<u>Small Business Dominated</u>						
Total	79.1	33.1	177.2	91.8	112.7	151.2
Wholesale Trade	70.8	50.3	57.7	63.4	90.1	225.6
Retail Trade	68.8	14.3	100.4	111.4	83.6	131.2
Selected Services	114.6	75.1	96.0	131.6	171.0	227.4
<u>Large Business Dominated</u>						
Total	40.4	50.8	13.0	8.9	17.1	86.2
Mineral Industries	13.4	-55.3	-14.7	-9.0	13.9	42.8
Manufacturing	27.0	4.5	1.7	0.1	3.2	43.4

¹ Includes only industries for which comparable data was available for 1958 and 1977.

Source: U.S. Department of Commerce, Bureau of Census, Enterprise Statistics: General Reports on Industrial Organization (Washington, D.C.) Government Printing Office, 1958 and 1977).

As nearly as can be determined, of approximately 65 small-business-dominated industries tracked from 1958 to 1977, only eleven registered an increase in small business employment share over the period.²⁵ Oddly enough, manufacturing industries are also among the industries where small business employment shares have declined most in the time period stated.

In conclusion, measures of economic performance, such as GPO and sales, show all industry sectors expanded their

production of goods and services from 1958 to 1977. Across the private majority sectors, the output which was contributed by small and large dominated businesses expanded. In relative terms, there was a decline in the proportion of sales generated by the smallest business in work class 1-19. As a result, total small business share of sales declined from 1958 to 1977. Two small business dominated industries sectors, wholesale trade and selected services, grew quite well in enterprises and employees.

1-19 In small business dominated sectors, the number of enterprises and employees rose in nearly all sizes of firms. The smallest size, 1-19 grew at the slowest rate while large firms grew faster.

The total effect of these changes is a substantial rise in sales and employment per enterprise of large firms. Because the number of establishments per enterprise in manufacturing and mineral industries has shown a considerable increase, large businesses appear to have grown through acquisition. The sales-per-establishment data for small businesses confirms that firms have grown from within and without acquisitions as the larger firms have done.

It appears, from the data presented, that the measures of economic performance, such as GPO and sales indicate that all industry sectors expanded their production of services and goods over the 1958-1977 time period; however, the

pattern of growth was uneven across industries and across sizes of businesses. Consider that employment in small business-dominated industries expanded substantially, while employment in large business-dominated industries expanded at a much slower rate. Further, the most rapid growth in employment occurred in the small business-dominated industries and added the most enterprises from 1958 to 1977.

Small business continues to play an important role in all industry sectors; however, the smallest enterprise with 1-19 employees, grew at a lesser rate in both employment and number of firms. In all other firm sizes, growth occurred at a greater rate than the 1-19 size class. Consequently, these intermediate firm sizes maintained their employment shares over the period from 1958 to 1977.

The net effect of these changes is a rise in sales and employment per enterprise of the larger firms. The data presented appears to indicate that mineral and manufacturing industries have shown this increase in growth through the acquisition of small firms and their employment. The high establishment per enterprise ratio may indicate that the large firms grew by adding businesses but that the growth may reflect in dispersion of retail locations to suburbia. Since the establishment per enterprise ratio has changed very little for small business size class of firms, we might conclude that long-term growth of small businesses between

1958 to 1977 is attributable to the creation of new businesses and jobs. The sales per establishment data seems to confirm that small firms have grown internally without adding establishments as the large firms have done. In general, it seems clear that small firms with under 500 employees remain the dominant employers in fifty-two of the sixty-two detailed industries that are small business-dominated.

Endnotes - II

¹SBA's Office of Advocacy defines an industry as small business dominated provided 60% or more of that industry's sales or employment is fewer than 500 employees. Therefore, construction, wholesale trade, retail trade, and service sectors are small business dominated.

²⁴Joel Popkin and Company, "Estimates of Gross Product Organizing in Small Business; 1977 Benchmark and Revisions on Intervening Years since 1922" (Washington, D.C. report prepared for the Office of Advocacy, SBA, under award No. SBA 2624-0A-79, September 1982); hereafter, "Estimates".

²⁵Enterprise industry categories are redefined for each Enterprise Statistic Survey (ES). There is progressively more aggregation the farther back that a category is tracked. As a result, by 1958 a single category for 1977 becomes part of a 1958 category and cannot be isolated for separate analysis.



III. Historical Patterns - Small Business Financing

Financial Characteristics - Small Business and Large Corporations

The financial characteristics of small and large corporations are important not only to the nation, but to states and municipalities as well. In order to discuss these various elements of finance, it is important to define what is required.

Tax return data from the Internal Revenue Service (IRS) was used to analyze the financial patterns of both small and large non-farm, non-financial corporations from 1955 to 1980. In so doing, the small corporation was defined as a non-farm, non-financial firm with assets of under \$10 million. IRS determined that there were 2.1 million non-farm, non-financial corporations in the U.S. in 1980 out of a total of 11.4 million. This total includes 8.7 million sole proprietorships and 600,000 partnerships. The data presented here will reflect approximately 75 percent of the total business receipts for the entire group of 11.4 million small businesses. Differences in financial patterns between large and small business can be measured by comparing sources and use of funds by large and small firms as compiled on IRS tax returns. This flow of funds approach compares balance sheets taken at two different points in time. In looking at a balance sheet, each line on the

right-hand side of the balance sheet is a source of funds, such as an extension or an increase in payables, an assumption of long-term loans, use of bank credit is a retention of earnings in the net worth account. The left side of the balance sheet describes positive dollar changes for each line and further represents use or applications of funds. They could be for increased investment in fixed plant and/or equipment, increases in cash or receivables or increases in inventory or work in process. Together, they represent source versus application.

In 1980, total assets held by non-farm, non-financial corporations, small and large, were valued at approximately \$3.2 trillion. Forty-five percent was in short term current assets like cash, receivables and inventory; fifty-five percent was in long term assets, such as land, plant and equipment. Since these corporations owed \$1.9 trillion, their net worth was considered to be \$1.3 trillion. It must be observed that net worth could be increased from \$1.3 trillion if total assets were appraised at current or replacement prices, rather than book value. It must be kept in mind that tangible assets such as plant and equipment, inventory, and land will appreciate in value as inflation increases. This being the case, total assets and net worth will be higher at a current value than at book value.

Of the \$3.2 trillion in U.S. assets, approximately 20 percent were held by small corporations, that is, companies having assets of less than \$10 million. Current assets, those normally held for a period of less than one year, accounted for 63 percent of total assets of these companies as compared to 40 percent for large corporations. The following Table 13 will more clearly show the relationship stated.

