

ECONOMIC INNOVATION INTERNATIONAL, INC.

85 NEWBURY STREET, THIRD FLOOR
BOSTON, MA 02116
EMAIL: info@economic-innovation.com

TEL: 617-424-0990
FAX: 617-424-0999

FINDING THE HIGH COMMON GROUND VOLUME I

**STRATEGIC ANALYSIS OF
NORTHWEST LOUISIANA**

FINAL REPORT

**ECONOMIC INNOVATION INTERNATIONAL
ECONOMICS RESEARCH ASSOCIATES**

September 9, 2003

Copyright © 2003 Economic Innovation International, Inc.

ECONOMIC INNOVATION INTERNATIONAL, INC.

Economic Innovation International is a management-consulting firm internationally recognized for building market-based economic development funds and creating policy reforms that change the fundamental structure of an economy. These funds and policy reforms generate wealth and high quality jobs for residents of low-moderate income communities within the United States and abroad. The firm is a leader in designing innovative development solutions that respond to market forces and have a long-term economic impact beyond business cycles or electoral terms.

Local communities and regional economies, like nations, live in a world of constant change, increasing competition, and economic and cultural dynamism. Every day, local markets are affected by the complex interactions of international, interregional, and intra-regional markets. Economic Innovation helps communities design and implement realistic action plans that increase their current comparative advantage and strengthen the community's underlying human, financial, and technological resources. Economic Innovation's primary goal with each client is to help build smart communities, smart enterprises, and smart workers who can compete in today's global technological economy.

Since 1971, the firm has helped build private-public partnerships that have created more than \$50 billion of strategic development resources in North America, Europe and the Pacific Rim. The firm has provided development assistance in more than 37 states and 21 countries, and is currently under contract in such diverse locations as the San Francisco Bay Area, San Diego and Sacramento, California; Portland, Oregon; St. Louis, Missouri; Baltimore, Maryland; Boston, Massachusetts; and Palestine.

Belden Daniels, founder and President of Economic Innovation, is an attorney and former international banker who taught economic development and development finance for many years at Harvard University and the Massachusetts Institute for Technology (MIT).

ECONOMICS RESEARCH ASSOCIATES

Economics Research Associates (ERA) is an international development and urban planning economics consulting firm founded in 1958. ERA has its headquarters in Los Angeles, California, and offices in Chicago, San Francisco, San Diego, Washington, D.C., New York, Dallas, and London. ERA has worked in every state and approximately 40 foreign countries. In domestic and international projects, ERA has completed more than 14,500 research and consulting assignments for both public and private clients. Fusing talents of a multi-disciplined staff, the firm's experience is concentrated in five interrelated fields: (1) economic development and planning; (2) real estate and land use; (3) recreation, tourism, and leisure time; (4) transportation systems; and (5) management and marketing services.

In urban and regional economics, ERA has conducted major studies for public and private clients in most major metropolitan areas. These have included economic development strategies, real estate analysis services, urban redevelopment feasibility assessments, long-range master plans, fiscal and economic impact studies, tourism and recreation plans, public facility feasibility studies, community development, transportation-related development strategies, and urban planning policy analysis. Approximately 60 percent of ERA's clients are private sector organizations and 40 percent are public sector agencies.

LSUS CENTER FOR BUSINESS AND ECONOMIC RESEARCH (CBER)

In undertaking this Northwest Louisiana Strategic Action Plan, Economic Innovation and ERA have found a valuable colleague in Susan Beal, Director of the LSUS Center for Business and Economic Research. The Center is an economic development initiative that provides essential business and economic research on the Shreveport-Bossier Core Statistical area. The Center provides a database of economic indicators for the region, applied research for local chambers of commerce, local and state governmental units and business and industry to promote economic growth in Northwest Louisiana.

Economic Innovation and ERA are deeply appreciative of this collaboration with LSUS/CBER, which has immeasurably contributed to the accuracy of this analysis. Nevertheless, Economic Innovation and ERA take full responsibility for the analysis and conclusions of this report.

The presence of the LSUS Center for Business and Economic Research is an important ongoing resource to contribute to the long-term implementation of this Strategic Action Platform and the benchmarks, performance measures and performance audits proposed in this report.

TWO NATIONAL CONSULTANTS

Roger Coleman of Coleman Associates and Richard Baron of McCormack, Baron and Salazar contributed significantly to the analysis and proposed strategic actions in the healthcare sector and neighborhood community redevelopment, respectively.

NORTHWEST LOUISIANA STRATEGIC ACTION PLAN INVESTORS

The Greater Shreveport Chamber of Commerce, Bossier Chamber of Commerce, LSU/Shreveport Foundation, United Way of Northwest Louisiana, Minden-South Webster Chamber of Commerce, Committee of One Hundred, and Northwest Louisiana Partnership for Economic Development have provided both the intellectual and financial capital necessary to ensure the success of this undertaking. This has been an interactive and collaborative relationship in which leadership from investors and many other organizations in the Shreveport-Bossier City MSA and surrounding parishes have provided constant input, feedback and continuous improvement. The leadership of each of these investor institutions is found in Volume I, Appendix One.

OF SPECIAL NOTE

Many individuals invested substantial personal time to make this Analysis and Action Plan more complete and accurate. Those who require special note beyond the investors include: Reginald Abrams, Lisa Babin, John B. Beaird, Stacey Brown, Zazell Dudley, Nancy Dugas, James “Jim” K. Elrod, Lydia Jackson, Theron Jackson, Lola May, Rev. Clifford McClain, Chancellor John McDonald, Joe Miciotto, Dr. Phillip Rozeman, John F. “Jack” Sharp, Diana Simek, Ann Stokes, Mary Ann Tice, Patti Trudell, and Art Walker. Many

others also gave unstintingly of their time, experience and judgment. Over 200 individual contacts and interviews are found in Volume I, Appendix Two.

Table of Contents -- Summary

1.0	Summary of Analysis	1
2.0	Analysis: Regional Comparative Economic Advantages	10
3.0	Analysis: The Strength of the Region's Economic Base	20
4.0	Analysis: The Most Important Supply Factor--People	91
5.0	Analysis: Other Key Factors—Location and Infrastructure, Innovation Capital, Finance, and Commitment Capital	128
6.0	Analysis: Strengths, Weaknesses, Opportunities and Threats (SWOT)	160
	Appendix 2: Contacts and Interviews	166
	Appendix 3: Shift-Share Analysis	176

Table of Contents -- Comprehensive

General Limiting Conditions	xv
1.0 Summary of Analysis	1
2.0 Analysis: Regional Comparative Economic Advantages	10
2.1 Thinking about Strategic Analysis and Action	10
2.1.1 The Difference between Economic Growth and Economic Development	11
2.1.2 The Importance of Economic Base Industries	12
2.1.3 How Supply Factors Can Strengthen the Economic Base	13
2.2 Shreveport–Bossier City–Minden is the Regional Core	14
3.0 Analysis: The Strength of the Region’s Economic Base	20
3.1 Thinking about Northwest Louisiana’s Economic Base	20
3.2 Shift Share Analysis	23
3.3 Medical, Biomedical and Healthcare Services	28
3.3.1 Willis–Knighton Health System	28
3.3.2 CHRISTUS Schumpert Health System	30
3.3.3 LSU Health Sciences Center in Shreveport	32
3.3.4 Overton Brooks VA Medical Center	34
3.3.5 Feist–Weiller Cancer Center	34
3.3.6 Minden Medical Center	35
3.3.7 LSU Health Sciences Center Foundation	36
3.3.8 The Biomedical Research Foundation of Northwest Louisiana	36
3.3.8.1 Enhancing the Capacity of LSUHSC–S	37
3.3.8.2 Establishing Northwest Louisiana as a Technology Center	40
3.4 Primary Manufacturing Industries	49
3.4.1 The Changing Role of Manufacturing	49
3.4.2 Potential Roles for Manufacturing Managers Council	50
3.4.3 Primary Manufacturing Leaders in Northwest Louisiana	50
3.4.3.1 General Motors	51
3.4.3.2 Libbey Glass	51
3.4.3.3 General Electric	52
3.4.3.4 Frymaster	52
3.4.3.5 International Paper	52
3.4.3.6 Beard Industries	53
3.4.3.7 Fibrebond and CELLXion	53

3.5	Tourism, Recreation and Gaming Services	57
	3.5.1 Gaming	57
	3.5.2 Tourism, Recreation	59
	3.5.3 Arts and Entertainment	60
	3.5.4 Convention & Meeting Facilities	61
	3.5.4.1 CenturyTel Center	62
	3.5.4.2 Planned Shreveport Convention Center	62
	3.5.5 Sports Facilities	63
	3.5.6 Outdoor Recreation	63
	3.5.7 The Shreveport Bossier Convention and Tourist Bureau	64
	3.5.8 The Shreveport Sports Authority	64
3.6	Barksdale Air Base	64
3.7	Higher Education Institutions	65
	3.7.1 Consortium for Education, Research and Technology	67
	3.7.2 Louisiana State University in Shreveport	71
	3.7.3 Louisiana State University Health Sciences Center in Shreveport	74
	3.7.4 Centenary College	75
	3.7.5 Louisiana Tech University	78
	3.7.6 Grambling State University	78
	3.7.7 Northwestern State University and Nursing College	78
	3.7.8 Bossier Parish Community College	79
	3.7.9 Southern University at Shreveport	79
	3.7.10 Louisiana Technical College–Shreveport–Bossier	80
	3.7.11 Our Lady of the Lake College Nursing Facility	80
3.8	The Food Processing Industry	80
3.9	Other Primary Industries	81
	3.9.1 Wholesale Trade	81
	3.9.2 Finance and Insurance	81
	3.9.3 Transportation and Warehousing	81
3.10	The Missing Economic Base: Creating New Enterprise	81
	3.10.1 Job Creation, Dynamism, Risk and Change	82
	3.10.2 Technology and Innovation	84
	3.10.3 Profitability, Dynamism and Risk Management	86
	3.10.4 The Role of Small Enterprise in Northwest Louisiana	87
	3.10.5 The Role of Business Incubators in the Region	88
	3.10.5.1 The Metro/Regional Business Incubator	89
	3.10.5.2 BMF InterTech Science Park Incubators	90
	3.10.5.3 The Proposed Southern University Incubator	90
4.0	Analysis: The Most Important Supply Factor--People	91
4.1	The Importance of Human Capital in the Intelligence Age	91

4.2	The Difference Between Human and Social Capital	92
4.3	Community Needs Analysis: Basic Demographic Profile	92
	4.3.1 Population & Household Growth	94
	4.3.2 Age Distribution	95
	4.3.3 Household Income and Income Distribution	97
	4.3.4 Poverty Status	101
	4.3.5 Educational Attainment	101
	4.3.6 Workforce Status	104
	4.3.7 Race & Ethnicity	104
	4.3.8 Racial Inequity	106
	4.3.9 Incidence of Crime	109
	4.3.10 Community Health	111
4.4	Community Resource Inventory	114
	4.4.1 Primary and Secondary Education	116
	4.4.2 Workforce Education and Training	117
	4.4.3 Higher Education Services	121
	4.4.4 Healthcare Services for Residents	121
	4.4.5 Affordable Housing	122
	4.4.6 Public Transportation	122
	4.4.7 Child Care Services	123
	4.4.8 Community Development and Social Services	123
	4.4.9 Community Banking and Financial Services	125
	4.4.9.1 Community Development Entities	125
	4.4.10 Job and Wealth Creation	126
5.0	Analysis: Other Key Factors—Location and Infrastructure, Innovation Capital, Finance, and Commitment Capital	128
5.1	Location and Infrastructure Capital	129
	5.1.1 Real Estate Market Characteristics	129
	5.1.1.1 Industrial Market	129
	5.1.1.2 Office Market	132
	5.1.1.3 Retail Market	134
	5.1.2 Existing and Potential Interstate Highways	135
	5.1.3 Water Ports and Waterways	135
	5.1.4 Trunk Railway Lines	136
	5.1.5 Airport Facilities	136
	5.1.5.1 Shreveport Regional Airport	136
	5.1.5.2 Downtown Shreveport Airport	137
5.2	Innovation Capital	137
	5.2.1 Healthcare Innovation and the Economy	138
	5.2.2 Higher Education Innovation and the Economy	138
	5.2.3 Innovation in Economic Development Strategies	140

5.3	Financial Capital	140
	5.3.1 Commercial Bank Finance	142
	5.3.2 Debt Mechanisms to Reduce Commercial Bank Risk	144
	5.3.2.1 Louisiana Business Linked Deposit Program	144
	5.3.2.2 Capital Access Programs	144
	5.3.2.3 Revolving Loan Funds	146
	5.3.2.4 Subordinated Debt Finance	146
	5.3.3 Mezzanine Capital Mechanisms to Reduce Bank Risk	149
	5.3.3.1 Business and Industrial Development Corporations (BIDCOs)	149
	5.3.3.2 Certified Louisiana Capital Companies (CAPCOs)	150
	5.3.3.3 Classic Market-Oriented Mezzanine Capital Funds	151
	5.3.4 Angel Networks and Venture Capital Funds	153
5.4	Commitment Capital	155
	5.4.1 Geography Served by Strategic Plan Investors	157
	5.4.2 Northwest Louisiana Council of Governments (NLCOG)	157
	5.4.3 The Coordinating & Development Corporation (CDC)	158
	5.4.4 The Northwest Louisiana Partnership	159
6.0	Analysis: Strengths, Weaknesses, Opportunities and Threats (SWOT)	160
6.1	Regional SWOT Analysis	160
	6.1.1 Regional Strengths	160
	6.1.2 Regional Weaknesses	161
	6.1.3 Regional Opportunities	161
	6.1.4 Regional Threats	162
6.2	Community SWOT Analysis	163
	6.2.1 Community Strengths	163
	6.2.2 Community Weaknesses	163
	6.2.3 Community Opportunities	164
	6.2.4 Community Threats	164
	Appendix 1: Northwest Louisiana Strategic Action Key Investors	165
	Greater Shreveport Chamber of Commerce	165
	Bossier Chamber of Commerce	165
	LSUS Foundation	165
	United Way of Northwest Louisiana	165
	Minden-South Webster Chamber of Commerce	165
	Committee of One Hundred	165
	Northwest Louisiana Partnership for Economic Development	165

Appendix 2: Contacts and Interviews	166
Appendix 3: Shift-Share Analysis	176

List of Tables

Table 2-1 Northwest Louisiana 10-Parish Region	19
Table 3-1 Shreveport-Bossier City Region Major Employers: Economic Base Industry	22
Table 3-2 Shreveport-Bossier City Region Major Employers: Distributive Industry	23
Table 3-3 Summary of Industries Growing Faster than the Nation & Faster than Same Industry Nationwide	25
Table 3-4 The Changing Mix of Patients at LSU Health Science Center-Shreveport	33
Table 3-5 Annual Rent-Lease Payments from the LSUHSC-S to Biomedical Research Institute	38
Table 3-6 Reported Financial Support to LSUHSC-S	39
Table 3-7 Manufacturing Employment & Firm Size	55
Table 3-8 Employment in Shreveport-Bossier Riverboat Casinos & Hotels	57
Table 3-9 Gaming Tax Remission Trends	58
Table 3-10 Hotel/Motel Tax Revenue	59
Table 3-11 Average Room Rates & Occupancy	60
Table 3-12 Attendance at Selected Regional Attractions	61
Table 3-13 Major Convention & Meeting Facilities	62
Table 4-1 Population & Household Growth	94
Table 4-2 Age Distribution Estimates & Projections	95
Table 4-3 Poverty by Age, 1999	101
Table 4-4 Comparison of Higher Education Enrollment	103
Table 4-5 Labor Force Status	104

Table 4–6 Comparison of Poverty between Blacks and Whites	108
Table 4–7 2000–01 Crime Comparison	110
Table 4–8 Incidence of Crime per 1,000 of Population	111
Table 4–9 Comparison of Birth Indicators by Race of Mother, 2000	112
Table 4–10 Infant Mortality by Race of Mother, 1996–2000	113
Table 4–11 Treatment Admissions by Primary Drug of Abuse	114
Table 4–12 Child Abuse and Neglect in Caddo Parish	114
Table 4–13 Academic Performance Trends	116
Table 4–14 Academic Growth (Improvement Measures) 2000 – 2001	116
Table 4–15 Northwest Louisiana Prime Age Workforce	120
Table 5–1 Shreveport–Bossier City Region Industrial Space Inventory	130
Table 5–2 Shreveport–Bossier City Region Industrial Rents	131
Table 5–3 Industrial Parks in Caddo Parish	131
Table 5–4 Industrial Parks in Bossier Parish	132
Table 5–5 Industrial Parks in Minden–South Webster	132
Table 5–6 Shreveport–Bossier City Region Office Space Inventory	133
Table 5–7 Shreveport–Bossier City Region Retail Space Inventory	134
Table 5–8 Business Lending Institutions & Loan Volume in the Shreveport– Bossier City MSA	142

List of Figures

Figure 2-1 The Role of Economic Base Firms	13
Figure 2-2 Northwest Louisiana	16
Figure 2-3 Shreveport-Bossier City MSA (1990-1999)	17
Figure 3-1 Personal Income Growth, 1986-2000	21
Figure 3-2 Employment Growth, 1986-2000	21
Figure 3-3 Manufacturing Firms by Size Category	54
Figure 3-4 Barksdale AFB Personnel by Classification	65
Figure 3-5 LSUS Enrollment Trends	72
Figure 4-1 Age Distribution Comparison	96
Figure 4-2 Workforce Age Cohorts	97
Figure 4-3 Household Income Distribution Comparison, 2000	98
Figure 4-4 Income Trends 1990-2007	98
Figure 4-5 Low- and Moderate Income Census Tracts	100
Figure 4-6 Comparison of Educational Attainment, 2000	102
Figure 4-7 Educational Attainment Trends	103
Figure 4-8 Race & Ethnic Composition	105
Figure 4-9 Race & Ethnicity Comparison	105
Figure 4-10 Age Distribution Comparison: Blacks & Whites	107
Figure 4-11 Household Income Distribution Comparison: Blacks & Whites	107
Figure 4-12 Educational Attainment Comparison: Blacks and Whites	108
Figure 4-13 Comparison of Unemployment among Blacks and Whites	109

Figure 4-14 Drug Related Arrests in Bossier & Caddo Parishes	113
Figure 5-1 Risk/Return Landscape of Financial Capital Suppliers in Northwest Louisiana	141

General Limiting Conditions

Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible, and these data are believed to be reliable. This study is based on estimates, assumptions and other information reviewed and evaluated by Economic Innovation International and Economics Research Associates from their consultations with the client and the client's representatives and within their general knowledge of the economy and industries. No responsibility is assumed for inaccuracies in reporting by the client, the client's agent and representatives or any other data source used in preparing or presenting this study.

This report is based on information that was current as of March 2003 or as noted in the report, and Economic Innovation International and Economics Research Associates have not undertaken any update of its research effort since such date.

Neither Economic Innovation International nor Economics Research Associates makes any warranty or representation that any of the projected values or results contained in this study will actually be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Economic Innovation International" or "Economics Research Associates" in any manner without first obtaining the prior written consent of Economic Innovation International and Economics Research Associates. No abstracting, excerpting or summarization of this study may be made without first obtaining the prior written consent of Economic Innovation International and Economics Research Associates. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of Economic Innovation International and Economics Research Associates. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from Economic Innovation International and Economics Research Associates.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

1.0 Summary of Analysis

This Strategic Analysis (Volume I) and Platform for Strategic Action (Volume II) is about finding the high common ground that unites the leadership of the cities of Shreveport, Bossier City and Minden, the parishes of Caddo, Bossier, Webster and DeSoto—and black and white everywhere—around a common set of values and goals. These goals build upon the strengths of the region and its people to create more health and wealth for all its citizens, families and communities in this first decade of the 21st Century. This Action Platform is not a study; we are builders not report writers. The goal of this Strategic Analysis and Action Platform is to create the institutional framework and financial self-sufficiency to sustain regional and community development in Northwest Louisiana for many years to come (Volume I, Section 2.0).

This Strategic Analysis summarizes the job and wealth creating capacity of the Northwest Louisiana economy. The Analysis focuses on Northwest Louisiana's primary export goods and service clusters that import jobs and wealth into the region, by exporting goods and services to the rest of Louisiana, the nation, and the world.

The Shreveport-Bossier City MSA has the most balanced economic base of goods and service clusters of any metropolitan area of its size in North America. These primary export goods and service clusters include a dynamic healthcare industry, growing tourism, recreation and gaming, a strong manufacturing core and key suppliers, and an important global military base. Yet this economic base is wide but not deep, and there is one important missing cluster: a strong, current culture and capacity to birth and expand new enterprise (Volume I, Section 3.0).

The dangers facing the region derive from the risk each of these economic base clusters faces in today's global technological economy.

- ✓ Healthcare is the largest, most vital economic base industry in the region. It is a dynamic industry both nationally and locally. More than 27,000 workers are employed in three powerful medical centers. Healthcare is a key to the national and local economy, but it faces many dangers. There may be as many as 1100 excess beds in the region, and many redundant services. The industry could implode as well as grow; too much energy is focused inward in wasted local competition instead of collaboration to grow a powerful, interconnected regional tertiary and quaternary care industry serving a 200+ mile region (Volume I, Section 3.3). Perhaps, most striking, despite the size and vitality of the healthcare sector in the economy, the health of low income and black citizens is substantially poorer in Caddo and Bossier than it is in the nation, or than it is for blacks in other parishes throughout Louisiana (Volume I, Section 4.3.10). An important healthcare innovation of the first 1985 Strategic Action Plan was the creation of the Biomedical Research Foundation of Northwest Louisiana. The Foundation is currently underperforming in its two essential missions of supporting biomedical research and creating biotechnology enterprises because it is not operating according to the highest current national best practices (Volume I, Section 3.3.8).

- ✓ Manufacturing continues to defy odds as the second largest economic base industry and job creator with more than 17,000 employees in the region. General Motors is currently engaged in a billion dollar expansion which will add 1,300 workers and draw as many as eighteen Tier One suppliers to the Shreveport-Bossier area. Nevertheless, global competition continues to increase dramatically, especially from China, and the long-term prospects are for a slow continuing decline in both local and national manufacturing employment. By way of example, in 1985, at the time of our last Northwest Louisiana Strategic Action Plan, 70% of all manufactured goods bought by Americans in the United States were made within the United States. Today, that number is less than 50%. Just as strikingly, the workforce employed in manufacturing nationally has fallen from over 30% in the 1960's to eleven percent today, the same as in Northwest Louisiana. Two full percentage points of domestic manufacturing workforce have disappeared in the two years since this 2003 Strategic Action Analysis and Platform has been under active discussion. A Strategic Action Platform that invests in smart workers, smart firms and smart communities can slow the air going out of the balloon; it can not stop it (Volume I, Section 3.4).
- ✓ Tourism, recreation and gaming, like healthcare, is a primary export industry that is growing both nationally and regionally. Together, the five riverboat casinos and associated hotels employ 8,500 workers and the industry employs 10,600, making this export industry the third most important in the region. Tourism is a good industry to have as part of a region's economic base, as it imports income and capital from outside the region. Like healthcare, tourism employs low-and semi-skilled people who otherwise would have difficulty finding jobs; it generates opportunities for small, local suppliers, and provides tax revenue for local jurisdictions. Because wages are relatively low, and career ladders are limited, tourism should be only one component of a diversified regional economy, as it is in Northwest Louisiana. Expanding the industry in Northwest Louisiana is, thus, generally a good thing, so long as the health and social costs of gaming are also recognized. The continuing importance of this industry depends on a regional legislative monopoly on gaming, which could change at any time. Local tax and fee revenues generated by these properties could be more effectively invested to focus on extending stays and broadening services. An extraordinary river continues to be a political divide, instead of a powerfully shared resource (Volume I, Section 3.5).
- ✓ Barksdale Air Base is a thriving 70-year-old economic and cultural asset whose importance to national security and regional economic development continues to expand. Barksdale has a military staff of over 7,000, and creates more than 3,000 additional civilian jobs. The government procurement program developed by the Shreveport Chamber of Commerce in partnership with Barksdale as a result of the first Strategic Action Plan in 1985 has generated more than a billion dollars of small business supplier contracts in the last 20 years. This success forms the basis for an expanded procurement program for small, minority and women-owned businesses that engages all the economic base industries in the region (Volume II, Section 4.3). Barksdale has also attracted long-term retirees back to Northwest Louisiana; this generates a long-term retirement community base for further development (Volume II, Section 3.4). Finally, the character of Barksdale has

attracted solid citizens with ethnic diversity whose presence strengthens the Shreveport/Bossier community (Volume I, Section 3.6).

- ✓ Higher education institutions are an important part of the economic base not only as important employers, but also because of their capacity to attract and retain the highest-quality workers, business leaders and firms, contributing to the overall development and growth of a highly competitive regional economy (Volume I, Section 3.7). Perhaps the most important measure of the increased awareness of the role of higher education in the economic development of Northwest Louisiana was the initiative of the Biomedical Research Foundation to create the Consortium for Education, Research and Technology of North Louisiana (CERT, Volume I, Section 3.7.1). Led by CERT, and with the support of the Board of Regents, the private and public two- and four-year universities of Northwest Louisiana recently rationalized their respective responsibilities in ways that recognized their individual comparative advantages in order to better serve the students, firms and workers of the region. Nevertheless, some parts of the industry are still under performing in their ability to meet the needs of the region's citizens, major industries and new enterprises.
- ✓ New Enterprise is the most important missing part of the region's economic base. Rapidly growing small enterprise—the gazelles—drives our national economic future. If Shreveport-Bossier City is to continue to thrive in the global technological economy of the 21st Century, the region must have the capacity to generate and expand not only new enterprise but also whole new economic sectors. This capacity distinguishes the most rapidly growing economic regions of North America from all others. This capacity cannot be created without a concerted effort of private sector and higher education leadership that meets the highest current national best practices for new enterprise development as outlined in Volume II, Section 4.0. The region has the individual wealth necessary to support this important economic engine, and has a distinguished past history of creating new enterprise beyond oil and gas, including the creation of Beaird Industries, Frymaster, Fibrebond, CELLXion, Hendrix Manufacturing and Sound Fighter Systems. Today, significant local family wealth is deployed in venture capital in other sections of this country and the world rather than being reinvested in the region (Volume I, Section 3.10). Creating New Enterprise is so important to the region that it should happen at three levels: Creating New Enterprise generally (Volume II, Section 4.1), Creating New Biomedical and Biotechnology Enterprise (Volume II, Section 4.2), and Creating New Minority-owned Enterprise (Volume II, Section 4.3). Volume II, Section 4.0 recommends Strategic Actions for all three.

People are the most important asset in today's high-technology global economy. Human Capital is the form of capital most essential to the creation of wealth in the 21st Century. An investment in inventive, innovative, risk taking minds is the most important investment any regional economy can make in its own future. Unlike muscle, minds are not interchangeable; unlike physical capital, minds are instantly mobile. Minds can be stimulated, encouraged and enhanced, but they cannot be owned (Volume I, Section 4.1).

Throughout this Strategic Action Analysis and Platform, the story of Northwest Louisiana's future is the story of its people (Volume I, Section 4.0). The region's economy is more or less than the sum total of the energy, imagination and resourcefulness of all of its people and the communities in which they live. In the end, the capacity, imagination, innovation, risk-taking, optimism and resiliency of a region's people are its greatest asset. To the extent that any individual in Greater Shreveport-Bossier is not engaged in a livelihood that realizes his or her full capacity, the economy is less.

Today, there are two Shreveport-Bossiers—one that enjoys a relatively high quality of life in this relatively low cost region of the country, and one that is characterized by dilapidated housing, few job opportunities, inadequate transportation and day care and, often, failing schools (Volume I, Section 4.3). Although the two Shreveport-Bossiers are often perceived to be separated by race, there is an important growing African-American middle class in the region, as well as an increasing number of poor and undereducated whites and blacks. This Strategic Analysis will suggest ways in which each individual's full human capacity can be realized and barriers can be removed.

There are many more "have-nots" in the black communities of Shreveport-Bossier than is true for whites locally or blacks nationally (Volume I, Section 4.3). Within the Shreveport-Bossier City MSA in 2000, blacks were younger (Volume I, Section 4.3.2 and Volume I Figure 4-10), poorer (Volume I, Section 4.3.4 and Volume I, Table 4-6), and less often employed (Volume I, Section 4.3.6). Nearly three times as many black households had incomes under \$10,000 than did white households (Volume I, Section 4.3.3 and Volume I, Figure 4-11). In contrast, twice as many white households had incomes over \$75,000. Finally, many more blacks are poor in Shreveport-Bossier City than in the nation (Volume I, Section 4.3.4 and Volume I, Figure 4-11). In the nation, one out of four blacks are poor, in Shreveport-Bossier, one out of three. Vastly more blacks have not graduated from high school; vastly more whites have gone to and graduated from two and four year colleges and graduate school (Volume I, Section 4.3.5 and Volume I, Figure 4-12). More blacks are unemployed, under employed, or no longer in the labor force (Volume I, Section 4.3.6 and Volume I, Figure 4-13). Violent crime, including domestic violence, is almost twice as high in both Shreveport-Bossier City as in the nation as a whole (Volume I, Section 4.3.9).

Community health indices are much poorer for blacks in Caddo and Bossier Parishes than for blacks in other parishes of Louisiana or the nation as a whole. Although prenatal care is higher for whites in Caddo and Bossier Parishes than for Louisiana, prenatal care is lower for blacks in Caddo and Bossier Parish than in other parishes of the State or the nation as a whole. Similarly, low birth weight is higher for blacks in these parishes than for blacks in the state. Teenage pregnancy is twice as high in Bossier Parish for blacks, and three times higher in Caddo Parish, than it is for whites. Black infant mortality is 40% higher in Caddo Parish than in the state as a whole and black infant mortality in both parishes is twice as high as white infant mortality in the parishes. Overall, the large economic impact of the healthcare industry in the region does not translate into better health for poor and black citizens, despite the fact that all three medical centers make very large contributions to community health efforts (Volume I, Section 4.3.10).

The gulf between the haves and have-nots is greater today than it was 20 years ago. Because blacks make up more than 40% of the regional population, these differences have very serious implications for the overall health of Northwest Louisiana. If this gulf is not addressed, the intermediate and long-term costs for everyone in the region will be enormous. If this gulf is not narrowed, the economic and social costs will undermine the current substantial comparative economic advantages that now benefit the region in global competition. The collective leadership and citizenry of the whole Shreveport-Bossier City community must be engaged in finding the “Common Ground” to address this growing gulf before it engulfs the region (Volume I, Section 4.3).

Yet these poor neighborhoods represent urban emerging markets with substantial potential to contribute to the growth and vitality of the larger region. Their under-appreciated resources include an available workforce to fuel further regional growth, an under-served consumer base that provides an untapped market for local goods and services, unrealized opportunities for commercial and industrial development, an acute need for quality affordable housing development, and available under-utilized infrastructure. These communities have the potential to be developed in ways that benefit the low-and-moderate income residents who live in these Shreveport-Bossier neighborhoods and add value to the entire Northwest Louisiana region (Volume I, Section 4.3).

The most grave finding of this economic analysis is the loss of the youngest workforce age group (18-34) from Shreveport-Bossier to the rest of the United States. The Community Needs Analysis in Volume I, Section 4.3 shows a precipitous decline in the youngest workforce age group (18-34), while the older workforce age cohorts continue to increase (Volume I, Figure 4-2). There is anecdotal evidence to suggest that the emigration of young, educated African-Americans is even higher than for young, educated Anglo-Americans. This is a serious concern deserving of a major concerted initiative in this Strategic Action Platform. This is the seed corn essential to the future growth and development of the Region. This seed corn can only thrive if there is a concentrated effort to invest in fertile social and economic soil in which productive human and social capital can grow (Volume 1, Section 4.3.2)!

The Community Resource Inventory (Volume I, Section 4.4) examines the capacity of community resources to contribute to increased individual, family and community prosperity:

- ✓ Primary and Secondary Education does not equally serve both the black and white communities in Shreveport-Bossier City; far fewer blacks graduate from high school than whites, and far more whites have two year, four year or graduate college degrees. Moreover, a majority of all primary and secondary schools in both cities are academically below average (Volume I, Section 4.4.1).
- ✓ Workforce Education and Training is now being given increased emphasis in the state and region, but efforts are still uncoordinated and not responsive to either employer or employee needs (Volume I, Section 4.4.2).
- ✓ Higher Education is noted in Volume I, Section 4.4.3, and described in detail as an economic base industry in Volume I, Section 3.7. Some parts of the industry are

still under-performing in their ability to meet the needs of its citizens, corporations and new enterprises.

- ✓ Healthcare Services are the largest economic base industry in the Metropolitan Region, but collectively this industry is not able to meet the needs of individuals or families in low-and moderate-income neighborhoods of Shreveport-Bossier City. This is despite the large resources that all invest in charitable healthcare in low-income neighborhoods (Volume I, Section 4.4.4).
- ✓ Affordable Housing is not available in appropriate quantity or quality. Only 12% of homeowners in Shreveport are minority, and 70% of all housing units, mostly rental, are substandard (Volume I, Section 4.4.5).
- ✓ Public Transportation does not meet the needs of low-income entry-level workers whose jobs in 24/7 healthcare and casino hotels often begin or end during hours outside the current SPORTRANS schedule (6am-8pm Monday-Saturday and only eight hours on Sunday). Moreover, many poor neighborhoods are not served by the limited route structure (Volume I, Section 4.4.6).
- ✓ Child Care Services cover only one-third of the 31,023 children of preschool age in the 40,280 eligible families, and cover none of the 50,000 elementary and secondary school age children. Yet, again, many entry-level jobs are in the 24/7 healthcare and gaming industries, and services to meet these 24/7 child-care needs are not available at night time or on weekends for low-income entry-level workers whose first job opportunities are often late night shifts (Volume I, Section 4.4.7).
- ✓ Community development and social services have grown significantly over the past decade, but, however unintentionally, they are generally provided in their own silos, just like other spheres of activity in the region. As many leaders among providers recognize, these services suffer from lack of community wide goal setting, integrated planning, mutually targeted fund raising, performance audit, and public accountability to a single index of community wellness (Volume I, Section 4.4.8).
- ✓ Community banking and financial services are plentiful in the region in general, but do not pay off in measurable housing repair and construction in low-income neighborhoods, or business formation for minority and women-owned small enterprises. Community banking and financial services fall short in this area because of an absence of well managed and well capitalized intermediaries to create acceptable products that work equally well for financial institutions, municipalities, neighborhood organizations, new small enterprises, families and individuals (Volume I, Section 4.4.9). A national model for creating a \$20 million comprehensive not-for-profit and for-profit investment vehicle that is sound for banks and investors and sound for community developers and stakeholders is described Volume II, Section 2.0. Successful operating national models are presented in Volume II, Appenix 4. A national model for monitoring community reinvestment is presented in Volume II, Appendix 5.
- ✓ Job and wealth creation for low-income residents suffers from a similar lack of adequate management and financial intermediation (Volume I, Section 4.4.10). The Comprehensive CDC described in Volume II, Section 2.0 and the All Industry

Procurement Program described in volume II, Section 4.3, are designed to provide that management and financial intermediation.

Other Key Supply Factors are categorized in Volume I, Section 5.0 according to the following conceptual framework:

- ✓ Location and Infrastructure Capital – The full range of physical investments that Northwest Louisiana’s public and private sectors make—from transportation to housing to waste processing—and that serve as a foundation for the economy’s growth and development are described in Volume I, Section 5.1. Northwest Louisiana benefits from excellent location and a strong confluence of highway, water and airport, rail and tele-communication capacity.
- ✓ Innovation Capital – The range of people and institutions that provide scientific, technological and business services which link production and routine technical services with innovation are described in Volume I, Section 5.2. Compared to rapidly growing metropolitan regions of the United States, the Shreveport-Bossier City MSA does not combine its family wealth, entrepreneurial history, universities and medical centers, and private and public leadership into a powerful capacity to innovate new technologies, new products and new enterprises. Nevertheless, all the key elements are present but nascent, and not integrated (Volume I, Section 5.2).
- ✓ Financial Capital – Money and money management in the proper form for all stages of business development, from startup through expansion, and to support all other forms of capital development, including human capital, innovation capital, and infrastructure capital are described in Volume I, Section 5.3. Northwest Louisiana has an appropriate commercial banking structure and substantial personal and family wealth, but not the institutionalized forms of locally owned private equity capital to foster the full development of an entrepreneurial culture that can compete in today’s global, technological economy. Again, all the elements are present; they have simply not been combined into an integrated capacity that can innovate, create and grow new enterprise and invent whole new economic sectors for the region (Volume I, Section 5.3). Volume II, Section 4.0 presents a Strategic Action Platform for Creating New Enterprise: generally (Section 4.1), for biotechnology and biomedical enterprise (Section 4.2), and for minority entrepreneurs (Section 4.3).
- ✓ Commitment Capital is the institutional capacity of public and private leaders to transcend barriers between institutions to integrate all other forms of capital into a dynamic whole whose interactive parts create a more innovative, risk-taking, future-oriented Northwest Louisiana. Commitment Capital is the most important missing form of capital in Northwest Louisiana. Shreveport, Bossier City and the region have many capable leaders—black and white—in many fields and communities. These leaders in the business, political, educational, and social service communities work together *individually* on a day-to-day basis. They must agree to join together *collectively* to move beyond the arrangement of discrete silos that today separate communities, cities, casino hotels, medical centers, economic sectors, neighborhoods and ethnic groups. These separate silos rob the whole region of its powerful, shared collective strength, which has the potential to

create tremendous comparative regional advantages for competing in the global economy. This current weakness becomes even more grave in the face of galvanizing regional initiatives now underway in other, rival Louisiana regions, such as the New Orleans Chamber/MetroVision and the nine-parish Capital Region Competitive Strategy led by the Baton Rouge Chamber (Volume I, Section 5.4).

The SWOT Analysis of Northwest Louisiana's regional comparative economic advantages, its dominant growth industries, and its key supply factors, is summarized in Volume I, Section 6.0 below. These observed Strengths, Weaknesses, Opportunities, and Threats facing the Shreveport-Bossier region are derived from the stakeholder interviews (Volume I, Appendix 2), data review (Lists of Tables, Figures and footnotes), and our experience undertaking similar Analyses and Strategic Action Plans over the past 33 years.

The challenge is to build upon the region's Strengths, correct its Weaknesses, exploit its Opportunities, and protect itself from Threats. The Strategic Actions outlined in Volume II are designed to meet the challenges posed by the Strategic Analysis in Volume I. These Strategic Actions for building a healthy community and a productive region can only succeed if all parties make a firm commitment to work together collectively toward the same vision and mission, to achieve the same goals on the same high common ground in accordance with the highest current national standards for best practice, and then to report performance outcomes widely to the media and to business, civic and governmental organizations throughout Shreveport, Bossier City and Northwest Louisiana.

Commitment Capital institutions are proposed throughout Volume II. These include:

- ✓ Creating the Shreveport-Bossier Comprehensive Community Development Corporation (Volume II, Section 2.0);
- ✓ Strengthening Healthcare through a common approach to improving low-income health (Volume II, Section 3.1);
- ✓ Strengthening Tourism and Recreation (Volume II, Section 3.2);
- ✓ Developing the Red River Heart of the Region (Volume II, Section 3.3);
- ✓ Building Affordable Retirement Communities (Volume II, Section 3.4);
- ✓ Creating a New Enterprise Consortium for Entrepreneurial Development and High-risk Investment (Volume II, Section 4.1);
- ✓ Strengthening the Biomedical Research Foundation (Volume II, Section 4.2);
- ✓ Creating an All Industry Procurement Program to help support profitable, growing Minority Enterprise (Volume II, Section 4.3);
- ✓ Supporting the Alliance for Education as it works with the School Superintendents, Boards and teachers to invest in K-12 (Volume II, Section 5.1);
- ✓ Creating a New Workforce Consortium to bring together employer/demanders, trainer/suppliers and workers to invest in Workforce Education and Training (Volume II, Section 5.2), and

- ✓ Strengthening CERT and LSUS to invest in Higher Education (Volume II, Section 3.3).

The most important Commitment Capital institution of all is the “Common Ground” Regional Development Corporation which has the overall responsibility to integrate and oversee the performance-based implementation of all of these initiatives, monitor performance and report on outcomes (Volume II, Section 6.0).

Each of these Commitment Capital Strategic Actions is based on proven models which are found in Volume II, Appendices 1 through 8.

2.0 Analysis: Regional Comparative Economic Advantages

This Strategic Action Plan for Northwest Louisiana is designed to create the institutional framework and financial self-sufficiency to sustain regional and community development in Northwest Louisiana for many years to come.

This Strategic Action Plan analyzes opportunities for economic development within the region in the context of the larger needs of the community to enhance the quality of life of individuals, families and the workplace in order to increase individual opportunity and overall community and economic benefit.

2.1 Thinking about Strategic Analysis and Action

This Strategic Action Plan updates and expands upon the Strategic Analysis of the Greater Shreveport Economy commissioned by a similar group of community investors from Economic Innovation International and Mt. Auburn Associates in 1985. In the mid '80s, the Economies of Northwest Louisiana, the State of Louisiana, and the United States were undergoing profound change and challenge from the rapidly emerging global high-technology economy. As we were preparing the 1985 report, we warned that every firm and every aspect of the Northwest Louisiana economy was at risk in this dynamic global market. During the preparation of that first Strategic Analysis, that global risk manifested itself in the shutdown and transfer of AT&T's last domestic telephone production facility from Shreveport to Singapore.

Quite apart from the new political and military threats to the United States at the beginning of the 21st Century, the global economic and technological challenges are even more formidable today than they were 18 years ago. In 1985, China was a newly emerging economy creating marginal challenges to other newly emerging Asian economies. Today, China is the fourth largest economy in the world, and its relatively high quality, cheap labor is devastating the substantial manufacturing base that only recently migrated from the United States to Mexico.

The old rule of economic development used to be "if it isn't broke, don't fix it." The new rule is "if today you are running ahead of the competition, tomorrow you have to run even faster and smarter to stay ahead."

As we undertake this Strategic Analysis, our goal is to identify, summarize and characterize the comparative advantages that create opportunities for Northwest Louisiana to excel in this dynamic global, technological economy. This Strategic Analysis also seeks to uncover potential comparative advantages that are not yet fully realized, and to identify challenges that the region faces. Finally, this analysis will identify the barriers that impede the people, firms and institutions of Northwest Louisiana from realizing their full capacities, and set benchmarks for key economic and social indicators to improve performance.

2.1.1 The Difference between Economic Growth and Economic Development

As we undertake this Strategic Analysis, we will make a sharp distinction between “economic growth” and “economic development”:

“Economic growth” happens to an economy. Economic growth is the sum of global market forces working on an economy. At its most extreme, economic growth is being “done unto”; external forces are controlling local economic decisions. The whipsawing of Louisiana's extractive oil and gas industries from the 1970s boom to 1980s bust is a clear example of economic growth and decline manipulated by external global forces. Some leaders of key investors supporting this Strategic Action Plan fear that Northwest Louisiana is now governed by too many decisions by private corporate and public sector decision makers who do not reside or have a stake in the region.

Louisiana was slow to recognize the need to change its model for economic development. Not until the economic recession of the late 1980's did a majority of its citizens become convinced that change was necessary and that the state's reliance on natural resources and low-cost unskilled labor to produce a competitive advantage was no longer viable. This was the recession in which Louisiana was “done unto” by external pricing of its oil and gas raw materials.

At that time, lenders began to recognize that competitive advantage in today's global markets comes from *innovation* in design, engineering, function and speed of performance-qualities fostered through technology and a highly educated workforce skilled in math, science, engineering, and technology. State and local efforts at economic diversification began to focus on building an environment that would attract technology-intensive industries to the state. Participants in these reform efforts recognized early on that such an environment could evolve only from an infrastructure with a high degree of coordination, communication, and collaboration at all levels.

Louisiana: Vision 2020, the state's master plan for economic development, provides the framework for change. The state wishes to bolster biomedical/biotechnology industry infrastructure (Volume I, Section 3.3.8 and Volume II, Section 4.2), workforce development and training (Volume I, Section 4.4.2 and Volume II, Section 5.2), and job creation (Volume I, Section 3.10 and Volume II, Section 4.0).

“Economic development”, in contrast, is willed from within. Economic development involves making hard choices in the allocation of scarce resources (human, technological, financial, and natural) in order to target private and public investment on the margin of comparative advantage. The willful restructuring of the industrial base of the United States in the '80s and the emergence of this country's profound technological advantage in the '90s are excellent examples of economic choice and development. A decision by Shreveport Leadership to rebuild the capacity to birth and expand new industry and enterprise in Shreveport-Bossier could be another.