Table 13
Percent Distribution of Assets and Liabilities
For Small and Large Corporations - 1978-1980 Average

	Large Corporations	Small Corporations
Total Assets (In Percent)		
Current Assets	40	63
Long-Term Assets	<u>60</u>	<u>37</u>
TOTAL	100	100
Total Liabilities and Net Worth (In Percent)		
Current Liabilities	29	43
Long-Term Liabilities	29	24
Net Worth	<u>42</u>	<u>33</u>
TOTAL	100	100

Source: Data Computed from U.S. Department of Treasury, Internal Revenue Service, Corporation Source Book of Statistics of Income (Washington D.C.; Government Printing Office, Various issues).

As noted above, demand for operating capital in the small firm leaves less of the firm's supply of capital available for long-term investment in capital and equipment. To maintain working capital at comfortable levels, small firms maintain a high level of current-debt-to-total-debt ratio. The charts shows a ratio for small corporations at 64 percent and for the large companies of 50 percent. It is quite evident that small firms rely more on short term debt, they are forced to carry more overall debt as shown by the debt to equity ratio² of 2.0 as compared to 1.4 for large corporations.

Source and Use of Funds - Small & Large Firms

\$500 billion of funds was used by all U.S. corporations each year from 1978 to 1980. Small and large companies varied greatly in their sources and use of funds. Large corporations relied on external sources of financing, specifically long term debt and capital. This amounted to about 30 percent of all funds used by large firms.

Large corporations are more able to generate funds internally than small firms - the differences at about 12 percent.²⁶ Retained earnings follow the same example except their difference is around two percent. The reason being is that the higher profit on equity earned by large corporations as compared to small corporations. Depreciation is the greatest source of funds for the small corporation as compared to the large corporation.

Large corporations, which went out into the market place for external funding, were able to raise of minimum of three to four times the funding of small corporations. Because the cost of obtaining this funding is quite expensive, small firms seldom use registration and underwriting to obtain funds. As a result, often shareholders of small corporations make loans to the corporation to maintain the business. Without saying, shareholders made such loan during times of economic distress or disaster. Small firms do not usually use term debt as much as large firms. Further, small companies were able to obtain trade concessions and even loans from suppliers. Granted that they were probably higher on the average, but they at least were attainable.

During inflationary periods, large and small firms need funds to maintain their level of inventory and receivables at the same value. While large firms have access to varied financial sources, small firms do not. Therefore, a cash holding position of the larger firm is more secure than that of a smaller one. In general, small firms have limited resources and rely quite heavily upon loans from corporate officers for acquisition of operating capital, while money managers or treasurers of large corporations have flexibility to sell short-term debt instruments.

Financial Condition of Small and Large Firms

It has often been said that small corporations deteriorate because of rising inflation and high interest rates, and this was quite pronounced throughout the last recessionary period (1980-1982). This should not be surprising because of small business dependence on short-term debt, their limited resources, and the expense of marketing small equity and debt instruments. Needless to say, this led many firms into a position of excess leverage with interest charges contributing to a reduction of real after-tax profits.

There may be occasions where leverage is justifiable and therefore, firms increase their leverage position. Two occasions seem practical. The first justification would be when they are able to secure tangible or physical assets at a time when investment rates are low and inflation is high. The reason for this strategy is that the adjusted-inflation, net-worth position is increased by appreciation during this inflationary period. The second occasion where leverage might be in order would be when real after-tax cost of debt financing is low. In general, the U.S. tax system, through

the deduction process, allows write-offs for such items as interest expenses and dividend payments. This, therefore, encourages debt financing over equity financing. One thing is clear. During an inflationary period leverage contributes to a firm's net worth. Of course, during a recession, the opposite is true and a firm is vulnerable to short term financing. In a period where interest rates increased rapidly, firms reported greater losses and succumbed to bankruptcy. Consider the position of the real-estate business for the last two years. These construction companies were highly leverged as is the nature of real estate. A summary of small business financing seems in order. The trends that occurred seemed evidently reasonable during the economic conditions that prevailed between 1966-1980.

Small firms have adjusted their asset and liability structure in response to the economy which was characterized by high inflation, high interest rates, and large change in sales and profits. Small and large corporations alike are increasing their dependence upon external financial institutions as a source for operating financing. Depreciation is no longer a source for funding and therefore, has declined as depicted by the decreased investment in plant and equipment assets.

Even though small corporations continue to rely on internal sources of funds and invest similarly in tangible assets, profit rates have not kept up enough to expand book value of receivables and inventory. Because of this, both large and small firms borrow more heavily than in past years.

As long as cash flow is in doubt because of real interest rates being high, the primary concern of all companies will be cash flow. The availability of funds is a major concern to both large and small firms alike; therefore, small business is presented with a problem which will eventually have to be addressed.

It appears to the writer, from the information presented, that small firms adjusted their assets and liability structure in response to an economy that was constantly changing due to high interest rates, rising inflation, and wide swings in sales and profits. Small and large corporations continue to increase their reliance on external borrowing as the main source of financing.

Most small corporations rely more on internal sources of funds and to invest the same percentage of funds in tangible assets. Further, they also continue to rely heavily upon short-term financing. In general, profit rates

were maintained during the 1970's; however, these rates were not sufficient to expand book value of receivables and inventory during the period of rising profits. Consequently, large and small firms borrowed more heavily than any past period.

The decay of liquidity among some corporations is a major problem in business. As long as real interest rates remain high, the generation of cash flow becomes problematic to most corporations. A slowdown in the rate of growth or a recession would put a liquidity crunch on many companies; hence, bankruptcies could rise.

For all the above reasons, periods of steady growth at stable interest rates are very important to small business and large corporations.

²The debt-equity ratio is the ratio of the sum of short-term plus long term debt to the book value of stockholders equity. Although some debt may be loans from shareholders, and this may be a form of equity, for purposes of financial analysis it treated to equivalent outside debt.

²⁶Funds that are generated internally include depreciation and retained earnings. Depreciation allowance is a business expense which provides reserve funds for the replacement of old equipment or plants; further, retained earnings is that share of after-tax profits which is not distributed to shareholders.

and in the labor force through 1995. The number of younger workers, 18 to 24 years old, is expected to decline by 1995. Since the baby-boom generation will be getting older and the rate of new births has declined, it is anticipated that the average worker in 1995 will be older and less educated. Furthermore, these workers are more likely to be women. This work force segment is projected to increase from 42 percent in 1982 to 46 percent in 1995.

Small and medium businesses are key contributors to an expanding economy since they create employment. Not only job generation is only one facet of employment, the quality of great importance is business survival rates. That is, jobs generated by firms with 20 or less employees appear to be less stable and less permanent, and therefore, are more vulnerable to economic changes than jobs in large firms. A definite period of time, this job instability appears because the average small firm has a shorter period of life, falling at any point in time. A 1975 Attachment.

IV. Small Business and Work Characteristics

Demographics of Small Business Worker

As seen thus far, the economy and the business structure has changed. How then can it not be expected that business opportunities would not be affected? The Bureau of Labor Statistics (BLS) predicts that the prime group of workers, 25 to 54 years of age, will be the fastest growing one in the labor force through 1995. The number of younger workers, 16 to 24 years old, is expected to decline by 1995. Since the baby-boom generation will be getting older and the rate of new births has declined, it is anticipated that the average worker in 1995 will be older and better educated. Furthermore, these workers are more likely to be women. This work force segment is projected to increase from 42 percent in 1982 to 48 percent in 1995.

New and small businesses are key contributors to an expanding economy since they create employment. Yet, new job generation is only one facet of employment. One item of great importance is business survival rates. That is, jobs generated by firms with 20 or less employees appear to be less stable and less permanent, and therefore, are more vulnerable to economic changes than jobs in large over a definite period of time. This job instability results because the average small firm has a greater probability of failing at any point in time. A 1979 Massachusetts

Institute of Technology study by David Birch³ which calculates a one year survival rate and a study by Michael Teitz⁴ which calculates a four year survival rate found that firms with twenty or more employees had a 20 percent greater change of survival than firms with fewer than 20 employees.

Overall, an establishment's survival rate increases with size.⁵ Regardless of these studies, the number of jobs generated far outlast those that do not for whatever reason.

Out of State Jobs During A Recession
1978-1980 Case Study - Vermont

The share of jobs generated may be affected in extraordinary ways that cannot easily be recognized or understood. An example may be the transfer of personnel from one state to another via large corporations having manufacturing facilities at different geographical locations. It therefore seems important to understand this corporate influence on state employment due to outside agencies.

Vermont, because it ranks among the top five states in percentage of employment in enterprises with under 500 employees, was selected as a pilot state to study the changing growth and ownership patterns by industry which could primarily affect the small business economy.²⁷ Between 1978 and 1980, Vermont grew at nearly the national rate and has continued in attracting high technology

manufacturing employment. Between 1978 and 1980, Vermont's high technology manufacturing grew 48 percent about twice as fast as the 26 percent national rate.⁵ Additionally, total manufacturing employment grew 28 percent in the state between 1978 and 1980. This was double the national rate of 11 percent. Of special interest is the 56 percent of Vermont's employment growth in manufacturing which was attributed to the out-of-state firms. IBM for instance, based in New York State, accounted for 50 percent of all manufacturing employment growth in Vermont.

It can be observed that the enterprise concept, as a measure of growth, is important when a parent firm is located in another state. Of more importance may be the situation whereby the out-of-state ownership may threaten the autonomy of the state's economy. In Vermont, this situation contributed to a bi-modal growth pattern: only very small and very large firms grew at a relatively fast rate.

Accumulated aggregate data indicates that the percentage share of small business employment in Vermont remained constant between 1978 and 1980. This data and various measurements from SBA might be used to study job generation and employment change in various census areas of the U.S.A.

State Components of Employment Change

Jobs are created in various ways throughout this country. Some states attract industries which produce more jobs while others transfer people to different states and hence increase economic development and therefore, more local jobs.

The components of job generation including expansion, births, contraction and deaths of business vary by state and/or region. Table 14 shows that for all single enterprises or firms listed in the D & B files between 1978-1980, approximately 14 percent were created during this period, 10 percent expanded, 8 percent went bankrupt, 6 percent contracted and 63 percent showed no real change. What can be observed that can create new jobs? The answer is the births and expansions of industries or firms.

The generation of new jobs through either new business births or expansions of existing businesses is depicted in Tables 14 and 15.

Table 14
Source of Change for Independent Establishments
by Source and Major Census Region: 1978-1980

Region	(Percent in Parenthese)				No Change	Total
	Births	Deaths	Expan.	Contr.		
New England	27,646 (12.5)	15,754 (7.1)	21,570 (9.7)	12,918 (5.8)	143,534 (64.8)	221,431 (100.0)
Middle Atlantic	85,595 (13.1)	52,053 (8.0)	54,830 (8.4)	34,004 (5.2)	426,746 (65.3)	653,228 (100.0)
East North Central	80,464 (12.1)	51,711 (7.8)	60,202 (9.1)	44,065 (6.6)	427,088 (64.4)	663,530 (100.0)
West North Central	41,288 (12.5)	24,105 (7.3)	28,210 (8.6)	19,920 (6.0)	216,341 (65.6)	329,864 (100.0)
East South Central	26,379 (12.9)	18,210 (8.9)	17,827 (8.7)	13,199 (6.4)	129,298 (63.1)	204,913 (100.0)
West South Central	63,542 (15.3)	41,087 (9.9)	41,832 (10.1)	22,435 (5.4)	246,382 (59.3)	415,278 (100.0)
Mountain	34,970 (16.6)	20,201 (9.6)	22,575 (10.7)	11,288 (5.4)	121,853 (57.8)	210,887 (100.0)
Pacific	90,927 (15.3)	50,806 (8.5)	63,415 (10.7)	29,397 (4.9)	359,723 (60.5)	594,268 (100.0)
Total	534,655 (13.8)	322,519 (8.3)	368,168 (9.5)	219,440 (5.7)	3,882,662 2,437,880 (62.8)	6,320,542 (100.0)

NOTE: See Table 15 for state distribution within a region.
Source: Adapted from Richard Hayes, Ken Hollenbeck, Marjorie Odle, "Development of an Enterprise Based Longitudinal Data File", the Policy Research Group, November 1982. Prepared under Contract to the Office of Advocacy, Small Business Administration.

Table 15

Comparative Ranking of Census Regions: Sources of
Change for Independent Establishments by Source
1978-1980 (By Rank)*

Region	Births	Deaths	Expan.	Contr.	No Change
New Eng.	8	9	5	4	3
Mid. Atl.	5	6	9	8	2
E.N. Cent.	9	7	6	1	4
W.N. Cent.	7	8	8	3	1
S. Atl.	4	5	4	5	6
E.S. Cent.	6	3	7	2	5
W.S. Cent.	3	1	3	6	8
Mountain	1	2	1	7	9
Pacific	2	4	2	9	7

*This is a ranking of table 14 according to the percentage of total establishments in each region.

NOTE: The states included in each region are as follows:

New England - Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut

Middle Atlantic - New York, Pennsylvania, New Jersey

East North Central - Ohio, Indiana, Illinois, Michigan, Wisconsin

West North Central - Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

South Atlantic - Maryland, Delaware, Dist. of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida

West South Central - Texas, Arkansas, Oklahoma, Louisiana

Mountain - Montana, Idaho, Colorado, New Mexico, Arizona, Utah, Nevada, Wyoming

Pacific - Oregon, Washington, Alaska, Hawaii, California

Source: Richard Hayes, Kevin Hollenbeck, Majorie Odle, "Development of an Enterprise Based Longitudinal Data File", the Policy Research Group, November 1982.

The Mountain Region had the highest ratio of births to total establishments between 1978 and 1980. This region

included the following states: (1) Nevada, (2) Colorado, (3) Arizona, and (4) Wyoming. As the numbers show, these are the fastest growing states during this time frame. In all, the Pacific and Mountain regions had the highest percentage of businesses adding jobs from births and expansions of new firms. The other regions show that the country had higher percentages of independent establishments, but they are contracting.