As we undertake this strategic economic analysis, we are concerned only with underlying long-term structural change in the fundamentals of the regional economy of Northwest

Louisiana, not in short-term cyclical change. For better or worse (and it is most definitely for the better), neither the State of Louisiana nor the regional economy of Northwest Louisiana has the constitutional power to print money, raise or lower interest rates, or establish tariff barriers. These powers are reserved to the Federal Government of these United States (and more recently, to the European Union of its constituent European states). Thus, only the central governments can affect short-term business cycles such as the current slowdown in the United States economy.

Regional economies do, however, have the capacity to make willful choices as to the investment of scarce human, technological, financial and natural resources to Strengthen regional comparative economic advantages, repair Weaknesses, capitalize on Opportunities and address Threats. The *SWOT* Analysis that results from the detailed analysis of Northwest Louisiana's regional comparative economic advantages, its dominant growth industries (Volume I, Section 3.0), and its key supply factors (Volume I, Sections 4.0 and 5.0), is summarized in Volume I, Sections 6.1.

In analyzing the comparative economic advantages of Northwest Louisiana, Volume I, Section 3.0 below first looks at those primary economic-base industries which generate jobs and wealth in Northwest Louisiana by exporting goods and services to the region, the nation, and the world. The key to Northwest Louisiana's economic future lies in its economic base. The regional economy of Northwest Louisiana, like all other economies, has two types of industry—economic base industry and distributive industry. Only economic base industry creates the foundation for long-term, structural economic development.

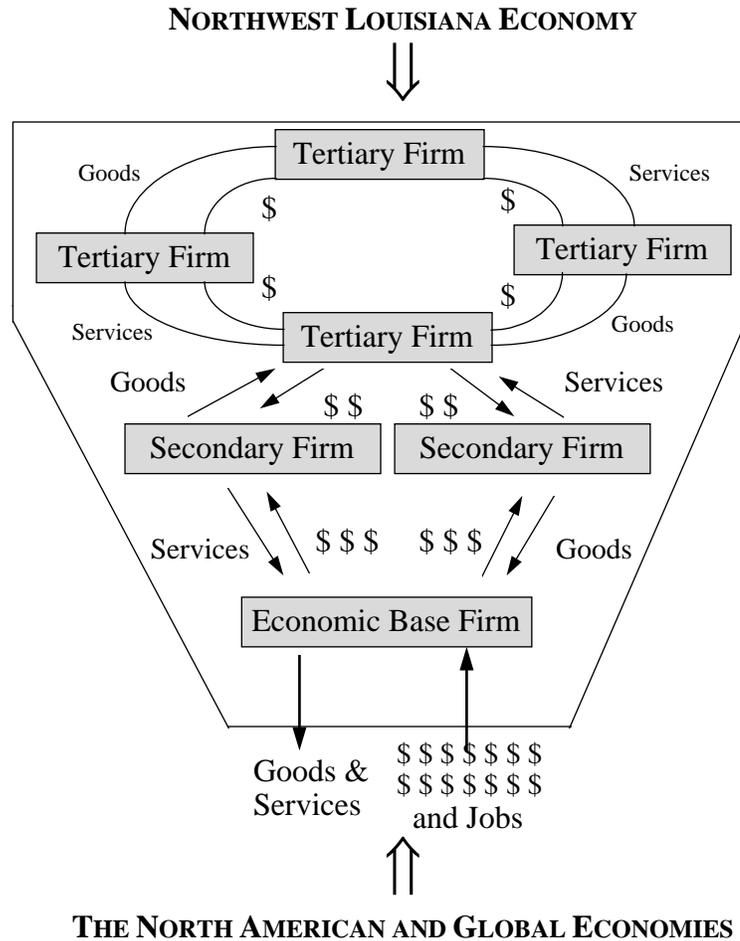
2.1.2 The Importance of Economic Base Industries

Economic base industries drive the economy. Basic, or primary industries, are those which import new income and jobs into an economy by exporting goods and services outside the region. These industries constitute the economic base. Without a strong and growing economic base, there can be no durable economic expansion.

Distributive industries merely reflect growth or decline in the economic base. Distributive, or secondary and tertiary, industries are those which re-circulate wealth already located within an economy. As Northwest Louisiana's economic base industries innovate, grow and export goods and services to markets outside the region, they and their employees generate increasing demand for goods and services sold within Northwest Louisiana.

Business and civic leadership of Northwest Louisiana must, first, recognize those characteristics which make sectors and firms dynamic participants in the economic base, and then understand what civic and public policies need to be undone, redone, and invented in order to encourage the growth and expansion of the base.

Figure 2-1
The Role of Economic Base Firms



2.1.3 How Supply Factors Can Strengthen the Economic Base

Volume I, Sections 4.0 and 5.0 of this Strategic Action Plan analyses the current and potential capacity of the key supply factors of Northwest Louisiana to support the competitive growth and development of its primary export goods and services industries. This analysis will, again, compare the quality of these key supply factors in the context of national and global competitors, and set performance goals. The supply analysis characterizes these resources according to the following conceptual framework:

Human and Social Capital – Minds which can think, communicate and make use of information of all kinds for the whole range of work done by Northwest Louisiana firms. Human Capital and its closely allied form, Social Capital, are so important to the health of a regional economy that we devote an entire section, Volume I, Section 4.0, to Human and Social Capital, the most important supply factor.

The remaining supply factors are described in Volume I, Section 5.0:

- ✓ Infrastructure and Locational Capital – The full range of physical investments that Northwest Louisiana’s public and private sectors make, from transportation to housing to waste processing, as a foundation for the economy’s growth and development;
- ✓ Innovation Capital – The myriad of people and institutions that provide scientific, technological and business services which link production and routine technical services with invention and innovation;
- ✓ Financial Capital – Money and money management in the proper form for all stages of business development from startup through expansion, and to support all other forms of capital development including human capital, innovation capital, and infrastructure capital; and, finally,
- ✓ Commitment Capital – The capacity of private and public leaders to transcend barriers between institutions in order to integrate all other forms of capital into a dynamic whole whose interactive parts create a more innovative, risk-taking, future-oriented Northwest Louisiana.

The analysis of economic-base industries in Volume I, Section 3.0, and of these five key supply factors in Volume I, Sections 4.0 and 5.0 leads to the *SWOT* Analysis of Strengths, Weaknesses, Opportunities and Threats described in Volume I, Section 6.0.

2.2 Shreveport-Bossier City-Minden is the Regional Core

There is no single definition of the economic region covered by this Strategic Action Plan that serves for all purposes. Markets for primary export goods and services of the economic base vary by industry and often extend well beyond Northwest Louisiana. For example, tertiary and quaternary healthcare from Northwest Louisiana’s largest industry serve patients drawn from the Tex-Ark-LA region, the gaming casino garages are filled with cars bearing license plates from Dallas and East Texas, and one of the twelve General Motors Tier One suppliers is located in East Texas.

Virtually all of the labor market, local consumer market, and region of economic impact, however, are concentrated in the ten parishes that comprise the Northwest Louisiana region referred to as State Planning District #7:

- ✓ Bienville
- ✓ Bossier
- ✓ Caddo
- ✓ Claiborne
- ✓ DeSoto
- ✓ Lincoln
- ✓ Natchitoches
- ✓ Red River
- ✓ Sabine
- ✓ Webster

The Northwest Louisiana Council of Governments (Volume I, Section 5.4.2) is the designated metropolitan planning organization for Northwest Louisiana covering these ten

parishes. Volume I, Figure 2-2 shows a map of this ten parish region. Volume I, Table 2-1 presents basic demographic trends in this ten-parish region, which is also served by The Coordinating and Development Corporation (Volume I, Section 5.4.3), and the Workforce Investment Board #70 (WIB, Volume I, Section 4.4.2). Seven of these parishes are active in the Northwest Louisiana Partnership for Economic Development (Volume I, Section 5.4.4). These are the four core parishes of Caddo, Bossier, Webster and DeSoto, plus the three contiguous parishes of Claiborne, Bienville and Red River.

The solid core of the region's non-agricultural economy, however, is the Shreveport-Bossier City Metropolitan Statistical Area as defined after the 1990 census. Most detailed economic data presented in this report is the most current data available for the three parish MSA that included Bossier, Caddo and Webster Parishes from 1990 through 1999. This three parish 1990 MSA geography is that shown in Volume I, Figure 2-3.

As this Strategic Action Plan for Northwest Louisiana was being prepared for final publication, the LSUS Center for Business and Economic Research (CBER) was informed that the 2000 US Census Bureau Shreveport-Bossier City MSA was being changed to the three parishes of Caddo, Bossier and DeSoto. Webster Parish will become a micropolitan statistical area called Minden Micropolitan Statistical Area. The Minden Micropolitan SA will be combined with the Shreveport-Bossier City MSA to form a Combined Statistical Area called the Shreveport-Bossier City-Minden Combined Statistical Area for the decade 2000-2009. This Combined Statistical Area covers the four core parishes of Caddo, Bossier, Webster and DeSoto (Figure 2-4).

For purposes of this Strategic Action Plan, the 1990 US Census MSA designation, including Shreveport, Bossier City and Minden, is the economic engine of Northwest Louisiana and the focus of this Strategic Analysis and Action Plan. Census 2000 documents indicate that approximately 42% of the working population of DeSoto Parish is employed in Shreveport or Bossier City.

Volume II, Section 6.0 proposes the "Common Ground" Northwest Louisiana Regional Development Corporation to oversee regional performance. This regional corporation should be initially designed to manage and oversee economic and community development for the Combined Statistical Area covering the four core parishes of Caddo, Bossier, Webster and DeSoto. Over time, "Common Ground" might be expanded to include private and public sector organizations in additional parishes within State Planning District #7.

Figure 2-2
Northwest Louisiana
10-Parish Region



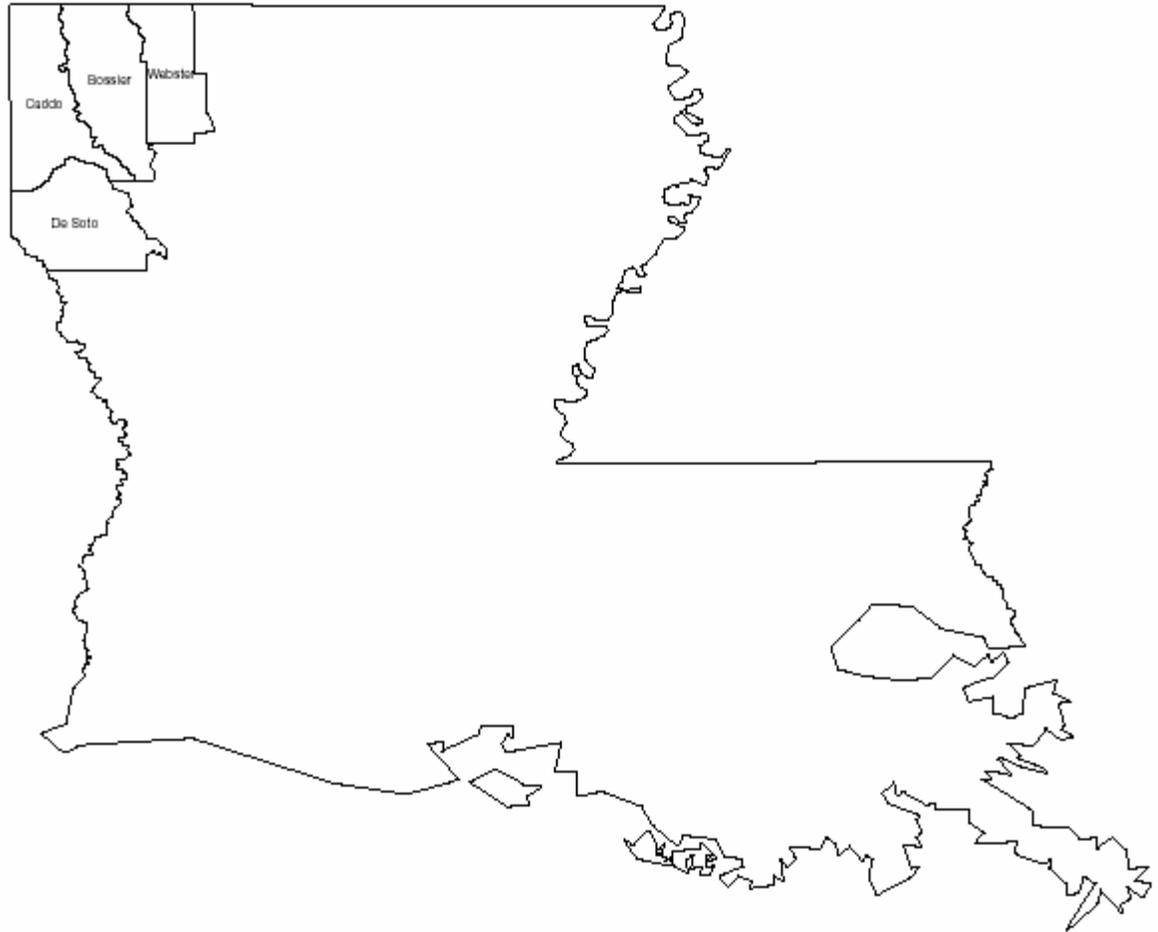
Source: LSUS Center for Business and Economic Research.

Figure 2-3
Shreveport-Bossier City MSA (1990-1999)
3-Parish Region



Source: LSUS Center for Business and Economic Research.

Figure 2-4
Shreveport-Bossier Combined Statistical Area (2000-2009)
4-Parish Region



Source: LSUS Center for Business and Economic Research

Table 2-1
Northwest Louisiana 10-Parish Region
Basic Demographic Characteristics (Estimates & Forecasts)

					% Change	
	2001 Estimate		2006 Forecast		2001-2006	CAGR¹
Population	566,730		572,918		1.1%	0.2%
Households	216,698		221,871		2.4%	0.5%
Family Households	148,680		155,749		4.8%	0.9%
Average Household Size	2.5		2.4		-4.0%	-0.8%
<u>Race</u>						
White	334,308	59%	328,414	57%	-1.8%	-0.4%
Black	214,331	38%	222,629	39%	3.9%	0.8%
Hispanic	9,785	2%	10,879	2%	11.2%	2.1%
Other	11,754	2%	14,373	3%	22.3%	4.1%
<u>Age</u>						
0-14	122,292	22%	118,992	21%	-2.7%	-0.5%
15-19	47,571	8%	47,956	8%	0.8%	0.2%
20-24	44,363	8%	45,936	8%	3.5%	0.7%
25-34	69,515	12%	67,904	12%	-2.3%	-0.5%
35-44	81,224	14%	73,754	13%	-9.2%	-1.9%
45-54	74,480	13%	77,723	14%	4.4%	0.9%
55-64	51,156	9%	61,197	11%	19.6%	3.6%
65+	76,129	13%	79,456	14%	4.4%	0.9%
Median Age	34.9		36.0		3.2%	0.6%
<u>Income</u>						
Median Household Income	\$33,251		\$38,357		15.4%	2.9%
Average Household						
Income	\$43,653		\$51,512		18.0%	3.4%
Median Family Income	\$40,023		\$46,776		16.9%	3.2%
Average Family Income	\$50,151		\$59,467		18.6%	3.5%
<u>Housing Units</u>						
Owner-occupied	146,706	68%	150,844	68%	2.8%	0.6%
Renter-occupied	69,992	32%	71,027	32%	1.5%	0.3%

¹Compound annual growth rate.

Source: ESRI Business Information Solutions, 2001, and Economics Research Associates.

3.0 Analysis: The Strength of the Region's Economic Base

This Strategic Analysis summarizes the job and wealth creating capacity of the Northwest Louisiana economy. The Analysis focuses on Northwest Louisiana's primary export goods and service clusters that import jobs and wealth into the Region, by exporting goods and services to the rest of Louisiana, the nation, and the world. The primary export goods and services clusters include: Northwest Louisiana's medical centers (Section 3.3); leading manufacturing facilities and suppliers (Section 3.4); tourism, recreation and gaming services (Section 3.5); military installations (Section 3.6); higher education institutions (Section 3.7); food processing industry (Section 3.8) and other key primary industries: wholesale trade, finance and insurance, and transportation and warehousing (Section 3.9). We conclude by looking at the most important missing part of the economic base of Northwest Louisiana, the capacity to Create New Enterprise (Section 3.10).

3.1 Thinking about Northwest Louisiana's Economic Base

Since our first Strategic Action Plan for Shreveport-Bossier in March 1985, the global economy has continued to evolve structurally at a geometric pace across all industries from primary products to financial services. The Industrial Age that dominated the growth and development of North America from the Revolutionary War in the 1770s to the end of World War II has been replaced in the second half of the 20th century and the beginning of the 21st Century by the *Intelligence Age*. Industrial Age products still exist, but only countries with very low wages can compete successfully in routine industrial processes, particularly for consumer products. When products mature, production will almost certainly move elsewhere, especially as world capital markets do an even better job of shifting investment from one country to another.

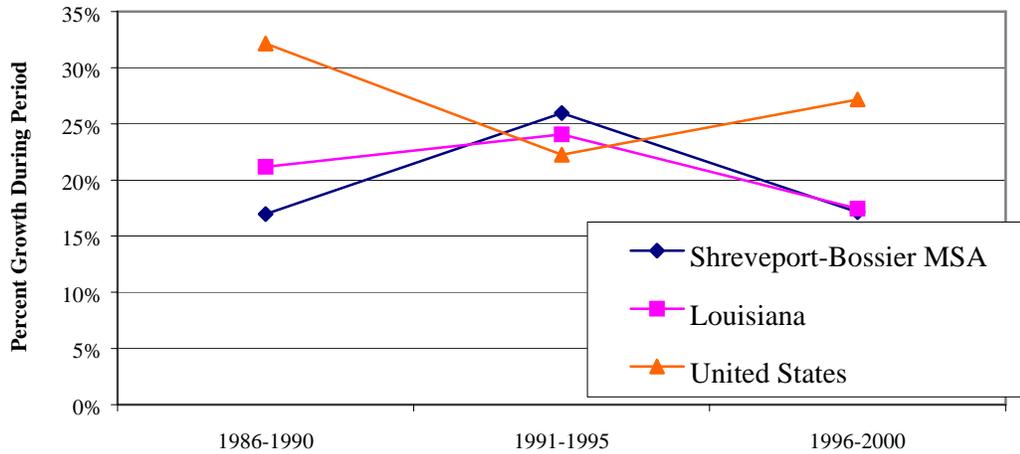
The only means in the *Intelligence Age* for most American economies to maintain or increase prosperity is to continually create new companies with advanced new products and processes, and to apply new technologies to the production of mature products such as trucks, glassware, transformers, food service equipment, and refinery vessels.

Northwest Louisiana must ensure that its economic prosperity is built upon *Intelligence Age* firms and workers, products and processes, advanced technology, and sound economic policies at both the state and local levels.

The Northwest Louisiana economy presents a mixed picture, as measured by personal income and employment throughout the decade of the '90s, and as it positions itself for the 21st Century. Personal income in the Shreveport-Bossier City MSA grew robustly between 1991 and 1995, averaging 4.7 percent per year (nearly 30.0 percent for the period), outpacing both the State of Louisiana and the nation as a whole. Though personal income continued to grow during the 1996-2000 period, average growth reached only 3.2 percent per year (17.1 percent for the period), a much slower pace than the previous period, and just half the national rate (Figure 3-1). Employment growth, which was negative during the 1986-1990 period, grew nearly 10 percent between 1991 and 1995 (averaging 1.8 percent per year), outpacing both the United States and the state. Although employment growth dipped below state and national levels during the 1996-2000 period, employment

growth still remained positive at just above 6 percent (or an average of 0.9 percent per year) (Figure 3-2).

Figure 3-1
Personal Income Growth, 1986-2000
Shreveport-Bossier City MSA, Louisiana, and the United States



Source: U.S. Dept. of Commerce Bureau of Economic Analysis and Economics Research Associates

Figure 3-2
Employment Growth, 1986-2000
Shreveport-Bossier City MSA, Louisiana, and the United States

Source: U.S. Dept. of Commerce Bureau of Economic Analysis and Economics Research Associates

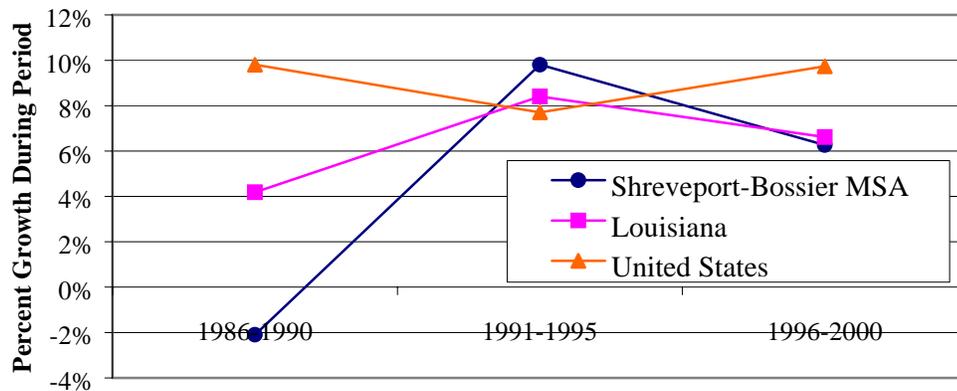


Table 3-1 and Table 3-2 present the Shreveport-Bossier City region’s major employers. Table 3-1 describes primary industries including healthcare, manufacturing, gaming and

tourism, and educational services. Table 3-2 describes those distributive industries in the private and public sector that support the growth and development of the primary industries, which are the principal generators of new jobs through their export of goods and services beyond the region of Northwest Louisiana.

Table 3-1
Shreveport-Bossier City Region Major Employers:
Economic Base Industry
1999

Major Employers	Sector	Approx. Employees (1999)
Barksdale Air Force Base	Military	9,500
LSU Health Sciences Center—Shreveport	Healthcare	4,849
Willis–Knighton Health Systems	Healthcare	3,970
CHRISTUS Schumpert Health System	Healthcare	3,000
General Motors Corporation	Mfg: Assembled Trucks	2,500
Horseshoe Casino & Hotel	Gaming Casino	2,444
Hollywood Casino & Hotel	Gaming Casino	1,700
Isle of Capri Casino & Hotel	Gaming Casino	1,530
Boomtown Casino & Hotel	Gaming Casino	1,468
Harrah's Casino of Shreveport	Gaming Casino	1,335
Libbey Glass, Inc.	Mfg: Table Glassware	1,100
Overton Brooks V.A. Medical Center	Healthcare	1,053
Kansas City Southern Railway Company	Railroad	900
Brookshire's Super1 & Tasty Bakery	Grocery Stores	723
GE Commercial Transformer	Mfg: Transformers	700
Frymaster Corporation	Mfg: Food Service Equip	650
Louisiana Downs, Inc.	Race Track and Gaming	615
Precision Response Corp.	Teleservices	600
International Paper	Mfg: Plywood/Lumber	550
Beaird Industries	Mfg: Refinery Vessels	500
Fibrebond	Mfg: Telecom; Mfg: Shelters	500
CELLXion	Mfg: Telecom; Mfg: Shelters	500
CenturyTel	Teleservices	500

Source: Greater Shreveport Chamber of Commerce Directory of Major Employers, 1999 and Economic Innovation International, Inc.

Table 3-2
Shreveport-Bossier City Region Major Employers:
Distributive Industry
1999

Major Employers	Sector	Approx. Employees (1999)
State of Louisiana	Government	8,021
Caddo Parish School Board	Public Education	6,650
City of Shreveport	City Administration	3,100
Bossier Parish School Board	Public Education	2,400
U.S. Postal Service	Post Office	1,015
Brookshire's Super1 & Tasty Bakery	Grocery Stores	723
Red River Sanitors, Inc.	Janitorial Services	700
City of Bossier	City Administration	692
BellSouth	Telephone Company	665
AEP Southwestern Electric Power	Electricity	660
Reliant Energy Arkla Gas Corporation	Natural Gas	660
LSU in Shreveport	Public Higher Education	616
Caddo Parish Sheriff's Office	Law Enforcement	615
Kroger Food Stores	Grocery Stores	600
Wal-Mart Supercenter -- Airline Drive	Retail Store	544
Wal-Mart Supercenter -- E. Bert Kouns	Retail Store	538
Wal-Mart Supercenter -- Mansfield Road	Retail Store	525
Wal-Mart Supercenter -- Pines Road	Retail Store	525
Burger King	Fast Food Restaurants	513
Target Supercenter	Retail Store	500

Source: Greater Shreveport Chamber of Commerce Directory of Major Employers, 1999 and Economic Innovation International, Inc.

3.2 Shift Share Analysis

Of particular importance to Northwest Louisiana are global changes in industries and products that are occurring simultaneously with changes in competitors and markets. While sometimes referred to as a shift from manufacturing to services, the trend is more accurately described as a restructuring of products, processes and production organization, which defied the old Standard Industrial Classification (SIC) Code that was therefore ended in 1997.

The old, easy synonym of manufacturing as industry no longer applies. In common usage, industry has become roughly synonymous with those firms that form a region's economic base—those firms that export their products to the rest of the world, and thus contribute to

an economy's rising standard of living. In the Industrial Age, industry and the economic base also came to be associated with those enterprises that produced tangible goods, since throughout the Industrial Age manufacturing firms were the dominant source of exports.

Radical changes are now occurring in the industries and products, which constitute a post-industrial, or Intelligence Age, economic base:

- ✓ Whole new classes of manufacturing firms have arisen which export tangible goods, but which are lost in old SIC code (pre 1997) classifications. For instance, there were no distinct categories by which to trace growth in biotechnology or artificial intelligence enterprises.
- ✓ Second, whole new classes of service-producing firms have arisen which do export their products, except that their products are intangible goods such as medical services, tourism services, higher education services, financial services and cinema, television and multi-media services. These are all keys to the United States economy and include some of the most important sectors in Northwest Louisiana's economic base.

This analytical technique, "Shift-Share Analysis", was used to identify the industries in Northwest Louisiana that are growing faster than the national economy (all industries), and proportionately faster in Northwest Louisiana than the identical industries are growing nationally, as measured by non-government employment from 1990-1997 and 1998-2000. The pre 1997 analysis is based on data classified under the old Standard Industrial Code (SIC) and the post 1998 analysis is based on data classified under the new North American Industry Classification System (NAICS), which replaced the SIC system in 1997. The analysis includes data at the Sector (2-digit) and Sub-sector (3-digit) level. Data is not available for some industries due to Federal Government confidentiality policies, which report only ranges of employees for industries where individual firm data could be deduced if an exact figure were released.

A summary of the results of the 1998-2000 shift-share are presented in Table 3-3. Complete results from both the 1998-2000 and 1990-1997 shift-share analyses can be found in the Appendix (Volume I, Appendix 3). Though not all of the industries on the above lists are primary industries—industries, which export goods beyond Northwest Louisiana and therefore bring outside resources into the region (indicated in the far right column)—a good number of them are. These industries present special opportunities for Northwest Louisiana.

Table 3-3
Summary of Industries Growing Faster than the Nation & Faster than
Same Industry Nationwide
1998-2000

	Growing Faster than the National Economy	Growing Faster than Same Industry Nationwide	Primary/ Secondary
Forestry, fishing, hunting, & ag. support			
Forestry, fishing, hunting, & ag. support		X	P
Forestry & logging		X	P
Fishing, hunting & trapping	X		P
Agriculture & forestry support activities		X	P
Mining			
Mining		X	P
Oil & gas extraction		X	P
Mining (except oil & gas)		X	P
Mining support activities		X	P
Construction			
Construction	X		S
Building, developing & general contracting	X		S
Heavy construction	X		S
Special trade contractors	X		S
Manufacturing			
Food mfg		X	P
Beverage & tobacco product mfg		X	P
Textile mills		X	P
Textile product mills		X	P
Paper mfg		X	P
Printing & related support activities		X	P
Petroleum & coal products mfg		X	P
Chemical mfg		X	P
Machinery mfg		X	P
Electrical equip, appliance & cmpnt mfg		X	P
Transportation equipment mfg		X	P
Miscellaneous mfg		X	P

	Growing Faster than the National Economy	Growing Faster than Same Industry Nationwide	Primary/ Secondary
Retail Trade			
Motor vehicle & parts dealers	X		S
Furniture & home furnishing stores	X		S
Bldg material & garden equip & supp	X		S
Clothing & clothing accessories stores	X		S
Sporting goods, hobby, book & music		X	S
General merchandise stores		X	S
Miscellaneous store retailers	X	X	S
No store retailers	X		S
Transportation & warehousing			
Transportation & warehousing	X		P
Air transportation	X		P
Truck transportation	X		P
Transit & ground passenger transportation	X	X	S
Pipeline transportation	X		P
Couriers & messengers	X		S
Warehousing & storage	X		S
Information			
Information	X		P
Publishing industries	X		P
Motion picture & sound recording industries	X	X	P
Broadcasting & telecommunications	X		P
Information & data processing services	X		P
Credit intermediation & related activities		X	P
Security, commodity contracts & like activity	X		P
Funds, trusts, & other financial vehicles	X		P
Real estate			
Real estate & rental & leasing	X		P
Real estate	X		P
Rental & leasing services	X		P

	Growing Faster than the National Economy	Growing Faster than Same Industry Nationwide	Primary/ Secondary
Lessors of other nonfinancial intangible assets	X		P
Professional, scientific & technical services			
Professional, scientific & technical services	X		P
Professional, scientific & technical services	X		P
Management of companies & enterprises			
Management of companies & enterprises	X		P
Management of companies & enterprises	X		P
Admin, support, waste mgt, remediation services	X	X	P
Administrative & support services	X	X	P
Educational services			
Educational services	X		P/S
Educational services	X		P/S
Healthcare & social assistance			
Healthcare & social assistance		X	P/S
Nursing & residential care facilities		X	P/S
Arts, entertainment & recreation			
Performing arts, spectator sports, & related industries	X		P/S
Museums, historical sites & like institutions	X		P/S
Amusement, gambling & recreation industries	X		P/S
Other services (except public administration)			
Other services (except public administration)		X	N/A
Personal & laundry services		X	S
Religious, grant making, civic, prof & like organizations	X	X	N/A
Auxiliaries (exec corporate, subsidiary & regional mgt)	X		N/A

The most important economic base industry clusters are described below: medical, biomedical and healthcare services (Volume I, Section 3.3); primary manufacturing industries (Volume I, Section 3.4); tourism, recreation and gaming services (Volume I,

Section 3.5); Barksdale Air Base (Volume I, Section 3.6); higher education institutions (Volume I, Section 3.7); food processing (Volume I, Section 3.8); other primary industries (Volume I, Section 3.9) and creating new enterprise (Volume I, Section 3.10).

3.3 Medical, Biomedical and Healthcare Services

Medical, biomedical and healthcare is the largest job creating industry cluster in Northwest Louisiana. Healthcare is also a growing primary export industry in the nation as well as the region. In 2000, the industry accounted for 18 percent of employment in the Shreveport-Bossier City MSA, or nearly 27,000 employees. Compared with the United States as a whole, which had 50 healthcare and social services employees per 1,000 people, the Shreveport-Bossier City MSA had more than 68. The majority of these are employed by Willis-Knighton Health Systems (Volume I, Section 3.3.1), CHRISTUS Schumpert Health System (Volume I, Section 3.3.2), LSU Health Sciences Center (Volume I, Section 3.3.3), Overton Brooks V.A. Medical Center (Volume I, Section 3.3.4), Feist-Weiller Cancer Center (Volume I, Section 3.3.5) and the Minden Medical Center (Volume I, Section 3.3.6). Shreveport is home to the first Shriners Hospital in North America, a 45-bed facility that offers free Pediatric Orthopedic care. The cluster is also served by the LSU Health Sciences Center Foundation (Volume I, Section 3.3.7) and the Biomedical Research Foundation of Northwest Louisiana (Volume I, Section 3.3.8), among other healthcare foundations.

Healthcare is a key to the national and local economy, but it faces many dangers. There may be as many as 1100 excess beds in the region, and many redundant services. The industry could implode as well as grow; too much energy is focused inward in wasted local competition instead of collaboration to grow a powerful, interconnected regional tertiary and quaternary industry serving a 100-200+ mile region. Perhaps, most striking, despite the size and vitality of the healthcare sector in the economy, the health of low income and black citizens is substantially poorer in Caddo and Bossier than it is in the nation, or than it is for blacks throughout Louisiana (Volume I, Section 4.3.10).

Given the importance of this industry to the region, the three key medical centers are of special importance to the health of the economy and its people.

3.3.1 Willis-Knighton Health System

Willis-Knighton is the largest hospital in Louisiana and the Ark-La-Tex region, and has the largest market share of insured healthcare patients in the region. Patient visits for the health system exceeded 700,000 in fiscal year 2002. With more than 4,600 employees, it is the largest non-governmental employer in Shreveport-Bossier and the eighth largest private sector employer in the state. Willis-Knighton is also the largest locally operated business in the region with a principal local mission, both of which are strengths to the local economic base.

During a time of national downsizing and reduction of hospital beds, Willis-Knighton has built two new state-of-the-art hospitals in Shreveport and Bossier City. Despite cuts in government-funded healthcare and the cuts demanded by managed care contracts, Willis-Knighton has remained profitable. Through its “tithe the bottom line” philosophy of

giving, Willis-Knighton has reinvested a minimum of 10 percent of its profits into not-for-profit and community projects, substantial contributions of cash and in-kind services in comparison to other local contributions, including the local United Way.

The Willis-Knighton medical staff includes more than 700 physicians, and the health system provides general and acute care in more than 800 beds licensed in its four hospitals in Shreveport and Bossier City. Current occupancy rates for licensed beds are approximately 80%. It also operates a nursing facility. These owned facilities are:

- ✓ Willis-Knighton Medical Center
- ✓ Willis-Knighton South and the Center for Women's Health (the first satellite hospital in the state)
- ✓ WK Bossier Health Center
- ✓ WK Pierremont Health Center
- ✓ WK Progressive Care Center

The Willis-Knighton health system also operates four hospital-based fitness and wellness centers, two community wellness centers, four occupational medicine clinics, two urgent care clinics, a medical services organization that serves both Willis-Knighton Physician Network physicians and independent practices. Willis-Knighton also operates six clinics that provide care to underserved neighborhoods (without federal funding) that provided more than \$2 million of uncompensated care in 2002. The health system owns Health Plus of Louisiana, north Louisiana's largest health plan, which covers more than 43,000 insured lives.

Willis-Knighton has a history of working with other health institutions, having established the first private/public healthcare relationship in north Louisiana with LSU Health Sciences Center. The relationship includes the WK/LSUHSC Regional Transplant Clinic and the Center for Fertility and Reproductive Health. The transplant clinic offers transplantation of heart, kidney, liver and pancreas with surgeries performed at Willis-Knighton Medical Center by members of the LSUHSC faculty. The Center for Fertility and Reproductive Health treats both female and male infertility and offers in vitro fertilization as well as a host of related services. The health system holds part ownership in Lincoln General Hospital and maintains affiliate relationships with DeSoto Regional Health System in Mansfield, Doctors' Hospital in Shreveport, Minden Medical Center in Minden, and North Caddo Medical Center in Vivian.

Tertiary care services at Willis-Knighton include organ transplants, dialysis, neurosurgery, cardiac care, neonatal intensive care, rehabilitation and cancer services (radiation/IMRT/medical). Among these, the Willis-Knighton Heart Institute has been on the leading edge of cardiology diagnostics and treatment. The Heart Institute, which includes a Heart Hospital, has been the first in the region to offer stents, dual chamber pacemaker, and InSync resynchronization therapy. Physicians associated with the Institute have participated in research on topics such as congestive heart failure and gene therapy. The Willis-Knighton Cancer Center includes medical oncology and radiation oncology with a wide range of support services, including a PET scanner from the Biomedical Research

Institute. The Center for IMRT at the Cancer Center has been a leader in radiation oncology technology in the Ark-La-Tex region and was the first to offer clinical use of amorphous silicon online portal imaging. Physicians at the center have participated in national studies and maintain referral relationships with a number of nationally known cancer centers.

The Center for Women's Health located at Willis-Knighton South was the first center in the Shreveport-Bossier area devoted to the health of women. At its suburban hospital locations, Willis-Knighton delivers more babies than any other regional hospital or health system.

To help address the shortage of healthcare workers and the need for advanced training for healthcare workers, Willis-Knighton has established the WK Career Institute. The Institute houses a satellite facility of Our Lady of the Lake College from Baton Rouge, which offers a practical nursing curriculum in Shreveport (Volume I, Section 3.7.11). Willis-Knighton Health System has also addressed the need for hospital administrators by committing \$250,000 to support the LSUS Master of Science Degree in Health Care Administration (Volume I, Section 3.7.2).

3.3.2 CHRISTUS Schumpert Health System

CHRISTUS Schumpert Health System of Shreveport, La., is a Catholic, nonprofit system owned and operated by CHRISTUS Health, Dallas, Texas. Founded in 1894, the system now employs 3,000 workers and has a medical staff of more than 750 physicians with privileges.

CHRISTUS Schumpert Health System has served residents of northwest Louisiana, southwest Arkansas, and east Texas for more than 100 years. CHRISTUS Schumpert is an 807-licensed bed faith based health system providing acute care at three locations in the Shreveport-Bossier City area. Current occupancy rate for staffed beds (as distinct from licensed beds) is 75%. The facilities are:

- ✓ CHRISTUS Schumpert-St. Mary Place
- ✓ CHRISTUS Schumpert-Bossier
- ✓ CHRISTUS Schumpert-Highland
- ✓ CHRISTUS Schumpert Line Avenue

The faith-based health system also operates a sports medicine and orthopedic complex, an integrative medicine center, three stand-alone wellness centers, an occupational medicine clinic, two urgent care clinics and a state-of-the-art cancer treatment center.

The Cancer Treatment Center at CHRISTUS Schumpert is the only community hospital comprehensive cancer program in the region accredited by the American College of Surgeons – the highest level of certification that a community hospital-based cancer program can achieve. Recently, the CHRISTUS Schumpert Cancer Treatment Center was selected as an affiliate of the M. D. Anderson Physicians Network, with a total of 48 physicians credentialed and more expected in the future. The affiliation provides the

opportunity for consultation with the Houston-based cancer center that has consistently ranked as one of the top two cancer treatment programs in the nation. |

A 5,000 square foot addition to the Cancer Treatment Center in 2000 houses two new high-energy linear accelerators with expanded capabilities. The first of the new linear accelerators – the only one in the region with integrated IMRT capabilities-- was installed in February of 2002 and brings the number of linear accelerators in the center to three. The Cancer Treatment Center also has a PET imaging scanner from the Biomedical Research Institute and a breakthrough medical imaging system, the LightSpeed CT scanner, which allows doctors to simultaneously capture multiple images of a patient's anatomy at one time and operates at very high speeds.

The new 53-bed center of excellence for rehabilitation at CHRISTUS Schumpert Bossier offers care for patients with neurological and orthopedic disabilities from such conditions as traumatic brain injuries, stroke, spinal cord injuries, pulmonary conditions and burns. Previously, care for many of these conditions was not available in north Louisiana.

Schumpert also offers Louisiana's first community residential hospice – Grace Home. The 16-bed facility offers 24-hour end-of-life care and supplements a home hospice program for patients who prefer to remain in their own homes.

In the area of diagnostics, CHRISTUS Schumpert recently installed a new \$1.8 million Magnetic Resonance Imaging device (MRI) at CHRISTUS Schumpert St. Mary Place. The new General Electric-made MRI uses new technology to scan for peripheral vascular disease and renal artery studies.

CHRISTUS Schumpert is currently working with Hal Sutton, a nationally known PGA golfer, to determine the need for a children's hospital in Northwest Louisiana. The hospital could possibly fill a perceived gap in children's healthcare in an area surrounding Shreveport. The closest hospitals currently devoted solely to children are now in Little Rock, Dallas, New Orleans, and Jackson, Mississippi, as well as the accredited Children's Hospital facility now operated within the LSU Health Sciences Center (Volume I, Section 3.3.3).

A state-of-the-art outpatient center provides services and therapies such as mind/body medicine, acupuncture, herbal and nutritional counseling, massage and bodywork therapies, spiritual counseling and fitness for people with chronic illness. The center, which opened in 2002, is located within the health system's Line Avenue facility. The Center of Integrative Medicine answers an increasing demand for alternative therapies to complement conventional medical treatment. The Center offers consultation and services for chronic pain, symptom management and conditions with stress or psychological factors involved. The services are offered to patients referred by their physicians. In addition, the center offers community classes.

The Neonatal Intensive Care Unit serves the region's smallest patients. Many come from rural hospitals and communities in East Texas and Northwest Louisiana. Babies are routinely flown to Shreveport for care when hospitals do not have the neonatal nursery services available. Through CHRISTUS Schumpert's Prenatal Transport Program, mothers

with high-risk babies in-utero are brought to the St. Mary hospital campus from outlying areas to have their babies delivered in close proximity to the high-level nursery services available at St. Mary Place.

CHRISTUS Schumpert and LSU Medical/Health Sciences Center collaborate in providing care to the community. Schumpert, for example, collaborates with LSU to provide two free standing school-based health clinics at schools in underserved areas, as well as a clinic that provides services addressing child-abuse. The Cara Center is dedicated to children suspected of child abuse and has served more than 2,000 children since its opening in 2000. The school-based health centers at Atkins Elementary School and Linwood Middle School have been especially effective in working with children with asthma and providing basic healthcare for children from surrounding low-income neighborhoods.

CHRISTUS Schumpert has numerous outreach partnerships within the community including: Mercy Center – a home for persons living with AIDS, Centerpoint – an outreach program that facilitates the coordination of health and social services as well as provides case management services for the homeless, Martin Luther King Health Center – a clinic in an underserved area of Shreveport offering healthcare and medications to those who would otherwise not have access to medical care and The Teen Mom program, a joint venture of St. Catherine’s Community Center and CHRISTUS Schumpert Health System that links pregnant teens with a volunteer mentor to help them learn parenting and family life skills.

The Kids Clinic, a unique service for children with complex medical conditions, is a physical medicine and rehabilitation program that provides care and therapies including occupational, physical, speech and respiratory for children with developmental disabilities regardless of ability to pay.

3.3.3 LSU Health Sciences Center in Shreveport

LSU Health Sciences Center in Shreveport (LSUHSC-S) is one of 120 institutions in the nation designated as academic Health Sciences Centers. An academic Health Sciences Center is unique among higher education institutions in that it combines a medical school, a Ph.D. program in the biomedical sciences, degree programs in the allied health professions, and one or more teaching hospitals. LSUHSC-S is the keystone institution in this essential economic base industry, first, because it is *the* academic Health Science Center in Northwest Louisiana, and, second, because healthcare is the largest and most dynamic sector in the regional economy.

The LSU Hospital in Shreveport, one of 125 teaching hospitals in the US, has 435 beds and admits approximately 19,500 patients each year. Current occupancy rates for licensed beds is 82.4% for adults and 79.2% overall. There are 450 physicians on staff. Approximately 70 percent of physicians in North Louisiana are graduates of the LSU School of Medicine in Shreveport and/or have completed residency training at the LSU Hospital in Shreveport.

LSUHSC-S is the chief provider of health services to the uninsured and medically indigent, a fact recognized and appreciated by regional leadership and by Shreveport-Bossier healthcare stakeholders. Currently, as the table below indicates, almost 20% of LSU patients either pay for their own health care or have private health insurance. Nearly 60%

are covered by either Medicare or Medicaid insurance. The number of commercially paid and insurance covered patients has grown dramatically over recent years, especially as higher income individuals have come to recognize the high quality of care available at this teaching hospital.

Table 3-4
The Changing Mix of Patients at LSU Health Science Center-Shreveport

	1983-84	1993-94	2001-02
Commercial	8.6*	10.1	17.1
Medicaid	15.4	36.5	34.6
Medicare	18.6	17.4	17.5
Self Pay		3.6	2.2
Free Care	57.4	32.4	28.6

* Includes Self Pay

Source: LSUS Health Sciences Center

The LSU Health Sciences Center teaching hospital offers a full complement of primary as well as tertiary care services to residents of Northwest Louisiana. The hospital medical and dental staff is composed of faculty of the LSU School of Medicine in Shreveport. In addition, there are 320 house officers, physicians in various levels of postgraduate specialty training, in ACGME-accredited residency programs offered by LSU Hospital in Shreveport. There is no other university teaching hospital within a 200-mile radius of Shreveport.

Tertiary care services include a Level I Trauma Center (first in the state), all pediatric specialties and subspecialties, Gamma Knife, minimally invasive radiology and cardiac procedures, high risk maternal-fetal medicine, Surgical Intensive Care Unit, Medical Intensive Care Unit, Pediatric Intensive Care Unit, Neonatal Intensive Care Unit, and Regional Burn Center. In addition, LSUHSC-S includes on its campus several major centers of excellence, including the Center of Excellence in Cancer Research, Treatment and Education (the Feist-Weiller Cancer Center, a fully integrated part of LSUHSC-S, but of sufficient note to warrant its own description in Volume I, Section 3.3.5), and the Center of Excellence for Arthritis and Rheumatology.

Organ transplants were among the medical “firsts” made available to the community through the faculty of the LSU School of Medicine and the LSU Hospital. Today, transplantation surgeons who are faculty members of the medical school regularly perform heart, kidney, and liver transplants, some in collaboration with Willis-Knighton Healthcare Systems.

Similarly, the medical expertise of faculty makes it possible for patients to participate in clinical trials with the newest treatments and technologies under close medical supervision. The tertiary and quaternary care—the most sophisticated levels of medical care—are

available because LSU Health Sciences Center faculty serves as a regional resource for patients with complicated illnesses.

The LSU Hospital in Shreveport earned additional prestige for its pediatric areas when it achieved accreditation from the National Association of Children's Hospitals and Related Institutions as a Children's Hospital within a Hospital. The Children's Hospital of LSU Health Sciences Center in Shreveport is a regional resource for pediatricians and their young patients who need specialty and subspecialty care unavailable elsewhere in the region.

LSUHSC-S is the anchor of biomedical research and innovation in the region, as noted in Volume I, Section 5.2.1, Healthcare Innovation and the Economy. Its relationship to the Biomedical Research Foundation of Northwest Louisiana and their joint capacity to increase biomedical and biotechnology innovation in the region is analyzed in Volume I, Section 3.3.8.1. Strategic Actions to increase the efficiency and effectiveness of that collaboration are found in Volume II, Section 4.2.

3.3.4 Overton Brooks VA Medical Center

The LSU School of Medicine in Shreveport literally began at the Overton Brooks Veterans Administration Medical Center, which provided administrative and classroom space from 1969 until 1976, when the medical school building was first occupied.

From its inception, the two institutions forged a close affiliation under a formal contractual arrangement, which continues today. Through this affiliation with the Medical School, the Overton Brooks VAMC is a "Deans Committee" hospital, an organizational structure recognized throughout the VA system. In such arrangements, the dean and senior faculty members of VA-affiliated medical or dental schools advise the respective VA director or chief medical director on the development, management, and evaluation of all education and research programs conducted at that particular VA. Under terms of the affiliation, staff physicians appointed by the VA who meet appropriate academic criteria may be appointed to the medical school faculty in a special category called full-time affiliates. These faculty supervise not only students from the LSU School of Medicine in Shreveport who rotate through the Overton Brooks VA Medical Center but also residents from LSU Hospital training programs who rotate there as part of their postgraduate physician training programs.

The LSU Hospital residency programs that require rotation through Overton Brooks VA Medical Center are general medicine, general surgery, ophthalmology, otolaryngology, and urology. In addition, the internal medicine subspecialty training programs in pulmonary and gastroenterology offer elective rotations at the Overton Brooks VA Medical Center.

3.3.5 Feist-Weiller Cancer Center

The Feist-Weiller Cancer Center is a Center of Excellence in Cancer Research, Treatment and Education fully integrated into the campus of the LSU Health Sciences Center at Shreveport, but of sufficient note to warrant this separate section. The new \$14 million Feist-Weiller Cancer Center outpatient treatment facility on the LSUHSC-S campus is

designed to consolidate outpatient services and expand Feist-Weiller's role as a resource for physicians and patients across North Louisiana. The Center is expected to open January 2004. Space within it will be dedicated to St. Jude patients, who are treated at LSUHSC-S through an affiliation with world famous St. Jude Hospital in Memphis, Tennessee.

Of special note is the success by cancer researchers in the Feist-Weiller Cancer Center in enrolling minority patients in cancer treatment protocols. Feist-Weiller ranks first among 42 university cancer centers nationally in enrolling minority patients in cooperative studies that offer aggressive, newer treatments to those participating.

On Dec. 12, 2001, *The Times* of Shreveport was among news agencies reporting that a new breast cancer drug showed promise and that Feist-Weiller Cancer Center played a major role in the international study upon which the new information about treating breast cancer was based.

Upon the completion of the new Feist-Weiller Cancer Center outpatient treatment facility, all three major medical institutions will house a cancer center. The program also receives \$2.5 million in National Institute of Health (NIH) support. The program sees about 300 patients per week. Dr. Glass, Feist-Weiller Cancer Center Director, created the program in 1986. All private funds raised for the Feist-Weiller Cancer Center are housed in the LSUHS Foundation, underlining its integral role as a part of the LSU Health Science Center in Shreveport.

3.3.6 Minden Medical Center

Minden Medical Center is a general acute care hospital licensed for 159 beds. Occupancy rates currently are approximately 56%. Twenty-five physicians serve on staff, and there are 400 employees.

The hospital is accredited by the JCAH and is approved by Medicare, Medicaid and Blue Cross. Acute inpatient services include medical surgical/pediatric/endoscopic, urology, ENT, CT, MRI, ICU, orthopedic surgery, bloodless medicine services and a Women's Health Center, which includes birthing rooms/LDRP. The Minden hospital provides the community with a 24-hour emergency room.

Outpatient services include invasive cardiac services; occupational, physical and speech therapy; ultrasound, noninvasive neurology; stress testing, cataract extraction/lens implantation; orthopedic and endoscopic surgery; rehabilitation services; outpatient surgery; mammography; sleep disorders; lithotripsy; Phase II cardiac rehabilitation; oncology, and pain management, as well as home health services.

The institution refers many patients to the major Shreveport medical institutions for specialty and inpatient care. Minden has a very experienced management team with the least tenured member having been there for ten years.

3.3.7 LSU Health Sciences Center Foundation

The LSU Health Sciences Center Foundation was created in November 1997 to help fill the void that was caused by the lack of full state assistance for the LSU Health Sciences Center and the changed mission of the Biomedical Research Foundation of Northwest Louisiana. The LSU Health Sciences Center in Shreveport receives less than 14 percent of its operating budget from the state. It depends on student tuition, private donations, federal grants, and the University Hospital to fund the balance of the budget.

The operating budget for the LSU Health Sciences Center in Shreveport in FY 2002-03 is \$277.1 million, making it a major economic force in the region. Hospital earnings fund \$226,662,913 of the total budget, including \$29,990,761 that is used to fund medical school operating expenses. The LSU Health Sciences Center Foundation helps coordinate outside funding. Also, in the 2003 Louisiana State Legislative Session, the Northwest Louisiana delegation and leading business organizations are advocating a basic change in the funding formula for the LSU Health Sciences Center in Shreveport.

With institutional maturation has come growth in research. In fiscal year 2001-2002, \$10,474,051 in NIH funding was brought into the community by researchers LSU Health Sciences Center in Shreveport. Receipt of NIH research dollars is a telling measure of the ability of faculty to compete successfully in the national funding arena. For comparison purposes, in fiscal year 1986-87 the LSU Health Sciences Center in New Orleans generated only \$2.9 million in extramural funding. Again, the LSU Health Sciences Center Foundation assists in this effort.

3.3.8 The Biomedical Research Foundation of Northwest Louisiana

In the 1980's, in the midst of a statewide economic recession caused by the collapse of the oil and gas industry, the Shreveport Chamber, the Bossier Chamber and other leaders in Northwest Louisiana sought avenues to diversify and strengthen the regional economy. These leaders commissioned the Strategic Action Plan of 1985 prepared by Economic Innovation International and Mt. Auburn Associates.

A key Strategic Action in the 1985 Plan involved focusing on developing and growing new technology-based industries in Northwest Louisiana that would remain viable for decades to come. Healthcare was identified as a key growth industry in the region that could be further strengthened and expanded. The 1985 Strategic Action Plan therefore proposed growing an expanded biomedical and technology industry by building on the existing medical assets of the region. These included LSU Medical School in Shreveport (Volume I, Section 3.7.2) and the three major medical centers in the region (Willis-Knighton, Volume I, Section 3.3.1; CHRISTUS Schumpert, Volume I, Section 3.3.2 and the LSU Health Sciences Center in Shreveport, Volume I, Section 3.3.3).

As a result, in 1986 the Biomedical Research Foundation of Northwest Louisiana (the Biomedical Research Foundation) was established as a private, not-for-profit, 501(c) (3) economic development and research organization to leverage the region's medical assets to develop knowledge-based industry.

Led by a volunteer Board of Directors and managed by a president and professional staff, the Biomedical Research Foundation has grown to the point that today it employs 51 persons and manages a reported \$78 million in assets. The Biomedical Research Foundation defines for itself a complementary two-fold mission:

- ✓ To enhance the research, teaching and clinical capacity of LSU Health Sciences Center in Shreveport, and
- ✓ To establish Northwest Louisiana as a nationally recognized regional technology center through the creation of the InterTech Science Park.

The Biomedical Research Foundation owns and manages \$78 million in land, buildings, equipment and other assets to support these mutually interdependent missions, which are equally important to the economic health of the region. Of this total amount, the Biomedical Research Foundation reports that it attributes approximately 50% of these assets to the support of LSUHSC-S's research and clinical programs, and attributes the other 50% in support of economic development and the InterTech Science Park.

3.3.8.1 Enhancing the Capacity of LSUHSC-S

The first of these two equally important missions of the Biomedical Research Foundation is designed to enhance the research, teaching and clinical capacity of the LSU Health Sciences Center in Shreveport. The basis for delivering this component of the Biomedical Research Foundation mission is largely defined in both the Cooperative Endeavor Agreement of January 28, 1994 and the Lease Agreement established at the same time between the Biomedical Research Foundation and LSUHSC-S.

In a major early initiative to contribute to this mission, the Biomedical Research Foundation received Federal and State grants to construct, own and operate the Virginia K. Shehee Biomedical Research Institute (BRI). The BRI is a \$37 million, 160,000 square foot state-of-the-art research facility operated by the Foundation for the Health Sciences Center. The BRI contains 56 laboratories that house over 240 scientists and staff conducting basic medical research undertaken by the Medical School.

By completing this space in 1994, the Institute helped address the critical need for additional research facilities that threatened the medical school's accreditation. Through the efforts of the Biomedical Research Foundation, LSUHSC-S and the community, the Biomedical Research Foundation secured \$28.3 million from the U. S. Department of Energy to construct and design the Institute and \$8.7 million from the State of Louisiana for equipment. This public-private partnership thereby garnered \$37 million in resources for LSUHSC-S that would not have existed without the efforts of the Biomedical Research Foundation

Since 1994, the LSU Health Sciences Center in Shreveport has paid more than \$24 million in rental income to the Biomedical Research Foundation for occupancy of the Biomedical Research Institute (BRI) for a facility created by Federal and state funding, as noted in the Table below:

Table 3-5
 Annual Rent-Lease Payments from the LSUHSC-S to Biomedical
 Research Institute
 1994-2002

Fiscal Year	Rent/lease payments
1993-1994	\$1,095,127
1994-1995	2,628,304
1995-1996	2,628,304
1996-1997	2,628,304
1997-1998	2,948,483
1998-1999	2,854,320
1999-2000	2,927,520
2000-2001	3,017,771
2001-2002	3,030,000
Total	\$23,758,133

Source: LSUHSC-S.

The 1994 lease arrangements, as amended in 2000, are still in effect. These arrangements were negotiated between the Biomedical Research Foundation and BRI, on the one hand, and the Louisiana Health Science Center, New Orleans and the systems office in Baton Rouge, on the other, because LSUHSC-S was not yet a separate legal and financial entity with its own chancellor. The current rent is \$27 per square foot as provided in the lease agreement.

As shown in the Table below, half of this amount (or about \$12 million) was used by the Biomedical Research Foundation for BRI maintenance costs related to space occupied by LSUHSC-S. The remainder (or about \$12 million) has been returned to LSUHSC-S to support research, technology and clinical practices. Thus, the \$24 million in rental income received by the Foundation from LSUHSC-S is approximately equal to the \$24 million returned to LSUHSC-S by the Foundation.

Table 3-6
Reported Financial Support to LSUHSC-S
1994-2002

<u>BRI Operating and Maintenance Costs</u>	<u>\$ million</u>
BRI Maintenance & Utilities (floors 2-9)	8.94
BRI Contract Services	2.43
BRI Capital Improvements	0.53
Total BRI Costs	11.9
<u>LSUHSC-S Support for Research, etc.</u>	<u>\$ million</u>
Research and Program Grant Support	3.13
Gamma Knife Grant	1
Endowed Chair Grants	3
Aesop & Zeus Robotic Surgery Equip. Grant	0.34
PET Research Lab Operations	1.04
PET Research Lab Renovation	0.27
PET Uninsured Indigent Patient Support	3.86
Total LSUHSC-S Research Costs	12.64
Total Biomed Support to LSUHSC-S	\$24.54 million

Source: Biomedical Research Foundation of Northwest Louisiana.

Our work with other medical foundations in major medical centers suggests that the Biomedical Research Foundation is not yet operating in the most focused and efficient manner necessary to enhance the research, teaching and clinical capacity of the LSU Health Sciences Center.

- ✓ High quality medical research and incubator/accelerator facilities in major medical centers tend to operate with small lean staff less than ten, not 51. The Biomedical Research Foundation does engage in functions that go beyond core medical research and incubation/acceleration facilities. For instance, 27 of the 51 staff work in the three PET scan facilities, and nine are maintenance workers for the existing BRI facilities. If the PET scan activities have now reached a sufficient maturity and profitability that they could be spun off as an independent, self-sustaining institution, the structure of the Biomedical Research Foundation would more closely resemble that of its national peer group counterparts. This is a matter that the Board of the Foundation might explore.
- ✓ Scarce resources such as the \$3 million annual rental income need to be reinvested in a highly focused strategic way, mutually agreed to by the Biomedical Research Foundation and LSUHSC-S, to leverage substantial additional resources and to accomplish measurable performance goals which are then post-audited and publicly reported. The recently completed LSUHSC-S Strategic Plan creates a significant opportunity for such mutual goal setting, and

provides a framework for both parties to work together to advance the potential of the campus they both share.

- ✓ With regard to matters of accreditation and enhanced standing, the highest returns generally come from investment in the human capital of the professional research and teaching faculty, not physical plant or new technologies. This is the accumulated experience of such major medical centers such as those in Boston, San Francisco, San Diego and St. Louis with which we have worked. The importance of investment in people is described in detail in Volume I, Section 4.1, The Importance of Human Capital in the Intelligence Age. An initial investment in high quality research and teaching faculty will in turn leverage the necessary physical and technical assets needed by these high impact professionals.
- ✓ National best practices suggest that there should be Strategic Goals, Strategic Actions, Public Performance Measures and Public Accountability for this mission mutually agreed to by the Biomedical Research Foundation and the Health Sciences Center. The Biomedical Research Foundation should then make provision for public accountability to the Health Sciences Center, to the healthcare community and the citizens and taxpayers of the region. This Strategic Action Plan recommends that the vehicle for helping to set measurable performance goals, and then post-audit performance for all initiatives in this Plan is the LSU Center for Business and Economic Research (CBER, Volume II, Section 4.2).

We are aware that, as a result of the recently installed chancellor at LSUHSC-S and the development of an excellent 2003 Strategic Plan for LSUHSC-S, better and more purposeful communication now exists between the Biomedical Research Foundation and the LSUHSC-S. This new reality opens the door for a mutual process of goal setting and accountability between and by the two institutions, as well as by the Biomedical Research Foundation to its federal, state and parish taxpayers.

In Strategic Action Volume II, Section 4.2, Creating New Biomedical and Biotechnology Enterprise, we outline such a mutual process for the Biomedical Research Foundation and LSU Health Science Center in Shreveport to make joint, mutually beneficial strategic investment decisions and then monitor progress. Because of the intense engagement that has been engendered with both institutions by this Strategic Analysis and Action Plan, we are confident that such a mutually beneficial process will proceed and will produce mutually productive outcomes.

3.3.8.2 Establishing Northwest Louisiana as a Technology Center

In fulfilling its mission to establish Northwest Louisiana as a technology center, the Biomedical Research Foundation has engaged in two separate, but closely related strategies:

- ✓ The first of these is an economic development strategy. Such strategies are ordinarily implemented through a not-for-profit, public purpose instrument. The not-for-profit, 501(c) 3 Biomedical Research Foundation is an appropriate mechanism for implementing this strategy.

- ✓ The second of these is an investment strategy traditionally performed through a for-profit instrument, often as a subsidiary of the public purpose, not-for-profit economic development parent, to insure that it carries out the “double bottom line goals” for which it was established. No such for-profit affiliate to the Biomedical Research Foundation currently exists to carry out this function, nor has the Foundation chosen until now to leave the investment strategy to sophisticated private investors who meet current national standards for best practice investment. As a consequence, there have been to date real questions about the efficacy of the Biomedical Research Foundation’s use of important and scarce public resources to create new life sciences enterprise.

Economic Development Strategies: Since 1998, the Biomedical Research Foundation has undertaken a number of not-for-profit economic development initiatives designed to increase the capacity of Northwest Louisiana to develop as a technology center. These initiatives include:

- ✓ The InterTech Science Park, a triangular parcel of 800 acres in central Shreveport anchored by three major medical centers—LSU Health Sciences Center in Shreveport to the south; CHRISTUS Schumpert Health System to the east; and Willis-Knighton Health System to the west. 80% to 85% of the medical professionals and all of the teaching physicians and nurses in the Shreveport-Bossier City area are located within this triangle.
 - This triangular site encompasses the LSU Medical School in Shreveport, the Nursing School, the Virginia K. Shehee Biomedical Research Institute, the Positron Emission Tomography (PET) Imaging Centers, an emergency trauma center, a specialized orthopedic hospital, in addition to the three medical centers. The site also includes two incubator facilities owned by the Biomedical Research Foundation for new, technology-based businesses: the Center for Biomedical Technology Innovation and the InterTech Business Innovation Center. Six new technology-based businesses currently reside in the InterTech Science Park.
 - The InterTech Science Park was funded in 1993 through the levy of a special, five-year 2.0 mill property tax passed by Caddo Parish voters. At that same time the voters approved 2.5 mills for the Caddo Bossier Port for 25 years. In October 1997, Caddo Parish voters approved 1.95 mills for the Biomedical Research Foundation for the years 1998 through 2007. In October 2001, the 1.95 mill property tax was reduced to 1.88, but renewed for 16 years starting in 2002 and ending in 2017. By way of example, in fiscal year 2002, the millage contributed \$1,890,714 to the revenues of the Foundation (noted in the 2002 Annual Report as a “local government operating grant”).
- ✓ Other Economic Development Initiatives undertaken by the Biomedical Research Foundation to increase the capacity of Northwest Louisiana as a technology center include:

- The Consortium for Education, Research and Technology of North Louisiana (CERT)—An innovation of the Biomedical Research Foundation, the Foundation proposed and supported the creation of CERT (described in Volume I, Section 3.7.1) and now funds parts of its operation by providing office facilities and in-kind technical, administrative and development services.
- The Mathematics, Science and Technology K-12 Cluster Partnership (MST)—as a founding member of the MST Partnership, the Biomedical Research Foundation has provided salary, fundraising, administrative and coordination support. The MST program, which focuses on project-oriented, discovery-based learning, is now being implemented at Keithville Elementary/Middle School and Southwood High School, with plans to eventually expand to other Caddo Parish Schools.
- The Science & Medicine Academic Research Training and the Science Research Teacher programs, whereby high school students and teachers conduct hands-on research with basic researchers in LSU Health Sciences Center-Shreveport laboratories.
- The InterTech Venture Fund, a CAPCO which makes small investments in InterTech companies and supports seminars to inform local investors about emerging local seed and venture capital opportunities.

There are two points to be made about these economic development initiatives:

First, these initiatives are very important to the region and to this Strategic Action Plan. CERT was initiated by the Biomedical Research Foundation for two reasons: 1) to have access to the research and technology commercialization capabilities of all the higher education institutions in Northwest Louisiana and 2) to encourage collaborative research, teaching and clinical capacity concerning healthcare. Had CERT not been initiated by the Biomedical Research Foundation, we would have recommended its creation. It now stands as a model for creating similar collaborative efforts among the three medical centers (Volume II, Section, 3.1), among community development service providers and among competing local economic development organizations (Volume II, Section 2.0). The Biomedical Research Foundation similarly has recognized the importance of math, science and technology education in grades K through 12. Had the MST Partnership not been initiated by the Biomedical Research Foundation, we would have recommended its creation also.

On the one hand, we applaud the Biomedical Research Foundation for these broad community-based initiatives. On the other hand, we share the concern expressed to us by nationally regarded managers of similar research and incubator/accelerator facilities in major medical centers. We had asked these national experts to help us think about the structure and operations of the Biomedical Research Foundation. These practitioners viewed these community-based initiatives as a distraction from the more essential research and economic development goals of the Foundation.

Investment Strategies: As a part of the InterTech Science Park strategy, the Biomedical Research Foundation has invested the equivalent of seed and early stage private equity risk capital in a number of seed and early stage companies in the biotechnology and biomedical

fields. These investments have been made either directly, or by purchasing specialized equipment, or by custom-building unique, sophisticated facilities, or by providing unsecured, non-guaranteed loans. Irrespective of the form the investment has taken, the risk incurred by the Foundation is still the equivalent of seed and early stage, private equity risk capital. All of these high-risk investments simultaneously hold very high promise, and correspondingly represent very high risk.

No form of economic activity is more difficult in today's world than high-risk investment. No form of activity requires more rigorous professional input and more proven private sector risk capital investment management experience. It is very easy for new players to make mistakes in this field, as we have witnessed time and time again across the country over the last 20 years. What is true for high-risk investment generally is even more true for biomedical and biotechnology investment, which represent the highest risk of seed and early stage venture capital investment in today's global technological economy.

The Biomedical Research Foundation made many early mistakes as it entered this difficult field. As it has gained hard earned experience, it has moved closer to national best practices. The discussion below first outlines the history of investment activities by the Biomedical Research Foundation that incur risks equivalent to seed and early stage private equity risk capital. This is followed by a discussion of current national best practice for sophisticated investment in seed and early stage investment in emerging biotechnology enterprise. As we have worked with the Biomedical Research Foundation in a careful review of this history, we are pleased to note how fully board leadership and management have recognized and agreed to these national best practices.

The history of biotech and biomedical investments by the Biomedical Research Foundation that are the equivalent of seed and early stage private equity risk capital include:

- ✓ ICON, a high risk, unsecured \$4 million loan to a now failed software development company that had Federal contracts to develop an operating system for industrial production facilities, especially defense plants. \$600,000 was recovered; the balance was not. (It should be noted that the successor not-for-profit, the Louisiana Center for Manufacturing Sciences, was created in Shreveport to perform the same function. It currently employs 14 engineers and, according to a recent audit by KPMG, has managed \$20 million in contracts, some of which has been implemented locally.
- ✓ Ortho Evolution (formerly Dolphin Medical Supplies), a \$400,000 equity risk investment in a now failed company in which the Biomedical Research Foundation retains the title to intellectual property. The Biomedical Research Foundation is now marketing that intellectual property to seek to determine if there is any value that can be realized.
- ✓ Bio-Tech Imaging (BTI), an HIV diagnostic biotechnology start-up company for which the Biomedical Research Foundation custom-built a \$17 million specialized clean room biologics manufacturing facility at a time when it had no operating capital, and a facility on which the company has defaulted in its obligations. This specialized facility is owned by the Biomedical Research Foundation and is currently being remarketed by Scheer Partners, a national biotech facilities broker.

The Biomedical Research Foundation hopes to be able to re-tenant this facility soon. The construction contract of record indicates that this was a cost plus contract that did overrun the \$15 million construction budget with no external protection for the Biomedical Research Foundation and its funding sources. The construction contract included a performance bond, which protects the Foundation in case the contractor did not honor subcontracts, but does not address the overrun.

- ✓ Kinzie & Payne BioChemical, an enzyme company for whom the Biomedical Research Foundation has acquired, renovated and leased a 25,000 square foot facility at a cost of \$750,000. Recruited from St. Louis, this small enterprise is already in the market and is current in meeting its obligations to the Biomedical Research Foundation.
- ✓ Red River Pharma (RRP), a start-up contract drug development and manufacturing services company designed to support the pharmaceutical and biotechnology industries with solid oral dose, sterile injectibles and monoclonal antibody drug development. The majority shareholders of Red River Pharma are also majority shareholders of PamLab, a \$50 million pharmaceutical sales company headquartered in Covington, which currently out-sources its product development, and manufacturing to laboratories and manufacturers outside of Louisiana. Red River Pharma is being created as a startup to perform these product development and manufacturing services under contract for PamLab. Red River Pharma is the anchor tenant of the new \$10 million BioSpace 1 Incubator/Accelerator being funded by the State of Louisiana as part of a state-wide initiative designed and promoted by the Biomedical Research Foundation. In addition to constructing the incubator facility for Red River Pharma, the Biomedical Research Foundation, through its CAPCO, has invested \$120,000 of equity in Red River Pharma. Red River Pharma is expected to fund that portion of the estimated \$25 million of facilities, equipment and working capital costs not covered by the \$10 million state grant to the incubator. Because of the financial backing, captured market and revenue support of PamLab and its owners, Red River Pharma may be somewhat less exposed to biomedical start up risk than the usual seed and early stage biotech company. It is nevertheless a biomedical startup and is presumed by the market place to carry high risk. Like all biomedical startups anywhere in the world, Red River Pharma holds high promise that has not yet been realized.
- ✓ SteriFx, a seed and early stage local developer of cold sterilant and advanced disinfectant products. InterTech Venture Fund, Taraval Associates Seed Fund of Menlo Park, California and the Louisiana Economic Development Corporation established the \$500,000 Series "A" seed round of funding. A Series B round of \$2.9 million recently closed with both local angel and national investors. A Taraval partner is currently serving as interim CEO of SteriFx. The product is said to have substantial promise in the food processing industry, as well as wound care management, cold sterilization, and chemical and biological warfare decontamination applications. This most recent undertaking is the one seed and early stage startup that appears to meet the current national best practices for sophisticated emerging biotech investment described below.

Since 1998, the Biomedical Research Foundation has pursued, with modest success, the development of a formal regional angel network and venture capital presence in Shreveport. A network of angel investors is now taking shape and is invited to review investment opportunities as they arise (see Volume I, Section 5.3.4). The Biomedical Research Foundation has established a working relationship with Taraval Associates of Menlo Park, California, a seed and early stage venture capital company that brings a two-week a month corporate presence to Shreveport.

Recently, after an 18-month effort, the Biomedical Research Foundation was successful in achieving a commitment from the State of Louisiana to grant \$5 million as an investment in VCE. VCE is a New York City boutique investment-banking house now creating a startup seed and early stage venture capital company, VCE Capital Partners LLC, which will locate offices in the InterTech Science Park. As a first time fund, VCE Capital Partners holds promise, but is unproven. Nationally recognized, proven venture capital funds that meet the national best practices described below are those that have successfully returned all capital to investors for one or more funds and have produced upper quartile returns as compared to other funds of the same vintage. By definition, first-time, unproven funds cannot meet that test, no matter how promising.

Prior to 1998, when Biomedical Research Foundation began trying to establish a local angel capital infrastructure, the Biomedical Research Foundation approached young biotech firms that it was trying to attract to the InterTech Park as if it were the sole investor making large seed stage investments in the first instance. National best practice as spelled out below indicates that very small initial investments should be made in the early rounds, joined by large numbers of sophisticated, nationally recognized venture capitalists and local angel investors. Supported by Taraval Associates and the new angel network, SteriFx appears to meet this standard. Nevertheless, even with these precautions, SteriFx represents a very high-risk investment, as do all similar investments nationally. National best practice helps mitigate high venture capital risk; it does not eliminate high risk.

National Best Practices for High Risk Biotechnology Investment: The Biomedical Research Foundation of Northwest Louisiana was proposed in the 1985 Strategic Action Plan because of its essential importance in addressing the most significant missing part of Northwest Louisiana's economic base, the creation of new enterprise. The need to create new enterprise in the largest and most vital sector of the economy of Northwest Louisiana, healthcare, is even more important in 2003 than it was in 1985.

In Volume I, Section 3.10, we describe in detail both the economic importance of creating new enterprise (Sections 3.10.1 and 3.10.2), and the extraordinary financial volatility of new enterprise, as well as successful strategies for managing that high volatility (Section 3.10.3). Every new enterprise is financially volatile; every new technology enterprise is especially volatile; every new biotechnology or biomedical device enterprise is extremely volatile and extremely capital intensive, often requiring ten-year seed and early stage venture capital support before there are any assurances that the initial high promise can be realized. These high promise/high risk investments have a high potential for failure under the best of circumstances, and a *very* high risk of failure *if* proven national best practices are not employed.

In our 33 years of building institutions to create new enterprise formation, we have learned the hard way that there are best practices for risk management. These national best practices must be employed irrespective of whether or not the investing institution is public or private, not-for-profit or for-profit. We strongly recommend that these national best practices be implemented immediately by the Biomedical Research Foundation, and are pleased to report that the board leadership and senior management share our judgment:

- ✓ Only proven, incensed investment managers with nationally proven track records investing in biotechnology must be chosen to invest high-risk assets in the creation of new biotechnology and biomedical enterprise. Even nationally proven seed and early stage venture capital track records in IT or software are insufficient in this highly specialized and risky field.
- ✓ These proven investment managers must be chosen through a competitive process.
- ✓ The investment managers must be chosen by sophisticated investors who are experienced in investing in high-risk instruments such as seed and early stage private equity or venture capital, especially in biotech companies.
- ✓ Not-for-profits sponsoring high-risk initiatives must be structured to avoid the use or the appearance of use of grants or tax dollars to compensate for improper investment decisions.
- ✓ Once chosen, investment managers must be personally at risk in the investments they make: they must experience direct personal financial success or failure from each portfolio investment they make. Extensive national experience over the last 20 years clearly indicates that the use of Federal or state or private grants as a substitute for the vigilance of at-risk sophisticated national investors and fund managers generally leads to failure.
- ✓ Investment returns must be appropriate to risk; that is, Series A seed rounds are expected to produce Series A seed returns; Series B rounds to produce Series B returns. As noted above, early seed rounds are made in very small increments in partnership with large numbers of sophisticated, nationally recognized venture capitalists and local angel investors.
- ✓ Appropriate return is appropriate to risk irrespective of the form of instrument used to represent the risk (i.e. the risk-return profile of a particular risk does not vary with the instrument used to create the risk--whether by means of direct equity investment, or by purchasing specialized equipment, or by custom-building unique, sophisticated facilities or by unsecured, non-guaranteed loans), and irrespective of whether or not the parent institution is public or private, not-for-profit or for-profit.
- ✓ National investors with world class reputations in biotechnology and biomedical device investment are expected to be co-investors in each and every investment to validate the risk adjusted rate of return and the validity of the technology.
- ✓ Rigorous due diligence by national life science investors, not regional consultants, is essential to validate any high promise/high risk investment. In one current case in a regional center trying to establish its national life sciences commercialization promise, \$8 million of local investment in ten startups is matched by \$70 million

of national validating venture capital. If it is worth investing in, national capital will come. SteriFx appears to meet this standard.

- ✓ High-risk investment asset valuations can only be validated by a third party arms length transaction. Until this external event occurs, investments have no reliable value. These investments are carried at book until an identifiable, external event either increases or decreases their value.
- ✓ World class attracts world class. In biomedical and biotech commercialization, anything less generally leads to failure.

A recent case in Oklahoma City demonstrates how world-class investors find well managed deals led by well conceived research and life science initiatives in more remote, emerging regional healthcare centers. As a result of our work in Oklahoma City in the early 1990s, a cluster of nationally regarded venture funds has emerged to invest in life science ventures around the University of Oklahoma Medical Center in Oklahoma City. In mid 2002, Inoveon Corporation, a medical services company specializing in diseases of the eye, closed a \$16 million Preferred Series B round of venture capital financing. Chisholm Private Capital Partners of Oklahoma City was a leader in this round, along with more than a dozen other sophisticated national and local venture capital investors. Chisholm is one of eleven nationally recognized partnerships with a presence in Oklahoma City that have attracted \$660 million of committed capital in Oklahoma since the mid '90s. These resident partnerships and their substantial committed capital came from work by Economic Innovation in a similar regional medical center at the same time in the early to mid '90s that the Biomedical Research Foundation also became operational (this Oklahoma Model is described in more detail in Volume II, Appendix 6: Models to Invest in Creating New Enterprise: the Oklahoma Capital Investment Board). A commitment to national best practices in Northwest Louisiana can lead to similar world-class outcomes.

Another current prime example of these best practices is in the highly sophisticated environment of Washington University Health Sciences Center and St. Louis University Health Sciences Center in partnership with such global St. Louis enterprises as Monsanto, Ralston Purina and specialized foundations such as Danforth and McDonnell. Even though Washington University is the second highest ranked medical school in the nation, with the third largest annual funding from National Health Institutes, St. Louis leadership is insisting that the national best practices and national co-investor validation be designed into their new Plant and Life Sciences technology commercialization plan which we are currently building with them.

Many other not-for-profit institutions with missions similar to the Biomedical Research Foundation are now employing these same national best practices. These best practices and strategies are elaborated in Strategic Action Volume II, Section 4.2.

In summary, the Biomedical Research Foundation can be an essential ingredient in the economy of Northwest Louisiana in 2003. This is *only* if it continues, as its recent approach to Sterifx suggests, to move its mission forward according to the current best practices for managing high risk, seed and early stage private equity investments in promising, but unproven biomedical and biotechnology companies. It does not matter whether or not the Biomedical Research Foundation calls its investments seed and early

stage private equity. If the nature of the incurred risk is seed and early stage equity, it is in fact equity irrespective of how the investment is characterized. Very high risk, seed and early stage equity can never be incurred by a not-for-profit civic enterprise without courting financial disaster. Seed and early stage equity investments in the most sophisticated life science world capitals such as Boston, San Francisco and San Diego must be managed by the highest current legal and management safeguards if they are to have any chance of success under the most favorable circumstances.

Finally, although the Biomedical Research Foundation is technically a private foundation, the fact that it receives such substantial federal and state government resources and an annual property tax millage from the parish makes it incumbent that it reports like a public foundation.

A 25-year history of best practices exists in which similar public and private not-for-profit life science research and technology commercialization institutions annually measure and publicly report the following double bottom line indices:

- ✓ Internal rate of return on investment (using the nationally accepted standards for valuation for seed and early stage equity-like investments)
- ✓ Jobs created
- ✓ Payroll created
- ✓ Additional private investment funds leveraged
- ✓ Purchases of goods and services created
- ✓ Parish tax revenue created (this should produce what we call a measurable annual Economic Rate of Return [EROR] on the nearly \$2 million annual millage provided to the Biomedical Research Foundation by parish taxpayers)
- ✓ State tax revenue created
- ✓ Federal tax revenue created, and
- ✓ Total leverage

These national standards for annual performance measures, post-audit and public reporting creates a strong bond of public trust. In Volume II, Section 4.2, and in Volume II, Section 6.0, we recommend that the Biomedical Research Foundation Board and the “Common Ground” Northwest Louisiana Regional Development Corporation collaborate to arrive at a mutually agreeable set of performance measures and public reporting guidelines to create this public trust. This Strategic Action Plan recommends that all performance measures and performance auditing systems developed to implement this Plan be designed and undertaken in conjunction with the LSU Center of Business and Economic Research (CBER). CBER has contributed immeasurably to the quality and accuracy of this analysis and is held in high regard by private and public institutions throughout the region.

As we have developed this Strategic Analysis and Action Plan, we have engaged senior management and board leadership of the Biomedical Research Foundation in a continuing discussion as to the twin missions of enhancing LSUHSC-S and creating viable, new life

science enterprise. At all times, we have found this dialogue to be open, honest and highly professional. There has been a mutual understanding that these are long and complex tasks in which the best institutions learn from their mistakes, and that the bar of national best practice is constantly rising. Finally, and most importantly, the Biomedical Research Foundation has recognized and accepted these national best practices and has agreed to implement the proposed strategic actions that are spelled out in Volume II, Section 4.2, Creating New Biomedical and Biotechnology Enterprise.

3.4 Primary Manufacturing Industries

As we noted in Volume I, Section 3.1, Thinking About Northwest Louisiana's Economic Base, only nations with very low wages can compete successfully in routine industrial processes in the long run, particularly for consumer products. When products mature, primary manufacturing production will almost certainly move elsewhere, especially as world capital markets do an even better job of shifting investment from one country and economy to another.

3.4.1 The Changing Role of Manufacturing

As stated earlier, the only means in the *Intelligence Age* for most American economies to maintain or increase prosperity is to continually create new companies with advanced new products and processes, and to apply new technologies to the production of mature products such as trucks, glassware, transformers, food service equipment, and refinery vessels.

All economies need to work hard at nurturing the primary manufacturing industry that they have by increasing investment in smart people, smart companies and smart neighborhoods. Nevertheless, capital-intensive manufacturing is a slowly declining industry in the United States and in Louisiana.

By way of example, in 1985, at the time of our last Northwest Louisiana Strategic Action Plan, far more than two thirds of all manufactured goods bought by Americans in the United States—70% —were made within the United States. Today, that number is less than half made domestically; more than half are manufactured overseas and then purchased here. Just as strikingly, the workforce employed in manufacturing has fallen from over 30 percent in the 1960's to eleven percent today nationally. Two full percentage points of domestic manufacturing workforce have disappeared in the two years since this 2003 Strategic Action Analysis and Platform has been under active discussion.

Nevertheless, manufacturing does, at present, continue to be the second largest source of jobs in the Shreveport-Bossier MSA after healthcare, employing nearly 17,000 in 2000. (This is only marginally down from 24,000 in 1985 at the time of our last Northwest Louisiana Strategic Action Plan). Manufacturing industries continue to employ 11 percent of the Shreveport-Bossier MSA workforce, comparable to the number nationwide. Both percentages will continue to decline in the 21st Century.

Table 3-7 presents manufacturing employment and firm size in Northwest Louisiana at the 3-digit NAICS level. Transportation equipment, fabricated metal, and plastics/rubber

products are the leading manufacturing sectors. Figure 3-3 presents a comparison of manufacturing firms by firm size in Shreveport-Bossier City MSA and the nation.

- ✓ Approximately 47 percent of manufacturing firms have fewer than 10 employees, however, compared with 51 percent nationwide.
- ✓ The Shreveport-Bossier City MSA has greater percentages of employees in firms that employ 10-49 workers than the nation as a whole, reflecting an entrepreneurial history of growing small and medium sized manufacturing firms like Beard Industries, Hendrix Manufacturing, Frymaster and Sound Fighter Systems.
- ✓ The Shreveport-Bossier City MSA also has a greater percentage of employees in large firms, those with 250-499 employees and those with more than 500 employees. On the one hand, the relatively large size of these primary manufacturing firms in the region indicates the continuing comparative advantage of Northwest Louisiana as an attractive manufacturing site, in comparison the other regions of the United States; on the other hand, the presence of these large firms implies that the Shreveport-Bossier City MSA is, thus, quite dependent on outside large corporation decision-making for its manufacturing economic base.

3.4.2 Potential Roles for Manufacturing Managers Council

The Manufacturing Managers Council is an organization composed of the 35 or 40 local top operating executives of manufacturing companies located in the Shreveport-Bossier City-Minden Combined Statistical Area. This group meets monthly to represent the needs of manufacturing companies in the area.

The Council could potentially perform a number of important functions in the implementation of this Strategic Action Plan:

- ✓ It could work closely with the Regional Workforce Investment Board to be sure that the workforce needs of its member manufacturers are understood and incorporated into an annual joint demander/supplier market assessment of employer/job seeker needs (see Analysis in Volume I, Section 4.4.2).
- ✓ It could also actively participate in helping to improve Workforce Education and Training (see recommended Strategic Actions in Volume II, Section 5.2).
- ✓ Finally, and perhaps most importantly, the Manufacturing Managers Council could play an essential role in helping to implement the comprehensive All Industry Procurement Program outlined in Volume II, Section 4.3, Creating New Minority Enterprise.
- ✓ The Council could also be an important ongoing voice for Regional Economic Action if it were structurally linked into the “High Common Ground” Regional Development Corporation proposed in Volume II, Section 6.0.

3.4.3 Primary Manufacturing Leaders in Northwest Louisiana

Northwest Louisiana is, as we have noted, rare among North American regions in the continuing strength of its large manufacturers. Significant employment is associated with

the General Motors plant (which has continued to grow its job base since 1985). Although the economy sustained a significant blow upon the loss of AT&T in the late 1980s, and the subsequent facility replacement (Lucent and their 900 employees) in 2002, four of the five largest manufacturing employers at the time of the Strategic Action Plan of 1985 – General Motors, Libbey Glass, Beaird Industries and General Electric – continue to hold prominent positions as significant employers, although all face increasing global competition from China and other low cost overseas producers. These four, plus Frymaster, International Paper, Fibrebond and CELLXion, demonstrate both the continuing attraction of Shreveport-Bossier City as a high quality, relatively low cost manufacturing site within the United States, and the vicissitudes of manufacturing as a stable job creator in the 21st Century.

3.4.3.1 General Motors

General Motors, which has been a major regional employer for decades, is currently undergoing a \$900 million expansion project. This has led eleven of twelve Tier One suppliers to choose to locate operations in Shreveport, creating approximately 1,100 new jobs with an average wage of \$12-15 per hour. The first wave of Tier One suppliers will invest over \$100 million in facilities and capital equipment. Together with supplier investment, the overall General Motors project creates an initial investment surpassing \$1 billion. According to the Center for Automotive Research, each automotive manufacturing job will, in turn, create an additional 5.5 spin-off jobs.

Located off I-20, the General Motors facility is three hours east of its sister GM facility in Arlington, Texas and three hours west of the new Nissan Motors facility under construction outside Jackson, Mississippi (also just off I-20). Six hours to the east is Vance, Alabama, home of the new Mercedes Benz facility (also just off I-20). I-20 is quickly attaining the tag line of “Automotive Alley.” Hyundai is also building a large assembly plant in Montgomery, Alabama, and Toyota is building an \$800 million truck assembly plant in San Antonio, Texas. Shreveport’s location on I-20 should provide long-term viability for the recruitment and retention of automotive suppliers looking to strategically locate automotive supply hubs.

The influx of automotive manufacturing jobs will create a need for training courses offered at the high school and post secondary level in order to provide a competent and sustained labor supply (Volume I, Section 4.4.2, Workforce Education and Training, and Volume II, Section 5.2, Investing in Workforce Education and Training).

3.4.3.2 Libbey Glass

Libbey Glass recently announced a \$12 - \$15 million investment in the existing Shreveport facility. This new investment will create 80 new jobs that pay roughly \$25,000 per job and retain 80 existing jobs which would have been lost to the Toledo headquarters if this expansion and consolidation had taken place there instead of in Shreveport. The Libbey Glass decorating line was in direct competition with the headquarters facility in Toledo, Ohio.

The expansion and consolidation could have been accomplished in either location, at Toledo world headquarters or in Shreveport. This new investment adds to the current employment base of 1100 in Shreveport.

Nevertheless, with each passing year, more glass and flatware business is produced overseas, particularly in Asia. Libbey continues to have three remaining North American facilities and one facility in Mexico. The Shreveport facility will thus continue to face strong competition with lower wage markets operating outside the United States.

3.4.3.3 General Electric

General Electric has been manufacturing electrical transformers in Shreveport since October 1970. At the time of this publication, GE has roughly 400 employees, down from 700 in the period 1980 through 1999. GE faces similar issues as Libbey with lower wage competition from Mississippi and Asia.

3.4.3.4 Frymaster

Frymaster Corporation was founded in Shreveport in 1935 and currently, has 535 employees. Frymaster manufactures commercial fryers, automatic filtration systems and electric cooking controls for the fast food industry, principally McDonald's and Taco Bell. Frymaster has a 140,000 square foot manufacturing facility located at 8700 Line Avenue and a 140,000 square foot manufacturing facility located in Shreve Park Industrial Campus.