There are significant differences in areas or regions of the country in the way jobs are generated. Reference is made to the following Table 16.

Table 16

Ratios of Establishment Births to deaths, Expansions to Contractions for Unaffiliated Establishments by Major Census Region: 1978-1980.

Region	Births/Deaths		Expan./Contrac.		Diff. of Ranks
	Ratios	Rank	Ratios	Rank	
New England	1.75	2	1.67	5	-3
Mid Atlantic	1.64	6	1.61	6	0
E. N. Cent.	1.56	7	1.37	8	-1
W. N. Cent.	1.71	5	1.42	7	-2
S. Atlantic	1.73	4	1.79	4	0
E. S. Cent.	1.45	9	1.35	9	0
W. S. Cent.	1.55	8	1.86	3	5
Mountain	1.73	3	2.00	2	1
Pacific	1.79	1	2.16	1	0
U.S.	1.66	-	1.68	-	-

NOTE 1: The states included each Region is described in the Note of Table 15.

NOTE 2: Ninety-one percent (91%) of unaffiliated establishments have less than 100 employees.

Source: Richard Hayes, Kevin Hollenbeck, Marjorie Odle, "Development of an Enterprise-Based Longitudinal Data File," the Policy Research Group, November 1982.

Some areas of the country expand through the creation of new firms and not through the expansion of existing firms. Consider the region of the New England States of Maine, Vermont, Rhode Island, Connecticut, Massachusetts and New Hampshire. New job formations between 1978 and 1980 were generated through new establishments (rank of 2 in Table 16) even though a smaller percentage of existing establishments expanded in the region compared to other regions (rank of 5 in Table 16).⁶

Opposite the above area, some regions grew more rapidly because of expansions of existing establishments. The South West Central states consisting of Arkansas, Texas, Oklahoma and Louisiana had a higher proportion of new jobs from the expansion of existing establishments rather than the creation or birth of new firms (rank of 3 for relative expansion, 8 for relative business births).

Even though the births and expansions generate about 40 to 60 percent, there are significant regional variations on a national basis. These differences are reflective of a region's industrial composition and/or the age of the business in each area.

Job Generation in Single vs. Multi-Establishment Enterprises

How are jobs generated? A simple question but consider the economic ramifications for a respective region. Is the job generation process identical in small independent

businesses and large multi-establishment firms throughout the country? There is evidence that suggests that this is not the case. Job generation seems to vary by type of business as well as geographical region or area.

The following Table 17 indicates the ratio of establishment births to deaths, so to speak, and are displayed by major region for multi and single firms between 1978 and 1980. Those regions with high birth rates for small independent firms are not the same regions as those with high birth rates for large multi-establishment firms having over 100 employees.

Table 17

Rates of Births to Deaths for Unaffiliated and Multi-Establishment Enterprises, 1978-1980, by Major Census Region.

<u>Region</u>	1978		1980		Diff. of Ranks
	<u>Ratio</u>	<u>Rank</u>	<u>Ratio</u>	<u>Rank</u>	
New England	1.75	2	2.37	6	-4
Mid. Atlantic	1.64	6	2.17	8	-2
E. N. Central	1.56	7	2.40	5	2
W. N. Central	1.71	5	2.21	7	-2
S. Atlantic	1.73	4	3.01	1	3
E. S. Central	1.45	9	2.14	9	0
W. S. Central	1.55	8	2.57	3	5
Mountain	1.73	3	2.40	4	-1
Pacific	1.79	1	2.65	2	-1
U.S.	1.66	-	2.48	-	-

NOTE 1: States included in the above regions are as described in Table 15.

NOTE 2: Ninety-one percent (91%) of unaffiliated establishments have less than 100 employees.

Source: Richard Hayes, Kevin Hollenbeck, Marjorie Odle, "Development of an Enterprise Based Longitudinal Data File," the Policy Research Group, November 1982.

Consider that the New England States had the second highest ratio of births relative to deaths for small firms but ranked sixth of nine for multi-establishment firms. In comparison, the West South Central States of Louisiana, Arkansas, Texas, and Oklahoma had a much higher birth rate for multi-establishment firms. In contrast, therefore, it seems that small firms do not have the same significance in the southwestern United States as multi-establishment companies.

In general, if all areas/regions of the U.S. are reviewed, the major conclusion which could be drawn from Table 17 is that the ratio of births to deaths is much larger for multi-establishment firms (2.48) than it is for single establishment small businesses (1.66). Further, between 1978-1980, large firms or multi-establishments opened new branches and/or subsidiaries about 2.5 times faster than they closed them. Apparently it proves to be more cost effective for business operations to open up small satellite companies in locations where the economy compliments the desired corporate requirements.

Overall, an establishment's survival rate increases with size.⁷ Regardless of these studies, the number of jobs generated far outlast those that do not for whatever reason.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, "Current Population Survey" data, March 1979 and May 1980.

Labor Work Status, Work Experience and Income

In order to understand the population distribution in the work force, it is necessary to review the Current Population Summary (CPS) data base as published by the Census Bureau. The May-March survey of 1979 provide the best data for workers by size of firm. If it is assumed that the characteristics of workers change at a slow rate, then this data may reflect something close to current conditions. However, it cannot be viewed as real changes in employee characteristics.

Wage and salary workers are divided, for study purposes, into four groups. The sizes are as follows: (1) 1-24, (2) 25-99, (3) 100-499, and (4) 500 +. The distribution of the work force in 1979 by the above referenced employee size can be shown in the following table:

Table 18

Distribution of Wages and Salary Workers by Employment Size of Firm

<u>Employee Size of Enterprise</u>	<u>Distribution in Percent</u>
1-24	30
25-99	15
100-499	12
500+	43

Source: U.S. Department of Commerce, Bureau of Census, "Current Population Survey" data, March 1979 and May 1979.

Because small businesses are more sensitive to interest rates than larger firms, job stability is similarly sensitive. These small businesses, such as construction, retail trade, and wholesale trade, are seasonally sensitive and attract many more part-time than full-time workers. Since these jobs are affected in this way, who would want to work under such a degree of uncertainty? The answer is clear, young workers (16 to 24 years old), women, elderly workers (65+ years old) and part time workers (all ages). Small firms make it easier for people to work flexible hours to meet most family obligations and still help the home economy. Further, the number of people working in these areas of our economy is reflected in various statistics which report company size and economies. In general, it would seem that the young worker would be hired by the small business whereas the older (prime age) workers with more experience in a trade or profession would be hired by the larger firm. Of course, there is quite a differential in wages or salary as would be expected.

Regardless as to when it happens, most people relate to their position in life as either fair, poor, or good depending upon their past educational experience. Let's do a little investigating into how important education is to the worker.

Research has found that small firms having less than 100 employees provide most initial work opportunities.⁸ If this is the case, then small business also bears the brunt of educational financing and learning basic skills.

The following Table 19 may give a better understanding of employment distribution by educational attainment.