3.4.3.5 International Paper

International Paper first came to the Shreveport-Bossier MSA in 1949 with a paper mill. At one time they had four mills and a large regional office, which included forestry and accounting roles. A small local office is now a sub-office for Jackson or Savannah, depending on the function. There are three remaining mills:

- ✓ The Container Division has the oldest remaining plant (1949) with 176 employees at Springhill in Webster Parish. The plant produces and ships uncoated corrugated containers at a 225,000 square foot facility.
- ✓ International Paper Conversion Center, opened in 1979, now has 100 employees in a 240,000 square foot highly automated paper converting facility in Springhill, Webster Parish.
- ✓ International Paper started their largest operation in the area in 1981. The plant, warehouses and timber yards are on a 4,000 acre site, just outside of Mansfield, Louisiana. There are 550 full-time employees on three machine lines, producing corrugated paper rolls for other carton manufacturers. Due to ongoing outsourcing of various maintenance, construction, engineering, and other responsibilities, the total number of employees on site is normally close to 1,000. Kellogg Brown & Root, for example, has 235 employees there at this time.

3.4.3.6 Beaird Industries

Beaird Industries was founded in Shreveport in 1918. In years past, Beaird has had up to 800 employees. Currently, they have approximately 385 employees, which is down from the 2002 average of 472 employees. Beaird Industries manufactures refinery process vessels, pressure vessels, industrial silencers, and wind turbines. Beaird Industries was purchased last year by a group of investors from south Louisiana. A 550,000 square foot manufacturing facility is located at 601 Benton Kelly Street in Slack Industrial Park.

Beaird Industries has expanded their pressurized vessel product line and has begun the production of steel tower bases that support wind powered turbines. Should the proposed National Energy Plan pass in the 2003 Congressional session that incorporates wind, energy and other alternative fuel sources, Beaird could realize positive outcomes, just as failed legislation could adversely affect energy operations.

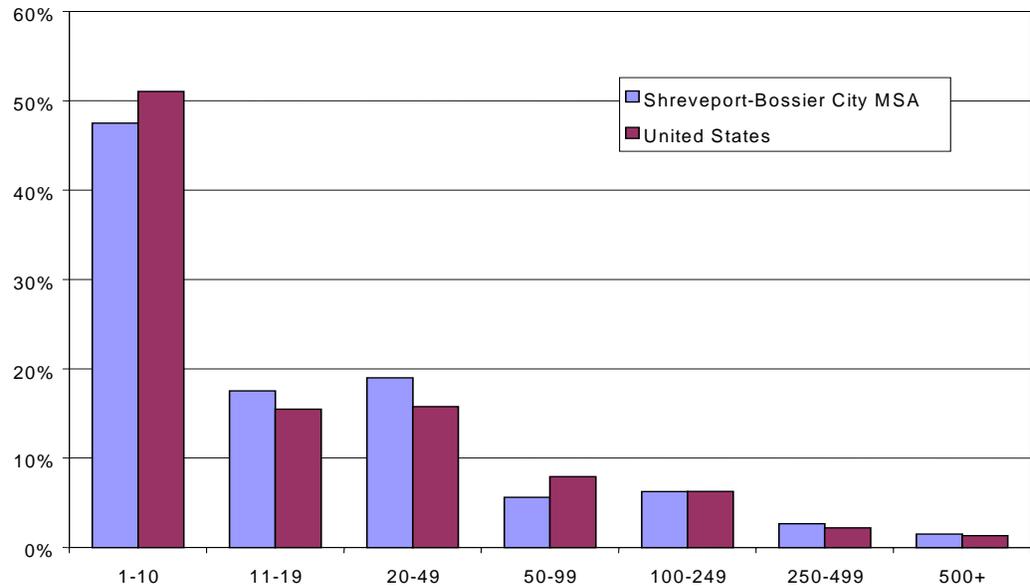
3.4.3.7 Fibrebond and CELLXion

Fibrebond, begun in Minden in 1982, is a national pioneer in manufacturing concrete telecommunications “shelters” for wireless telephone companies as they expand their services. These innovative products are exported from Minden throughout the United States. As the wireless telecommunications industry expanded rapidly, Fibrebond built a new plant in Fairfield, California and a new, state-of-art plant in Minden in June 1999. Fibrebond has expanded its lines to include precast, rigid steel reinforced concrete modular products for a broad range of construction sites, shelters and facilities. Although employment has been as high as 500, current employment has dropped significantly due to the current softening in the telecommunications industry. The long-term prospects for this very entrepreneurial company in a rapidly growing global market hold high promise.

CELLXion is a similar company in a similar sector of a similar size, and is located in Bossier City. CELLXion emerged from Fibrebond in 1996 to manufacture similar concrete telecommunications “shelters”. These shelters are also wired to their customers’ specifications and delivered to the sites of towers primarily used by wireless phone companies. In 1999 CELLXion also began manufacturing the towers and some of the ancillary equipment used in the towers. As with Fibrebond, employment has been as high as 425 as the telecommunications and wireless industries grew rapidly in the late ‘90s. Current employment has dropped to 300, due to the same softening in the telecommunications industry that has affected Fibrebond.

The presence of a several significant manufacturing companies indigenous to Shreveport-Bossier City and Minden, such as Frymaster, Beaird Industries, Fibrebond, CELLXion, Hendrix Manufacturing and Sound Fighter Systems, suggests that a rejuvenated strategy to birth and expand new enterprise in the region could be fruitful (Volume I, Sections 3.10 and Volume II, Section 4.0).

Figure 3-3
Manufacturing Firms by Size Category
2002 Employment



Source: County Business Patterns (U.S. Census Bureau) and Economics Research Associates

Table 3-7
Manufacturing Employment & Firm Size
Shreveport-Bossier City MSA

Industry Description	# of Employees ¹	% of Employees	# of Firms	% of Firms	Firms by Size Category (# of Employees)							
					1-9	10-19	20-49	50-99	100-249	250-499	500+	
Manufacturing Total	16,854	100%	100%	337	100.0%	160	59	64	19	21	9	5
Transportation equipment mfg	2,500-4,999	14.8% to 29.7%	10	3.0%	2	2	2	0	3	0	1	
Fabricated metal product mfg	2,642	15.7%	83	24.6%	44	11	20	2	3	3	0	
Plastics & rubber products mfg	1,174	7.0%	20	5.9%	2	5	6	3	3	1	0	
Nonmetallic mineral product mfg	1,000-2,499	5.9% to 14.8%	19	5.6%	7	3	4	3	0	1	1	
Machinery mfg	1,000-2,499	3.0% to 14.8%	19	5.6%	7	6	1	1	3	1	0	
Electrical equip, appliance & components	1,000-2,499	3.0% to 14.8%	6	1.8%	2	0	1	0	1	1	1	
Food mfg	500-999	3.0% to 5.9%	14	4.2%	6	3	3	0	1	1	0	
Wood product mfg	500-999	3.0% to 5.9%	15	4.5%	6	4	2	1	1	0	1	
Paper mfg	500-999	3.0% to 5.9%	9	2.7%	2	0	3	2	2	0	0	
Printing & related support activities	500-999	3.0% to 5.9%	50	14.8%	32	8	8	2	0	0	0	
Petroleum & coal products mfg	500-999	3.0% to 5.9%	9	2.7%	4	0	2	0	2	1	0	
Chemical mfg	500-999	3.0% to 5.9%	12	3.6%	5	2	3	0	2	0	0	
Computer & electronic prod. mfg	500-999	3.0% to 5.9%	10	3.0%	2	4	3	0	0	0	1	
Miscellaneous mfg	409	2.4%	39	11.6%	26	8	4	1	0	0	0	
Primary metal mfg	100-249	0.6% to 1.5%	5	1.5%	0	1	2	2	0	0	0	
Textile product mills	20-99	0.1% to 0.6%	4	1.2%	3	0	0	1	0	0	0	
Apparel manufacturing	20-99	0.1% to 0.6%	3	0.9%	1	1	0	1	0	0	0	
Furniture & related product mfg	20-99	0.1% to 0.6%	8	2.4%	8	0	0	0	0	0	0	
Beverage & tobacco product mfg	0-19	0.0% to 0.1%	1	0.3%	1	0	0	0	0	0	0	
Textile mills	0-19	0.0% to 0.1%	1	0.3%	0	1	0	0	0	0	0	

¹Categories are reported where individual firm data could otherwise be revealed.

Source: County Business Patterns (U.S. Census Bureau) and Economics Research Associates

3.5 Tourism, Recreation and Gaming Services

Tourism, recreation and gaming facilities are major employers in Northwest Louisiana and important sources of outside revenue and imported jobs and wealth. The total employment for the hospitality industry cluster in Caddo and Bossier Parishes is now 10,600 jobs. As is the case of the Healthcare Industry, Tourism, Recreation and Gaming are primary export industries that are growing both in the region and nationally. Both growing clusters also have the advantage of providing entry-level jobs to low-income people, although they have fewer career ladders than does manufacturing. Because wages are relatively low, and career ladders are limited, tourism should be only one component of a diversified regional economy, as it is in Northwest Louisiana. Expanding the industry in Northwest Louisiana is, thus, generally a good thing, so long as the health and social costs of gaming are also recognized.

The continuing importance of this industry depends on a regional legislative monopoly on gaming, which could change at any time. Local Tax and fee revenues generated by these properties could be more effectively invested to focus on extending stays and broadening services. An extraordinary river continues to be a political divide, instead of a powerfully shared resource.

3.5.1 Gaming

The Shreveport-Bossier region is home to five riverboat casinos, each with an associated hotel:

Table 3-8
Employment in Shreveport-Bossier Riverboat Casinos & Hotels
(1999)

Boomtown Casino & Hotel	1,468
Harrah's Casino & Hotel	1,335
Hollywood Casino & Hotel	1,700
Horseshoe Casino & Hotel	2,444
Isle of Capri Casino & Hotel	1,530
Total	8,477

Source: Shreveport-Bossier Regional Chamber of Commerce.

Together, these five casinos and hotels employ approximately 8500 persons, making Tourism, Recreation and Gaming the third largest economic base cluster after healthcare and manufacturing.

Boomtown recently underwent a \$25 million renovation (to accompany the name change from Casino Magic). Horseshoe soon plans to break ground on a \$50 million, 300-room hotel expansion. The Isle of Capri has announced a 265-room expansion, 40-slot RV Park, 1,000-seat ballroom/theater, and other improvements to be completed in early 2004. This Isle of Capri expansion is currently under construction.

Besides generating hotel room nights, these casinos contribute to both the state and local governments through gaming taxes. With the exception of 2000, tax remissions appear to be increasing at healthy rates ranging from 7 to 18 percent.

Table 3-9
Gaming Tax Remission Trends
Shreveport & Bossier City Casinos (2001 Millions)

	State Taxes		Parish & City Taxes		Total	
	Revenue	% Change	Revenue	% Change	Revenue	% Change
1997	\$96.7		\$24.0		\$120.7	
1998	\$110.8	12%	\$25.9	6%	\$136.7	13%
1999	\$118.7	56%	\$27.8	5%	\$146.5	7%
2000	\$132.1	30%	\$29.8	4%	\$161.9	11%
2001	\$155.3	20%	\$34.1	12%	\$189.3	17%

Source: Shreveport-Bossier Convention & Tourists Bureau 2003-2007 Strategic Tourism Development and Marketing Plan

Jena Choctaw Native Americans have requested the Bureau of Indian Affairs to agree to take certain Logansport land in trust for the tribe for purposes of building a Casino in Logansport, Louisiana. This casino would compete with Shreveport-Bossier riverboat casinos, and is prohibited by Federal law from paying state or local taxes.

In addition to tax remissions, Red River Casinos join other leading industries and employers in contributing to the local economy through charitable contributions. In 1999, the five Red River Casinos contributed \$2,200,000 in charitable giving.

This past December, Harrah's Entertainment, Inc., owner of Harrah's Shreveport Hotel & Casino, completed its acquisition of a controlling interest in Louisiana Downs, the thoroughbred-racing track in Bossier City. Under this new ownership, gambling and gaming opportunities will be expanded. By June, when racing season begins, the Downs will offer approximately 900 slots. By the 2004 racing season, a new, permanent Harrah's casino will feature 1,500 slot machines. The Casino and racetrack will be connected by a new entryway featuring several new restaurants.

Recently, airlines have started working with the Shreveport-Bossier casinos to provide low-fare seats to casino customers through Shreveport Regional Airport (Volume I, Section 5.1.5.1).

The five Red River Casinos draw most of their customers from Texas, and would be adversely affected should the State of Texas ever legalize gambling.

3.5.2 Tourism, Recreation

In 2000, the Shreveport-Bossier City region collected more than \$760.2 million in tourism expenditures, from more than 2.8 million out-of-state visitors and nearly 300,000 in-state visitors.¹

The Shreveport-Bossier City metro area has 62 hotel/motels, 12 RV parks and seven Bed and Breakfasts. Hotel/Motel Tax revenue (also known as transient occupancy tax, or TOT) has increased every year since 1996, until a decline in 2001, as shown in Table 3-10.

Hotel room rates and occupancy are presented in Table 3-11. Rates have been declining in real terms, as has occupancy percentage, due in large part to a substantial increase in the number of hotel rooms in the area in recent years.

Table 3-10
Hotel/Motel Tax Revenue
1996-2001

Year	Revenue (2001 \$)	\$ Change from Previous Year
1996	\$1,884,937	--
1997	\$1,995,232	5.9%
1998	\$2,494,603	25.0%
1999	\$2,570,349	3.0%
2000	\$2,611,835	1.6%
2001	\$2,608,609	-0.1%
¹ CAGR 1996-2001		6.7%

¹Compound annual growth rate.

Source: Shreveport-Bossier Convention & Tourist Bureau 2003-07 Strategic Tourism Development and Marketing Plan.

¹ Travel Industry Association of America TravelScope Profile of U.S. Travelers to Louisiana in 2000 (courtesy of the Shreveport-Bossier Convention & Tourist Bureau).

Table 3-11
Average Room Rates & Occupancy
Shreveport-Bossier City Metro Area

	Average Room Rate		Average %	
	(2001 \$)	% Change	Occupancy	% Change
1997	\$63.59	--	72.0%	-0.90%
1998	\$64.85	2.0%	70.3%	-1.73%
1999	\$64.18	-1.0%	70.4%	0.11%
2000	\$63.97	-0.3%	68.5%	-1.90%
2001	\$61.46	-3.9%	61.9%	-6.56%

Source: Shreveport-Bossier Convention & Tourists Bureau 2003-2007 Strategic Tourism Development and Marketing Plan.

3.5.3 Arts and Entertainment

Northwest Louisiana has a wide variety of arts and entertainment/retail attractions. Proposed entertainment and retail attractions include:

- ✓ Red River District (first phase open, subsequent phases under construction)—A 90,000 square foot, \$23 million entertainment/retail district located at the foot of the Texas Street Bridge. The project includes family style restaurants, a jazz café, a blues club, and night clubs. It is expected to draw approximately 2.6 million visitors in its first year of operations.
- ✓ Louisiana Riverwalk—traditional retail, outlet/premium retail, live performance theaters, theme restaurants, hotels and passive outdoor recreation options. Outdoor World/Bass Pro Shops is locating a store in the project, scheduled to open in mid 2004.

Shreveport Historic Music Village—A proposal by the Foundation for Arts, Music & Entertainment (FAME) that would revitalize the community at the beginning of the Texas Trail and encompass the area to the Shreveport Public Safety Complex. The proposed project would be anchored by the Southern American Music Museum, Municipal Auditorium, Digital Media Business Accelerator, Calenthean Temple, Oakland Cemetary, Old Gailee Baptist Church and B'nai Zion Temple. The project will include residential, entertainment and retail components. This development is not currently funded. Table 3-12 presents attendance trends at selected regional attractions.

Table 3-12
Attendance at Selected Regional Attractions
1998-2001

	1998	1999	2000	2001
Paid Attractions & Events				
Ark-La-Tex Antique Classic	35,000	n/a	65,000	85,000
Water Town USA	80,000	80,000	80,000	n/a
American Rose Center	n/a	50,500	40,500	60,800
Holiday in Dixie	300,000	300,000	300,000	500,000
Louisiana Downs Live Racing	331,977	337,665	537,542	525,500
MainStay Independence Bowl	46,862	49,873	36,974	45,627
Red River Revel	200,000	200,000	180,000	200,000
Sci-Port Museum	51,675	280,000	260,500	178,233
Bossier-Shreveport Mudbugs (Hockey)*	5,000/g ame	4,910/game	4,500/game	5,000/game
SPAR Planetarium	8,560	10,175	9,000	13,576
State Fair of Louisiana	325,000	325,000	350,000	365,000
Strand Theatre	75,725	71,093	65,332	44,413
Non-Paid Attractions				
8th Air Force Museum	64,500	70,000	76,000	140,000
Barnwell Art & Garden Ctr.	11,999	19,500	16,900	6,387
Caddo Pine Island Museum	4,700	5,000	6,300	6,300
R.W. Norton Art Gallery	19,851	15,432	14,139	14,526
LSUS Pioneer Heritage Museum	2,322	1,391	3,139	2,620

*Average per game.

Source: Shreveport-Bossier Convention & Tourist Bureau.

3.5.4 Convention & Meeting Facilities

The Shreveport-Bossier Convention and Tourist Bureau has identified the availability of convention and meeting facilities as an opportunity for growth. There are currently four major venues in the Shreveport-Bossier metro area, in addition to the new convention center not yet under construction (Table 3-13 below).

Table 3-13
Major Convention & Meeting Facilities
Shreveport-Bossier City Metro Area

Facility	Location	Sq.Ft.	Seating
Riverfront Convention Complex	Shreveport	64,000	n/a
Municipal Auditorium	Shreveport	6,300	2,435
Hirsch Coliseum	Shreveport	n/a	11,309
Civic Center Complex	Bossier City	24,00	3,000
CenturyTel Center	Bossier City	270,000	14,000
Shreveport Convention Center (scheduled to open in 2005)	Shreveport	350,000	1,600

Source: Shreveport-Bossier City Convention & Tourist Bureau 2003-2007 Strategic Tourism Development and Marketing Plan.

3.5.4.1 CenturyTel Center

Located on the banks of the Red River in Bossier City, the highly successful CenturyTel Center is home to both the Western Professional Hockey League (WPHL) Mudbugs hockey team and The Bossier City Battle Wings, an arena football team. In addition, this venue hosts a diverse range of entertainment including concerts, family shows, ice-skating shows, motor sports, rodeos, conventions, religious and community events, and other special events. The Center is reported to be one of 50 most successful venues in the country, far more successful than the size of the Shreveport-Bossier City MSA would suggest.

3.5.4.2 Planned Shreveport Convention Center

In 1999, Shreveport voters overwhelmingly approved the construction of a new \$85,000,000 state-of-the-art convention center. The 350,000 square foot center will be the single largest public facility in the city and will be located in downtown Shreveport at Caddo and Market Streets. The facility will feature a 100,000 square foot main exhibition hall that can be subdivided into three smaller exhibition halls, an 18,000 square foot main ballroom. The ballroom will be the largest in the region, with a capacity of 1,000 for banquets and up to 1,600 for lectures or presentations. The convention center will offer ten 1,500 square foot meeting rooms and an adjacent five-story, 1,200-car parking garage. A leading national manager of convention centers, SMG, has been chosen to manage the Convention Center when it opens.

City officials are also planning to incorporate an associated, independently developed, full service, 300-room Convention Center Hotel. On January 21, 2003, Shreveport Mayor Keith Hightower announced that agreement had been reached with Hilton Hotels to build and manage the hotel as a public-private partnership.

According to the Convention and Tourist Bureau, Shreveport-Bossier City faces strong competition from Tier One cities such as Dallas, Houston and New Orleans, and to a lesser

extent, from second tier cities such as Memphis, Biloxi, Little Rock and Baton Rouge. According to the Bureau, these competitors enjoy airports with service to more major cities at lower fares; however, the cities themselves cost more to visit.

3.5.5 Sports Facilities

Northwest Louisiana is home to the Mainstay Independence Bowl, an NCAA football game that pits two top collegiate football teams from the Southeast Conference and the Big Twelve Conference against each other in the post-season. The region is also home to the Bossier-Shreveport Mudbugs (Western Professional Hockey League) and the Bossier City Battle Wings (Arena Football), both of whom perform in the Century Tel Center (Volume I, Section 3.5.4.1). A new baseball team, the Shreveport Sports, have also begun competition this year.

For racing enthusiasts there is Louisiana Downs Thoroughbred horse racing track (described above in Volume I, Section 3.5.1), several stock car tracks, and the state-of-the-art, IHRA sanctioned Red River Raceway for drag racing.

3.5.6 Outdoor Recreation

In addition to City and Parish Parks, Northwest Louisiana offers the following additional outdoor recreation sites:

- ✓ Watertown USA
- ✓ Two x Four Ranch Rodeo
- ✓ American Rose Center
- ✓ Bayou Dorcheat
- ✓ C. Bickham Dickson Park
- ✓ Caddo, Caney, Cross and Wallace Lakes
- ✓ Clyde Fant Parkway Park
- ✓ Cypress-Black Bayou Recreation Area
- ✓ Lake Bistineau
- ✓ Minden's Fair Ground RV Park
- ✓ Minden Aquatic Center
- ✓ Riverfront Park
- ✓ Red River
- ✓ Springhill City RV Park
- ✓ Walter B. Jacobs Memorial Nature Park
- ✓ 18 golf courses (including executive and championship options)
- ✓ 10 tennis clubs

3.5.7 The Shreveport Bossier Convention and Tourist Bureau

The Shreveport-Bossier Convention and Tourist Bureau is a public, quasi-governmental agency whose primary objective is to generate increased overnight visitors for Shreveport-Bossier City, Caddo and Bossier Parishes. The Bureau promotes the area's tourism and recreation assets as a quality travel destination to the leisure, convention, travel agent and group tour markets. The Bureau reaches these markets through advertising, public relations, promotions, sales calls, direct mail and Internet marketing.

Shreveport-Bossier is second only to New Orleans in generating visitors and tourism revenue to Louisiana since September 11th. Techniques and strategies for reaching markets have been adjusted to meet the changing needs of the traveling public. As a result, Internet online inquiries more than doubled post 9/11 in 2002, group tour leads were up more than 200%, and rooms booked and serviced for conventions improved by more than 100%.

The Bureau could play an important role in the implementation of the Tourism, Recreation and Gaming Strategic Actions proposed in Volume II, Sections 3.2 and 3.3.

3.5.8 The Shreveport Sports Authority

The Shreveport Regional Sports Authority (SRSA) is a not-for-profit, quasi-public, economic development corporation formed to promote the City of Shreveport and Northwest LA as a tourist destination by attracting, underwriting, and managing amateur and professional sporting events. SRSA is funded \$270,000 annually by the City of Shreveport from its Riverfront Development Fund through December 2003.

Since entering a cooperative economic endeavor agreement with the City in June 1996, SRSA estimates that by December 31, 2002, its efforts have produced an estimated economic impact in excess of \$107 million and had brought more than 97,000 visitors to the region. SRSA estimates that the City of Shreveport has realized an average annual yield in tax revenue earned of over 25% on its investment.

SRSA has secured several national level championships including the *Wal-Mart/FLW National Championship* and several *B.A.S.S. (Bass Anglers Sportsman's Society) National Federation Championships*. These events have been broadcast on such national cable channels as ESPN, ESPN2, TNN, PAX Outdoor, or the Outdoor Channel. SRSA efforts also secured the first USA Weightlifting Development Center to train future Olympic and Pan American competitors, housed at LSU-Shreveport.

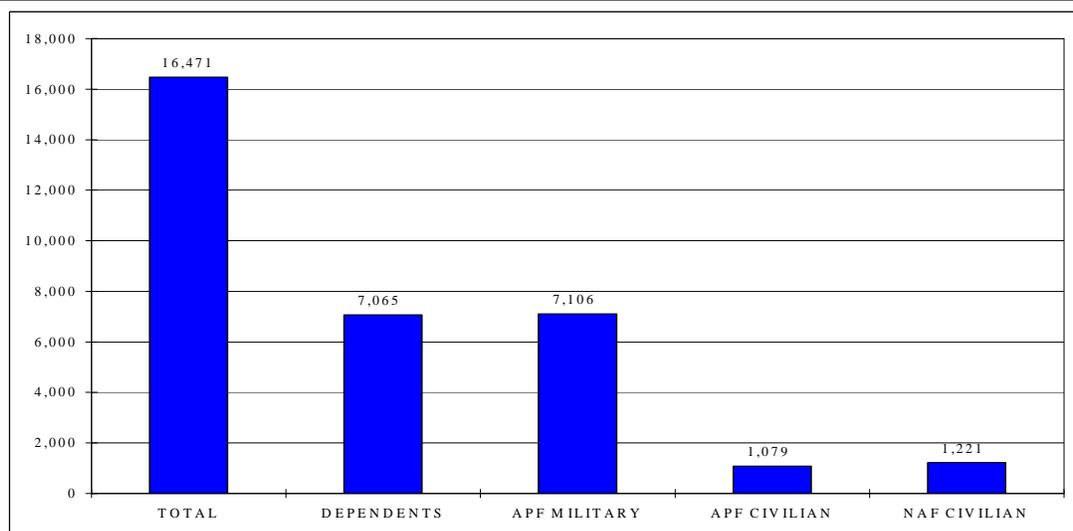
3.6 Barksdale Air Base

Dedicated in 1933 and now celebrating its 80th anniversary, Barksdale Air Force Base is the United States training ground for all B-52 bomber crews. Barksdale has become a pillar of U.S. air defense, and is an important economic driver in Northwest Louisiana. Figure 3-4 presents the distribution of personnel at Barksdale Air Force Base in FY 2001. Total payroll was approximately \$268.8 million, and other expenditures (construction, services, materials, equipment and supplies) were approximately \$64 million. In addition to a military staff of over 7,000, and 7000 additional dependents, Barksdale Air Force Base

is responsible for the creation of 3,164 civilian jobs, for a total annual economic impact of over \$421.2 million.

The government procurement program developed by the Shreveport Chamber of Commerce in partnership with Barksdale as a result of the first Strategic Action Plan in 1985 has generated more than a billion dollars of small business supplier contracts in the last 20 years. Barksdale has also attracted long-term retirees back to Northwest Louisiana; this generates a long-term retirement base for further development. Finally, the character of Barksdale has attracted solid citizens with ethnic diversity whose presence strengthens the Shreveport/Bossier community.

Figure 3-4
 Barksdale AFB Personnel by Classification
 FY 2001



Note: APF = appropriated funds; NAF = non-appropriated funds.

Source: Barksdale Air Force Base.

3.7 Higher Education Institutions

Though a smaller source of employment than the other major economic base industries described in this section—about 1,200 employees in 2000—the higher education services industry cluster plays a unique and crucial strategic role in the Northwest Louisiana Economy. In today’s innovative global high technology culture, the capacity of a region’s higher education system to help attract and retain the highest quality workers, business leaders and firms to the regional economy is *essential* to that economy’s overall development and growth.

Higher education institutions are, thus, important catalysts for economic development in the following ways:

- ✓ They build a community’s intellectual capital;

- ✓ They train students in advanced skills and provide a concentrated supply of educated, entry-level workers that are key to attracting and retaining important *Intelligence Age* employers and industries, such as tertiary and quaternary medical care and advanced manufacturing;
- ✓ They can foster the start-up of new companies in Northwest Louisiana and/or attract the research & development operations of established companies through the research conducted by faculty and graduate students;
- ✓ They can draw researchers, scholars, and students from around the country and world, and become a forum and resource for intellectual exploration; enhancing a community's international reputation;
- ✓ They are economic engines in their own right, benefiting the local economy through faculty, student, and guests' expenditures, and university procurements, and
- ✓ They add prestige to the local community and economy.

Over the last decade and a half, higher education has assumed a much more active role in Northwest Louisiana than in previous periods, as regional decision-makers recognize the increasing importance of research and development in the economy. Northwest Louisiana's higher education infrastructure—including the institutions, programs, and projects highlighted below have laid the foundation for a higher education services industry capable of producing the economic development benefits listed above.

Four-Year institutions of higher education in Northwest Louisiana include:

- ✓ Louisiana State University in Shreveport (Volume I, Section 3.7.2)
- ✓ LSU Health Sciences Center in Shreveport (Volume I, Section 3.7.3):
- ✓ Centenary College (Volume I, Volume I, 3.7.4)
- ✓ Louisiana Tech University (Volume I, Section 3.7.5)
- ✓ Grambling State University (Volume I, Section 3.7.6)
- ✓ Northwestern State University and Nursing College (Volume I, Section 3.7.7)

Two-Year institutions of higher education and other specialized institutions in Northwest Louisiana include:

- ✓ Bossier Parish Community College (Volume I, Section 3.7.8)
- ✓ Southern University at Shreveport (Volume I, Section 3.7.9)
- ✓ Louisiana Technical College—Shreveport-Bossier Campus (Volume I, Section 3.7.10)
- ✓ Our Lady of the Lake College Nursing Facility (Volume I, Section 3.7.11)

Perhaps the most important measure of the increased awareness of the role of higher education in the economic development of Northwest Louisiana was the initiative of the Biomedical Research Foundation to create the Consortium for Education, Research and

Technology of North Louisiana (CERT, described below in Volume I, Section 3.7.1). Led by CERT, and with the support of the Board of Regents, the private and public two and four year universities of Northwest Louisiana recently rationalized their respective responsibilities in ways which recognized their individual comparative advantages in order to better serve the students, firms and workers of the region. Nevertheless, some parts of the industry are still under performing in their ability to meet the needs of the region's citizens, major industries and new enterprises.

3.7.1 Consortium for Education, Research and Technology

The Consortium for Education, Research, and Technology of North Louisiana (CERT) was conceived by the Biomedical Research Foundation in 1996, and was incorporated as a not-for-profit consortium in 1998 by the area's institutions of higher education. The consortium was created to develop a workforce ready to excel in science and technology industries, to conduct the research and development necessary to create new markets for industry and to encourage the investment in innovation capital that is needed to equip Northwestern Louisiana to compete in the 21st Century technological economy (Volume I, Section 5.2).

The charter members are the nine institutions of higher education in north Louisiana: Bossier Parish Community College, Centenary College of Louisiana, Grambling State University, Louisiana State University in Shreveport, Louisiana State University Health Sciences Center-Shreveport (LSUHSC-S), Louisiana Tech University, Northwestern State University, Southern University at Shreveport, and The University of Louisiana-Monroe. The Biomedical Research Foundation of Northwest Louisiana, an independent not-for-profit designed to foster biomedical research and biotechnology economic development (Volume I, Section 3.3.8), has been a member of CERT since its inception.

The 17 north Louisiana campuses of the Louisiana Technical College joined the consortium in 2001, and Louisiana Delta Community College followed in 2003.

CERT collaborative members now include two historically black institutions, technical and community colleges, a medical school, as well as state and private colleges and universities, thereby insuring broad participation of all types of academic institutions in the region for the collective benefit of its citizens, workers, enterprises and economy.

Although CERT was originally intended to include four-year higher education and research institutions, in 1997 the Louisiana legislature transferred the operation and governance of Bossier Parish Community College (BPC) from the Bossier Parish School Board and the Board of Elementary and Secondary Education to the Board of Trustees for the University of Louisiana System and the Board of Regents. With the inclusion of community colleges under the Board of Regents umbrella, issues regarding the duplication of curricula programs and other educational services between North Louisiana's higher and continuing education institutions arose.

CERT offered to resolve these issues within the region with the enthusiastic consent of the Board of Regents. An Ad Hoc Committee, which included the CEOs of CERT institutions,

was formed to examine and report on the delivery of higher education services in the Shreveport/Bossier area. Each month, CERT members met to review the work of the Ad Hoc Committee and further challenge the group to frame a more comprehensive and inclusive solution to the delivery of higher education services to the Shreveport-Bossier Metropolitan Area. As a result, the Ad Hoc Committee made the following recommendations:

- ✓ LSUHSC-S AND LSUS were assigned the primary responsibility of providing baccalaureate and graduate programs and services for the Shreveport/Bossier MSA. LSUS was designated the Higher Education Center for the Shreveport/Bossier MSA.
- ✓ CERT was asked to conduct a workforce needs assessment to identify gaps that exist between the workforce and available jobs;
- ✓ BPC and Southern University in Shreveport (SUSLA) were recognized as the primary providers of:
 - developmental education in Northwest Louisiana;
 - new programs at the certificate or associate degree level for Northwest Louisiana.

The report concluded by noting the strengths of each CERT institution in providing high quality education services and assigned various responsibilities for the area's higher education institutions in advancing a cost-effective and comprehensive agenda.

By accepting the task of developing these recommendations, CERT, even though still in its infancy, demonstrated its collective effectiveness in finding solutions that enhance the collective quality of higher education in Northwest Louisiana, and, in turn, contribute to the increasing competitiveness of the economic base of the region.

CERT, thus, became the vehicle through which higher education organizes and delivers a variety of programs and services to support the growth and success of the region's industry. CERT concentrates on:

- ✓ The technological workforce needs of companies in north Louisiana, through the development of customer-focused, flexible training programs and institutes;
- ✓ Technology transfer, by developing specialized areas of expertise to help form new technology enterprises in areas such as biomedical, manufacturing, information, and environmental technologies; and
- ✓ Economic development through the InterTech Science Park, by attracting technology-oriented enterprise to Northwest Louisiana that will access the resources of the colleges and universities of the region.

CERT illustrates how the region's higher education consortium serves as an integral intermediary for economic development in North Louisiana. Below are five case examples:

(1) Bioinformatics: In Spring 2002, CERT institutions recognized that a significant gap existed between the need for expertise in the rapidly emerging field of bioinformatics and the resources that currently exist in Louisiana for bioinformatics research, teaching, and applications. Initially encouraged and led by LSU in Shreveport, CERT formed the Bioinformatics Task Force in Summer 2002, which identified a strategic need for the development of biomedical informatics curricula and programs that respond to the demands of research, industry, and a changing healthcare environment. CERT proposed the establishment of the CERT Institute for Biomedical Informatics (CIBI) to provide coordination of biomedical and biotechnology research and education efforts. By providing highly demanded informatics education opportunities, research collaborations, new incentives for industrial development, and improvements in healthcare, the CIBI will enhance the stature and economy of Louisiana, and especially of the region. CERT thus sponsored a Biomedical Informatics Symposium in November 2002, which brought together scientists, researchers, practitioners, industry leaders, educators and students from CERT institutions interested in applying informatics to biology and medicine. The resulting Plan is to offer a curriculum with a coordinated cross-registration system that allows students easily to take advantage of unique strengths of each member institution.

(2) University Credit for Teacher Cadets: CERT recognized that Louisiana had no statewide articulation agreement between its 19 four-year university colleges of education and the state's 400 high schools to provide university credit for taking a "Teacher Cadet" course in high school, a high school introduction to teaching as a career. Although this high school course offering college credit has been adopted and proven successful in a number of states, it had not been tried in Louisiana, despite the acute need for teachers in the State and the region. CERT therefore convened key partners under the engaged leadership of CERT president Dr. Randall Webb, President of Northwestern State University (NSU). Partners include leaders from the Department of Education, Board of Regents, and local school districts. Together, this working group has formulated a prototype articulation agreement. Under the agreement, students who earn Teacher Cadet credit from any high school in the state may receive university credit at any participating CERT institution.

(3) Workforce Development: CERT, as an associate member, collaborates with the Southern Growth Policies Board, a nationally recognized, long standing, 14-state economic development organization led jointly by the governors and private sector leadership of the South. Because of the high priority that CERT places on workforce development (as does this Strategic Action Plan, see Volume I, Section 4.4.2 and Volume II, Section 5.2), CERT helped convene a statewide focus group on workforce development. This successful initiative was recognized as a Best Practice for Workforce Development in the South at the Southern Growth Policies Board Conference in 2002.

(4) Customized Services for High Tech Enterprise: Red River Pharma is a high-tech pharmaceutical manufacturer and tenant in the Shreveport InterTech Science Park being developed by the Biomedical Research Foundation, as noted, also a member of CERT. CERT performed several functions—convened appropriate CERT member personnel, arranged and coordinated presentations, visits, and plans for customized services by CERT member institutions, based on Red River Pharma needs. CERT expects that the process

used with Red River Pharma will become the norm for recruitment and assimilation of new, high-tech firms into our regional economy.

(5) Affiliation Agreements between and among CERT Members: Each CERT member institution has comparative advantages that can contribute to unique collaboration among institutions in support of stronger regional economic development. For example, LSU Health Sciences Center in Shreveport as a university teaching hospital is a “living laboratory” with unique educational opportunities for students from other CERT members. Through affiliation agreements between LSUHSC-S and other Louisiana higher education institutions, many other students have access to its unique educational opportunities. Examples are:

- ✓ Nursing (Louisiana Technical College, Grambling, NSU)
- ✓ Dietetics (Louisiana Tech)
- ✓ Radiologic technology (NSU, Southern)
- ✓ Medical Records (Louisiana Tech, Southern)
- ✓ Respiratory therapy/technology (Bossier Parish Community College)
- ✓ Pharmacy (ULM, BPCC)

CERT, in summary, is an important vehicle for improving the coordination and performance of private and public higher education in the region, especially as it relates to regional economic development, and a potential model for other regional collaborations, so long as its strengths and weaknesses to date are understood and addressed.

The strength of CERT is its essential success in bringing together a very diverse group of higher education institutions that, in other regions of the country, do not have a history of working well together, if at all. CERT has also demonstrated that it could help solve a very difficult problem when supported by a higher authority—in this case the Louisiana Board of Regents. CERT performed the heavy lifting of helping to rationalize the many separate public and private, four and two year colleges and universities of North Louisiana into a more coherent system in which the comparative advantages of each could be recognized and enhanced.

CERT’s weaknesses are that: (1) it does not yet have independent, long term funding; (2) it functions more as a loose confederation than a strong federation, and (3) it is not currently publicly accountable for achieving measurable goals. These weaknesses can be corrected with better funding, and should be as it is asked to take on additional roles.

CERT’s potential additional contributions are described in Volume II, Section 5.3.2.

3.7.2 Louisiana State University in Shreveport

Louisiana State University in Shreveport is one of 10 campuses in the Louisiana State University System. Established in 1965 as a two-year college, the institution has offered 4-year degrees since 1974 and postgraduate degrees since 1978.

Through cooperative agreements with other institutions, LSUS also offers the following graduate degrees:²

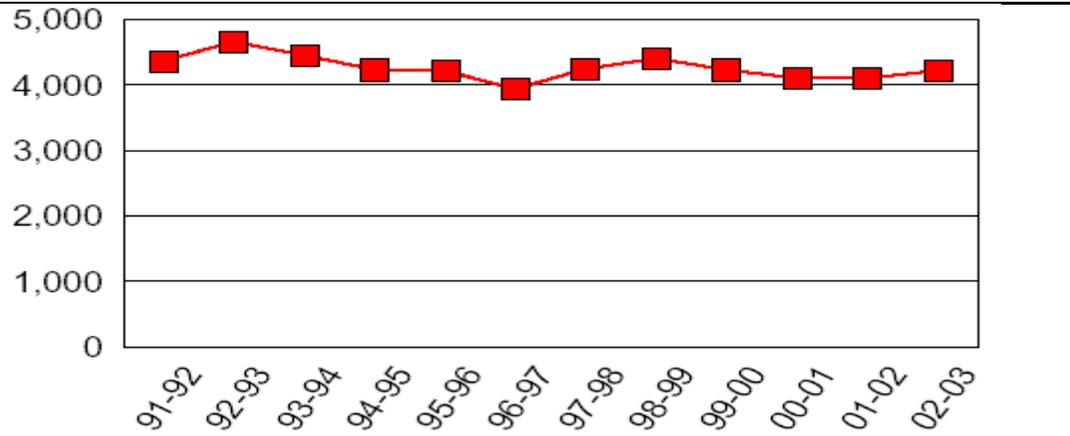
- ✓ Master of Arts in English (LSU A&M or Louisiana Tech)
- ✓ Master of Arts in History (Louisiana Tech)
- ✓ Master of Science in Environmental Science (LSU A&M)
- ✓ Master of Science in Biochemistry and Molecular Biology; Cellular Biology and Anatomy; Microbiology and Immunology; Pharmacology and Therapeutics; Physiology and Biophysics (LSU Health Sciences Center at Shreveport).

According to Barron's Profiles of American Colleges (25th Edition), 98 percent of undergraduates are from Louisiana, 75 percent are white, and 20 percent are black.

As shown in Figure 3-5 below, in the decade 1991-2002, LSUS enrollment was highest during the 1992-93 academic year. Average enrollment for the decade was just under 4,300. This stable enrollment is due to several factors; LSUS transferred remedial education to BPCC and SUSLA, which increased enrollment at those institutions; LSUS moved toward selective admissions standards and lacked state funds for recruitment of new students. By transferring its remedial education to community colleges, LSUS experienced a direct loss of tuition income that had a negative impact on the University's budget. This creates a problem to be addressed in Volume II, Section 5.3.3.

² LSUS provides the coursework, though the degrees are granted through cooperating institutions.

Figure 3-5
LSUS Enrollment Trends
1991-92 to 2002-03



Source: LSUS.

The Louisiana Board of Regents in the 2001 Master Plan for Public Postsecondary Education designated Louisiana State University in Shreveport (LSUS) as “a regional university primarily serving the Shreveport-Bossier Metropolitan area and the Ark-La-Tex region.” LSUS has the specific responsibility to meet the social, cultural, technological, and economic development needs of its service area by expanding its relationship with business, industry, governmental, educational and community organizations.

LSUS, in response to this mission, has aggressively undertaken a number of economic development initiatives that this Strategic Action Plan and its Investors have recognized as crucial to the Plan’s success. LSUS has lacked state financial support necessary to fully develop these initiatives, however. For example, LSUS received only \$187,000 out of the \$15 million state appropriation for Information Technology, despite the importance of IT to the region and the initiatives undertaken by CERT (see Volume I, Section 3.7.1 above). State and local financial support must be forthcoming if LSUS is to fulfill its mission to support economic development in its service area.

Below are described existing centers and institutes that provide the basis for a more concerted effort in support of this Action Plan. Proposals for increased support are found in the proposed strategic actions in Volume II, Section 5.3.3. Specific LSUS initiatives necessary to the success of the NW Louisiana Strategic Action Plan include:

The Center for Business and Economic Research (CBER) CBER is highly regarded by the private, public and not-for-profit organizations within the region for which it now undertakes business and economic research. CBER has been a key source of data and analysis for this Strategic Analysis. The Investors properly see CBER in this Plan as the most appropriate vehicle for establishing performance standards and benchmarks, and then analyzing and monitoring the various components of economic performance called for in this Strategic Action Plan. In addition the CBER currently:

- ✓ Provides essential business and economic research on the Shreveport-Bossier Core
- ✓ Provides a database of economic indicators for the region
- ✓ Provides applied research for local chambers of Commerce, local and state governmental units, business and industry.

The Institute for Human Services and Public Policy (IHSP) conducts research and disseminates knowledge about not-for-profit organizations and health care in Northwest Louisiana. The Institute:

- ✓ Currently has provided leadership to establish the Red River Academy for Social Entrepreneurism, a informal partnership representing faculty of LSUS, Texas A&M at Texarkana, the University of Arkansas at Little Rock, Southern University A&M in Baton Rouge, and the University of South Alabama in Mobile. This informal Academy is not currently receiving any substantial funding, but it could play an important role in providing academic structure in support of the Umbrella not-for-profit Shreveport-Bossier Comprehensive CDC proposed in Volume II, Section 2.0.
- ✓ Operates a regionally recognized Master of Science Health Care Administration Program in collaboration with Willis Knighton Health Center, CHRISTUS Schumpert Health Center and the LSU Health Science Center in Shreveport.
- ✓ Operates a regionally recognized Master of Science Human Services Administration Program at the graduate level to train individuals to work in not-for-profit agencies. This Masters Program, coupled with the Red River Academy, are expected to play an intergral part in the implementation of the Shreveport-Bossier Comprehensive CDC proposed in Volume II, Section 2.0.

The Continuing Education and Public Service Division annually provides credit and non-credit courses for over 30,000 individuals in the following program areas:

- ✓ Professional development and lifelong learning programs;
- ✓ Training programs for cluster industries;
- ✓ Introducing technology and innovation to the region in cooperation with other CERT institutions;
- ✓ Expanding the LEAD program for the region's present and future private and public leadership, and
- ✓ Acting as a bridge to bring black and white leadership and community groups together.

The Red River Watershed Management Institute (RRWMI) is a consortium of LSUS faculty working in partnership with personnel from governmental agencies and Universities to collaborate in research, education, and community service/outreach in the area drained by the Red River and its tributaries. The Institute is expanding from a regional to a statewide and national effort. Institute research and demonstration projects provide information critical for resource management and economic development

strategies focusing on the Red River Watershed in Northwest Louisiana and in the Ark-La-Tex region.