Table 19

Educational Attainment of Wage & Salary Workers
By Firm Size 1979 (in %)

Years of School	Employment Size of Enterprise				
	Total All Firms	1-24	25-99	100-499	500+
1-3 years	22	26.4	26.1	26.1	15.6
4 years high School + 3 years College	62	60.1	59.5	61.0	64.5
4 years of College or more	16	13.5	14.4	17.0	17.9
Total	100	100	100	100	100

Source: U.S. Department of Commerce, Bureau of Census, Current Population Survey, March 1979 and May 1979. Unpublished data.

The table clearly shows that workers with a high school education are more apt to be hired by the smaller corporations. The assumption would be that large corporations do not hire as many. Notice that the category of four years or more of college shows a better distribution across the range of firm sizes.

Part time employment is an important ingredient in the economy and provides not only flexibility for employer and employee, but also time for workers to pursue family and educational activities.

In 1982, approximately 11 million people were unemployed and almost 7 million worked on a reduced work week and accepted part time jobs when full time work was not available.

Research suggests that small businesses are more likely than large businesses to generate part time jobs. If this is the case, during times of economic distress, small firms may be padding the blow of recession. Small business may be retaining people on the payroll even during poor economic conditions.⁹

CPS data from 1962 to 1981 indicates a substantial growth in part time employment, especially in the retail and service sectors¹⁰ as defined in the following Table 20.

Table 20

Full Time and Full Year Status of Wage
and Salary Workers by Firm Size, 1978 (In Percent)

	Total All Firms	Employment Size of Firms			
		1-24	25-99	100-499	500+
Full Time (FT) Full Year (FY) Status					
FT,FY	66.5	53.6	62.6	69.1	75.7
PT,FY	6.8	10.3	6.8	5.4	4.8
FT,PY	17.1	20.0	20.2	18.6	13.6
PT,PY	9.6	16.1	10.4	6.9	5.9
All Workers	100	100	100	100	100

Full-Time (FT) employees that worked regular 35 hours per week in 1978; part time (PT) workers who worked less than 35 hours per week in 1978.

Full Year (FY) workers that worked 50-52 weeks in 1978; part year (PY) workers that worked less than 50 week in 1978.

NOTE: Includes 1978 Status for workers employed in 1979 only.

Source: U.S. Department of Commerce, Bureau of Census, Current Population Survey, March 1979 and May 1979.

Approximately 33 percent of all workers were not employed full-time or worked less hours than a full year. The table suggests that the part-time, full-year worker could be students, elderly or housewives who require, or like this type of arrangement. Workers in firms with fewer than 100 employees were more likely to have been part-time workers. The above data emphasizes the fact that part-time workers are most likely to be employed in retail and miscellaneous service sectors, regardless of firm size.

Thus far various areas of workers characteristics and conditions under different firm sizes have been reviewed and point directly to overall employment adjustments due to economic conditions. Unemployment affects all of us in a negative way.

Small firms are most likely to hire the unemployed. Regardless of firm size, most everyone would agree that construction workers were the hardest hit during the last recession. Workers in other areas of the economy suffered less than the construction trade. Some reasons given for this may be valid but to designate most of the blame on the cyclic nature of the industry seems almost too simple. Interest rates and an over extension of personal finances, including corporation employment wage policies, are more likely the trend setters and the real "bear" in the woods, as this writer views it.

In considering income, small firms will, without qualification, pay less in wages than larger firms for varying but obvious reasons. Income has always been variously defined as a need for the person, what their contribution is to the company, their technical or college education, their position of authority. Most likely, lower wages will not change and, as stated earlier, small business is often the training ground for our educated executives.

The trend in worker characteristics and business sizes, as presented, better highlights the impact of these resources on jobs, productivity, and basic economic development or stability.

Small business has been a major ingredient in the economic recovery and has generated many jobs for the cyclically unemployed. Workers that are released from larger firms may need to be retrained and since small firms fire more of these people, small business firms may play an increasing role in the future employment. The maturing population and work force may have a limiting effect on small businesses. There may be greater pressure to increase part-time work as well as providing better benefits for employees.¹¹

In the writer's opinion, it appears that even during long periods of economic growth, small business has made major contributions to job retention and generation. Small businesses are growing and greater employment is shifting toward the service-oriented sectors. Small firms are more likely to accommodate the needs of younger workers, older workers and female workers. Small firms provide training in basic job skills and are more likely to hire retirees, homemakers, and students than the larger firms.

Small firms also play an important role in the shifts of workers from salary status and self-employment to wages and vice-versa. The maturing of the labor force and increased proportions of women, minority workers and elderly

persons will increase opportunities in the small business sector.

4. Michael S. ...

5. Robert J. ...

6. The relationship between ...

7. The State of Small Business ...

8. Schiller, Capital Transfers ...

9. ...

10. ...

11. Robert W. ...

12. ...

13. Andrew ...

Endnotes - IV

³David L. Birch "The Job Generation Process" Cambridge, Mass.; Massachusetts Institute of Technology, Program on Neighborhood and Regional Change 1979.

⁴Michael B. Teitz, Amy Glasmeier, and Douglas Svensson, "Small Business and Employment Growth in California" (University of California, Berkeley, Work Paper No. 348, Institute of Urban Development, March 1981).

⁵Robert J. Samuelson, "Shattering Stereotypes", National Journal, (November 1982) 45:20, 30-31.

⁶The relationship between new business formation and new job generations is not precise.

⁷The State of Small Business: A Report of the President, 1983 (Washington, D.C. Government Printing Office, March 1983), pp 70-73.

⁸Schiller, Capital Transfers, p 23.

⁹May be uneconomical from standpoint of short term profits but reasonable from long term view whereby a firm may want to use part time help to hold onto fairly highly-trained worker or workers who are production and dependable. David Mills, "Cyclical Impacts on Small vs. Large Employment Level Variability" (Washington D.C.; Office of Advocacy, SBA, prepared under Award No. SBA-7152-OA-83).

¹⁰Robert W. Bednozik, "Short Work-Weekends During Economic Downturns", Monthly Labor Review (June, 1983) 106:3.

¹¹Malcolm H. Morrison "The Aging of the U.S. Population: Human Resources Implications," Monthly Labor Review (May 1983) 106:13-19.

²⁷Andrew Wycott, "Sources of Employment Growth in Vermont: 1970-1980" (Washington, D.C. Brookings Institution for the Office of Advocacy, SBA, award No. 2641-OA-79, October 1982) 45:20, 30-31.

V. Small Business and Innovation

Because small business plays an innovative role in new products and processes, it is cited by policy makers as an essential ingredient or element for focusing on small businesses. The price measurement of small businesses to innovation is most difficult to describe but there are some attributes which are recognizable.

Some evidence to suggest that small businesses are major contributions to innovation was shown in one of the most extensive studies in the U.S. during the 1970's (see Table 21). The study covered 635 product innovations that were marketed during this time frame. This study included data obtained from 121 industries and was identified from such publications as: (1) Review of Scientific Instruments, (2) Product Engineering, (3) Tooling and Production, and (4) Industrial Research and Development. Since these publications were established, 40 percent of the 562 successful tracked companies were small businesses.¹²

A. Firms with fewer than 100 employees... from 1972 to 1978... 4,000 employees contributed 20 percent... in innovations.

B. Of the total, 102 were classified as small and 128 of these are small.

C. Small firms under 500 employees... for 40 percent of total...

Source: F. Schmitz, "The Economics of Small Enterprises," *Small Business Administration, Monographs* (Washington: Small Business Administration, 1974), cited in *Innovation in Small and Medium Firms: Background, Research, and Policy*, Small Business Administration for Economic Cooperation and Development, 1982, Table B, p. 12. Post-1982 information provided by U.S. Small Business Administration.

Table 21

Selected Research on the Frequency of Major Innovations by Small Firms or Independent Investors.

<u>Author</u>	<u>Type of Innovation</u>	<u>Innovations by Small Firms or Independent Inventors-Percent</u>
Jewkes, Sawers, Stillerman (1958)	61 important inventions and Innovations of the 20th Century	(more than) 50
Hamberg (1963)	Major Inventions in the Decade 1946-1955	(more than) 67
Peck (1962)	149 Inventions in Al Welding, Fabricating Techniques & Aluminum Finishing	86
Hamberg (1963)	7 Major Innovations in American Steel Industry	100
Enos (1962)	7 Major Inventions in the Refining and Cracking of Petroleum	100
Gellman (1976)	319 Product Innovations in 121 Industries between 1970-1978	24A
Gellman (1982)	635 Product Innovations in 121 Industries between 1970-1978	40B
Mueller (1982)	246 Award Winning Process Innovations in the Food Processing and Manufacturing Industries	45C

A. Firms with fewer than 100 employees. Firms with 100 to 1,000 employees contributed 24 percent additional in innovations.

B. Of the Total, 563 were classified by size and 226 of these are small.

C. Small firms under \$10 million in sales account for 45 percent of known size 226.

Source: F. Prakkle, "The Management of the R&D Interface," (Ph.D. Dissertation, Massachusetts Institute of Technology, 1974), cited in Innovation in Small and Medium Firms; background reports (Paris, France: Organization for Economic Cooperation and Development, 1982), Table 5, p. 13. Post-1962 information provided by U.S. Small Business Administration.

The Gillman Study - Innovation Contribution of
Small versus Large Firms

The Gillman Study indicated that small business provided a greater share of product innovations and brought these products to market faster than large businesses. The study further found that the incidence of innovations among small firms is much greater than the contribution of larger firms, approximately 2.5 times greater in small than in large firms (Table 22.)

Table 22

Small and Large Firm Innovations Per Million Employees by Concentration Ratio.*

Four-Firm Shipment Concent. Ratio(CR)*	Industries	Innov.	Employ.	Innovations Per Million Employees		Ratio
				Small Firms	Large Firms	
(Percent)			(Thous.)			
0 CR 20	20	112	1,436	82	75	1.1
20 CR 40	40	223	1,612	220	107	2.1
40 CR 60	41	171	1,988	260	60	4.3
60 CR 100	19	57	1,498	120	32	3.7
All Indust.	121	563	6,534	162	66	2.5

*The Gillman Study examined innovation in relation to industry concentration: the four-firm shipment ratio was used instead of other concentration measures.

Source: Innovations and employment by size of firm from Gellman Research Associates, the Relationship Between Industrial Concentration, Firm Size and Technological Innovation, (Jenkentown, PA., prepared for the Office of Advocacy, U.S. Small Business Administration under Award No. SBA-2633-A-79, May 1982.) Innovation Rates and Ratios by the SBA.

The Gillman Study found that the time necessary to bring an innovation to market averaged 2.22 years for small firms as compared with 3.05 years for large firms. It seems clear that small firms take less time to perform similar duties or activities at various stages of the innovation process to market introduction of the product. (See Table 23.)

Table 23

Mean Times for Activities between Establishment of Performance Criteria and Market Introduction.

<u>Mean Time To</u>	<u>Small Firms</u> (Years)	<u>Large Firms</u> (Years)
Engineer Product	.69	.99
Develop Prototypes	.18	.39
Establish Production	1.17	1.36
Sales Start Up	.18	.31
Mean Time from Establishment of Performance Criteria to Market Introduction	2.22 years	3.05 years

Source: Gellman Research Associates, the Relationship Between Industrial Concentration, Firm Size, and Technological Innovation (Jenkentown, PA., prepared for the Office of Advocacy, U.S. Small Business Administration (SBA) under Award No. SBA-2633-OA-79, May 1982), p. 43.

A similar pattern developed in the conceptual period of small and large firm innovation in the use of patents in new technologies.¹³ Small companies responded by bringing product improvements or modifications to the market in less than twelve months, and new products in less than two years. Large firms took more than a year for product improvements and greater than two years for new products.

The Obermeyer Study - Small Business's Important Role
In Innovation

One other study that provides evidence of small businesses' important role in innovation was conducted by Judith H. Obermeyer.¹⁴ In this study, award winning improvements introduced to the food processing and manufacturing industries were traced to the firm organizing the innovation. The categories studied were as follows: (1) process control systems, (2) plant design, (3) mechanical apparatus, (4) construction and materials handling, (5) ingredients and (6) industry development. Those innovations receiving the Putman Award between 1971-1977¹⁵ were studied. Table 24 represents the distribution of these innovations by industry and by size of the company. Since there were 226 innovations for small companies, it is known that 45 percent or 102 innovations are from small businesses with less than \$10 million in annual sales. In four industry groups studied, machinery manufacturing, plant maintenance, sanitation and design, and instrumentation and controls manufacturing, small firms contributed more than 50 percent of the award winning innovations.

Table 24

Distribution of Putman Awards¹ by Recipients Patents² Size and Primary Line of Business 1971-1977

Line of Business	Size Unknown	Under	\$1-10	\$11-100	\$101-500	Over \$500	Total US Firms % of Total In Industry
Food Proc. & Ingr. Mfgs.	2	1	2	7	11	9	32 (13)
Mach. Mfgs.	5	14	42	15	4	9	89 (36)
Plant Maint., Sanitation, & Design	3	7	11	2	6	1	30 (12)
Inst. & Controls Mfg.	0	3	7	1	5	4	20 (8)
Packaging & Paper	1	0	2	2	6	5	16 (6)
Chemicals & Paint	1	1	2	1	1	8	14 (6)
Other ³	10	7	3	2	3	22	47 (19)
Total	22	33	69	30	36	58	248
% of Total U.S. Awards in Size Class	(9)	(13)	(28)	(12)	(15)	(23)	(100)

(1) Awards, made every two years by the editors of Food Processing, For Major Innovations in Food Process

(2) Each innovating firm receiving an award is classified by the size and industry of its parent company.