To accomplish its purpose the Red River Watershed Management Institute is further engaged in the following:

- ✓ The Red River Education and Research Park, a 600-acre park adjacent to the LSU Campus developed in cooperation with the City of Shreveport. This uniquely instrumented flood-plain site is designed for long-term monitoring of river flooding and natural resource studies. It is important for the sustainable development of critical groundwater, surface water and energy resources in the region.
- ✓ The Energy Advisor Group, composed of knowledgeable professionals in the oil and gas exploration/production, coal exploration/mining, energy generation/transmission and renewable energy sectors, has been established to advise and support the Institute with regard to energy related matters.
- ✓ Halliburton Energy Services is working with the Institute to develop new borehole technologies for reservoir evaluation studies and environmental applications. Halliburton and MHC Exploration combined to drill, evaluate and develop a unique monitoring well in the Red River Education and Research Park.
- ✓ The Lower Mississippi Basin Sub Basin Committee is working closely with the Institute and associated industry representatives to evaluate methods and approaches to improve water quality for the Red River. Having sufficient high-quality water resources is essential for future economic development in the region.
- ✓ Ohio State University and LSU A&M are working closely with the Institute to advance watershed and energy related applications that support business development through research and infrastructure improvements such as wastewater treatment improvement/alternatives and land use studies.
- ✓ THE LSU System, finally, has established a system-wide initiative to coordinate and address coastal erosion and watershed management issues in Louisiana and nationally.

As of April 2002, Louisiana State University, Shreveport had received nearly \$2.7 million in advanced technology grants and more than \$1.5 million in Watershed Management Institute Grants to fund the Red River Watershed Management Institute.

Proposed strategic actions for expanding these important economic development resources at LSU are found in Volume II, Section 5.3.3.

3.7.3 Louisiana State University Health Sciences Center in Shreveport

Anchoring the local academic Health Sciences Center is the LSU School of Medicine in Shreveport—one of the nation’s 125 accredited medical schools—and its university teaching hospital, the LSU Hospital in Shreveport. The Louisiana State University Health Sciences Center in Shreveport is the only medical school in Louisiana with its own hospital and is known nationally as the Shreveport model. The Shreveport campus also includes a

School of Allied Health Professions and a School of Graduate Studies. Degree programs offered by these three professional schools range from master's and bachelor of science degrees in the School of Allied Health Professions; Ph.D. and master of science degrees in biomedical sciences in the School of Graduate Studies; the Doctor of Medicine degree in the School of Medicine. In addition, the LSU Hospital offers 29 residency and fellowship training programs in various medical specialties and subspecialties.

The three professional schools of the LSU Health Sciences Center in Shreveport confer academic degrees specific to that school. The LSUHSC-S/LSUS cooperative degree programs include: M.S. in Health Care Administration (LSUS), M.S. degrees in Biochemistry and Molecular Biology; Cellular Biology and Anatomy; Microbiology and Immunology; Pharmacology and Therapeutics; Physiology and Biophysics.

There are approximately 736 students enrolled in degree programs of the three professional schools of LSUHSC-S. In addition, there are 320 residents and fellows in training programs at LSU Hospital in Shreveport, a total of 1,056 students at varying levels on the campus. Other LSUHSC-S residents are in training programs at remote sites, including Family Practice community-based residencies in Lake Charles and Alexandria.

The Feist-Weiller Cancer Center, located on the LSUHCS campus, is a designated Center for Excellence in Cancer Research, Treatment, and Education. For further details, see Volume I, Section 3.3.5. Other Centers of Excellence at LSUHSC-S include Center for Excellence in Arthritis and Rheumatology.

For further details on the economic importance of LSUHSCS and its role in the healthcare industry of the region, see Volume I, Section 3.3.3, the LSU Health Sciences Center at Shreveport.

3.7.4 Centenary College

Centenary College of Louisiana, founded in 1825 and located in Shreveport since 1908, is a selective liberal arts and sciences college. Annually recognized among "America's Best Colleges" and "Best College Buys," Centenary offers the Bachelor of Science, Bachelor of Arts, Bachelor of Music, Bachelor of Arts in Music, Master of Business Administration and Master of Education degrees. Forty-three majors and 17 pre-professional programs are offered. Pre-professional programs include Allied Health Tracks, Computer Science, Pre-Dentistry, Pre-Law, Pre-Medicine, Pre-Veterinary Medicine, Museum Management, Church Careers and Theology.

The college offers the only NCAA Division I athletic program in the Shreveport-Bossier area. In 2003-04, it will attract the teams of a new conference, the Mid-Continent Athletic Conference, with teams from throughout the center of the nation. Additionally, major public programs in music, theatre and the arts assist tourism and the local economy, attracting visitors from Louisiana and neighboring states.

Cooperative dual degree programs (three years at Centenary, two years at affiliated institutions) and exchange programs include:

- ✓ 3/2 Speech-Language Pathology/Audiology program with Louisiana State University Health Sciences Center in Shreveport
- ✓ 3/2 Engineering program with Columbia University, the University of Southern California, Case Western University, Washington University in St. Louis and selected others
- ✓ Semester- or year-abroad programs with the University of Aarhus in Denmark, the Université Catholique de Lille in France, the Hochschule für Technik und Wirtschaft in Germany, the Universidad de Guanajuato in Mexico and the Business Exchange Initiative of Northern Ireland

The college has an endowment of \$105 million and an enrollment of 1,038 students from 39 states and 18 foreign countries. Forty percent of Centenary students are from out-of-state, making additional economic impact on the community. Average enrollment for 1991-2001: 1,027.

Specific Centenary initiatives that impact economic development include:

The Executive MBA Program: The Executive MBA at Centenary is an important contribution to the growth and development of a globally competitive economic base in Northwest Louisiana. It is designed for rising business leaders with at least five years of professional work experience who have daily responsibility for the management of people, projects, products, data or budgets within their organizations.

Courses are taught from a senior management perspective with an emphasis on the business skills and knowledge that enable a shift from functional expertise to broad-based leadership and strategic thinking. The Executive MBA at Centenary is an important contribution to the growth and development of a globally competitive economic base in Northwest Louisiana.

The Frost School of Business Family-Owned Business Center: The Family-Owned Business Center is an important innovation that is in the process of being established at Centenary to develop programming relevant to the continuity and health of the family business.

This is an important potential parallel private initiative to the LSUS public university proposal for the Center for Entrepreneurial Development and Leadership (CEDL). Both Centenary and LSUS are charter members of CERT. Both initiatives are important to addressing the most important missing sector in the economic base, Creating New Enterprise (Volume I, Section 3.10) and the Platform for Strategic Actions to Create New Economic Base (Volume II, Section 4.0).

In addition to the education and training programs available through the Family-Owned Business Center on such issues as

- ✓ strategic planning,
- ✓ succession planning,

- ✓ growth issues, and
- ✓ the legal, management, and financial issues unique to the family-owned enterprise,

The Family-Owned Business Center is expected to create a network for family business members to meet, share and act on problems and opportunities. Participation in the Center will be limited to established family businesses with annual revenues exceeding \$1 million and in which a single family has ownership control or management involvement. The Family-Owned Business Center can be unique in North Louisiana because it will recognize the vital role that family owned enterprises play in the regional economy. The Center can be an important resource in addressing the most important missing part of the Economic Base of Northwest Louisiana, Creating New Enterprise (Volume I, Section 3.10)

Collaborative Programs in the Sciences with LSUHSC-S, the LSUHSC-S Foundation, the Biomedical Research Foundation of Northwest Louisiana and Selected Companies:

- ✓ Collaboration with chemical firms: Centenary is working with a Louisiana chemical firm that specializes in products based on renewable resources. One of its most successful and profitable lines is based on cellulose, the very abundant plant structural carbohydrate. The firm sees even greater potential, however, in a new line of products derived from the carbohydrate that forms the foundation for shells of crustaceans, such as crab and crawfish. The carbohydrate as such is of little value, but a simple chemical reaction converts it into another molecule, which offers a number of attractive commercial opportunities.
 - Centenary science professors are working with the firm to find a more efficient route to the molecule than the current method, studying an enzyme-based conversion process. Centenary's role is to locate suitable microbiological sources of the appropriate enzymes and to develop data about these enzymes that will serve as process design parameters. This project is currently supported by an award from the Industrial Ties Research Subprogram of the Board of Regents.
- ✓ Emerging collaboration with local firms: A new pharmaceutical venture in Shreveport, Red River Pharma, is a spin-off of an established firm in Covington, Louisiana, PamLab (Volume I, Section 3.3.8.2) Pharmaceutical research, quality control, and manufacturing are sophisticated operations that depend heavily on access to modern scientific instrumentation. These instrumental tools are expensive, so their immediate acquisition is often prohibitively expensive for a new business. Many of these, however, are also fundamental tools used in chemical teaching and research. The Department of Chemistry has assembled many of these tools including high field NMR, high performance liquid chromatographs, and gas-chromatography-mass spectrographs. The Department has agreed to make its instrumental tools available to a Louisiana firm and is working out details of the agreement. Other collaborations are possible as a result of this collaboration, benefiting science students and the local economy.

- ✓ Collaboration with LSUHSC-S and the Biomedical Research Foundation of Northwest Louisiana: A number of considerations, including proximity and commonality of interest, have fostered several collaborations between Centenary, the Louisiana State University Health Sciences Center in Shreveport and the Biomedical Research Foundation. Ongoing collaborations exist in the areas of molecular toxicology, neurobiology, and biophysics.
- ✓ Professional Development Schools Program: In partnership with the Caddo Parish School System, Centenary has developed a program designed to improve undergraduate teacher education and provide concentrated resources for teachers. The Professional Development Schools program locates teaching, in-service and student-teacher supervision functions in a select number of schools in a targeted effort to improve the quality of teaching and learning.
- ✓ Math, Science, and Technology Curricula for Caddo Parish Schools: Centenary has also played a leading role in the establishment of the Math, Science, and Technology curricula being created in the Caddo Parish School System by CERT and the Biomedical Research Foundation (Volume I, Section 3.3.8.2).

3.7.5 Louisiana Tech University

Louisiana Tech is located in Ruston, Louisiana, a little more than an hour from the Shreveport-Bossier metro area. This nationally regarded engineering school is a public institution offering both undergraduate and masters degrees. According to Barron's Profiles of American Colleges (25th Edition), business and engineering programs are the strongest undergraduate programs academically and have the largest enrollments.

Of particular note for the purpose of regional economic development in Northwest Louisiana, Louisiana Tech is an active member of Cert and operates the Institute for Micro Manufacturing in Ruston and the Technology Transfer Center in Shreveport. Louisiana Tech also offers a joint Ph.D. /MD degree in Biomedical Engineering/Medicine in conjunction with LSUHSC-S, also a CERT member. Finally, Louisiana Tech's engineering faculty is engaged in several technology commercialization projects with the Biomedical Research Foundation (also a CERT member) and its InterTech Science Park.

3.7.6 Grambling State University

Grambling State University is located in Grambling, Louisiana, west of Ruston. Founded in 1901 as a private industrial school to educate African American citizens of north central Louisiana, Grambling State University is now a nationally recognized comprehensive university offering undergraduate, graduate, professional and continuing education programs as part of the University of Louisiana System. Grambling is also a member of CERT.

3.7.7 Northwestern State University and Nursing College

Founded in 1884 as a teacher's college, Northwestern State University (NSU) has grown into a full spectrum university with a diverse degree offering. The main campus with over 6,000 students is located about an hour south of the Shreveport-Bossier Metro on I-49 in

Natchitoches, and there is a major sub campus in Shreveport for Nursing and Radiologic Technology. Northwestern State University is also a member of CERT.

The NSU College of Nursing campus in Shreveport was established in 1949 utilizing the clinical facilities of all the major Shreveport-Bossier hospitals. This campus now has over 1,200 students in various degree programs.

3.7.8 Bossier Parish Community College

Bossier City Community College was established in 1967 as a result of a Louisiana Legislature pilot program to determine whether or not the state needed two-year community colleges.

In 1997, based on the significant achievements of the Community College, the Louisiana legislature transferred the operation and governance of Bossier Parish Community College (BPCC) from the Bossier Parish School Board and the Board of Elementary and Secondary Education to the Board of Trustees for the University of Louisiana System and the Board of Regents. This was the event that precipitated the joint effort of CERT and the Board of Regents to rationalize the offerings of the two and four year colleges and universities so as to recognize the discrete comparative advantages of each institution, and better serve the needs of students, workers and businesses in the region. Since that time, BPCC has been an active participant in CERT and a major contributor to the economic vitality of the region.

To accommodate its continued rapid growth in enrollment, BPCC recently broke ground on a new 77-acre, \$45 million campus. BPCC is also a member of the Louisiana Community and Technical College System, and offers academic coursework, workforce training and professional certificate programs to students and workers of the region.

3.7.9 Southern University at Shreveport

The Southern University System is the nation's only historically black university system. The Shreveport campus is a two-year institution that offers courses designed to facilitate admission to four-year senior institutions, as well as promote work force development and training. Headquartered on the Martin Luther King, Jr. Campus, the school also has a Downtown Metro Center specializing in allied health programs, and the Aerospace Technology Center that houses the FAA-approved Aerospace Technology and Maintenance programs located at the Downtown Shreveport Airport (Volume I, Section 5.1.5.2).

The Southern University at Shreveport is also proposing to open a business incubator to be housed in a new facility in Bossier City, currently being built by The Coordinating & Development Corporation (Volume I, Section 5.4.3). The State of Louisiana is expected to provide the funding to Southern University for the operation of this incubator. The facility will specialize in incubating minority and women owned business. For more on the role of business incubators in the region, see Volume I, Section 3.10.5.

3.7.10 Louisiana Technical College–Shreveport–Bossier

The forty-two campus sites of the Louisiana Technical College operate as one of the seven post-secondary entities that comprise the Louisiana Community and Technical College (LTC) system. The LTC District 7 Planning and Development region, covering the ten-parish region of Northwest Louisiana, houses the five LTC campuses of the region. The campuses include, LTC Shreveport-Bossier, LTC Mansfield, LTC Sabine Valley, and LTC Natchitoches. The mission of the LTC is to provide industry-based certifications in demand occupations in order to address the workforce and economic development needs of the Northwest Louisiana region.

Collectively the region provides over 30 nationally accredited occupational and technical skills and certificate training programs designed to prepare citizens for entry-level employment. The colleges also provide customized economic and workforce development training as partners with local and regional business and industry. Additionally, Adult Basic Education, GED preparation, workplace literacy, work readiness skills training, educational counseling, academic and employability assessment as well as placement services are staples of the LTC curriculum and operation.

For a more complete discussion of workforce education and training as it currently exists, see Volume I, Section 4.4.2. For recommended Strategic Actions, see Volume II, Section 5.2.

3.7.11 Our Lady of the Lake College Nursing Facility

To help address the shortage of healthcare workers and advanced training for healthcare workers, Willis-Knighton (Volume I, Section 3.3.1.) has established the WK Career Institute. The Institute houses a satellite facility of Our Lady of the Lake College from Baton Rouge, which offers a practical nursing curriculum in Shreveport.

3.8 The Food Processing Industry

This important economic base industry cluster builds on the agricultural resources of the region. The sector is also important to the region because it has a significant number of growing small and medium size firms that serve national markets. Food processing companies in the region range from major national chains such as ConAgra, Foremost Dairy, and De Boles to smaller companies such as Bayou Magic, Natchitoches Meat Pies, and KM Foods, Inc., all of which are small enterprises that sell their trademarked product brands nationally.

The food processing industry, in accordance with the State of Louisiana's Vision 20/20 Strategic Economic Plan, was identified as a sub-cluster that would receive specific attention under the parent Food/Agriculture/ Forestry cluster because it can add significant value to the agricultural resources of Northwest Louisiana, and contribute significantly to the birth and expansion of small and medium size enterprise as described below in Volume I, Section 3.10.

3.9 Other Primary Industries

Though not major employers on the scale of those described above, wholesale trade, finance and insurance, and transportation and warehousing are important primary industries in Northwest Louisiana.

3.9.1 Wholesale Trade

In 2000, wholesale trade employed more than 7,400, or 5 percent of the total workforce, which is consistent with its share of employment nationally. In the Shreveport-Bossier City MSA, a slight majority, or 55 percent of these jobs were in durable goods, with 45 percent in non-durables.

3.9.2 Finance and Insurance

In 2000, this industry employed more than 4,800 in the Shreveport-Bossier City MSA, the equivalent of 3 percent of the regional workforce. In comparison, finance and insurance employs 5 percent of the national workforce. The credit intermediation & related activities, and insurance carriers & related activities sub-industries, accounted for the majority of employment in this industry.

For a more complete analysis of the role of finance in the Northwest Louisiana regional economy, see Volume I, Section 5.3 below, Financial Capital.

3.9.3 Transportation and Warehousing

This industry employed more than 3,300 in 2000, or approximately 2 percent of the regional workforce, which is less than the national share of 3 percent.

3.10 The Missing Economic Base: Creating New Enterprise

Twenty years ago, in the mid-1970s, American workers and large American corporations woke up to a stunning reality – they no longer dominated world markets as they had from the end of World War II through the early 70s. Not only had West Germany and Japan replaced American market dominance in everything from automobiles to television, computers, videos, and coffee making machines, but the “Four Tigers” of Asia – South Korea, Taiwan, Singapore and Hong Kong – were capturing American market share by producing higher quality goods at lower prices.

The finest large, multi-national companies such as General Motors, IBM and Sears, challenged by global competitors, were forced to downsize and restructure; with stocks losing value and employees laid off, United States corporations suddenly found in the 1970s that they were unprepared for the new global technological competition. The business school certainties of the 50s, 60s and 70s were suddenly challenged by the high rates of change and the high rates of risk of the 80s and 90s.

- ✓ In the 50s and 60s, the average life of an industrial product was 10 years. By the 80s and 90s, the average life of an industrial product had shrunk to 20 months.

- ✓ Companies that did not exist in 1970 – MicroSoft, Cisco, Oracle and Sun Microsystems – now turn over their entire product mix in less than three years.
- ✓ More than one-third of the firms listed on the New York Stock Exchange in 1970 did not exist by 1990.

Major corporations were forced to acknowledge that without radical restructuring, they were as doomed as dinosaurs.

In the 70s, economic analysts began to understand that the only certain constants for all companies, all workers and all communities in today's global technological economy were risk and change. When products mature, production will almost certainly move off shore, especially as world capital markets do an even better job of shifting investment from one country to another.

In the 70s, it also became clear that the most dynamic risk takers in the new economy are young, small, rapidly growing entrepreneurial firms. These enterprises are now:

- 1) The major source of new jobs,
- 2) A leading source of technological innovation, and
- 3) Much more profitable as a class than had been previously understood.

Each of these three qualities of new, small enterprises is described below.

3.10.1 Job Creation, Dynamism, Risk and Change

In the 1970's, David Birch conducted the most comprehensive research on the role of small enterprise as an engine of United States employment when he was on the faculty of the Massachusetts Institute of Technology (MIT). In his 1979 book, *The Job Generation Process*, Birch found that small enterprises generated two-thirds (66%) of all *new* jobs created in the United States during the decade of the 70s.

This rate held consistently through the 80s and 90s. David Birch's firm, Cognetics, Inc., has determined that in the first half of the 90s, virtually all the 12 million net *new* jobs were created by firms with fewer than 500 employees; while large companies continued to downsize.

- ✓ Microbusinesses with 1-4 employees generated more than 50 percent of the net *new* jobs,
- ✓ Small enterprises with 5-19 employees created another 27 percent of *new* employment opportunities.
- ✓ Medium sized firms with 20-500 employees were responsible for most of the remaining 23 percent.

Recent unpublished data of the U.S. Department of Labor and U.S. Department of Commerce show that during the second half of the '90s, firms with less than 500 employees created 64 percent of the 2.5 million new jobs in the United States.

The role of small enterprise in the North American economy is now well understood. In the 1990s, small enterprises with fewer than 500 employees:

- ✓ Accounted for 99.7 percent of all employers,
- ✓ employed 53 percent of the private work force,
- ✓ generated 47 percent of all sales, and
- ✓ produced 51 percent of the private sector gross domestic product.

In summary, the U.S. Department of Commerce has recorded a 57 percent increase in the total number of these small enterprises since 1982.

Much of this dynamism is attributable to the large numbers of women entering the American workforce in the last two decades, many of whom have become successful entrepreneurs. A 1996 study by the National Foundation for Women Business Owners and Dun and Bradstreet determined that:

- ✓ Nearly eight million firms were women owned.
- ✓ These firms generated more than 18.5 million jobs (more than the total employment of the 500 largest corporations in the United States).
- ✓ These firms generated \$2.28 trillion in sales.
- ✓ Between 1987 and 1992, the number of these firms increased 43 percent.
- ✓ Between 1987 and 1992, total sales of these firms nearly tripled.

By 1999, women owned nearly 40% of all small enterprises, and the number continues to grow dramatically.

The nature of the small enterprise sector's strength as a source of employment growth is complex. In fact, the very dynamism of small enterprise powers both its strength and its weakness as a job generator.

First, small enterprises tend to be more labor-intensive than larger businesses. Thus, growth in small enterprise results in more jobs, while growth in large corporations often involves the substitution of capital for labor. The introduction of capital in larger firms leads to higher productivity. Higher productivity leads to higher wages and more extensive benefits, but not to an increase in jobs.

Recent research reveals changes taking place in the small enterprise sector. The Bureau of Economic Analysis of the U.S. Department of Commerce has determined that in 1995 wages in small enterprises grew faster (5.7 percent) than income (5.2 percent). In contrast, the vast increase in competition within global labor markets increasingly allows large firms

to move to lower priced overseas labor markets rather than pass productivity benefits on to their domestic workers.

Second, smaller enterprises tend to be younger, still in the growth stage, while larger firms tend to be more mature, with less absolute ability to grow. Here again, the very dynamism which propels the growth of many young, small enterprises makes the jobs they create of less certain tenure and riskier. Historically, small enterprises are as good at unmaking jobs as they are at making them. This historic trend is, however, being reversed by the same global forces that are leading large multinational firms to restructure and downsize. Now large firms are also very good at unmaking jobs, as all economic activity in the global technological economy becomes more and more dynamic and risky.

Risk and change are the norms today for all firms. In this environment, the very youth and flexibility of small enterprise can be a comparative advantage for the local economies in which they are born and thrive. Some of the most sophisticated large firms have learned that they are often not hospitable to innovation. Some have, thus, been willing to encourage creative ideas to be developed outside of their own formal structures; others have experimented with “entrepreneurship”, the conscious effort to create the conditions for small firm entrepreneurship within larger firms.

3.10.2 Technology and Innovation

In today’s global economy, there is one overriding comparative advantage: the ability to innovate. A recent study by the National Science Foundation determined that 80 percent of all new wealth creation in the United States is driven by innovation.

Perhaps no region of the United States better demonstrates this than New England. New England was the first region of the United States to recreate England’s Industrial Revolution in the eighteenth century. It was also the first region to experience the collapse of its industry from global competition. In the 1950s and 60s, New England’s industrial base of shoes and textiles migrated to cheaper production areas, first in the United States, and then overseas.

To counter this industrial decline, a group of leaders from the private, public and university sectors came together in the late 1940s – early 1950s to determine what, if any, potential comparative advantage could lead to a vital economic future.

First looking at demand, they found that New England’s global market share was shrinking. New England’s income would continue to decline if it only sold to itself. New England industry had to export to survive. Second, looking at the supply side, they found no natural resources, no energy sources, very high labor, land and transportation costs and increasingly long distances from major markets. Because of these high costs, any mature industry –like shoes, textiles or even computers – would inevitably leave New England for regions with lower production costs that were closer to markets.

New England had only one remaining potential comparative advantage – the capacity to innovate. New England could survive by innovating new products, new processes and

whole new industries driven by new, young firms. New England's private and public leadership committed itself to creating a climate of innovation. Together, they:

- ✓ invented the venture capital industry,
- ✓ recognized the enormous economic importance of the region's dozens of great research universities, beginning with Harvard and MIT, and
- ✓ created an entrepreneurial economy capable of generating large numbers of new, small enterprises to innovate and commercialize technology.

Out of this remarkable entrepreneurial environment has come the birth of whole new industries, including computers, software, biotechnology, artificial intelligence, lasers, fiber optics, and new areas of economic activity that have been translated from the laboratory into the marketplace.

Just as the Industrial Revolution spread from New England to the rest of the United States in the late eighteenth and early nineteenth centuries, the new Information Revolution spread from New England to the rest of the United States in the second half of the twentieth century. In the new global competition, to be first is not to stay first. Silicon Valley now has twice as many venture capital-backed firms in an entrepreneurial culture that is creating twice as many fast growing "gazelle" companies at twice the rate as Boston and New England.

Just as New England discovered that small enterprises are the key to technology, so now has the rest of the United States. Small enterprises have been the source of many of the most important innovations in the United States in this century: air conditioning, airplanes, audio tape recorders, ball-point pens, color photography, double-knit fabrics, fiber optics, the heart valve, microelectronics, personal computers, soft contact lenses, xerography and the zipper, to name a few.³

Not only are small enterprises the main source of innovation, but also they innovate more efficiently and at a lower cost than larger firms. A recent unpublished study of the U.S. Small Business Administration, *Facts about Small Business*, (1997), and a series of papers by The National Science Foundation have provided the following summary facts:

- ✓ Small enterprises produce four times as many innovations per research and development (R&D) dollar as do medium-sized firms, and 24 times as many as large firms, in a twenty-year study by the National Science Foundation.
- ✓ Small enterprises produce 55 percent of innovations, including twice as many product innovations per employee as large firms.
- ✓ Small enterprises obtain more patents per sales dollar, and the ratio of innovation to sales is one-third greater than for large firms with over 1,000 employees.
- ✓ Of firms with a university relationship, small enterprises generate a return on R&D investment nearly 50 percent greater than large firms.

³ U.S. Department of Commerce, 1997.

Small enterprises also tend to innovate for different reasons than large firms.

- ✓ Small R&D firms generally innovate to create new external economic activity which never existed before – they innovate to grow by creating new products, new processes, new markets and new jobs.
- ✓ Large firms generally innovate to improve internal efficiency – to cut costs and to substitute capital for labor.

These different motivations to innovate also explain, in part, small firms' great success as innovators. Many analysts have pointed out that an entrepreneur who views a new product or process as his or her entry into the marketplace will be more oriented toward taking risks than a large well-established corporation. Further, the innovative processes in small enterprises are not hampered by large bureaucracies or standard operating procedures. At the "big business" level, new ideas are "born by committee, run by committee, and killed by committee." In the small enterprise, the lines of communication are clearer between the inventors or "idea people" and the operating units; indeed, the entrepreneur and the inventor are often one and the same.

In 1993, the U.S. Small Business Administration summarized the dynamic role of small enterprise in technological innovation as follows:

- ✓ 94 percent of high-technology firms in the United States are small enterprises with less than 500 employees;
- ✓ 73 percent have less than 20 employees.
- ✓ 28 percent of the jobs in high technology industries were provided by small enterprises.
- ✓ 18 percent of the sales in high technology industries were generated by small enterprises.

This snapshot of the role of small enterprises in creating jobs in high technology does not capture the rapid growth over the last 20 years of such "gazelles" as Microsoft, Intel, Cisco, Oracle and Sun Microsystems. They began as small enterprises as recently as a decade or two ago, but quickly dominated their global niche.

3.10.3 Profitability, Dynamism and Risk Management

Just as David Birch was completing his pioneering study of small enterprise job generation, Michael Kieschnick demonstrated that small enterprises as a class were at least as profitable as large businesses, and perhaps more so. His 1978 study contrasted the percentage return to shareholders' equity of small and large businesses, using data collected by the Federal Trade Commission (FTC). The data included a 100% sample of manufacturing firms disaggregated by asset size.

The results of the study indicated that from 1958 to 1976 the after-tax profitability of manufacturing firms with less than \$1 million in assets was .2% higher than the average for all firms. Over this eight-year period, firms with less than \$1 million in assets were more

profitable than all other firms except those with over \$1 billion in assets. All of these figures on profitability incorporate firm failure rates by asset size.

The high profitability of small enterprises as a whole must be balanced, however, against the individual variability of return, or volatility, found within the small enterprise sector. Small enterprises tend to be more volatile than larger businesses. Of the hundreds of thousands of new businesses that are started each year, over half end in the first year. It is a myth that they fail. In fact, in the United States, only one in seven actually fails. The rest simply end, with no loss to the owner or investors.

To reduce this volatility to terms of profitability, Michael Kieschnick measured risk as the year-to-year variation in rate of return for a 100% sample of manufacturing firms disaggregated by asset size (using the FTC data noted above). For the period 1958 to 1971, he found that risk was inversely related to size. Larger corporations, as a group, had more stable earnings than smaller corporations. For the overall period 1958-1976, as a general proposition, the smaller the firm size, the higher the variability of risk, or volatility.⁴

Because venture capitalists and other private equity market makers have intuitively grasped the findings of this path-finding study, billions of dollars of new development finance institutions have been created in the United States in the past 20 years to overcome the market barrier of investing in any highly risky individual enterprise by pooling and spreading the risk between investors.

- ✓ If 1000 small enterprises with sales of \$1 million are individually highly volatile,
- ✓ but collectively they are as profitable as any \$1 billion large firm,
- ✓ then pooling all 1000 small firms into a single \$1 billion fund averages the risk,
- ✓ and selling one million shares to 1000 investors spreads the risk,
- ✓ so that all investors receive the same uniformly high return and a uniformly pooled, spread and managed risk.

Pooling and spreading risk thus takes the high volatility of individual small firms out of the risk equation, and creates a mechanism to deliver high small firm returns without small firm volatility to investors. The investment mechanisms described in Volume II, Section 4.0, Creating A New Economic Base (and especially Volume II, Section 4.1, Creating New Enterprise), and the models presented in Volume II, Appendices five and six, are market perfecting mechanisms which achieve prudent risk-adjusted rates of return by pooling and spreading risk consistent with this analysis.

3.10.4 The Role of Small Enterprise in Northwest Louisiana

The documented importance of young, small enterprise nationally is paralleled in data for Louisiana and Northwest Louisiana. Statewide, 97.4 percent of the businesses in Louisiana

⁴ Michael Kieschnick, 1978 Study.

are classified as small enterprise, and they employ 53.8 percent of the workforce.⁵ This pattern is echoed in the Shreveport-Bossier Metropolitan Statistical Area with 92+ percent of the 7,781 business establishments classified as small enterprise. These firms provide employment for slightly more than 50 percent of the MSA's workforce.⁶

Northwest Louisiana has a history of birthing new small enterprises that have gone on to become major players in national and international markets, including Beard Industries, Hendrix Manufacturing, Frymaster, and Sound Fighters Systems. The creativeness that spawned these businesses continues to be seen in the citizens of the region as represented by the scores of fledgling entrepreneurs that seek help for possible new enterprises. Entrepreneurs contact such diverse agencies as the Metro/Regional Business Incubator (Volume I Section 3.10.5.1) LSUS Small Business Development Center, SCORE, Inner City Entrepreneurship Institute, the City of Shreveport's Community Development program, local chambers of commerce, and Centenary College's Frost School of Business Family-Owned Business Center (Volume I, Section 3.7.4).

If Shreveport-Bossier City is to have the capacity to thrive in the global technology-driven economy of the 21st Century, the region must have the ability to birth and expand not only new enterprise but also entirely new economic sectors.

This capacity, which requires a concerted effort of private sector and higher education leadership, is what sets apart the most rapidly growing economic regions of North America. The Northwest Louisiana region has the individual wealth necessary to support this important economic engine, and the history of birthing innovative, rapidly growing small enterprise. Today, however, that local wealth is being deployed in other sections of the country and around the world, rather than being reinvested into the region.

This wealth will not reinvest in the region unless sophisticated local investors can be assured of receiving the same risk-adjusted rates of return that they expect in other markets on the East and West Coasts. This local wealth is likely to reinvest if it is confident that it can approximate the risk and return objectives it expects through appropriately structured mechanisms available in the region. The mechanisms for meeting these risk and return objectives are outlined above in Volume I, Section 3.10.3, Profitability, Dynamism and Risk Management.

As a part of this Strategic Action Plan, proposed strategic actions in Volume II, Section 4.1, will outline the 'mechanisms' needed to meet these risk/return objectives and harness the energy that will create vital new enterprise in Northwest Louisiana over the next generation.

3.10.5 The Role of Business Incubators in the Region

Market oriented, entrepreneurial business incubators are an important part of a successful strategy to create new enterprise. There are several in the region that could form an

⁵ SBA Office of Advocacy, 2002 Small Business Profile: Louisiana

⁶ The State of Small Business, A Report of the President, 1999-2000

important anchor in implementing the Strategic Action to Create New Enterprise, described in Volume II, Section 4.1.

3.10.5.1 The Metro/Regional Business Incubator

The Metro/Regional Business Incubator is an important business development initiative of The Coordinating & Development Corporation (CDC), an economic development organization serving ten parishes in Northwest Louisiana, eight counties in Northeast Texas, and four counties in Southwest Arkansas. The Ark-La-Tex Export & Technology Center (ARETC) manages the Incubator under contract, a CDC affiliate organization.

The mission of the Metro/Regional Business Incubator is to provide a “safe haven” for fledgling businesses and offer a full range of business assistance to new entrepreneurs in order to create new jobs and diversify the economy.

The Metro/Regional Business Incubator facility features 36,000 square feet of space that can be divided to meet individual company needs -- with the flexibility to be enlarged as a business grows. In addition, the Business Incubator provides tenants with a wide range of benefits, including:

- ✓ Flexible and affordable rental space for light manufacturing and warehousing/distribution in a prestigious location;
- ✓ Day-to-day hands on business counseling;
- ✓ Conference, meeting and training facilities;
- ✓ Access to basic office equipment, including a copier and fax, with limited basic office furniture available at no cost to tenants;
- ✓ Security systems with keyless entry for employees;
- ✓ Loading docks;
- ✓ Basic utilities and janitorial service;
- ✓ Parking;
- ✓ Tenant Access 24/7, and
- ✓ T1 Internet Access through ShreveNet, and Road Runner Internet Access through Time Warner Cable.

The Metro/Regional Business Incubator also actively supports an "Incubator without Walls" to help entrepreneurs and struggling small enterprises. ARETC's staff provides generalized assistance for both Incubator tenants and outside clients, with specialized assistance augmented by a variety of experts from community and government support organizations. Most assistance is provided at no cost, while other assistance is provided either as part of the space rental charge for tenants of the Business Incubator, or on a fee basis (for extended assistance).

Strategic Actions for building on the strengths of this Incubator to create a world class capacity to Create New Enterprise is found in Volume II, Section 4.1.

3.10.5.2 BMF InterTech Science Park Incubators

The Biomedical Research Foundation's InterTech Park houses two technology/business incubators, the Center for Biomedical Technology Innovation, and the InterTech Business Innovation Center. A third incubator, the \$10 million Biospace I Incubator/Accelerator is now being built with funds from the State of Louisiana. Red River Pharma is expected to be the anchor tenant.

Details of current operations are found in Volume I, Section 3.3.8.2, the Biomedical Research Foundation of Northwest Louisiana. Strategic Actions for operating these facilities according to the highest current standards are found in Volume II, Section 4.2, Creating New Biomedical and Biotechnology Enterprise.

3.10.5.3 The Proposed Southern University Incubator

The Southern University at Shreveport is proposing to open a business incubator to be housed in a new facility in Bossier City, currently being built by The Coordinating & Development Corporation (Volume I, Section 5.4.3). The State of Louisiana is expected to provide the funding to Southern University for the operation of this incubator. The facility will specialize in incubating minority and women owned business. For more on the Southern University at Shreveport, see Volume I, Section 3.7.10. For Strategic Actions to Create New Minority Enterprise, see Volume II, Section 4.3.

4.0 Analysis: The Most Important Supply Factor--People

In today's global technological economy, people, or human capital, are the most important factor of production. Human capital is essential to making the best use of all other resources in the region. Innovation capital, financial capital and commitment capital all ultimately depend on the quality of the region's human capital to succeed. Even with the most modern and well-planned infrastructure, or the most abundant raw materials, a 21st century economy, more than any other in history, will stagnate without smart people to make all other resources mix and produce.

4.1 The Importance of Human Capital in the Intelligence Age

Each new economic age has needed its own special form of capital to create wealth. In the Agricultural Age, it was land. In the Industrial Age, it was physical capital—plant and equipment essential as a means of production. In the Intelligence Age, the form of capital essential to the creation of wealth is human capital—an investment in inventive, innovative, risk taking minds.

The tools of the Industrial Age were own able, physical capital—land, plant, equipment and labor. Labor meant bodies to operate physical capital and these bodies were, like the machines with which they worked, fairly interchangeable. Today, the tool of the Intelligence Age is information. In the Intelligence Age, labor is no longer muscle on an assembly line, but rather creative minds, which can think, communicate and make use of information. An investment in minds creates human capital. Unlike muscle, minds are not interchangeable; unlike physical capital, minds are instantly mobile. Minds can be stimulated, encouraged and enhanced, but they cannot be owned.

Throughout this Strategic Action Plan, the story of Northwest Louisiana's future is the story of its people. The region's economy is nothing more or less than the sum total of the energy, imagination and resourcefulness of all of its people and the communities in which they live. In the end, the capacity, imagination, innovation, risk-taking, optimism and resiliency of a region's people are its greatest asset. To the extent that any individual in Greater Shreveport-Bossier is not engaged in a livelihood that realizes his or her full capacity, the economy is less.

Our goal is to increase the region's human capital and the opportunity for all of the region's citizens to achieve their fullest personal potential and contribute to the vitality of their family, their community, and their workplace. As noted above, this Strategic Action Plan will analyze the opportunities for economic growth in the region within the context of the larger needs of the community to enhance the quality of life of individuals, families and the workplace in ways that increase individual opportunity and overall community and economic benefit. This Strategic Analysis will suggest ways in which each individual's full human capacity can be further increased and barriers can be removed.

Although many of the region's people are as prosperous and fully employed as any in this country, there are still significant numbers of Greater Shreveport's citizens looking for work, others who have given up looking for work, and still others who are employed and

rewarded far below their full human potential. This Strategic Action Plan will have failed until it touches the lives and creates real economic opportunity for those citizens who live in the “other” Shreveport and Bossier City.

This aspect of the study is based on an examination of community resources and the capacity of Northwest Louisiana’s educational, social service, healthcare, affordable housing, public transportation and public safety systems to contribute to increased individual, community and economic prosperity.

4.2 The Difference Between Human and Social Capital

In this new 21st Century Intelligence Age in which we all live, individual intelligence and mental and emotional wealth is Human Capital. But in today’s global technological economy, individual Human Capital will flee to more attractive economies if it cannot join with other like-minded bright minds to create Social Capital.

This is why many young African-American and Anglo-American youths are fleeing Northwest Louisiana—they do not feel connected to enough equally bright and energetic minds to create and to realize collective social and economic wealth at home. The collective currency of this new age is Social Capital. The winning community will be the one that understands the collective value of people and can mobilize them to decide what they will do for each other. This will take a search for a common vision, and a collaboration of efforts between and among the three sectors: the not-for-profit sector, the for-profit sector, and the public sector. The institutionalized capacity to mobilize and focus individual Human Capital and collective Social Capital laser-like to accomplish specific measurable goals is what we call Commitment Capital, as described in Volume I, Section 5.4.

4.3 Community Needs Analysis: Basic Demographic Profile

This Community Needs Analysis describes the demographic trends in Northwest Louisiana in order to understand the community needs of individuals, families and neighborhoods. This Basic Demographic profile creates the context for examining Community Resources in Volume I, Section 4.4 below.

Today, there are two Shreveport-Bossiers—one that enjoys a relatively high quality of life in this relatively low cost region of the country, and one that is characterized by dilapidated housing, few job opportunities, inadequate transportation and day care and, often, failing schools. Although the two Shreveport-Bossiers are often perceived to be separated by race, there is an important growing African American middle class in the region, as well as an increasing number of poor and undereducated whites and blacks. This analysis will suggest ways in which each individual’s full human capacity can be realized and barriers can be removed.

Although there are “haves” and “have-nots” in both communities, there are many more “have-nots” in the black communities of Shreveport-Bossier than is true for whites locally or blacks nationally (Volume I, Section 4.3). Within the Shreveport-Bossier City MSA in 2000, blacks were younger (Volume I, Section 4.3.2 and Figure 4-10), poorer (Volume I,

Section 4.3.4 and Table 4-6), and less often employed (Volume I, Section 4.3.6). Nearly three times as many black households had incomes less than \$10,000 than did white households (Volume I, Section 4.3.3 and Figure 4-11). In contrast, twice as many white households had incomes over \$75,000. Finally, many more blacks are poor in Shreveport-Bossier than in the nation (Volume I, Section 4.3.5 and Figure 4-11). In the nation, one out of four blacks are poor; in Shreveport-Bossier, one out of three. Vastly more blacks have not graduated from high school; vastly more whites have gone to and graduated from two and four year colleges and graduate school (Volume I, Section 4.3.5 and Figure 4-11). More blacks are unemployed, under employed, or no longer in the labor force (Volume I, Section 4.3.6 and Figure 4-13). Violent crime, including domestic violence, was almost twice as high in both Shreveport and Bossier City as in the nation as a whole (Volume I, Section 4.3.9).

Community health indices for blacks in Caddo and Bossier Parishes are much poorer than for blacks in Louisiana or the nation. Although prenatal care is higher for whites in Caddo and Bossier Parishes than for Louisiana, prenatal care is lower for blacks in Caddo and Bossier Parish than in the State. Similarly, low birth rate is higher for blacks in these parishes than for blacks in the state. Teenage pregnancy is twice as high in Bossier Parish for blacks and three times higher in Caddo Parish than it is for whites. Black infant mortality is 40% higher in Caddo Parish than in the state as a whole (although white infant mortality is lower), and black infant mortality in both parishes is twice as high as white infant mortality. Overall, the large economic impact of the healthcare industry in the region does not translate into better health for poor and black citizens, despite the fact that all three medical centers make very large contributions to community health efforts (Volume I, Section 4.3.10).

The single most important change in the culture and political economy of Northwest Louisiana since our first Strategic Action Plan 20 years ago is the fact that this gulf between the haves and have-nots in the Shreveport-Bossier City core region is more extreme today than it was 20 years ago. Because blacks make up more than 40% of the regional population, these differences have very serious implications for the overall health of Northwest Louisiana. If this gulf is not addressed, the costs for everyone in the region will be enormous. If this gulf is not narrowed, on the one hand, the economic and social costs will undermine the current comparative economic advantages that now benefit the region in global competition. The collective leadership and citizenry of the whole Shreveport-Bossier City community must be engaged in finding the “Common Ground” to address this growing gulf.

The poor neighborhoods in Shreveport and Bossier City, on the other hand, have potential to represent urban emerging markets with substantial potential to contribute to the growth and vitality of the larger regional economy of Northwest Louisiana. Their under-appreciated resources include an available workforce to fuel further regional growth, an under-served consumer base, opportunities for commercial and industrial development, an acute need for quality affordable housing development and available under-utilized infrastructure. These communities have the opportunity to be developed in ways that first, benefit the low and moderate-income residents who live in these Shreveport-Bossier neighborhoods and, second, add value to the entire Northwest Louisiana region.

The Community Needs Analysis in Volume I, Section 4.3 shows a precipitous decline in the youngest workforce age group (18-34), while the older workforce age cohorts continue to increase (see Figure 4-2). The most grave finding of this economic analysis is the loss of the youngest workforce age group (18-34) from Shreveport-Bossier to the rest of the United States. There is anecdotal evidence to suggest that the emigration of young, educated African-Americans is even higher than for young, educated Anglo-Americans. This is a serious concern deserving of a major concerted initiative in this Strategic Action Plan. This is the “seed corn” essential to the future growth and development of the Region. This “seed corn” can only be regained if there is a concentrated effort to invest in fertile social and economic soil in which productive human and social capital can grow (Volume I, Section 4.3.2)!

The Community *SWOT* Analysis that results from the detailed analysis of Northwest Louisiana’s Community Needs (Volume I, Section 4.3) compared to its Community Resource Inventory (Volume I, Section 4.4), is summarized in Volume I, Sections 6.1: Community Strengths (Volume I, Section 6.2.1), Community Weaknesses (Volume I, Section 6.2.2), Community Opportunities (Volume I, Section 6.2.1), and Community Threats (Volume I, Section 6.2.1).

4.3.1 Population & Household Growth

Table 4-1 presents population and household estimates and projections. According to the 2000 Census, population grew at a rate of 0.4 percent per year during the 1990s, which was far below the national population growth rate of 1.2 percent per year. Demographics Now (SRI, Inc.) Projections show population growth slowing to 0.3 percent per year in the period from 2002 to 2007. The number of households grew at approximately 0.8 percent per year between the 1990 and 2000 Censuses, resulting in a slight decline in average household size, from 2.6 to 2.5. For comparison, average household size in 2000 nationwide was comparable, at approximately 2.6.

Table 4-1
Population & Household Growth
Shreveport-Bossier City MSA

	1990 Census	2000 Census	2002 Estimate	2007 Projection	CAGR ¹	
					1990– 2000	2002– 2007
Total Population	376,392	392,302	393,956	399,444	0.4%	0.3%
Population Density	156	162	163	165	0.4%	0.2%
Total Households	139,813	151,103	152,956	158,372	0.8%	0.7%
Av. Household Size	2.6	2.5	2.5	2.5	-0.4%	0.0%

¹Compound annual growth rate.

Source: Demographics Now (SRI, Inc.).

4.3.2 Age Distribution

Table 4-2 presents median age and age distribution estimates and forecasts for the Shreveport-Bossier City MSA. The estimated median age in Northwest Louisiana of 35 is comparable with the nationwide median age of 35.2.

Figure 4-1 compares current age distribution in Northwest Louisiana with nationwide age distribution. Though the distributions are relatively similar, Northwest Louisiana has a higher proportion of children and seniors than the nation.

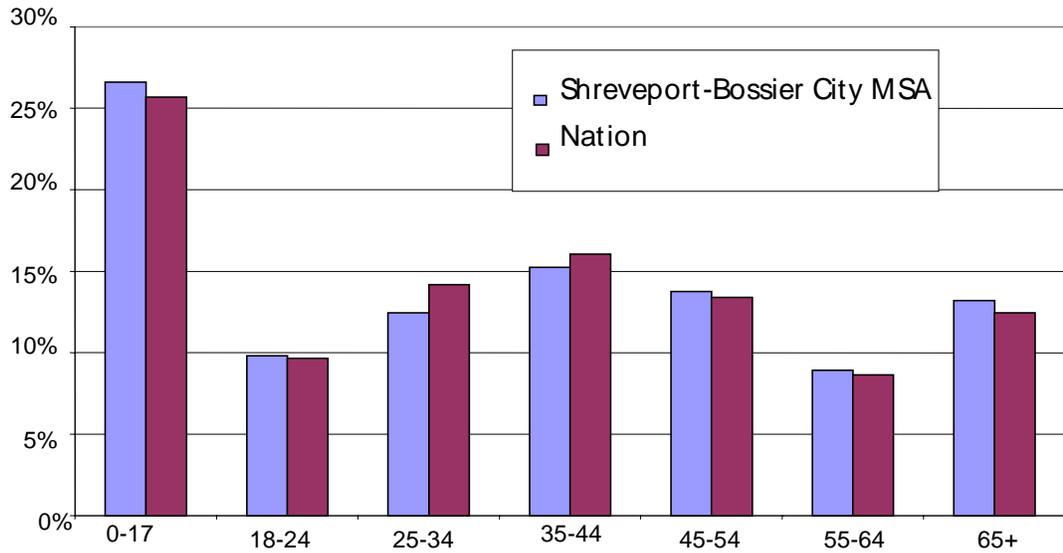
Table 4-2
Age Distribution Estimates & Projections
Shreveport-Bossier City MSA

	1990 Census		2002 Estimate		2007 Projection	CAGR ¹	
						1990- 2002	2002- 2007
Median Age	31		35		36	1.2%	0.4%
Age Distribution:							
0-4	29,789	7.9%	27,067	6.9%	25,953	6.5%	-0.8%
5-13	55,251	14.7%	52,240	13.3%	50,494	12.6%	-0.5%
14-17	22,524	6.0%	25,559	6.5%	26,553	6.6%	1.1%
18-24	36,458	9.7%	38,659	9.8%	28,346	7.1%	0.5%
25-34	60,439	16.1%	49,098	12.5%	44,505	11.1%	-1.7%
35-44	53,531	14.2%	60,018	15.2%	62,717	15.7%	1.0%
45-54	37,509	10.0%	54,138	13.7%	61,009	15.3%	3.1%
55-64	33,155	8.8%	35,169	8.9%	36,175	9.1%	0.5%
65-74	29,197	7.8%	27,301	6.9%	27,255	6.8%	-0.6%
75-79	9,168	2.4%	10,845	2.8%	11,443	2.9%	1.4%
80-84	6,163	1.6%	7,126	1.8%	7,536	1.9%	1.2%
85+	5,151	1.4%	6,719	1.7%	7,458	1.9%	2.2%

¹Compound annual growth rate.

Source: Demographic Now (SRI, Inc.).

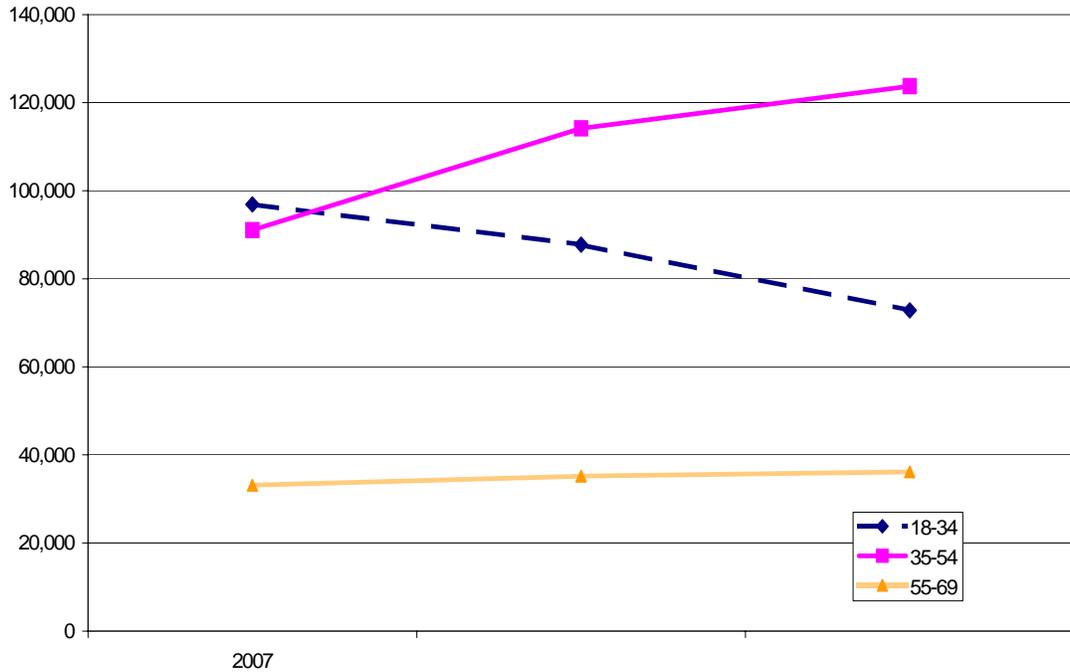
Figure 4-1
Age Distribution Comparison
Shreveport-Bossier City MSA & Nation



Source: Demographics Now (SRI, Inc.), U.S. Census Bureau (Census 2000), and ERA.

Figure 4-2 shows trends in workforce age cohorts. Overall, the workforce is growing. The graphic, however, shows a precipitous decline in the youngest workforce age group (18-34), while the older workforce age cohorts experience increases. If we were to underline the most grave finding of this economic analysis, it would be the loss of the youngest workforce age group (18-34) from Shreveport to the rest of the United States. There is anecdotal evidence to suggest that the emigration of young educated African-Americans is even higher than for young, educated Anglo-American. This is a serious concern deserving of a major concerted initiative in this Strategic Action Plan. This is the “seed corn” essential to the future growth and development of the Region. This “seed corn” can only be regained if there is a concentrated effort to invest in fertile social and economic soil in which productive human and social capital can grow!

Figure 4-2
Workforce Age Cohorts
1990-2007



Source: Demographics Now (SRI, Inc.), U.S. Census Bureau (Census 2000), and ERA.

Finally, as Figure 4-10 shows, the black population is much younger than the white population.

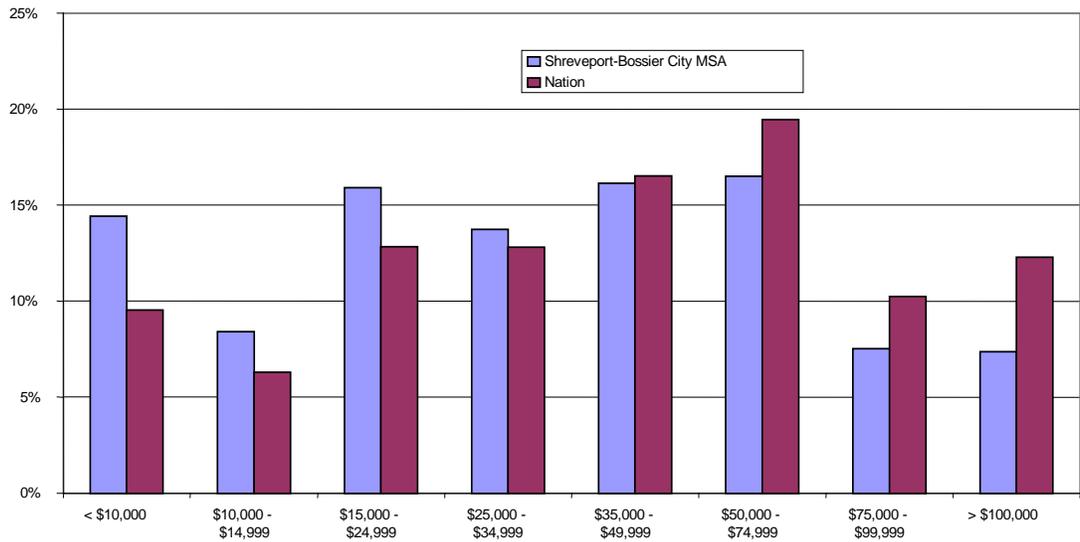
4.3.3 Household Income and Income Distribution

Figure 4-3 presents annual household income distribution in Northwest Louisiana compared with the nation as a whole. Northwest Louisiana has higher percentages of households in the categories below \$35,000 and lower percentages in categories above \$35,000.

Between the 1990 and 2000 Censuses, median household income in the Shreveport-Bossier City MSA grew at a rate of approximately 3.0 percent per year, compared with 3.4 percent average annual growth in the nation as a whole. By the 2000 Census, the Shreveport-Bossier City MSA had a median household income of \$32,558, which is only three quarters of the nationwide median of \$41,994, and this median level is less than 200% poverty level for a family of four, the income level used to determine eligibility for food stamps, school lunches, Head Start, Children’s Health Insurance (CHIP), and Low Income Home Energy Assistance (LIHEAP). Figure 4-4 presents income trends in Northwest Louisiana from 1990 to 2007.

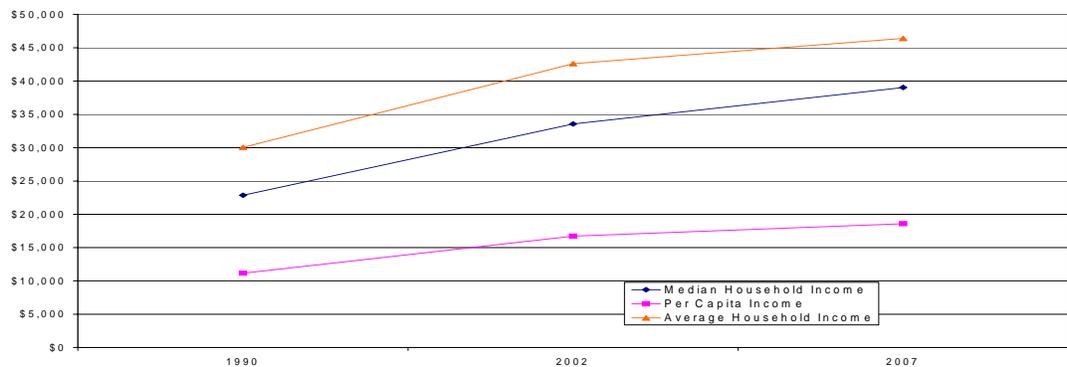
The map in Figure 4-5 presents the distribution of low- and moderate-income census tracts in the 10-Parish Northwest Louisiana Region, based on the 2000 Census. Low-income is defined as less than 50 percent of the regional median household income, while moderate-income is defined as between 50 and 80 percent of the region-wide median household income.

Figure 4-3
Household Income Distribution Comparison, 2000
Shreveport-Bossier City MSA & Nation



Source: U.S. Census Bureau (Census 2000) and Economics Research Associates.

Figure 4-4
Income Trends 1990-2007
Shreveport-Bossier City MSA

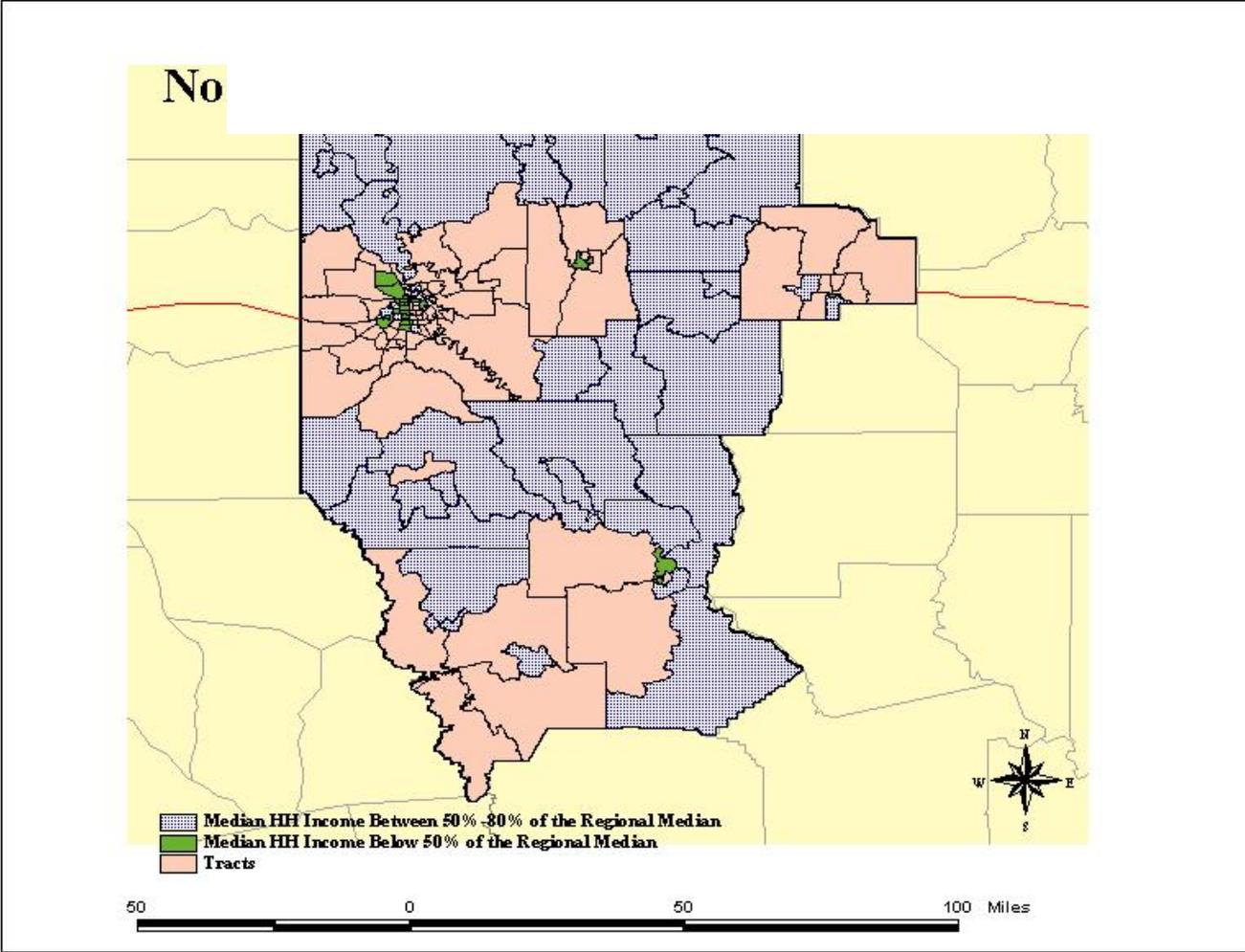


Note: 2002 is an estimate and 2007 is a projection.

Source: Demographics Now (SRI, Inc.).

Finally, Figure 4-11 shows a striking contrast between income in black households and that in white households. In fact, according to the 2000 Census, there were nearly three times as many black households than white households in Shreveport-Bossier City with annual income less than \$10,000. At the same time, there were more than twice as many white households than black households with annual incomes greater than \$75,000.

Figure 4-5
Low- and Moderate Income Census Tracts
Northwest Louisiana 10-Parish Region



Source: US Census Bureau (2000 Census) and Economics Research Associates.

4.3.4 Poverty Status

According to Table 4-3, as of the 2000 Census, there were 73,345 people living below the poverty line in the Shreveport-Bossier City MSA, more than 19.2 percent of the population, compared with 12.4 percent nationwide, or more than 50% more poverty in Shreveport-Bossier than in the nation. In fact, for every age category, the Shreveport-Bossier City MSA had a higher proportion of its population living in poverty than the nation as a whole. Poverty is highest among families with single-female heads of households, particularly for those with children. That is, the poverty of children is particularly acute in Shreveport-Bossier City: almost twice as high as the nation for children under five, and significantly higher in every category under 18 years of age.

Finally, as Table 4-3 shows, the poverty rate among blacks is also higher, not only when compared to general population, but also when compared with blacks nationwide. While less than 10 percent of whites live below the poverty line, comparable with the poverty rate among whites nationwide, more than one third of blacks live in poverty in Shreveport-Bossier City, compared with one quarter nationwide.

Table 4-3
Poverty by Age, 1999
Shreveport-Bossier City MSA and the United States

	Shreveport-Bossier City MSA		United States
	Population	%	%
Population¹	382,734	100.0%	100.0%
<u>Below poverty level:</u>²	73,345	19.2%	12.4%
Under 5 years	8,411	2.2%	1.2%
5 years	1,600	0.4%	0.3%
6 to 11 years	9,998	2.6%	1.5%
12 to 17 years	9,057	2.4%	1.3%
18 to 64 years	36,817	9.6%	6.9%
65 to 74 years	3,556	0.9%	0.6%
75 years and over	3,906	1.0%	0.6%

¹Population for whom poverty status has been determined.

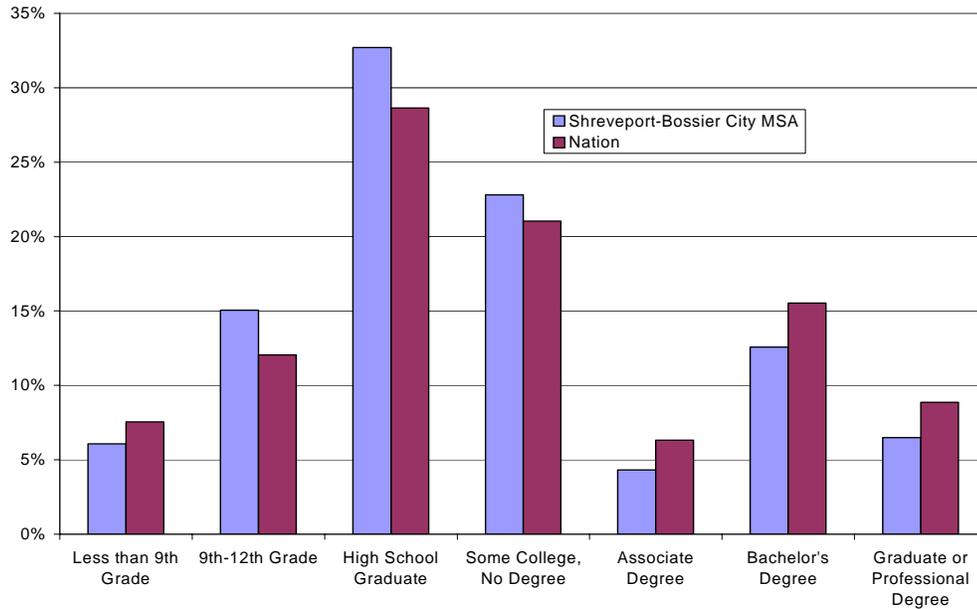
²Based on 1999 household income.

Source: U.S. Census Bureau Census 2000 and Economics Research Associates.

4.3.5 Educational Attainment

Figure 4-6 presents a comparison of educational attainment in Northwest Louisiana and the nation as a whole. It is evident that a lower percentage of Northwest Louisiana's population has more than a high school education, compared with the nation as a whole.

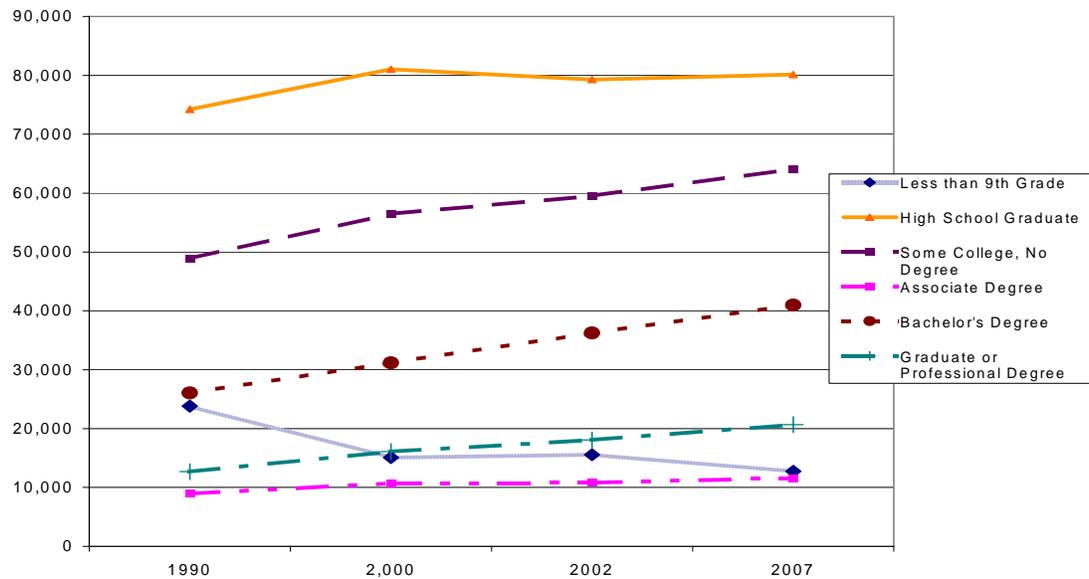
Figure 4-6
Comparison of Educational Attainment, 2000
Shreveport-Bossier City MSA and the United States



Source: U.S. Census Bureau (Census 2000) and Economics Research Associates.

Figure 4-7 presents educational attainment trends from 1990 through 2007 (projected). Between 1990 and 2000, Northwest Louisiana achieved a substantial reduction in the number of people with less than a 9th grade education, accompanied by an increase in population with higher levels of education. Projections suggest that the population with less than a 9th grade education will continue to decrease, the number of high school graduates will remain relatively constant over the next five years, while the percentage of those with higher levels of education will increase. Considering lower educational attainment, it is not surprising that the Shreveport-Bossier City MSA has lower college enrollment than the State of Louisiana and the nation as a whole, for both undergraduate and graduate students.

Figure 4-7
Educational Attainment Trends
Shreveport-Bossier City



Note: Figure shown for 2002 is an estimate; figure shown for 2007 is a projection.

Source: Demographics Now (SRI, Inc.), U.S. Census Bureau and Economics Research Associates.

As described above, Northwest Louisiana has a lower percentage of the population with education beyond high school. In this context, it is not surprising that enrollment in institutions of higher education is also lower than the state and the nation.

Table 4-4
Comparison of Higher Education Enrollment
Shreveport-Bossier City MSA, Louisiana & Nation

	United States		Louisiana		Shreveport-- Bossier City	
Population 3 Yrs+	270,076,176	100%	4,279,105	100%	375,893	100%
Enrolled In:						
College--						
undergraduate	14,375,764	5.3%	217,028	5.1%	16,377	4.4%
Grad/professional	3,107,498	1.2%	40,972	1.0%	3,268	0.9%
Not enrolled in school	193,443,249	71.6%	3,007,806	70.3%	268,838	71.5%

Source: U.S. Census Bureau (Census 2000) and Economics Research Associates.

4.3.6 Workforce Status

According to the 2000 Census, approximately 61 percent of the Shreveport-Bossier City MSA’s working age population (ages 16 and over) is in the workforce, compared with 64 percent nationwide. Some 60 percent of the working age population is in civilian employment, with an additional 2 percent in the armed forces. The MSA’s civilian unemployment rate is just slightly higher than the nationwide unemployment rate (Table 4-5).

Finally, labor force participation is lower among blacks and unemployment is higher. More blacks are unemployed, under employed and no longer in the work force than are whites (Figure 4-13).

The 68% of African-Americans with a high school education or less is coincident with the 68% of African-Americans who earn less than \$35,000 annually or 200% of poverty level, for a family of four, and thus eligible for many public services such as food stamps.

Table 4-5
Labor Force Status
Shreveport-Bossier City MSA and the Nation

	Shreveport--Bossier		United States	
	City MSA			
Total Employment	299,079	100%	217,168,077	100%
In labor force	183,835	61%	138,820,935	64%
In Armed Forces	4,954	2%	1,152,137	1%
Civilian	178,881	60%	137,668,798	63%
Employed	164,171	55%	129,721,512	60%
Unemployed	14,710	5%	7,947,286	4%
Not in labor force	115,244	39%	78,347,142	36%

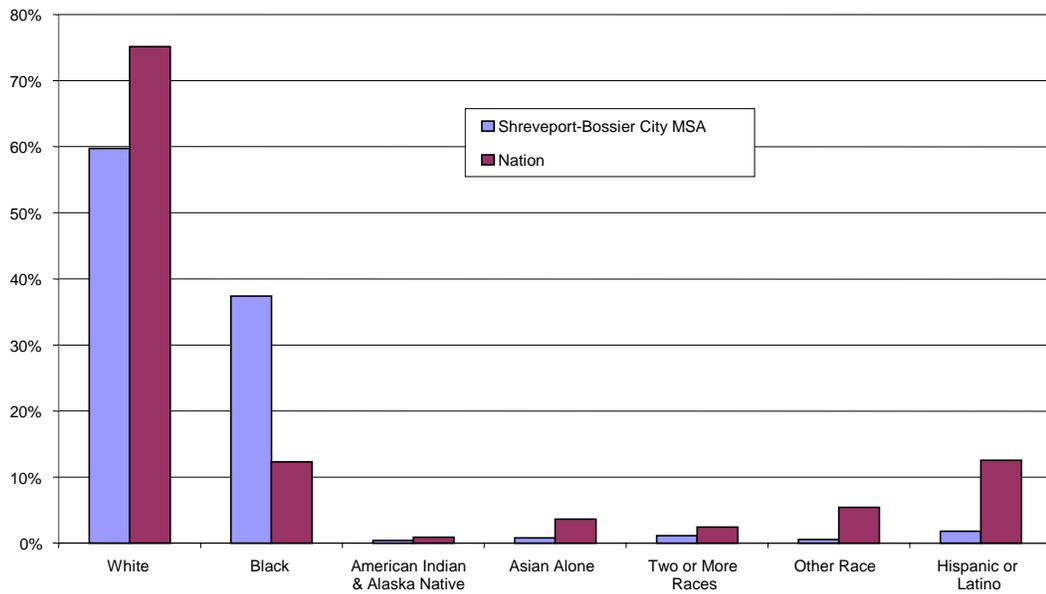
Source: U.S. Census Bureau (2000 Census) and Economics Research Associates.

Finally, there is substantial disparity in educational attainment between blacks and whites in Shreveport-Bossier City. As Figure 4-12 shows, the percentage of people having only a high school diploma or less is much higher among blacks, and the percentage of people having college degrees is higher among whites.

4.3.7 Race & Ethnicity

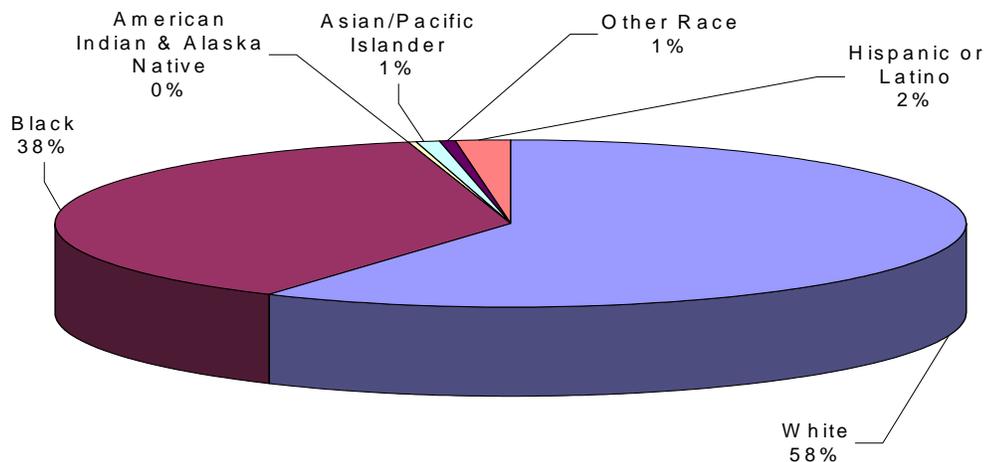
Figure 4-8 presents the current racial and ethnic composition of Northwest Louisiana while Figure 4-9 presents a comparison with the nation as a whole. As shown, Northwest Louisiana has lower percentages of whites, Hispanics, Asians, and other races/ethnicities and a higher percentage of blacks when compared with the nation as a whole.

Figure 4-8
Race & Ethnic Composition
2002 Estimates



Source: Demographics Now (SRI, Inc.).

Figure 4-9
Race & Ethnicity Comparison
Shreveport-Bossier City MSA & United States (2000)



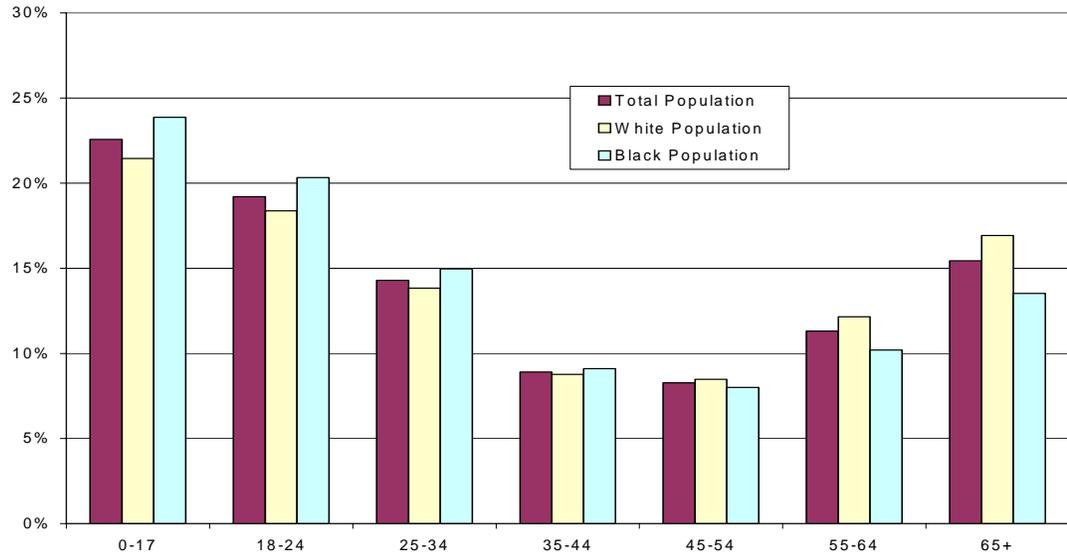
Source: Demographics Now (SRI, Inc.) and U.S. Census Bureau (Census 2000).

4.3.8 Racial Inequity

When examined more closely, several of the demographic indicators discussed above reveal substantial differences between the white population and black population. Because Blacks make up nearly 40 percent of the regional population, these differences have serious implications for economic development in the Northwest Louisiana region:

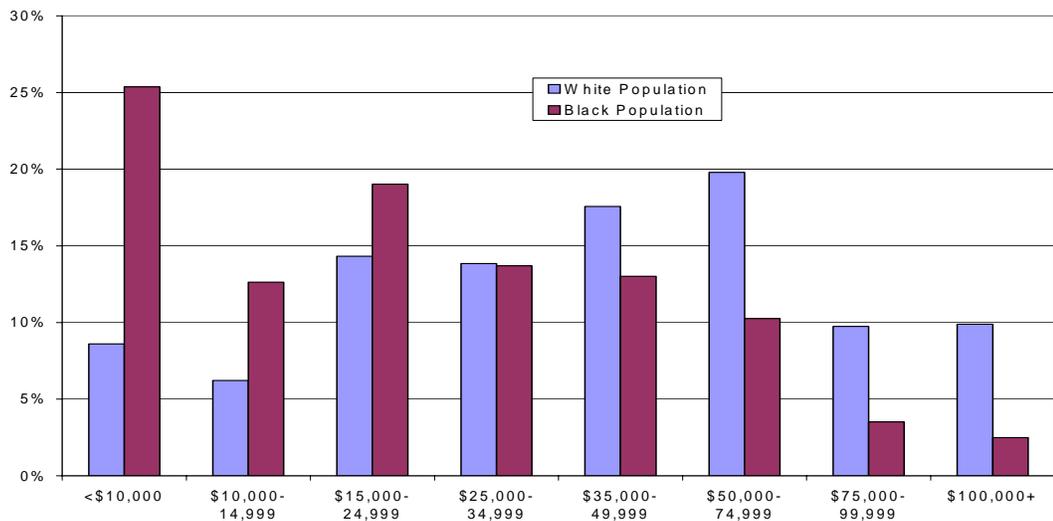
- ✓ Age: As Figure 4-10 demonstrates, the black population is much younger than the white population.
- ✓ Household Income: Figure 4-11 shows a stark contrast between income in black households and that in white households. In fact, according to the 2000 Census, there were nearly three times as many black households with annual incomes less than \$10,000 than white households. At the same time, there were more than twice as many white households with annual incomes greater than \$75,000 compared with black households.
- ✓ Poverty: The poverty rate among blacks is also higher, not only when compared to general population, but also when compared with blacks nationwide. While less than 10 percent of whites live below the poverty line, comparable with the poverty rate among whites nationwide, more than one third of blacks live in poverty, compared with one quarter nationwide.
- ✓ Education: There is substantial disparity in educational attainment between blacks and whites. As Figure 4-12 shows, the percentage of people having only a high school diploma or less is much higher among blacks and the percentage of people having college degrees is higher among whites.
- ✓ Workforce Participation, Employment and Unemployment: Labor force participation is lower among blacks and unemployment is higher. More blacks are unemployed, under employed and no longer in the work force than are whites (Figure 4-13).
- ✓ Community health indices are much poorer for blacks in Caddo and Bossier Parishes than for blacks in Louisiana or the nation. Although prenatal care is higher for whites in Caddo and Bossier Parishes than for Louisiana, prenatal care is lower for blacks in Caddo and Bossier Parish than in the State. Similarly, low birth rate is higher for blacks in these parishes than for blacks in the state. Teenage pregnancy is twice as high in Bossier Parish for blacks and three times higher in Caddo Parish than it is for whites. Black infant mortality is 40% higher in Caddo Parish than in the state as a whole (although white infant mortality is lower), and black infant mortality in both parishes is twice as high as white infant mortality.

Figure 4-10
Age Distribution Comparison: Blacks & Whites
Shreveport-Bossier City MSA



Source: U.S. Census Bureau (Census 2000).

Figure 4-11
Household Income Distribution Comparison: Blacks & Whites
Shreveport-Bossier City MSA



Source: U.S. Census Bureau (Census 2000).

Table 4-6
Comparison of Poverty between Blacks and Whites
Shreveport-Bossier City MSA

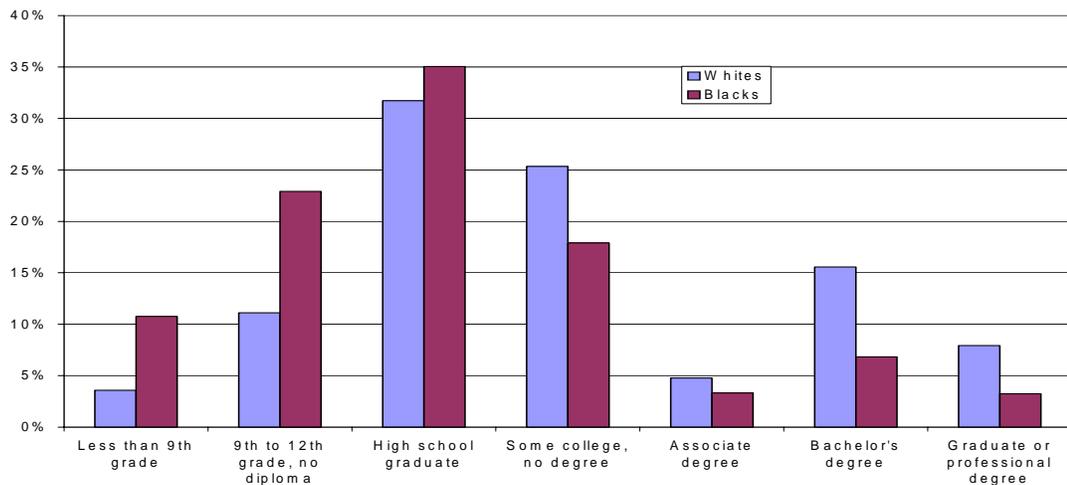
	White Population			Black Population		
	Shreveport-- Bossier City MSA		United States	Shreveport-- Bossier City MSA		United States
	Pop.	%	%	Pop.	%	%
Population ¹	228,958	100.0%	100.0%	142,312	100.0%	100.0%
Below poverty level:	20,402	8.9%	9.1%	50,957	35.8%	24.9%
Under 5 years	1,677	0.7%	0.8%	6,424	4.5%	3.0%
5 years	362	0.2%	0.2%	1,222	0.9%	0.6%
6 to 11 years	1,717	0.7%	0.9%	8,113	5.7%	3.9%
12 to 17 years	1,620	0.7%	0.8%	7,278	5.1%	3.1%
18 to 64 years	11,930	5.2%	5.3%	23,724	16.7%	12.4%
65 to 74 years	1,303	0.6%	0.5%	2,151	1.5%	1.0%
75 years and over	1,793	0.8%	0.6%	2,045	1.4%	0.9%

¹Population for whom poverty status has been determined.

²Based on 1999 household income.

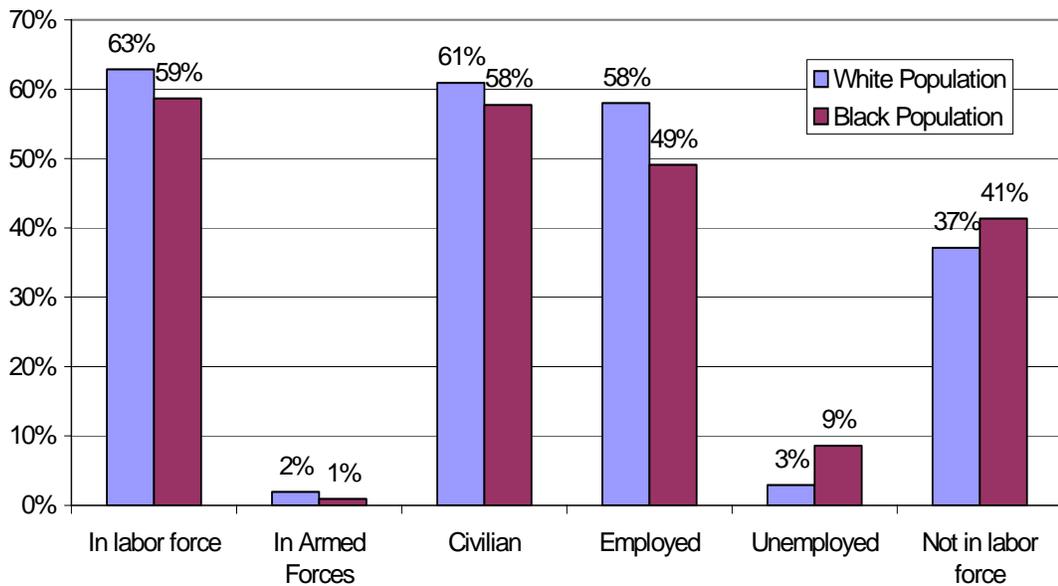
Source: U.S. Census Bureau Census 2000 and Economics Research Associates.

Figure 4-12
Educational Attainment Comparison: Blacks and Whites
Shreveport-Bossier City MSA



Source: U.S. Census Bureau (2000 Census).

Figure 4-13
Comparison of Unemployment among Blacks and Whites
Shreveport-Bossier City MSA



Source: U.S. Census Bureau (2000 Census) and Economics Research Associates.

4.3.9 Incidence of Crime

The majority of crime in Shreveport and Bossier City is non-violent property crime as shown in Table 4-7. Violent crime is led by aggravated assault/battery, which included domestic violence.

Table 4-8 presents the number of incidents, by type of crime, for 2000. At this time, 2001 population is not available. For comparison, nationwide there were 5.07 violent crimes per 1,000 people in 2000, which is half the rate of Bossier City or Shreveport.

Table 4-7
2000-01 Crime Comparison
Shreveport & Bossier Cities

Type of Crime	Shreveport			Bossier City		
	2001	2000	Change	2001	2000	Change
Homicide	36	56	-36%	5	6	20%
Rape	113	113	0%	37	23	-38%
Armed Robbery	535	594	-10%	90	66	-27%
Aggravated Assault/ Battery	1,255	1,232	2%	423	472	12%
Burglary	3,303	3,311	0%	571	608	6%
Theft	8,281	10,206	23%	2,967	2,937	-1%
Auto Theft	1,120	1,019	10%	304	315	4%
Total	15,563	17,505	-11%	4,413	4,463	1%
Violent Crime	1,939	1,995	-3%	465	501	1%
% Violent Crime	12%	11%		11%	11%	
Property Crime	13,624	15,510	-12%	3,377	3,354	1%
% Property Crime	88%	89%		77%	75%	

Source: Shreveport & Bossier City Police Departments and Economics Research Associates.

Table 4-8
Incidence of Crime per 1,000 of Population
2000

	Shreveport	Bossier City
2000 Population	200,145	56,461
Type of Crime		
Homicide	0.28	0.11
Rape	0.56	0.41
Robbery	2.97	1.17
Aggravated Assault/Battery	6.16	8.36
Burglary	16.54	10.77
Theft	50.99	52.02
Auto Theft	5.09	5.58
Total	87.46	79.05
Violent Crime	9.97	8.87
Property Crime	77.49	59.40

Source: Shreveport & Bossier City Police Departments and Economics Research Associates.

4.3.10 Community Health

In Northwest Louisiana, community health indicators, as with other economic and social indicators reveal glaring discrepancies between the living conditions of blacks and whites. Table 4-9 presents a comparison of birth indicators by race of mother. This data shows that while blacks have a higher crude birth rate – number of births per total population, regardless of sex or age – they have a lower percent of births with adequate prenatal care and more than twice the rate of low birth weight. Though these trends are present in the State of Louisiana as a whole, they are more pronounced in Bossier and Caddo Parishes. That is, black prenatal care is less adequate in both Bossier and Caddo Parish than the State of Louisiana as a whole, although white prenatal care is higher in both Bossier and Caddo Parish than in the state. Similarly low birth weight and teenage pregnancy is higher for blacks in Caddo Parish than for blacks in the state. Blacks also have a far higher rate of teenage pregnancy. In Bossier Parish, the rate of teenage pregnancy among blacks is twice that of whites, and in Caddo Parish it is nearly three times as high.

Statewide, infant mortality is more than twice as high for blacks as whites, and the disparity is more pronounced for Bossier Parish and most pronounced in Caddo Parish. Though the infant mortality rate for whites in Caddo Parish is below the Statewide level for whites, the infant mortality rate for blacks is nearly 40 percent higher than for blacks statewide.