(3) Other categories include awards to: Firms whose primary line was unknown, large manufacturing conglomerates, etc.

Source: William F. Mueller, John Culbertson and Brian Peckham, Market Structure and Technological Performance in the Food and Manufacturing Industries (Madison: Research Division, College of Agricultural and Life Sciences, University of Wisconsin - Madison, February 1982); p. 125.

While it may be argued that these awards are subject to subjective as well as objective analysis, it could also be argued that their significance could be measured in dollars and cents to specific companies or industries.

Small businesses are innovative because of their need to survive in the marketplace and they must be creative in a timely fashion. Most, if not all, of the presented data and information leads to this conclusion.

and Institute for Food Industries Research
College of Agriculture and Life Sciences
University of Kentucky, February 1982.

15 The Future needs are outlined every year in the
edition of the "Forecasting and Trending" journal by
processing technology for awards, identify some of the
significant developments in food manufacturing since 1980.

VI. Small Business and Endnotes - V

12 The 1982 Gellman Study defines Small Business as having under 500 employees; the 1976 study present innovations for small businesses under 100 employees and under 1,000 employees.

13 Judith H. Obermeyer, "The Role of Patents in the Commercialization of New Technology for Small Innovative Companies" (Cambridge, Mass., prepared for the Office of Advocacy, SBA under Award No. SBA-2633-OA-79, August 1981), p. 82.

14 William F. Mueller, John Culbertson and Brian Peckham, Market Structure and Technological Performance in the Food and Manufacturing Industries (Madison: Research Division, College of Agriculture and Life Sciences, University of Wisconsin - Madison, February 1982).

15 The Putman Awards are conferred ever two years by the editors of Food Processing, and lending journal in the food processing industry; the awards identify many of the most significant innovations in food manufacturing since 1966.

VI. Small Business and Government Procurement

Small Business Share of Purchasing

Small business in 1982, increased by \$27 billion prime Federal contracts, or 17 percent of a total expenditure of \$158.8 billion. If subcontracts were included in the total award package, then small business received approximately 28 percent of \$44.46 billion. These contracts were awarded throughout the country in just about in every state. In Missouri, McDonnell Douglas and General Dynamics were two prime contractors. The problem with prime contractors, regardless of their size, is that the Federal procurement policy guides government agencies in purchasing their goods and services. It has been said that these agencies award jobs for political reasons while other sources disagree. Regardless, their effect on the prime contractor, subcontractor, and support business encourages or discourages economic growth throughout that respective geographic area.

How important is the federal procurement budget to small business? As seen from the figures presented, it is quite important. How does a small business obtain some of these contracts? What agencies are involved? How and where do firms qualify? For any business man, whether he

participates or not, it is important for him to know. By knowing, this may enhance his business profit and that of his community. As noted, the small business share of procurement of goods and services were \$27 billion in 1982 or 17 percent of the prime contracts.

The following Table 25 will show what has happened to small business contracts in the past four years. Note that the percentage awarded to small business has gone down, not up, and this is contrary to the direction of the procurement budget which has increased during these years.

Table 25

Small Business Share of Federal Contracts Over \$10,000
Fiscal Year 1979-1982

<u>Fiscal Year</u>	<u>Total</u>	<u>Small Business Awards</u>	<u>Small Business %</u>
1982	146,986,119	21,670,707	14.7
1981	128,641,261	19,867,449	15.4
1980	100,853,143	15,324,174	15.2
1979	88,309,059	14,001,858	15.9

Source: Federal Procurement Data Center, Special Report 401, 8 April 1983.

Even though the percentage has decreased, the dollar awards have increased by approximately 1.54 times over the 1979 value. As evidenced above, more money was circulating into the economy through government contracts.

The government purchases most of its goods and services through what is known as a "set-aside" procedure. This procedure allows various agencies to buy from companies contained in the regulations. Small business set-aside programs are awarded to socially and economically disadvantaged businesses and are awarded as sole source subcontracts after negotiation with the processing agency. These awards are granted under section 8(a) of the U.S. Small Business Administration Regulations. Approximately 33 percent of all prime contract dollars are received from small firms through this set-aside program.¹⁶

Even though the percentage of small business contracts declined from 1979 to 1982, 93 percent of this decline was in three agencies of the forty three that reported transactions of small business contract participation. The three agencies where most of contract participation declined were (1) Department of Defense, (2) Department of Energy and (3) National Aeronautics and Space Administration (NASA).

Agencies are more likely to use small firms in securing products or services rather than in development or research. The area providing the greatest growth over the past few years is supplies and equipment contracts.

The following Table 26 will substantiate the aforementioned results.

Table 26

Small Business Share of Contracts By Type of Product
or Service - Fiscal Year 1980-1982

Category	Fiscal Year 1982 Contracts (In Thousands)	Small Business Share - 1980 (Percent)	Small Business Share - 1982 (Percent)
Research & Develop.	19,992,902	6.73	4.68
Supplies & Equipment	79,158,916	13.73	14.25
Other Serv. & Const.	74,834,301	20.2	19.76

Source: Federal Procurement Data Center, Special Reports 699B, 23 July 1981 and 396F, 24 March 1983.

Procurement is classified as either competitive or non-competitive. Two methods used are advertising and negotiations via competitive bid. As might be expected, non-competitive bids are nothing more or less than negotiating with a single contractor for goods or services. When contracts are competitively bid, small contractors have a better opportunity to be awarded the contract. The correlation between both methods can be shown in the following Table 27.

Table 27

Contracting Methods, Fiscal Year 1980 (Dollars)

Contract Method	All Bidders	Small Business	Percent
Formal Advertising	9,454,977,000	3,306,632,000	34.97
Small Business Set Asides	5,182,326,000	5,182,326,000	100.00
Other Negotiated			
Competitive	19,352,930,000	2,053,683,000	10.61
Negotiated Non-Competitive	53,684,725,000	3,851,650,000	7.17
Tariff or Regulated			
Purchases	2,063,256,000	6,460,000	.31
Directed for Foreign Governments	89,942,000	6,015,000	6.69
Total	89,828,156,000	14,406,766,000	16.04

Source: Federal Procurement Data Center, Special Report 603, April 16, 1981. This table covers approximately 90% of the dollars in contracts over \$10,000.

As can be seen from the table, small contractors obtained the greatest percentage of procurement under the formal advertising category. Non-competitive procurement most likely would not go to small firms since this category of procurement encompasses all research and development projects. Government agencies contend that small businesses do not have the skills, equipment and facilities to engage in long term or short term research and development projects. Notice that small business does not compete in the set-aside programs of SBA and yet they represent 54.8 percent in dollars of potential new contracts.

Small businesses are important to the government and to their own community because they represent growth through government. The question that remains is how and what are the procedural issues which affect small business participation?