Substance abuse is another important indicator of community health. Figure 4-14 presents trends in drug related arrests in Bossier and Caddo Parishes between 1994 and 1998. Drug related arrests increased during the mid-1990s more rapidly than overall population growth, and more so in Caddo Parish than Bossier. Another measure of substance abuse, treatment admissions, is shown in Table 4-11. In 1999, cocaine/crack accounted for the highest number of admissions, followed by alcohol and marijuana/hashish. At the same time, blacks account for much higher percentages of treatment admissions for these substances than whites. Whites have higher percentages of treatment admissions for heroin and methamphetamine, although the overall incidences for these harder drugs are lower.

Overall, the economic impact of the healthcare industry in the region does not translate into better health for poor and black citizens, despite the fact that all three medical centers make very large contributions to community health efforts.

Three zip codes in Shreveport, which are predominantly African-American in Shreveport, have infant mortality rates at 2 1/2 to 3 1/2 the national average of 7.2 per 1,000 births.

Table 4-9
Comparison of Birth Indicators by Race of Mother, 2000

	Total Births	Crude Birth Rate ¹	% with Adequate Prenatal Care	% Low Birth Weights (<5lbs, 8oz.)	% Births to Mothers Under Age 20
Louisiana	67,843	1.52%	78.0%	10.2%	17.0%
White	37,946	1.31%	86.1%	7.1%	12.1%
Black	28,335	1.93%	67.1%	14.6%	23.9%
Other	1,562	1.48%	76.9%	8.1%	10.2%
Bossier Parish	1,529	1.56%	80.5%	9.2%	14.1%
White	1,087	1.45%	87.1%	7.4%	11.7%
Black	410	1.96%	62.4%	14.1%	20.7%
Other	32	1.24%	90.3%	7.5%	9.4%
Caddo Parish	3,839	1.52%	71.1%	11.9%	18.8%
White	1,608	1.19%	88.0%	7.5%	10.9%
Black	2,177	1.92%	58.2%	15.4%	25.0%
Other	54	1.57%	88.9%	8.8%	3.7%

¹Live births to total population.

Source: "2002 Louisiana Health Report Card" (Louisiana Department of Health and Hospitals Office of Public Health) and Economics Research Associates.

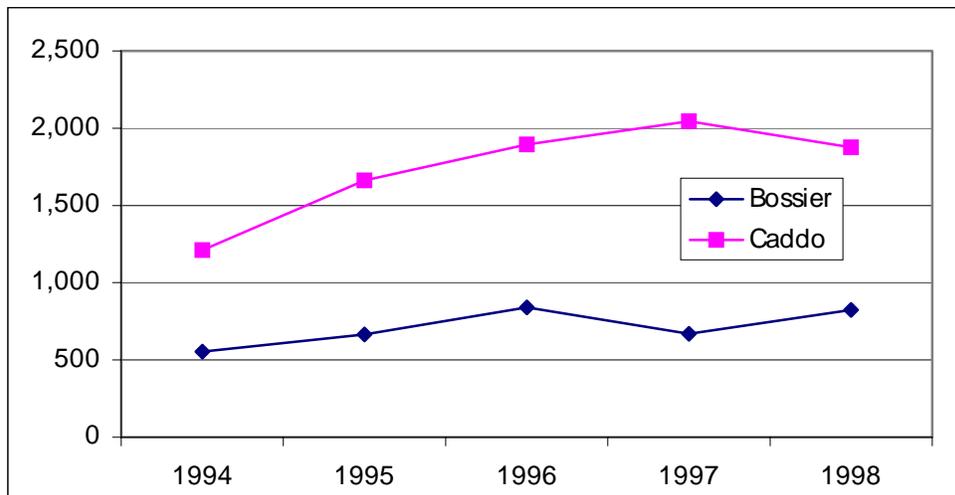
Table 4-10
Infant Mortality by Race of Mother, 1996-2000

	2000 Number of Infant Deaths	2000 Infant Mortality Rate (per 1,000 births)	1996-2000 Infant Mortality Rate (per 1,000 births)
Louisiana	603	8.9	9.1
White	222	5.9	6.2
Black	374	13.2	13.5
Other	7	4.5	4.3
Bossier Parish	17	11.1	8.9
White	9	8.3	6.6
Black	7	17.1	14.5
Other	*	31.3	13.6
Caddo Parish	52	13.5	12.7
White	7	4.4	5.6
Black	45	20.7	18.7
Other	-	-	0.0

* = More than 0 but less than 5.

Source: "2002 Louisiana Health Report Card" (Louisiana Department of Health and Hospitals Office of Public Health) and Economics Research Associates.

Figure 4-14
Drug Related Arrests in Bossier & Caddo Parishes
1994-1998



Source: "Drug Abuse Patterns and Trends (September 2000)" Department of Health and Hospitals Office for Addictive Disorders.

Table 4-11
Treatment Admissions by Primary Drug of Abuse
1999

	Total	Cocaine Marijuana Methamph					Other
		Heroin	Alcohol	/ Crack	/ Hashish	etamine	
Bossier -- Total	196	0	83	61	39	0	13
Primary Drug %							
Black		0.0%	35.0%	44.3%	41.0%	0.0%	7.0%
White		0.0%	65.0%	54.1%	59.0%	0.0%	92.3%
Other		0.0%	0.0%	1.6%	0.0%	0.0%	0.0%
Caddo -- Total	1530	8	513	684	231	8	86
Primary Drug %							
Black		12.5%	42.1%	71.2%	53.7%	0.0%	19.8%
White		62.5%	54.0%	25.3%	45.9%	100.0%	80.2%
Other		25.0%	3.9%	3.5%	0.4%	0.0%	0.0%

Source: "Drug Abuse Patterns and Trends (September 2000)" Department of Health and Hospitals Office for Addictive Disorders.

Table 4-12
Child Abuse and Neglect in Caddo Parish
FY 1998

	Number of Children		
	White	African American	Total (All Races)
Abuse and Neglect (# of children)	251	769	1,030
Physical Abuse	53	128	182
Neglect	163	586	751
Sexual Abuse	15	31	50
Children in Foster Care	109	417	529

Source: TDS Count.

4.4 Community Resource Inventory

Based on the Community Needs Analysis in Volume I, Section 4.3, this section examines the capacity of community resources to contribute to increased individual, family and community prosperity.

Primary and Secondary Education does not equally serve both the black and white communities in Shreveport-Bossier City; far fewer blacks graduate from high school than

whites, and far more whites have two year, four year or graduate college degrees. Moreover, a majority of all primary and secondary schools in both cities are academically below average (Volume I, Section 4.4.1)

Workforce Education and Training is now being given increased emphasis in the state and region, but efforts are still uncoordinated and not responsive to either employer or employee needs (Volume I, Section 4.4.2)

Higher Education is noted in Volume I, Section 4.4.3, but described in detail as an economic base industry in Volume I, Section 3.7. Some parts of the industry are still under performing in its ability to meet the needs of its citizens, corporations and new enterprises.

Healthcare Services are the largest economic base industry in the Metropolitan Region, but collectively this industry is not able to meet the needs of individuals, families in low and moderate-income neighborhoods of Shreveport-Bossier City (Volume I, Section 4.4.4).

Affordable Housing is not available in appropriate quantity or quality at an affordable price. Only 12% of homeowners in Shreveport are minority, and 70% of all housing units, mostly rental, are substandard (Volume I, Section 4.4.5).

Public Transportation does not meet the needs of low income entry level workers whose jobs in 24/7 healthcare and casino hotels often begin or end before or after 'SPORTTRANS' 6am-8pm Monday-Saturday schedule or eight hour Sunday schedule. Moreover, a limited route structure and only one transfer point does not serve many poor neighborhoods (Volume I, Section 4.4.6).

Child Care Services cover only one-third of the 31,023 children of preschool age in the 40,280 eligible families, and none of the 50,000 elementary and secondary school age children. Yet, again, many entry-level jobs are in the 24/7 healthcare and gaming industries, and these 24/7 childcare needs are not available at nighttime or on weekends for low-income entry-level workers whose first job opportunities are often late night shifts (Volume I, Section 4.4.7).

Community development and social services have grown significantly over the past decade, but suffer from lack of integrated planning, measurement and accountability to a single index of community wellness (Volume I, Section 4.4.8).

Community banking and financial services are plentiful in the abstract, but do not payoff in measurable housing repair and construction in low-income neighborhoods, or business formation for minority and women owned small enterprise because of an absence of well managed and well capitalized intermediaries to create acceptable product that works equally well for financial institutions, municipalities and neighborhood organizations (Volume I, Section 4.4.9)

Job and wealth creation for low-income residents suffers from a similar lack of adequate management and financial intermediaries.

4.4.1 Primary and Secondary Education

The table below presents the data from the Louisiana State Department of Education regarding school performance in Caddo and Bossier Parishes. A majority of schools in both parishes, Caddo and Bossier, ranked academically below average, with just 46 percent of schools in both parishes, Caddo and Bossier, ranking above average or better. Though the number of Schools of Academic Achievement increased by eight between the 1998-99 and 2001-02 school years, the number of Academically Below Average schools increased by nine and the number of Academically Above Average schools decreased by two.

Table 4-13
Academic Performance Trends
Caddo & Bossier Parish Schools

School Performance Category	1998-99		2001-02		Increase/ Decrease
	Schools	% of Schools	Schools	% of Schools	
Academically Below Average	42	53.8%	51	54.3%	9
Academically Above Average	20	25.6%	18	19.1%	-2
School of Academic Achievement	12	15.4%	20	21.3%	8
School of Academic Distinction	3	3.8%	3	3.2%	0
School of Academic Excellence	1	1.3%	2	2.1%	1
Total Schools	78	100.0%	94	100.0%	16

Source: Louisiana State Department of Education, Accountability School Performance Report.

The table below presents the Louisiana Board of Education's assessment of improvement in Bossier and Caddo Parish schools between 2000 and 2001. The majority of schools attained Exemplary Academic Growth or Recognized growth, however approximately 15 percent of schools achieved only Minimal Academic Growth or No Growth at all.

Table 4-14
Academic Growth (Improvement Measures) 2000 - 2001
Caddo & Bossier Parish Schools

Growth Label	Schools	% of Schools
Exemplary Academic Growth	32	34.0%
Recognized Academic Growth	25	26.6%
Minimal Academic Growth	9	9.6%
No Growth	4	4.3%
No Label Was Assigned	5	5.3%

Source: Louisiana State Department of Education, Accountability School Performance Report.

In 2000, the not-for-profit Alliance for Education was established by a group of community leaders that believed public education is the responsibility of both educators

and the community as a whole. These leaders and the Alliance worked with the education system to focus on a series of projects to promote improvement and innovation at the school system, school building, and classroom level. Included in the work is a focus on professional development, after school initiatives, character development, educational grant programs, and recognition of schools of Exemplary Academic Growth.

The Alliance also hosts the Caddo Citizen Education Taskforce, which is specially focused on improving the learning environment for the children of Caddo Parish. This subgroup is providing a needs assessment to the community by visiting every school in the parish; surveying over 3000 educators and parents; and holding community forums for input.

As a result of the Alliance for Education's work over the past two years, a set of Strategic Actions are beginning to emerge which are summarized in Volume II, Section 3.1 below.

On July 1, 2003 Ollie S. Tyler became the new Superintendent of the Caddo Parish Schools for a three year contract. She served as interim Superintendent of the Orleans Parish School from July, 2002 to February 28, 2003. She served as the Deputy Superintendent of the Orleans Parish from February, 2000 to July, 2002.

She is currently working on a "School Choice" Plan which was presented to the Board the week of August 4, 2003. Superintendent Tyler embraced the work of the Alliance and the Caddo Citizen Education Taskforce when she previously served in the Caddo School System, and this relationship is expected to grow with her return.

4.4.2 Workforce Education and Training

Since its inception in Act 1 of 1997, the Louisiana Workforce Commission has sought to coordinate and align the state's combined \$800 million annual investment in workforce education and training across two dozen boards, funding streams, and agencies.

Northwest Louisiana faces the same coordination challenge: two separate Workforce Investment Board's (WIB #70 serves the ten-parish region of Northwest Louisiana; WIB #71 serves the City of Shreveport), one community college and 11 Louisiana Technical College campuses are seeking to craft a regional approach, with input from the many private and public universities in the region and two separate Tech Prep consortia. Perhaps most importantly, the demander large and small employers need to join the training suppliers, as well as the workers at the table. For example, most of the region's share of a statewide \$50 million annual investment in Incumbent Worker Training Program (IWTP, paid by the payroll tax) benefits large employers. The proposed New Workforce Consortium (Volume II, Section 5.2) could serve as a facilitator to help bring all of these interests to the table, and could help create a mechanism so that, as a part of the Consortium, small enterprise could apply for Incumbent Worker Training Funds. The Shreveport-Bossier Manufacturing Management Council, described in Volume I, Section 3.4 above, could play a key role in the New Consortium in helping to insure that employers' needs are met.

The multi-agency Louisiana Workforce Commission works with statewide business associations and state agencies to plan and deliver services through eight multi-parish geographic/economic planning regions or Labor Market Areas (LMAs). The Louisiana Occupational Forecasting Conference forecasts high demand occupations for these eight Regional Labor Market areas. The Forecasting Conference is staffed by the Louisiana Workforce Commission and the Louisiana Department of Labor. The Conference has recently issued its preliminary draft of its next ten-year forecast of jobs for top demand occupations, both statewide and by region, including Northwest Louisiana. This forecast is updated every other year. The Occupational Forecasting Conference is now scheduling a round of regional forums for input by local chambers of commerce, economic developers, Workforce Investment Boards [WIBs], trade associations and educational institutions before completing the forecast. The final draft forecast is expected to be available in October 2003. More information can be found on www.laworkforce.net/ofc.

Northwest Louisiana can emulate these state coordination efforts at the regional level.

Employers who generate jobs that need to be filled, workforce suppliers who train workers for jobs, and workers who need jobs and skills, must work together to create a regional workforce capable of meeting current market needs and the emerging opportunities of the knowledge economy— ensuring a vibrant, diversified economy and economic opportunity for all citizens.

The most pressing need is for a single, concerted effort that will bring three groups together around a simple idea— *train workers for jobs businesses need to fill*. This new Workforce Consortium would represent:

- ✓ employers large and small with jobs to fill and training needs to be met,
- ✓ workforce education/training suppliers, including the two separate Workforce Investment Boards (WIB #70, serving the ten-parish region of Northwest Louisiana and WIB #71 serving the City of Shreveport), the community and technical colleges, universities and the two Tech Prep consortia serving the Northwest Louisiana, and
- ✓ representatives of workers who need jobs and skills.

This new Workforce Consortium could be based on the most comprehensive current operating model, Enterprise Florida's Workforce Florida, Inc. Workforce Florida, Inc.'s Board is composed of all of these leadership groups and, in turn, oversees three Workforce Councils. One of these Councils—"High Skills/High Wages"—aligns Florida's education and training programs with higher-paying, high demand jobs that rewards educator/trainers who graduate workers to these jobs (see Volume II, Appendix 8).

The Lafayette Economic Development Authority (LEDA) is an exemplary, multi-parish collaborative that similarly unites workforce education and training and economic development efforts in the Acadiana region of the state.

The proposed "Common Ground" Northwest Louisiana Regional Development Corporation (Volume II, Section 6.0) could facilitate the coordination of all educational

organizations K through 12 (Volume II, Section 5.1), Workforce Education and Training (Volume II, Section 5.2) and higher education (Volume II, Section 5.3) in a regional consortium approach. Again, the Manufacturing Managers Council could play a useful role.

In the fall of 2002 a statewide Governor-appointed Skills Gap Task Force, created by the Legislature, analyzed causes and strategies for closing the state's serious skills gap. The gaps and solutions apply to most of Louisiana's eight regions, some particularly to Northwest Louisiana. Fortunately for Northwest Louisiana, some regions have implemented exemplary practices to close their skills gaps, and this region can benefit from their designs: high school academies aligned with *Vision 2020* clusters in MetroVision (New Orleans area), school-based enterprises, Career Builders (an intermediary) in the Capital Area, the Southwest Louisiana Literacy Coalition, and others.

The proposed "Common Ground" Northwest Louisiana Regional Development Corporation (Volume II, Section 6.0) could help overcome current barriers that prevent education/training partners and economic development organizations from working effectively together.

The Louisiana Skills Gap Task Force documented a growing gap between the knowledge and skills Louisiana citizens possess and those required to meet current market needs as well as emerging opportunities of the knowledge economy.

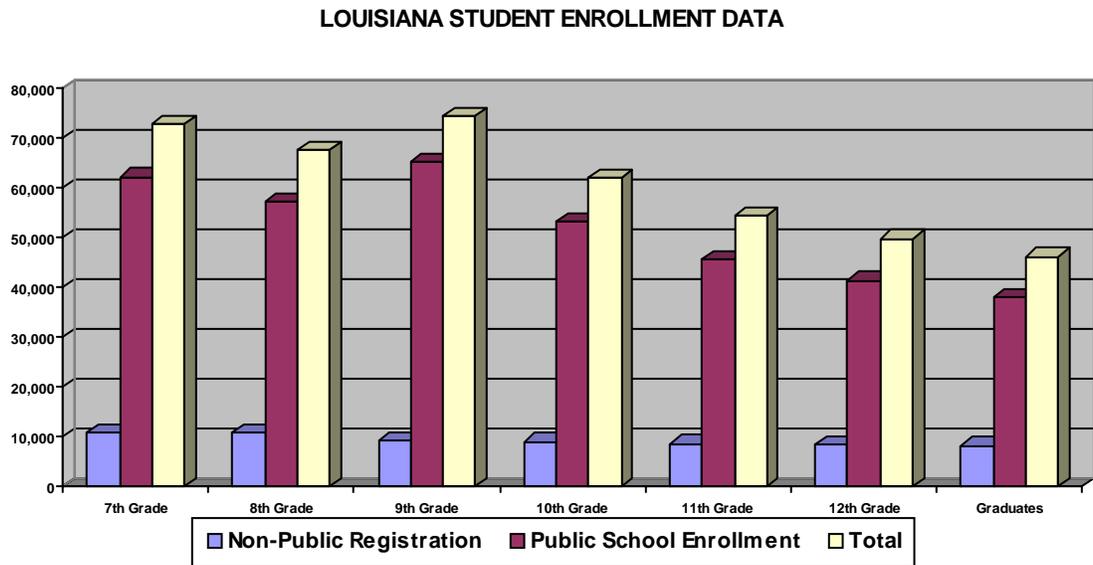
The Skills Gap Task Force gleaned at least four implications from the mismatch illustrated in *The Workforce Gap*. The conclusions apply equally to Northwest Louisiana:

- ✓ Improve completion rates of students who enroll in four-year universities. According to the Council for a Better Louisiana, only 35% of the state's entering college freshmen graduated within six years.
- ✓ Encourage more Louisiana students and adults to pursue associate's degrees or advanced training to fill the 65% of good jobs coming on line every day in the technology-intensive knowledge economy. Louisiana currently ranks 50 out of the 50 states in the proportion of citizens who hold an Associate's Degree (1.22%).
- ✓ Ensure that the 33% who plan to enter employment directly from high school are prepared. Those who graduated and indicated that they planned to enter the labor market directly after high school will need knowledge and skills, validated by portable credentials, to succeed and advance up the wage scale.
- ✓ Address the 34% of students who leave the education pipeline before completing high school. Whether from out-migration, dropping out, incarceration, or too-early childbearing, the economic effect is the same. These young people represent an intolerable loss of potential workers and talent from every region's economic and workforce development system.

The proposed "Common Ground" Northwest Louisiana Regional Development Corporation (Volume II, Section 6.0) could assemble comparable data for the Northwest Louisiana region.

A second skills gap documented by the Louisiana Skills Gap Task Force is the shrinking of the region’s prime age workforce. This shrinkage results from falling birth rates; out-migration of younger, more educated families; large numbers of aging, skilled workers nearing retirement; and the leaking of excessive amounts of human potential from the region’s talent pool. The graph below illustrates the loss of students from Louisiana’s education pipeline, both public and private schools, from 1996-2001. Figure 4-2 documents a similar precipitous loss of the youngest 18-34 workforce age cohort decline in the Shreveport-Bossier region and an increase in the 35-54 workforce age cohort.

Table 4-15
Northwest Louisiana Prime Age Workforce



Source: LSUS

A major finding of both Southern Growth Policy Board and Louisiana Skills Gap Task Force researchers was that Louisiana loses far too many learners who exit early and do not return to the education pipeline, as Figure 4-15 attests.

A third recommendation of the Louisiana Skills Gap Task Force, reflected also in Southern Growth Policy Board’s *The Mercedes and the Magnolia*, is to increase client control (that is, jobseekers/workers and employers) over workforce preparation. The workforce system will be more effective and rewarding to all stakeholders if the private sector assumes a significantly higher level of responsibility and accountability for system outcomes through genuine partnerships between employers, jobseekers/workers and education/training providers. Again, the proposed “Common Ground” Northwest Regional Development Corporation (Volume II, Section 6.0) could be an ideal regional convener of an employer/worker/educational training provider system as proposed in the New Workforce Consortium, Volume II, Section 5.2.

Communities throughout Northwest Louisiana need to work with workforce-related agencies to identify and help develop under-represented groups as sources of talent and potential. Under represented groups include dropouts, low-income parents, pregnant and parenting teens, immigrants, court-involved youth, ex-felons, learners with disabilities, low-literate workers, youth who fail high stakes tests, and others. The proposed Shreveport-Bossier Comprehensive Community Development Corporation (Volume II, Section 2.0) could help address this problem.

The Louisiana Workforce Commission promotes the role of intermediaries, such as CERT (Consortium for Education, Research and Technology, Volume I, Section 3.7.1) in North Louisiana, Career Builders in the Capital area, and MetroVision in New Orleans, to promote partnering between business and education at all levels. If fully staffed, CERT, in partnership with the proposed “Common Ground” Northwest Louisiana Regional Development Corporation (Volume II, Section 6.0) can serve regional intermediary valuable functions: convening partners (MST consortium and bioinformatics), fashioning agreements (articulation of Teacher Cadet), drafting grant proposals (NSF) and marketing higher education services to firms. Most importantly, the New Workforce Consortium (Volume II, Section 5.2) is essential to bring the demander/employers (large and small), the trainer/suppliers (community colleges, technical colleges, universities, etc.) and workers into an effective, results oriented, performance-based New Workforce Consortium (Volume II, Section 5.2).

4.4.3 Higher Education Services

Higher education is both an economic base industry and a key resource for training high quality workers and attracting growing enterprise. Because of its importance as an Economic Base Industry, Higher Education is described in Volume I, Section 3.7. The industry recently rationalized its regional responsibilities, with the help of the Consortium for Education, Research and Technology (CERT, Volume I, Section 3.7.1) and the Board of Regents, but some parts of the industry are still under performing in its ability to meet the needs of the region’s citizens, major industries and new enterprises.

4.4.4 Healthcare Services for Residents

The Shreveport-Bossier area is the healthcare center for Northwest Louisiana and the larger Ark-La-Tex Region. As discussed in Volume I, Section 3.3 (Medical, Biomedical and Healthcare Services), the Shreveport-Bossier City MSA has substantially more healthcare workers per 1,000 residents than the nation as a whole (68 in Shreveport-Bossier City versus 50 nationwide). This is due in large part to the fact that the Shreveport-Bossier City metro area serves the larger regional population living in surrounding rural areas. Healthcare is, in fact, the largest economic base industry in Northwest Louisiana, employing more than 27,000 workers (Volume I, Section 3.3). There are 21 hospitals with 3,500 beds and 1,241 doctors in the metropolitan area. Major healthcare institutions in Northwest Louisiana include Willis-Knighton Health Systems (Volume I, Section 3.3.1), CHRISTUS Schumpert Health System (Volume I, Section 3.3.2), the LSU Health Sciences Center (Volume I, Section 3.3.3), Overton Brooks V.A. Medical Center (Volume I, Section 3.3.4) and others.

Nevertheless, this large and important healthcare industry does not adequately meet the needs of individuals, families in low and moderate-income neighborhoods in Shreveport-Bossier City. This is despite the fact that each major medical center does individually devote substantial resources to community health needs (Volume I, Section 4.3.10).

A model for increased collaborative action by the major medical centers to support more integrated and concerted healthcare in low-income areas is represented by the Northwest Louisiana Coalition for the Health of Women and Children (the infant and perinatal mortality project). LSU-HSC OB-GYN physician Dr. Steve London headed an effort to get a grant for multi year funding of an effort in low-income areas to address infant mortality. The grant provided funding for hiring skilled staff and administrators. Willis-Knighton and CHRISTUS Schumpert have provided meeting space for the voluntary board, and each have brought resources to the table in the way of personnel to advise as well as a mobile exam center to carry health care to the neighborhoods. Additionally, United Way has provided rent-free office space to the Coalition for the life of the project. New collaborative approaches based on the model are found in Volume II, Section 3.1.

4.4.5 Affordable Housing

In the first quarter of 2002, an annual income of \$27,660 would be needed to purchase the average-priced home in Northwest Louisiana (based on an 80 percent loan, at average effective interest rate for fixed rate mortgages, and 25 percent of income allowed for mortgage payments).⁷ As shown above in Volume I, Section 4.3.3, approximately 60 percent of households may be able to afford the median priced home. If so, this is healthy and an economic advantage compared to many high cost metro areas throughout the country. Nevertheless, many households cannot afford to cover this down payment. As a consequence, according to HUD, only 12% of homeowners in Shreveport are minority and 70% of inner-city housing units are in substandard conditions, the vast majority of which are rental.

4.4.6 Public Transportation

Public transportation is provided by SPORTRAN, which operates 46 busses seven days a week during normal working hours. The transit system is able to accommodate the disabled, and offers reduced fares to students, seniors and monthly riders. System routes have limited reach and operating hours. The system is 14 hours (6am – 8pm) six days a week, plus 8 hours on Sunday, with routes confined to main arteries and only one transfer point at the downtown terminal. This is of particular concern, as transit between areas that house a large portion of the region's low-income and entry-level workforce (primarily in Shreveport) and entry-level jobs (casinos in Bossier City, for example) are virtually impossible.

This limited schedule and route network does not serve the two largest employment sectors well – healthcare and gaming – given their 24-hour operations, seven-days a week, or the many low income, entry level workers who often are only offered jobs on the late night

⁷ Bible, Douglas, Ph.D., "Market Trends in residential Real Estate – Shreveport-Bossier", LSU in Shreveport, 2002.

shift. By contrast, a recent survey in Philadelphia found that “public transit enables residents of city neighborhoods to hold 81% of restaurant jobs, 80% of hotel jobs and 44% of office jobs in the Philadelphia Center City.”⁸

4.4.7 Child Care Services

The lack of childcare in Northwest Louisiana is a particular problem for parents employed in the gaming and healthcare industries. These industries provide the lion’s share of the region’s entry-level jobs, many with the opportunity for advancement. These industries run on 24-hour a day schedules, which is a substantial barrier for parents who need these entry-level positions, and particularly for mothers. The lack of childcare combined with the lack of public transportation discussed above represents a substantial barrier to workforce participation for many in Northwest Louisiana.

According to a TANF grant application by the Providence House in 2002 (a local facility working with homeless families), in Caddo and Bossier parishes there are 37,500 families who live with incomes below the poverty level (\$17,700 for a family of 4). There are an additional 40,280 families living below 200% of the poverty level (less than \$35,000 per year). In these households, there are 81,640 children of which 31,023 of those are pre school age. Child care availability in the area will only accommodate about 10,000 per day, which would cover only 1/3 of the children below preschool in low-income homes, and none of the elementary children from those homes.

4.4.8 Community Development and Social Services

Community development and social services in Northwest Louisiana have grown significantly over the past decade.

- ✓ New services in the region have focused on homelessness, poverty, and efforts to help people transcend these fundamental problems.
- ✓ New programs like the Northwest Louisiana Food Bank have created a system of food pantries to address hunger through the faith community.
- ✓ Agencies such as the nationally recognized Providence House have broken new ground in helping to lead families to independent living.
- ✓ Neighborhood associations have taken charge of their own destiny, and have found partners in programs addressing their goals through organizations such as Shreveport Bossier Community Renewal.
- ✓ Community Development Corporations in Shreveport have emerged, and now include:
 - Shreveport Urban Renaissance Corporation (a City sponsored not-for-profit)
 - New Shreveport

⁸ The Newsletter of the Center City District and Central Philadelphia Development Corporation, Spring 2003, p 3.

- Community Support
- Urban Housing of America
- Queensborough Neighborhood Association
- Milam Street Development Corporation
- Praise Temple Community Development Corporation
- North Shreveport Development Corporation, and
- New groups are now being formed.

While much progress has been made, the gains measured against the acute problems outlined in the Community Needs Analysis in Volume I, Section 4.3 between rich and poor, black and white, wealthy and blighted neighborhoods have not been as dramatic as are demanded by the chronic problems and recent acute tensions. Recent efforts to coordinate social service providers have underlined the fact that, however unintentionally, social services in Shreveport-Bossier are generally provided and delivered in their own silos, just like other spheres of activity in the region.

As a result, a national foundation recently noted that the not-for-profit community in this region was "unsophisticated," particularly in its ability to craft grant proposals that effectively address issues. The foundation's concern was so great it committed to a five-year grant to a local social services networking group, the Service Connection, to develop a management training and assistance center for not-for-profits.

Finally, fundraising has grown to a feverish pitch among not-for-profits. There are now over 300 formal fundraising activities in the community annually. The United Way campaign has been stagnant for several years, as it has become just another fundraiser among many.

The critical problems of blighted neighborhoods and poverty are acutely compounded by the lack of integrated planning for the wellness of the community's social index. Community development and social service leaders have recognized that there needs to be community wide goal setting for major improvement opportunities. This common goal setting will allow multiple providers to develop programs collaboratively to address identified problems jointly.

At present, there is a void in accountability to make shared community improvements:

A scorecard of these community wellness opportunities would set the stage for collaboration; initiative teams could then take individual and collective responsibility; community funding could be more focused on the positive outcomes to be achieved, and post audits of progress could be reported to illustrate how the community has responded and measure the returns on its investment.

Strategic Actions to implement these proposed strategic actions are found in Volume II, Section 2.0, Building Healthy Communities.

4.4.9 Community Banking and Financial Services

Volume I, Section 5.3, Financing Services, lists a broad range of commercial banking activities, statewide CAPCOs and BIDCOs to undertake higher risk investments, and a number of public sector city and state loan programs for the renovation and construction of affordable housing, day care and neighborhood health centers, and small, minority-owned and women-owned business. Yet complaints are persistent that these resources do not pay off in meaningful action in low and moderate-income neighborhoods. In addition there are reliable reports that banks and not-for-profits have had to turn back substantial financial resources previously committed to accomplish these purposes because there were not appropriate vehicles to manage the capital.

There are many good reasons for these apparent anomalies:

- ✓ First, because of high information and transaction costs, it is almost as expensive for a commercial bank to finance the rehabilitation of a single house in a poor neighborhood, as it is to engage in financing an entire block.
- ✓ Second, the local municipalities often do not have effective intermediaries to assist private lenders and investors to employ their resources efficiently and effectively.
- ✓ Third, clarifying legal title to many abandoned dwellings is difficult, expensive and time consuming.
- ✓ Fourth, new, young neighborhood community development corporations do not yet have the experience and track records of many of their national counterparts.
- ✓ Fifth, there are no appropriate umbrella not-for-profit and for-profit financial and management intermediaries that can serve as the acceptable broker between private commercial banks, CAPCOs, BIDCOs; Federal, State and Municipal programs; and emerging neighborhood organizations to build trust among key players, package deals and oversee the implementation.
- ✓ Finally, there are no skilled advocacy and oversight organizations in place to measure and monitor performance by regulated financial institutions.

Volume II, Section 2.0, Building Healthy Communities, proposes Strategic Actions to address these needs. A national model for monitoring community reinvestment is presented in Volume II, Appendix 5.

4.4.9.1 Community Development Entities

A new mechanism that can broker between private commercial banks and other private financial intermediaries, government funding agencies and neighborhood organizations to build trust and package deals is the Community Development Entity (CDE) created by the Federal New Markets Tax Credit legislation of 2000.

CDEs are domestic corporations or partnerships organized for federal income tax purposes that:

Has a primary mission of providing investment capital to low and moderate income communities;

Is accountable to residents of low and moderate income communities through representation on a governing board or an advisory board to the corporation or partnership that

Has been certified as a CDE by the Community Development Financial Institutions Fund (CDFI) of the United States Department of the Treasury.

To date, three Shreveport financial groups have been recognized by the Treasury as CDEs:

- ✓ Access Capital Group, LLC;
- ✓ InterTech Venture Fund, LP, and
- ✓ Red River Valley BIDCO, Inc.

None of these have yet been funded with New Markets Tax Credits. The Comprehensive Shreveport-Bossier CDC proposed in Volume II, Section 2.0 is expected to be structured as a CDE.

4.4.10 Job and Wealth Creation

All of the efforts described in Volume I, Section 4.0, Increasing Human and Social Capital, need to coalesce in increased job and wealth creation for residents of low and moderate-income neighborhoods.

Many dimensions of the Community Resources inventoried in Volume I, Section 4.4 above contribute directly to this end:

- ✓ education at all levels, K-12, higher education, and especially focused workforce education and training;
- ✓ public transportation to jobs, and
- ✓ available and affordable day care for those at jobs.

To these resources, there must be additional focus in:

- ✓ job placement,
- ✓ job creation and
- ✓ comprehensive procurement to assist small, minority and women-owned business in gaining access to goods and services contracts from all major economic base industries in Shreveport-Bossier City.

The 18-year-old procurement program of the Shreveport Chamber and Barksdale has generated nearly \$1 billion in procurement for small enterprise in the region. A Strategic Plan to extend procurement to hospitals and gaming casino hotels is described in Volume II, Section 2.0, Building Healthy Communities, and Section 3.2, Creating New Enterprise.

As noted, a national model for monitoring community reinvestment is presented in Volume II, Appendix 5.

5.0 Analysis: Other Key Factors—Location and Infrastructure, Innovation Capital, Finance, and Commitment Capital

In addition to the most important supply factor, people, or human capital described in Volume I, Section 4.0, this Volume I, Section 5.0 categorizes other key supply factor resources according to the following conceptual framework:

- ✓ Location and Infrastructure Capital – The full range of physical investments that Northwest Louisiana’s public and private sectors make, from transportation to housing to waste processing, as a foundation for the economy’s growth and development; Northwest Louisiana benefits from excellent location and a strong confluence of highway, water and airport, rail and tele-communication capacity (Volume I, Section 5.1);
- ✓ Innovation Capital – The myriad of people and institutions that provide scientific, technological and business services which link production and routine technical services with innovation. Compared to rapidly growing metropolitan regions of the United States, the Shreveport-Bossier City MSA does not combine its family wealth, entrepreneurial history, private and public leadership and cluster of universities and medical centers into a powerful capacity to innovate new technologies, products and enterprises. Nevertheless, all the key elements are present, but nascent and not integrated (Volume I, Section 5.2);
- ✓ Financial Capital – Money and money management in the proper form for all stages of business development from startup through expansion, and to support all other forms of capital development, including human capital, innovation capital, and infrastructure capital. Northwest Louisiana has an appropriate commercial banking structure and substantial personal and family wealth, but not the institutionalized forms of private equity and risk capital to foster the creation of an entrepreneurial culture. Again, all the elements are present; they have simply not been combined to fuse an unalloyed capacity. (Volume I, Section 5.3);
- ✓ Commitment Capital – Public and private leaders’ capacity to transcend barriers between institutions to integrate all other forms of capital into a dynamic whole whose interactive parts create a more innovative, risk-taking, future-oriented Northwest Louisiana. Thus, Commitment Capital is the most important missing form of capital in Northwest Louisiana. Shreveport, Bossier City and the region has many capable leaders in many fields and communities of all ages. They must agree to join together to overcome the many discrete silos that today separate communities, cities, casino hotels, hospitals and economic sectors. These separate silos engender weakness and rob the whole region of its powerful, shared strength, a collective strength that has the potential to create tremendous comparative regional advantages for competing in today’s global technology driven economy (Volume I, Section 5.4).

This current weakness becomes even more threatening in the face of galvanizing regional initiatives now underway from other Louisiana regional rivals such as the New Orleans Chamber/MetroVision and the nine-parish Capital Region Competitive Strategy led by the Baton Rouge Chamber

5.1 Location and Infrastructure Capital

Infrastructure capital includes the full range of physical investments which Northwest Louisiana's public and private sectors make—from transportation to housing to waste processing—as a foundation for the economy's growth and development. If human capital is the largest financial cost that the private sector incurs, infrastructure capital is the largest financial investment the public sector makes in economic development. It is also the public sector's largest managerial commitment, since state and local governments typically select infrastructure projects, often retain ownership of the facility, and are responsible for operating and maintaining it⁹. From an economic development perspective, Northwest Louisiana and its communities must monitor two inextricably related dimensions of its infrastructure capital: infrastructure capital's contribution to the cost of doing business and its contribution to quality of life for residents.

Northwest Louisiana benefits from many strategic locational and infrastructure advantages: these include (1) existing and potential interstate highways; (2) shallow-water ports and waterways servicing a deep-water port and international shipping routes; (3) trunk railway lines linked by NAFTA to Mexican markets; (4) broadly serviced, but expensive and under-utilized regional airport facilities; (5) regional concentrations of television, radio and print media; (6) growing telecommunications and fiber optic capacity; (7) convenient, strategic and low cost access to one of the nation's most important cities, Dallas; and (8) its position as the hub of a growing three-state regional economy. Many of these attributes have been enhanced by a strategic mobilization of political and commitment capital (see description below). This analysis will identify opportunities and barriers to the further development of this rare combination of infrastructure and locational resources.

Because of these locational and infrastructure advantages, transportation and warehousing employed more than 3,300 people in 2000, or approximately 3% of the labor force.

5.1.1 Real Estate Market Characteristics

This section analyzes key indicators of the region's industrial, office and retail real estate markets.

5.1.1.1 Industrial Market

Table 5-1 presents existing space, vacancy and rental rates in Shreveport-Bossier City region sub markets as of mid-year (June) 2002, and the percent change since year-end (December) 2001. The region had approximately 6.3 million square feet of industrial space, concentrated primarily in the Central, North, and West sub markets. Bossier City represented the smallest sub market with less than 365,000 square feet, just 5.8 percent of total space in the region. Average vacancy region-wide was 16 percent. The North sub market had the highest vacancy rate at 27 percent, while the southeast and southwest had the lowest vacancy rates at 0 and 3 percents respectively.

⁹ Roger Vaughn, The Wealth of States, Council of State Planning Agencies, Washington, D.C., 1984

Table 5-2 presents average industrial rents by size of building for year-end (December) 2001 and mid-year (June) 2002. Year-end 2002 average rents ranged from \$2.46/sq.ft./year for space in large buildings to \$3.09/sq.ft./year in small buildings. This represented a decrease of 4.3 percent for large buildings and 3.7 percent for small buildings since mid-year 2001. During the same period, rent at medium buildings increased approximately 12.7 percent.

Table 5-1
Shreveport-Bossier City Region Industrial Space Inventory
Mid-Year 2002 and Change from Year End 2001

Mid-Year 2002	Rentable SF	Available SF	Occupied SF	Vacancy Rate
Bossier City	364,588	74,000	290,588	20%
Central	1,996,876	344,603	1,622,273	18%
North	1,310,063	355,151	654,912	27%
Southeast	904,432	0	904,432	0%
Southwest	666,600	20,600	646,000	3%
West	1,075,325	228,489	846,836	21%
Total	6,287,884	1,022,843	5,265,041	16%

% Change Since Year- End 2001	Rentable SF	Available SF	Occupied SF	Vacancy Rate
Bossier City	7.0%	48.0%	0.0%	33.3%
Central	-2.3%	-8.6%	-2.7%	0.0%
North	2.7%	43.6%	-36.3%	42.1%
Southeast	0.0%	0.0%	0.0%	0.0%
Southwest	0.0%	-73.1%	9.5%	-72.7%
West	-3.6%	-35.8%	11.5%	-34.4%
Total	-0.9%	-7.6%	0.5%	-5.9%

Source: "Shreveport-Bossier City Commercial & Multi-Family Real Estate Market Report", Mid-Year 2002 & Year-End 2001, Center for Business & Economic Research, LSUS, and Economics Research Associates.

Table 5-2
Shreveport-Bossier City Region Industrial Rents
Year-End 2001 & Mid-Year 2002

Size Category	Average Rental Rates ¹		
	Mid-Year 2001	Year-End 2002	% Change
Small (20,000 to <50,000 s.f.)	\$3.21	\$3.09	-3.7%
Medium (50,000-<100,000 s.f.)	\$2.60	\$2.93	12.7%
Large (100,000 s.f.+)	\$2.57	\$2.46	-4.3%

¹Per square foot, per year.

Source: "Shreveport-Bossier City Commercial & Multi-Family Real Estate Market Report", Mid-Year 2002 & Year-End 2001, Center for Business and Economic Research, LSUS, and Economics Research Associates.

Northwest Louisiana has a significant stock of industrial space on hand.

Table 5-3 lists the major industrial parks in Caddo Parish by size. The Port of Caddo-Bossier is by far the largest industrial area, followed by the Shreveport Airport Authority and Intertech Science Park.

Table 5-3
Industrial Parks in Caddo Parish
By Size (Acres)

Industrial Park	Available Acreage
The Port of Caddo Bossier	2,000
Shreveport Airport Authority	800
Intertech Science Park	800
Shreve Park Industrial Campus	350
Caddo Ward II Industrial Park	239
North Shreveport Industrial Park	128
Slack Industrial Park	94
Freestate Industrial Park	64
West Shreveport Industrial Park	60
Shirley Frances Industrial Park	54
Vivian Industrial Park	37

Source: Greater Shreveport Chamber of Commerce

Some traditional industrial areas, such as the Hollywood area, have older industrial parcels and infrastructure centrally located within communities that have an underutilized workforce and need reinvestment. These areas present prime opportunities for redevelopment to modernize the industrial zones into contemporary business parks. The Hollywood area, in particular, presents an opportunity to bring good jobs close to an

underutilized workforce because of its location adjacent to an interstate, its rail infrastructure in place, and its proximity to the airport.

Other opportunities exist to re-use large, more modern facilities, such as the vacant AT&T plant.

Table 5-4
Industrial Parks in Bossier Parish
By Size (Acres)

Industrial Park	Available Acreage
Commerce Industrial Park	85
Viking Drive Industrial Park	50
Benton Industrial Park	40
Commerce Industrial Park	N/A
Viking Drive Industrial Park	N/A
Plain Dealing Industrial Park	43

Source: Northwest Louisiana Partnership for Economic Development
(http://nwla.org/selector/view_sites.php)

Table 5-5
Industrial Parks in Minden-South Webster
By Size (Acres)

Industrial Park	Available Acreage
South Webster Industrial District Park	300
North Webster Industrial District Park	200
Louisiana Army Ammunition Plant	400,000 sq.ft.

Source: Minden-Webster Chamber of Commerce

In addition, The Louisiana Army Ammunition Plant (LAAP), located five miles west of Minden, is home to over 400,000 square feet of available space within a 15,000-acre facility. The plant is in transition from its former status as an ammunition producer employing nearly 10,000 full-time workers. Available space at LAAP is supplemented by relatively competitive lease pricing and financial incentives unique to the few facilities of this type.

5.1.1.2 Office Market

Table 5-6 presents office space, occupancy and rental rates by sub market for the Shreveport-Bossier City region as of mid-year (June) 2002, and the percent change since year-end (December) 2001. As of June 2002, the market had nearly 4 million square feet of rentable office space, a slight decrease (-0.3 percent) from year-end 2001. The majority of space is located in the Central Business District, which accounts for nearly 60 percent of the regional total. Occupancy in the Central Business District (80 percent), however, is

below the region-wide average of 83 percent, and the lowest in the region. The Bossier City and Southeast submarkets have the highest occupancy rates, at 92 percent. Rents ranged from \$9.55/sq.ft./year to \$11.75/sq.ft./year. Region-wide, rents increased an average of 1.6 percent, with the greatest increases in the West submarket (3.6 percent), followed by Southwest (2.5 percent), and the Central Business District (2.2 percent).