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certification once a year.

regardless of the number of contracts or proposals which are to be let. Before awarding the contract, the government requires that a certificate of competency program be established. After reviewing such things as the contractor's performance record, finances, and resources, the contracting officer must determine if the business is capable of performing the contract. If not, the decision not to award must be sent to the SBA for an independent review. If SBA establishes that the business can perform, then it issues a written COC, certificate of competency, certifying that the small business is eligible to perform in their view. Since SBA cannot guarantee performance by the contractor, it must use its field personnel to review the progress of performance on a regular basis.

If the procedure is followed and small businesses are awarded a contract, then a primary concern is prompt payment for work completed. The rest of the project will follow in due course. A Prompt Payment Act (P.L. 97-177) was signed into law on May 21, 1982. Federal Agencies are now required to pay promptly. As of this writing, it could not be determined if this act has had any effect regarding prompt payments.

In general, it is apparent that government is important to the small business sector and provides income and growth to the communities within its sphere of contract influence. Government contracts can be attained by following the procedures and putting in the time to obtain them. Overall, problems between small businesses and government agencies are trying to be solved by each party.

In summary, it appears from the data presented that small business receives approximately seventeen percent of the total government procurement budget for the year 1982. If one were to include subcontractors, the percentage increases to approximately twenty eight percent of the federal procurement budget; twenty seven billion dollars.

The federal government through appropriate agencies, contracts for goods and services in various ways and have various factors that they use in deciding how the procurement will be conducted. These factors include size of contract to be awarded, whether competitive procedures may be utilized, unique requirements which dictate sole sourcing, applicability of the small business set-aside program and general procurement regulations. Since federal procurement policies guide the various agencies in securing goods and services, the regulations sometimes adversely affect small businesses share of federal procurement

dollars. Procurement policies such as reducing government involvement in commercial activities in competition with the private sector and restrictive methods used to purchase spare parts for defense systems are but two areas that hurt small business. In conclusion, government contracts are important to small businesses and should continue to be made available so that competition continues to be "fair" between small and large businesses.

¹⁶Small business set asides are competitive within the class of eligible firms. (See Defense Acquisition Regulation, Section 1-706.) SBA issues sole source contracts to subcontractors under section 8(a) of the Small Business Act.

Business and the government... of the country... central... economic and... employment... business... and provide... to the... to be... building, restrictive... and thereby... in competition... small business... there are no... accurate or detailed... between... and... productivity and...

The size and composition of small businesses has changed... profitable, are... and include...

VII. Summary and Recommendations

In summary, this report has shown the role of small businesses to the national economy. Deregulation and the 1982 recession increased dramatically the start of new businesses and job generations. The most affected areas of the country were the middle atlantic states and the north central states. The apparent basic reason for this change in economic and social posture is the trend toward self employment and a strong motivational tool called "personal income and security". As evidenced in this report, small businesses represent more than half of the working Americans and provide most of the new jobs in the economy, especially in the area of high technology. While statistics show this to be true, government policies, such as non-competitive bidding, restrictive methods used to purchase spare parts and reducing government involvement in commercial activities in competition with the private sector, continue to hurt small businesses. The exact degree cannot be measured since there are no statistics or historical data which are accurate or detailed enough to correlate the relationship between declining small business output and declining productivity and innovation.

The size and composition of small businesses have changed in that the magnitude of small businesses, which are profitable, are becoming larger and include more employees.

In small-business-dominated sectors, the number of small businesses and employees increased in all size ranges analyzed. The acquisition or absorption of trained or highly-skilled employees into the small business sector, because of large corporate layoffs due to recessionary pressures, has increased competition by large corporations to maintain their market share of sales. These same recessionary pressures have caused a shift in worker characteristics such that the majority of new, experienced employees joining small firms decide to remain and grow with the small firm even under improved or better economic conditions. It is therefore evident that the work force in small business is older and suggests that experienced workers have shifted from the large corporations to the small business sector. It is reasonable, therefore, to state that this element may be one of the main items or ingredients necessary for the acquisition of small businesses by large corporations. As stated in the section discussing small business innovations, small businesses contribute more than 50 percent of all award winning innovations in such food-processing categories as plant maintenance, sanitation and design, and instrumentation and controls manufacturing. With the acquisition of small businesses, larger firms are able to acquire the needed skills which they may be lacking, eliminate their competition, and increase their market share of sales.

The financial needs of a small business are not much different than a large corporation yet the requirements necessary to meet the same goals must be acted upon much differently. Most small corporations rely more on internal sources of funds and invest the same percentage of funds in tangeable assets. Small firms rely heavily on short-term financing but will extend the short-term financing when rates are favorable. While profits were maintained in the 1970's, they were not sufficient to expand the book value of receivables and inventory during the period of rising costs. Because of this, both large and small firms borrowed more heavily than at any other time in the past. The deterioration of the liquidition position among both small and large corporations is of major concern in this economy. As long as real interest rates are high, the generation of sufficient cash flow is the concern of all firms, large as well as small.

Small business is most assuredly affected by the acquisition or lack of government contracts. While the procurement budget has increased considerably since 1979, the percentage of contracts awarded to small business has decreased. Government regulations have not allowed small businesses to participate in the Small Business Administration's "set-aside" programs nor are they allowed to bid research projects. Small business therefore is

unable to compete with large business for a majority of the procurement budget dollars.

As this summary might suggest, there are major problems which must be addressed and resolved by government and small business in order to insure a balanced, progressive, and sound market environment enabling economic growth for all participants, large as well as small businesses.

There are seven problem areas in which government might assist small business. They are as follows:

1. Set policies and procedures that minimize cost to the small business sector and open new business opportunities by setting only those policies and procedures that promote progressive economic growth.
2. Improve the collection, tabulation and reporting, possibly through a central non-government agency, small business data such that it is timely and informative.
3. Revise and simplify the federal tax policies in order to ease the burden on small business and to stimulate risk-taking, growth and small business investments.
4. Draft and regulate policies that enable small business to secure a fair share, that is a larger share than at present, of government purchases.
5. Minimize federal regulations in order to cut its cost and paperwork burdens on small firms.
6. Assist and improve small business access to credit and capital by re-evaluating and modifying the federal monetary and expenditure policies, including financial institutional regulations. Bank regulations and technical managers must make every effort to assure that more capital is allocated to small businesses at rates that are favorable to small firms.
7. Support through development those projects that are less risky by expanding small businesses' share of research and development projects.

In conjunction with this need for more productive government policies to help small business is a greater need for small business to consolidate business information and statistics in one central location. If this information were processed through a central location and established as a non-government or non-biased entity in the business world, this central location could well become more politically cohesive and therefore more effective in proposing and backing legislative actions that are supportive of small-business interests and positions.

Should government and small business act favorable to the presented recommendations, they would most certainly solidify and unleash the growth and potential of this economy for years to come.

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Facilities Held:

- (1) Plant Materials Building
- (2) Chemical Technicians
- (3) Electrical Technicians
- (4) Purchasing Agents
- (5) Division Purchasing Manager
- (6) Corporate Purchasing Manager
- (7) Equipment Procurement Engineer
- (8) Major Projects Cost Control Engineering Staff