Table 5-6
Shreveport-Bossier City Region Office Space Inventory
Mid-Year 2002 and Change from Year End 2001

Mid-Year 2002	Buildings	Rentable SF	Occupied SF	Occupancy %	Av. Rent¹
Bossier City	7	177,363	162,795	92%	\$11.75
Central	8	348,777	299,021	86%	\$10.69
Central Business					
Dist.	24	2,368,234	1,886,466	80%	\$10.35
East	6	244,468	215,441	88%	\$11.66
North	5	177,851	160,406	90%	\$9.55
Southeast	11	365,154	337,409	92%	\$13.40
Southwest	4	139,294	119,361	86%	\$10.59
West	2	151,381	124,038	82%	\$10.75
Total	67	3,972,522	3,304,937	83%	\$11.11
% Change Since					
Year-End 2001	Buildings	Rentable SF	Occupied SF	Occupancy %	Av. Rent¹
Bossier City	0.0%	0.0%	0.4%	1.1%	0.9%
Central	0.0%	0.0%	-0.9%	0.0%	-1.8%
Central Business					
Dist.	0.0%	-0.3%	0.7%	1.3%	2.2%
East	0.0%	-1.6%	-3.2%	-2.2%	1.8%
North	0.0%	0.0%	3.5%	3.4%	-0.4%
Southeast	0.0%	0.0%	-1.5%	-2.1%	1.8%
Southwest	0.0%	0.0%	13.5%	13.2%	2.5%
West	0.0%	0.0%	0.0%	0.0%	3.6%
Total	0.0%	-0.3%	0.5%	0.0%	1.6%

¹Average rent per square foot per year.

Source: "Shreveport-Bossier City Commercial and Multi-Family Real Estate Market Report", Mid-Year 2002 and Year-End 2001, Center for Business and Economic Research, LSUS, and Economics Research Associates.

5.1.1.3 Retail Market

Table 5-7 presents retail space, occupancy and rental rates by submarket for the Shreveport-Bossier City region as of mid-year (June) 2002, and the percent change since year-end (December) 2001. As of June 2002, the market had more than 4 million square feet of retail space. The Southeast (885,000 sq.ft.) and East (834,000 sq.ft.) submarkets include the largest shares of retail space, accounting for more than 42 percent of the total. The north submarket contained the least retail space, with just over 201,000 sq.ft., less than 5 percent of the region's retail space. Occupancy averaged approximately 82 percent, with the North and Southeast submarkets faring the best (96 and 94 percent respectively) and the east faring the worst (60 percent). Rent averaged \$11.58/sq.ft. /year, representing an increase of nearly 16 percent over year-end 2001. The highest rent was found in the Southeast submarket (\$15.50/sq.ft. /year) and lowest rent in the East submarket (\$8.38).

Table 5-7
Shreveport-Bossier City Region Retail Space Inventory
Mid-Year 2002 and Change from Year End 2001

Mid-Year 2002	Buildings	Rentable			
		Sq.Ft.	Occupied SF	Occupancy %	Av. Rent ¹
Bossier City	8	686,866	571,750	83%	\$12.74
Central	9	684,219	589,936	86%	\$10.22
East	4	834,370	504,205	60%	\$8.38
North	2	201,247	193,522	96%	\$10.20
Southeast	8	885,314	831,455	94%	\$15.50
Southwest	6	416,410	367,747	88%	\$10.38
West	4	347,725	265,865	76%	\$8.61
Total	41	4,056,151	3,324,480	82%	\$11.58

% Change Since Year-End 2001	Buildings	Rentable			
		Sq.Ft.	Occupied SF	Occupancy %	Av. Rent ¹
Bossier City	0.0%	0.0%	0.3%	0.0%	9.5%
Central	0.0%	-1.3%	-4.4%	-3.4%	22.7%
East	0.0%	-0.4%	-8.5%	-9.1%	1.6%
North	0.0%	0.0%	-2.6%	-3.0%	31.3%
Southeast	0.0%	-0.1%	3.6%	3.3%	19.2%
Southwest	0.0%	0.0%	0.0%	0.0%	10.1%
West	0.0%	-7.9%	-11.6%	-5.0%	7.6%
Total	0.0%	-1.1%	-2.4%	-1.2%	15.5%

¹Average rent per square foot per year.

Source: "Shreveport-Bossier City Commercial and Multi-Family Real Estate Market Report", Mid-Year 2002 and Year-End 2001, Center for Business and Economic Research, LSUS, and Economics Research Associates.

5.1.2 Existing and Potential Interstate Highways

Three major existing interstate highways serve the Northwest Louisiana region, I-20, I-49 and I-220. Interstate 20 runs east west from Texas to South Carolina, Interstate 220 is a 17-mile, northern loop of Shreveport. Interstate 49 currently connects Lafayette and Shreveport via Alexandria along a 200-mile freeway. The northern segment of Interstate 49 (the portion within the city of Shreveport) was completed in the late 1990s, and there are extensions in the works to both the north and south. Future Interstate 49 corridor signage is already in place from Lafayette southeastward via U.S. 90 to New Orleans. A northward extension is underway along the U.S. 71 corridor through Northern Louisiana, Arkansas, and Missouri, which will incorporate much of the existing U.S. 71 freeway, as well as Interstate 540 in Arkansas north of Interstate 40 and Interstate 130 in Texarkana.

These extensions to Interstate 49 were authorized under the National High Priority Corridor program in the federal TEA-21 legislation. The required environmental studies have been completed, and the completion of the project depends upon pending federal and state funding of \$363 million. On Tuesday, January 27, 2003, the Governor's Chief of Staff announced to the Northwest Louisiana Delegation that the Governor committed \$10 million of state matching funding for the further extension of Interstate 49. This commitment was ratified by the legislature by its inclusion in the final version of the capital outlay legislation. At the same time, the State Department of Transportation announced that construction on the first 15 miles south of the Arkansas border would begin with an initial commitment of \$56 million. At the federal level, the reauthorization legislation, The Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA) has been filed. Louisiana hopes to secure future federal funding through SAFETEA.

All fuel taxes levied within the state fund the Louisiana Transportation Trust that was established in 1989. This fund provides for the construction and maintenance of state and federal highways, bridges, flood control, ports, airports, transit, state highway patrol, and parish roads.

The planned I-69 corridor would head through Northwest Louisiana and southward toward Houston and the Mexican border. Currently, I-69 is complete from Port Huron, Michigan, at the Canadian border, to Indianapolis. Once finished, the designated North American Free Trade Agreement highway will connect 17 of the nation's top seaports, 13 inland waterway ports and 15 of the country's top air cargo fields. This project is also listed as a High Priority Corridor in the federal TEA-21 legislation.

In addition 9.25 miles of the inner loop or LA 3132 is classified as a freeway/expressway and is essentially an interstate highway. There is hope that LA 3132 will become a portion of I-220.

5.1.3 Water Ports and Waterways

Port of Shreveport-Bossier, served by 20 common carriers, is within a one-day drive of Austin, Birmingham, Dallas, Houston, Jackson, Little Rock, Memphis, Oklahoma City, and San Antonio—an overall market that encompasses nearly 30 million people. By water,

the Port is 3 days from Baton Rouge, 4 days from New Orleans, 6 days from Memphis, and 11 days from St. Louis. The 9x200' channel is located within a Foreign Trade Zone, Enterprise Zone, and offers port bond financing programs and industrial property tax exemption.

Cargo traffic at the Port of Shreveport-Bossier reached 451,287 in 2001, an increase of 35 percent over 2000.¹⁰ 2002 enhancements include a slack water harbor and turning basin and a 4,000-foot rail spur connecting the Omni facility to the Port's main rail line.

The Port of Shreveport-Bossier is governed by the nine-member Caddo-Bossier Port Commission, which was created by the Louisiana Legislature to set policies and regulate commerce and traffic within Caddo and Bossier Parishes. In recent years, the Port Commission has been actively engaged in strategic planning for port facilities.

5.1.4 Trunk Railway Lines

The Shreveport-Bossier City region is served by Kansas City Southern Railway, Union Pacific Railroad, and Transportation Ferroviaria Mexicana¹¹. The Kansas City Southern Operating Headquarters and their National Customer Service Center are both headquartered in Shreveport.

5.1.5 Airport Facilities

The Northwest Louisiana region is served by one regional and one local airport. The regional airport grows in importance to the Ark-La-Tex region as service is reduced to a single commuter airline in Longview, Tyler and Texarkana.

5.1.5.1 Shreveport Regional Airport

The Shreveport Regional Airport has two runways, a precision runway measuring 8,351 feet by 200 feet and a non-precision runway measuring 6,201 feet by 150 feet. The facility is a small hub of the following airlines:

- ✓ American Eagle and American Connection
- ✓ Continental Express
- ✓ Delta Connection (ASA and Comair)
- ✓ Northwest Airlink Airlines
- ✓ USAirways Express

It is also served by air cargo carriers Airborne Express, Federal Express, UPS, Airport Group International, and Emery Worldwide, and houses an on-site U.S. Customs office. The airport underwent a \$30 million expansion in 1999.

¹⁰ Greater Bossier Economic Development Foundation 2001 Annual Report.

¹¹ A joint venture with Kansas City Southern Railroad and Transportation Maritima Mexicana, the primary railroad gateway for the North American Free Trade Agreement (NAFTA).

The facility now hosts Continental Express' largest maintenance hangar, which is used primarily to perform heavy maintenance (C-checks), on the carrier's regional jet fleet. The first C-check line began operating in July of 2002, and the Continental Express facility now employs approximately 205 people. The number is expected to increase to between 500 and 600 by 2005.

It is important to note that several airports in the Ark-La-Tex region are losing air service. Texarkana will lose Delta/ASA this spring, leaving it with one airline only. This will leave Longview, Tyler, and Texarkana with one airline - American Eagle. Airline economics indicate that these communities may not be able to sustain airline service, which may well shift additional demand to Shreveport Regional Airport.

5.1.5.2 Downtown Shreveport Airport

The downtown Shreveport is a general aviation/reliever airport with a primary runway of 5,000 feet. The Downtown Airport is home to Metro Aviation, which employs approximately 100 persons. The facility houses privately owned aircraft and hosts aviation courses offered by Southern University Aerospace & Technology Center, which operates a Certified Airframe & Power plant School to train aircraft mechanics.

5.2 Innovation Capital

Innovation capital resources are the myriad people and institutions that provide scientific, technological, business and financial services which link production and routine technical services with innovation. If human and social capital, a region's people, is its most important raw material, the employment of human intelligence to create technological innovation is its most important application.

In today's high-risk, high technology, global economy, innovation capital is the key to productivity gains and rising living standards. Innovation capital is essential to Northwest Louisiana's economic development because it is the currency for expanding markets for all high wage economies worldwide.

Innovation does not mean just new high technology products. Far more often, innovation provides new ways to make old products more efficiently and of higher quality. It is important to distinguish clearly between technology and innovation.

- ✓ *Technology* is the core of our knowledge that can be applied to develop new and better products, processes and services, and more effective management.
- ✓ *Innovation* seizes the opportunity to actually use this knowledge to create new and higher value. "Innovation means creative, state-of-the-art approaches to markets, industries, businesses, organizations, production technologies, and novel forms of partnership between labor and management, the public and private sectors, and the region's universities that together create new heights of productive efficiency and profits."¹²

¹² Committee of Technology and Innovation, 1986.

✓ *Technology without innovation means nothing.*

A firm in today's global technological economy is able to compete only to the extent that its management is able to innovate new production techniques and technologies that interact with optimal markets, products and business organizations to generate higher levels of productivity. Investments in new technologies are not limited to the technologies' physical capital. At least as much commitment by management to human capital is required to make the new technologies work profitably.

5.2.1 Healthcare Innovation and the Economy

Healthcare is Northwest Louisiana's largest and most innovation driven economic base industry cluster (Volume I, Section 3.3 above). Healthcare is also the most innovation driven sector in the nation.

Over the past 18 years, Northwest Louisiana has recognized and enhanced its special comparative advantages in its medical complex through the investment in innovation by the Northwest Louisiana Biomedical Research Foundation (Volume I, Section 3.3.8), and the creation of the LSU Health Sciences Foundation of Shreveport (Volume I, Section 3.3.7), charitable investments in such centers as the Feist-Weiller Cancer Center (Volume I, Section 3.3.5), etc.

Volume II, Section 3.1 suggests ways in which the region's healthcare industry can be further enhanced by innovation, and particularly how the Biomedical Research Foundation can operate according to the highest current national standards and best practices to achieve its twin goals of (1) enhancing the research and innovation of the LSU Health Sciences Center in Shreveport and (2) stimulating the commercialization of biomedical and biotechnology innovation in the region. .

5.2.2 Higher Education Innovation and the Economy

In today's worldwide high technology culture, the capacity of the local higher education system to innovate is of particular importance in attracting and retaining the highest quality workers, business leaders and firms, thus contributing to a highly competitive regional economy by building its human capital stock. State-of-the-art regional economies like Boston, the Bay Area, the North Carolina Research Triangle and Austin, Texas are distinguished by two interactive features—a culture that encourages innovation and the birth of new enterprise, and one that places a high value on the innovative role of world class research universities. The central role of higher education to contribute to the quality of human and intellectual capital in the region is described in Volume I, Section 3.7. Proposed strategic actions for increasing innovation in local higher education are found in Volume II, Section 5.3.

The Consortium for Education Research and Technology (CERT) (Volume I, Section 3.7.1) is a significant innovation in enhancing collaboration among higher education institutions. CERT was formed in 1996 as a result of a recognized need by the Biomedical Research Foundation that sponsored research at all the universities of the region ought to be enhanced and better coordinated if it were to payoff for the regional economy. CERT

holds promise for further innovation in helping to coordinate higher education (Volume II, Section 5.3.2), workforce education (Volume II, Section 5.2), and as a model for similar regional coordination among healthcare centers Volume II, Section 3.1), tourist and economic development organizations on both sides of the Red River (Volume II, Section 3.3) and regional economic development organizations (Volume II, Section 6.0).

The LSU Health Sciences Center in Shreveport is the anchor for higher education biomedical research, as is described in Volume I, Sections 3.3.7. The relationship of LSUHSC-S to the Biomedical Research Foundation and their joint capacity to increase biomedical and biotechnology innovation in the region is analyzed in Volume I, Section 3.3.8.1. Strategic Actions to increase the efficiency and effectiveness of that collaboration are found in Volume II, Section 4.2.

Most importantly, the full capacity of the key higher education institutions in the Shreveport/Bossier City Metropolitan Area to contribute to economic innovation—including LSUHSC-S, LSUS, Bossier Parish Community College, and Southern University at Shreveport—is compromised without adequate state support to fulfill their missions to strengthen the local economy, as directed by the Board of Regents.

Finally, it is important to recognize that much of the sponsored research currently taking place at the universities in the region does not translate into ‘commercializable’ technology of use to existing and new industry. CERT universities do not currently have an effective system for sharing (1) licensing opportunities with firms in the region, or (2) helping firms design or refine products or solve technical problems. Firms report that university websites are not user-friendly for locating a professor who could help solve technical problems.

In Louisiana, the university–business connection is further complicated by the intellectual property (IP) rights policies of the LSU system. In contrast to the business friendly policies that exist at such national research universities as Harvard, MIT, Stanford and the University of Texas, the LSU System does not have an intellectual property policy that encourages private sector collaboration. The new *Louisiana: Vision 2020* Strategic Plan calls for universities to become better partners in the state’s economic development. As a result, the Louisiana Department of Economic Development has retained a nationally regarded expert from the Emerging Technologies Center of the North Carolina Research Triangle Park to analyze LSU’s IP policies and propose changes.

The Ark-La-Tex Regional Export & Technology Center and the Metro/Regional Business Incubator in Shreveport serve as the outreach centers for the Louisiana Technology Transfer (LTTO) and Small Business Innovative Research (SBIR) programs. Through this Technology Transfer function, area companies can be linked with 100,000 researchers at 700 federal laboratories and 100 universities nationally to help them find partnerships, solutions, and innovative technologies that can help them innovate to increase their market competitiveness. Through the SBIR program, companies can compete for up to \$850,000 in Federal grant funding through ten Federal agencies.

Strategic Actions in Volume II, Section 5.3, Investing in Higher Education, and Section 4.1, Creating New Enterprise, consider ways to increase the commercialization of university-sponsored research and innovation in region.

5.2.3 Innovation in Economic Development Strategies

Louisiana was slow to recognize the need to change its model for economic development. Not until the economic recession of the late 1980's did a majority of its citizens become convinced that change was necessary and that the state's reliance on natural resources and low-cost unskilled labor to produce a competitive advantage was no longer viable. This was the 80's recession in which Louisiana was "done unto" by external pricing of its oil and gas raw materials.

At that time, leaders began to recognize that competitive advantage in today's global markets comes from *innovation* in design, engineering, function and speed of performance—qualities fostered through technology and a highly educated workforce skilled in math, science, engineering, and technology. State and local efforts at economic diversification began to focus on building an environment that would attract technology-intensive industries to the state. Participants in these reform efforts recognized early on that such an environment could evolve only from an infrastructure with a high degree of coordination, communication, and collaboration at all levels.

Louisiana: Vision 2020, the state's master plan for economic development, provides the framework for change. The state wishes to bolster biomedical/biotechnology industry infrastructure (Volume II, Section 4.2), workforce development and training (Volume II, Section 5.2), and new enterprise job creation (Volume II, Section 4.0). In summary, Volume I is an Analysis of the current status of innovation in economic development in Northwest Louisiana, and Volume II is a Strategic Action Platform for enhancing innovation in economic development in the region.

5.3 Financial Capital

Northwest Louisiana has a strong commercial banking industry with ties to statewide, regional, and national financial institutions, as well as representation from a broad range of insurance carriers. In 2000 this industry employed more than 4,800 residents in the Shreveport-Bossier City MSA, which equals 3 percent of the regional workforce.

Below is an Analysis of the capacity of the financial services industry to support community and regional economic development. Volume II, Section 2.0, Building Healthy Communities, and Section 4.0, Creating a New Economic Base, propose Strategic Actions to enhance the capacity of the financial services industry to better meet community and economic needs, respectively.

Section 5.3.1, Commercial Bank Finance, details the financial institutions and loan volume totals in the Shreveport-Bossier City MSA. The capacity of the region's commercial banking industry to support growing enterprises enhanced by a host of alternative finance programs described in Sections 5.3.2—5.3.4.

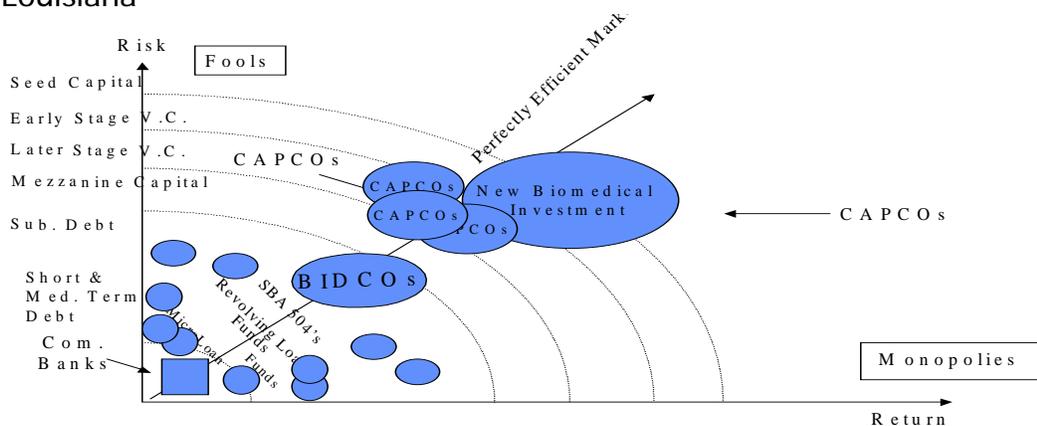
- ✓ Section 5.3.2, Debt Mechanisms to Reduce Commercial Bank Risk, describes debt mechanisms which currently exist in Louisiana, or are well established nationally, and which can reduce commercial bank risk by means of:
 - increased liquidity (Section 5.3.2.1, linked deposits);
 - a guarantee (Section 5.3.2.2, capital access programs);
 - a revolving loan fund (Section 5.3.2.3), or
 - a subordinated loan (Section 5.3.2.4).

- ✓ Section 5.3.3, Mezzanine Mechanisms to Reduce Bank Risk, describes a more sophisticated means of reducing commercial bank risk, especially if the existing firm is still too risky for the commercial bank, but is growing rapidly enough to support some upside return for it higher risk, but is not yet growing rapidly enough to support the high returns of venture capital. These mezzanine mechanisms include:
 - Business and Industrial Development Corporations (Section 5.3.3.1 BIDCOs);
 - Certified Louisiana Capital Companies (Section 5.3.3.2 CAPCOs), and
 - Classic Market-Oriented Mezzanine Capital Funds (Section 5.3.3.3).

- ✓ Section 5.3.4, Angel Networks and Venture Capital Funds, describes the most important mechanism to create new enterprise by backing promising, but high risk fledgling entrepreneurs.

These levels of financing each come with differing degrees of risk/return and varying economic impact. Table 5-1 depicts all of these funding mechanisms described in Sections 5.3.1 to 5.3.4, and their corresponding levels of risk and return in a comparative grid.

Figure 5-1
Risk/Return Landscape of Financial Capital Suppliers in Northwest Louisiana



5.3.1 Commercial Bank Finance

In 2002 over 100 institutions made more than 7,800 business loans to firms in the Shreveport-Bossier City MSA, totaling nearly \$254 million. As Table 5-8 shows, more than half of all loans and two-thirds of funds went to businesses with gross annual revenues less than or equal to \$1 million. The capacity of these lenders to support a greater number of growing enterprises depends on the ability to create capital through alternative funding mechanisms as described in Sections 5.3.2 – 5.3.4.

Table 5-8
Business Lending Institutions & Loan Volume in the Shreveport-Bossier City MSA
2002

Institution Name	All Business Loans		Loans to Businesses with Gross Annual Revenues <= \$1 million			
	# of Loans	Amount ('000s)	# of Loans	% of Total	Amount ('000s)	% of Total Loan \$s
1st Source Bank	3	\$325	1	33.3%	\$43	13.2%
Advanta Bank Corporation	245	\$1,942	245	100.0%	\$1,942	100.0%
American Express Centurion Bank	617	\$4,130	191	31.0%	\$2,175	52.7%
Amsouth Bank	720	\$73,763	605	84.0%	\$54,494	73.9%
Associates Capital Bank, Inc.	1,206	\$2,947	921	76.4%	\$2,463	83.6%
Atlantic Bank Of New York	4	\$30	0	0.0%	\$0	0.0%
Austin Bank Texas Na	4	\$257	4	100.0%	\$257	100.0%
BanCorpSouth Bank	479	\$45,994	401	83.7%	\$31,536	68.6%
Bank Of America, N.A.	4	\$2,023	1	25.0%	\$760	37.6%
Bank Of America, Na-USA.	3	\$116	2	66.7%	\$16	13.8%
Bank Of Oklahoma, N.A.	1	\$900	0	0.0%	\$0	0.0%
Bank One, Na	117	\$9,754	70	59.8%	\$3,624	37.2%
Bank One, Na, Illinois	264	\$17,076	22	8.3%	\$2,687	15.7%
Branch Banking And Trust Co	1	\$500	1	100.0%	\$500	100.0%
Capital One, F.S.B.	664	\$1,817	0	0.0%	\$0	0.0%
Chase Manhattan Bank USA, N.A.	17	\$428	0	0.0%	\$0	0.0%
Citibank (South Dakota), N.A.	104	\$745	70	67.3%	\$475	63.8%
Citizens National Bank	8	\$262	8	100.0%	\$262	100.0%
Community First Bank And Trust	2	\$15	2	100.0%	\$15	100.0%
Conseco Bank, Inc.	2	\$15	0	0.0%	\$0	0.0%
Cupertino National Bank	4	\$236	4	100.0%	\$236	100.0%

Northwest Louisiana Strategic Action Plan
September 9, 2003

Institution Name	All Business Loans		Loans to Businesses with Gross Annual Revenues <= \$1 million			
	# of Loans	Amount ('000s)	# of Loans	% of Total	Amount ('000s)	% of Total Loan \$s
Farmers Bank Trust Co	3	\$91	3	100.0%	\$91	100.0%
First Bank And Trust	4	\$1,000	0	0.0%	\$0	0.0%
First Guaranty Bank	60	\$6,205	41	68.3%	\$2,631	42.4%
First National Bank	3	\$684	0	0.0%	\$0	0.0%
First National Bank of Omaha	36	\$241	0	0.0%	\$0	0.0%
Fleet National Bank	35	\$294	0	0.0%	\$0	0.0%
GE Capital Financial Inc.	1,242	\$4,600	0	0.0%	\$0	0.0%
Hancock Bank	1	\$75	1	100.0%	\$75	100.0%
Hancock Bank Of Louisiana	1	\$5	1	100.0%	\$5	100.0%
Hibernia National Bank	511	\$23,283	511	100.0%	\$23,283	100.0%
International Bank Of Commerce	1	\$550	1	100.0%	\$550	100.0%
JPMorganChase Bank	1	\$50	0	0.0%	\$0	0.0%
Longview Bank & Trust	5	\$148	0	0.0%	\$0	0.0%
Madisonville State Bank	2	\$295	0	0.0%	\$0	0.0%
MBNA America (Delaware), N.A.	525	\$4,460	255	48.6%	\$2,403	53.9%
Merchants Farmers Bank	1	\$400	1	100.0%	\$400	100.0%
National Bank Of S Carolina	1	\$125	1	100.0%	\$125	100.0%
Providian National Bank	2	\$4	2	100.0%	\$4	100.0%
Regions Financial Corporation	761	\$45,683	725	95.3%	\$40,489	88.6%
Sky Bank – Ohio Bank Region	1	\$50	1	100.0%	\$50	100.0%
The Evangeline Bank Trust Co	1	\$16	1	100.0%	\$16	100.0%
Travelers Bank Trust, FSB	15	\$118	14	93.3%	\$105	89.0%
Trustmark National Bank	1	\$38	1	100.0%	\$38	100.0%
Union Planters Bank, N.A.	1	\$6	1	100.0%	\$6	100.0%
Universal Financial Corp.	117	\$639	94	80.3%	\$534	83.6%
Us Bank North Dakota	9	\$41	8	88.9%	\$36	87.8%
Wachovia Bank	1	\$5	0	0.0%	\$0	0.0%
Washington Mutual Bank, FA	1	\$154	1	100.0%	\$154	100.0%
Wells Fargo Bank, NA	34	\$627	18	52.9%	\$360	57.4%
Whitney National Bank	6	\$570	4	66.7%	\$130	22.8%
Zions First National Bank	1	\$1,000	0	0.0%	\$0	0.0%
MSA Total	7,852	254,732	4,233	53.9%	172,970	67.9%

Source: FFEIC.

Community Bank of Louisiana recently constructed a new headquarters in Shreveport, and national banks, community banks and credit unions have spent more than \$26 million on new branches and corporate offices in the region.¹³

5.3.2 Debt Mechanisms to Reduce Commercial Bank Risk

This section examines four debt mechanisms, which take a higher risk and in turn reduce the risk to commercial banks. These programs include the Louisiana Business Linked Deposit Program, Capital Access Programs, Revolving Loan Funds, and Subordinated Debt Finance.

5.3.2.1 Louisiana Business Linked Deposit Program

By law, the State of Louisiana offers a Linked Deposit program on bank funded term loans to Louisiana businesses that includes an interest rate reduction of 1% to 4% on a maximum loan of \$200,000 for 2 to 5 years. A criterion for eligibility, which affects the percentage and term of the linked deposit, includes job creation and cash flow requirements for underwriting. Although this program is available to borrowers that apply through their lenders, the program is not widely used because of a lack of promotion and absence of a strong local advocate.

The Louisiana Department of Agriculture provides a similar State Market Commission Agriculture Products Processing Linked Deposit Loan Program, which is described below in Section 5.3.2.4, Subordinated Debt Finance, and State Government Loan Programs.

Most economic policy analysts conclude that linked deposit programs seldom lead lenders to undertake loans that they would not do any way; thus, the linked deposit is a gift to the lender, one which carries bureaucratic costs of reporting.

5.3.2.2 Capital Access Programs

Characteristics:	Smaller, Slower Growing Firms
Risk:	Intermediate/Known
Financial Returns:	Low to market rates. Program is very attractive to participating bankers, borrowers and local economic development organizations because the program is so lean, cost effective, fast and non-bureaucratic.
Economic Returns:	Job Numbers are small but stable (20-100): Generally low to moderate skills. Social returns are often high in developing communities.

Capital Access Programs (CAPs) are now widely adopted state-wide self-insured loan programs that allow participating banks in twenty-one states to make larger loans to high-

¹³ "Banks, credit unions enjoy growth spurt," J.L Scott, Shreveport Times.

risk customers, without the government bureaucracy of federal SBA loans or similar state and local government operated programs.

The Capital Access Program encourages banks and other financial institutions to lend to small enterprises that fall outside of the conventional underwriting standards of many banks. CAPs provide a form of loan portfolio insurance that can provide up to 100% coverage on certain loan defaults. By participating in a CAP program, lenders have available to them a proven financing mechanism to meet the capital needs of most local small enterprise.

CAPs are lending programs in which participating states and municipalities make contributions to lenders' loan loss reserve pools, allowing lenders to make slightly more challenging small business loans than they would using conventional underwriting. The first Capital Access Program (CAP) was developed in Michigan in 1986 as a method to increase the availability of credit to small businesses. According to a report issued by the U.S. Treasury in January 2001, nationwide cumulative CAP lending totaled over \$1.5 billion by June 2000. In addition to the twenty-one states with thriving programs, Akron, Ohio has a regional program, which could be a model for Northwest Louisiana.

According to the report, the 14-year track record of state-run CAPs suggests that these programs encourage small business lending in a cost-efficient and simple way. Under CAPs, the bank and the borrower pay an up-front insurance premium, typically between 3% and 7% of the loan amount at the bank's discretion, which goes into a reserve fund held at the originating bank. The state (or participating community/region) matches the combined bank and borrower contribution with a deposit into the same reserve fund. The CAP reserve fund allows a lending bank to make slightly higher risk loans than conventional underwriting, with the protection of the reserve fund for its entire pool of CAP loans.

CAPs allow banks to use their own underwriting standards for eligible loans, without governmental approval on the loan-making decision. Compared to other credit enhancement programs, CAPs have minimal administrative costs to banks, borrowers or the government. In most states the majority of small businesses are eligible for the program, although some states put a limit on the size of the loan and eligible industries. A state's up-front payment of 3%-7% of the loan amount into a bank's CAP reserve fund supports a bank loan that is 14 to 33 times larger than that amount.

Although the U.S. Treasury report shows that Louisiana claims to be a CAP participating state, it acknowledges that the state has no specific CAP legislation – only a generic economic development statute. There is also no financial information on CAP loans in the report for Louisiana. Conversely, the report shows that through June 30, 2000, Arkansas had ten banks participating in the state's CAP program with 274 loans totaling \$10,799,809 since the program began in 1993. Texas has 14 banks participating in the program with 562 loans totaling \$49,886.123 since its inception in 1997.

According to the U.S. Treasury's report, and as exemplified in several states, Capital Access Programs are an effective way for minority-owned businesses to gain access to

financing that might otherwise not be made available to them. Banks will find that CAP loans are useful products for reaching minority borrowers with limited or unconventional credit.

The strongest argument for a Northwest Louisiana or Louisiana-wide CAP program is the universal judgment of commercial banks, borrowers and economic development organizations now participating in the 21 current state programs that they vastly prefer the lean, quick, non-bureaucratic decision-making of CAPs to similar programs offered by the SBA or most other local or state government programs.

5.3.2.3 Revolving Loan Funds

The Minden-South Webster Chamber of Commerce manages the largest revolving loan fund of any Chamber of Commerce in the United States. Since 1991 the fund has made over 40 low-interest loans totaling \$1.8 million. These loans, ranging from \$5,000 to \$175,000, have created over 300 jobs in the South Webster Parish area. Loans are made to expanding businesses that have been denied a loan by their local bank and are based on job creation potential (the “rule of thumb” standard is \$10,000 per job).

5.3.2.4 Subordinated Debt Finance

Characteristics:	Smaller, Slower Growing Firms
Risk:	Intermediate/Known
Financial Returns:	Mid to High Teens
Economic Returns:	Job Numbers Are Small But Stable (20 - 100) Generally Low - Moderate Skills

Subordinated Debt, as the name implies, plays a secondary role below traditional commercial bank debt. As such, the risk associated is somewhat greater than that of ordinary debt financing. This increased risk translates into higher financial returns which are typically in the mid to high teens.

The economic returns derived from subordinated debt are good, although are less than those from higher risk, mezzanine capital investments in more rapidly growing firms. Job numbers are small but stable, in the area of 20 to 100 per deal. The skill sets for these jobs fall into a moderate level of specialty.

Below is a description of the most common subordinated debt programs: the Federal SBA 504 Loan Program,

Federal Small Business Administration (SBA) 504 Loan Program

An alternate approach to Commercial bank loans for expanding businesses is subordinated debt financing through the SBA 504 Loan Program. This program utilizes a public-private partnership between commercial lenders and an SBA-recognized Certified Development Company (CDC) to provide long-term, fixed-rate financing for credit-worthy businesses.

The ARK-LA-TEX Investment & Development Corporation (AIDC), an affiliate of The Coordinating & Development Corporation (see Volume I, Section 5.4.3), is the Certified Development Company in Northwest Louisiana for the SBA 504 loan program, a number of Louisiana State loan programs, and local loan programs offered in the City of Shreveport.

Because of the lower cost per transaction, subordinated debt is used in smaller transactions where equity investment is not feasible. This form of financing is valuable to existing companies planning significant expansion. Proceeds from 504 loans must be used for fixed asset projects such as the purchase of land and existing buildings; construction of new facilities; modernizing, renovating or converting existing facilities; or purchasing machinery and equipment. Funding through the 504 Program cannot be used for working capital, securing inventory; consolidating or repaying debt; or refinancing existing debt. In most cases, the project assets being financed are used as collateral. Personal guaranties of the principal owners are also required.

Typically, a 504 project includes a loan secured with a senior lien from a private-sector lender covering up to 50 percent of the project cost, a loan secured with a junior lien from the Certified Development Company (backed by a 100 percent SBA-guaranteed debenture) covering up to 40 percent of the cost, and a contribution of at least 10 percent equity from the small business being financed. The maximum SBA debenture is \$1,000,000. As a general rule, AIDC requires that the loan amount for a project be at least \$250,000.

Interest rates on 504 loans are pegged to an increment above the current market rate for five-year and 10-year U.S. Treasury issues. Maturities of 10 and 20 years are available. Fees total approximately three percent of the debenture and may be financed as a part of the loan.

Under the 504 Program, a business qualifies as “small” if it does not have a tangible net worth in excess of \$7 million, nor an average net income in excess of \$2.5 million after taxes for the preceding two years. Loans cannot be made to businesses engaged in speculation or investment in rental real estate. Generally, a business must create or retain one job for every \$35,000 provided by the SBA.

State Government Loan Programs

State and local governments will often target those borrowers just below the guidelines of commercial lenders. This type of lending incurs a greater amount of risk, yet often the municipal government will charge the borrower a below market interest rate. As these practices go against the market standard of pricing to risk, government or not-for-profit sources must often subsidize these loans.

The Louisiana Economic Development Corporation (LEDC) offers a variety of loan guarantee programs. LEDC itself does not make direct loans; a borrower must have a bank that is willing to loan the money with the backing of an LEDC guarantee.

- ✓ The Small Business Loan Program provides loan guarantees and participations to banks that facilitate business access to capital. Guarantees may range up to 75% of the loan amount, not to exceed a maximum of \$1.5 million. Loan participations of up to 40% are also available. Applicants must have a business plan and a bank that is willing to fund the loan.
- ✓ The Micro Loan Program provides loan guarantees and participations to banks that fund loans to Louisiana small businesses ranging from \$5,000 to \$50,000.
- ✓ The Contract Loan Program is intended to provide loan participation and guarantees to a bank for government contract loans. These loans are intended to help businesses finance working capital for contracts with local, state, or federal government agencies. Loans may range from \$5000 to \$1,000,000 and must be for terms of one year or less.
- ✓ LEDC facilitates export working capital loans to Louisiana small businesses through the U.S. Export-Import Bank's city and statewide programs.

The Louisiana Department of Agriculture also has a loan program for companies involved in processing Louisiana agriculture and forestry products.

- ✓ The State Market Commission Loan and Loan Guaranty Program finances agricultural organizations engaged in marketing or processing Louisiana agricultural products. The program provides a loan or loan guarantee to a bank, not to exceed five years. Funds may be used to acquire, construct, furnish, equip, purchase or improve any agricultural plant, or to cover operating capital, market development costs, and product inventories.
- ✓ The State Market Commission Agriculture Products Processing Linked Deposit Loan Program is available for eligible businesses that produce agricultural products. The program offers low interest loans to any person to acquire, construct, furnish, equip, facility purchase or improvements, operating capital, market development, and product inventories.
- ✓ The State Market Commission Agricultural Production Linked Deposit Loan is available for "Eligible Agricultural Products Businesses" and provides low interest loans to finance the cost of maintaining a farm in Louisiana.

Local Government Programs

A Shreveport City Loan program with a \$15,000 maximum amount provides long-term, low-interest rate financing to assist qualified for-profit small businesses. Loans are intended to stimulate job growth, retain existing jobs, provide management training, and increase general business activity. Types of eligible activities include acquisition of land and building; purchase of machinery and equipment; construction/renovation of a new or existing facility; some business start-up costs, and limited working capital.

The Downtown Shreveport Development Corporation Loan Program is a financial incentive designed to provide rehabilitation funds to property owners and small businesses interested in renovating older buildings located within Shreveport's Downtown

Development District. Loans are usually limited to a maximum of \$30,000, with a fixed low interest rate as low as 3.5%.

The city of Shreveport received a \$3.5 million Economic Development Initiative grant in 2001 from HUD. The grant provided \$1 million for housing renovations in the Queensborough area, and \$2.5 million for a business loan program for existing and new start-up businesses along the Greenwood, Jewella and Lakeshore business corridor near the Louisiana State Fairgrounds. Maximum business loans under this program are \$250,000 for asset purchase and \$50,000 for working capital.

5.3.3 Mezzanine Capital Mechanisms to Reduce Bank Risk

This section examines four mezzanine capital mechanisms to reduce risk on transactions that are considered too risky for traditional lenders. These mezzanine mechanisms include: Business and Industrial Development Corporations (BIDCOs), Certified Louisiana Capital Companies (CAPCOs), and Classic Market-Oriented Mezzanine Capital Funds.

All of these mezzanine capital mechanisms pool and spread risk according to the strategies described in Section 3.10.3 above, Profitability, Dynamism and Risk Management, thus creating a mechanism to deliver high small firm returns without small firm volatility to investors. The investment mechanisms described in Volume II, Section 3.2, Creating New Enterprise, and the models presented in Volume II, Appendix 6: Models to Invest in Creating New Enterprise, and Volume II, Appendix 7: Models to Invest in Expanding Enterprise, are market perfecting mechanisms which achieve prudent risk-adjusted rates of return by pooling and spreading risk consistent with this analysis.

5.3.3.1 Business and Industrial Development Corporations (BIDCOs)

Business and Industrial Development Corporations (BIDCOs) are licensed and regulated by the Louisiana Office of Financial Institutions for the purpose of making loans to small businesses located and/or operating in the state. Typically, a BIDCO provides loans and growth capital to small business ventures considered too risky for traditional lenders. BIDCOs may also specialize by investing more than 25% of their financial assistance portfolio in businesses owned by minorities, women or disabled individuals, or in businesses that operate in economically depressed areas.

Loans made by BIDCOs can fill the gap between venture capital sources (equity investments) and traditional debt financing through commercial banks, industrial bonds or government programs. They are flexible in the financing tools available to them, often blending debt financing with equity and near equity investments, and utilizing government guaranties to improve a company's credit worthiness for traditional lenders.

BIDCOs are designed to address the moderate risk capital needs of smaller, growth-oriented companies. BIDCOs help finance companies that require additional capital but are not expected to generate the high returns required by most venture capital companies.

As of September 2002, there were nine BIDCOs registered in Louisiana. Of these, only one, The Red River Valley BIDCO, Inc., established in August 2001, is headquartered in

Northwest Louisiana. The Red River Valley BIDCO is administered by the Coordinating & Development Corporation (see Volume I, Section 5.4.3). However, several of the other BIDCOs have financed projects in this area, the most active of which is the BIZCapital BIDCO.

Many companies registered with the State of Louisiana, Office of Financial Institutions, operate as both a CAPCO and a BIDCO.

5.3.3.2 Certified Louisiana Capital Companies (CAPCOs)

In 1983, the Louisiana Legislature created the Certified Louisiana Capital Companies (CAPCO) program. The program allowed the use of tax credits to encourage investments in risk capital pools that can provide both seed capital and venture capital for start-up companies and companies that cannot obtain sufficient financing from a traditional lending source. An investor in a CAPCO receives either an income tax credit, calculated at 35% of the cash investment on income taxed in the year in which the investment is made, or a premium tax credit, calculated at 100% of the cash investment subject to certain limitations, which is taken over a minimum period of ten years. Any remaining income tax or premium tax credits may be carried forward until exhausted. The value of property or services contributed cannot be included for purposes of determining tax credits.

During the 2000 Regular Legislative Session, the Legislature allowed the then existing CAPCO law to sunset December 31, 2000, as there were many perceived problems with the program. Many believed that the Legislature's decision was based in large part on a study conducted by Postlethwaite & Netterville, which stated, "The CAPCO Program, in its current form, is expensive and inefficient to the State." The report further noted that while from 1988 to 1998 the CAPCO Program raised \$517 million of certified capital, the CAPCOs made less than \$150 million in qualified Louisiana investments.

Two years later, during the 2002 Regular Legislative Session, a revised law was introduced and passed. The new law was structured to require CAPCOs to be more pro-active in their investment activities, and mandated that:

(1) Within three years after the investment date, at least 50% of each investment pool must be invested. Of that amount, at least 50% must be invested in "qualified Louisiana technology-based businesses", "qualified Louisiana start-up businesses" and/or qualified technology funds. Of this amount, at least 50% must be invested in qualified Louisiana technology-based businesses.

(2) Within five years after the investment date, at least 80% of each investment pool must be invested. Of that amount, at least 50% must be invested in "qualified Louisiana technology-based businesses", "qualified Louisiana disadvantaged businesses", "qualified Louisiana start-up businesses" and/or qualified technology funds. Of this amount, at least 50% must be invested in qualified Louisiana technology-based businesses.

- ✓ "Qualified Louisiana technology-based business" means any Louisiana business in a pre-startup, startup, survival, or expansion stage that is engaged in providing technology-based products or services in information technology, communications, medical, biomedical, advanced materials, food, environmental, micro-manufacturing technologies, or that is determined by the secretary to be a qualified technology-based business.
- ✓ "Qualified Louisiana disadvantaged business" means any Louisiana business that, at the time of investment, has its headquarters located in a low-income community, and
- ✓ "Qualified Louisiana startup business" means any Louisiana business that is in development or has been operational for less than two years and is in need of capital for pre-startup, startup, survival, expansion, new product development, or similar business purpose or that is determined by the Secretary to be a qualified startup business.

As of January 2003, the Office of Financial Institutions has certified 17 CAPCOs. Two of these CAPCOs are based in Shreveport, the InterTech Venture Fund L. P. (established November 1999) and the Red River Valley BIDCO, Inc. (established December 1999).

The 2002 legislation has a sunset date of December 31, 2003. After initially passing legislation in 2002 requesting a study to assess the feasibility of reauthorizing CAPCOs; the 2003 session passed legislation requesting that the Department of Economic Development recommend legislation to provide for reauthorizing CAPCOs. CAPCOs are licensed and regulated by the Louisiana Office of Financial Institutions and the Department of Economic Development.

5.3.3.3 Classic Market-Oriented Mezzanine Capital Funds

Characteristics:	-Proven Management and Market -Cash Flow Established & Growing -Diverse, Often Mature Industries -Investment \$1-5 million, averaging \$2 - 3 Million
Risk:	Intermediate/Known
Financial Returns:	High Teens - high teens, Low 20% ROI for Expansion Capital
Economic Returns:	Relatively Large Numbers of Jobs (20 - 200) Generally Moderate Skills and reasonable wages

Economic Innovation has pioneered the design and implementation of a dozen small firm expansion capital funds, more commonly known as mezzanine capital funds, successfully operating across the United States.

Mezzanine capital is perhaps the most important form of risk capital (other than seed and venture capital itself) for purposes of economic development. Mezzanine capital finances the growth of companies that are growing too fast and are too risky for commercial bankers, but are not growing fast enough to support the high returns expected by venture capitalists and their investors. These companies are often far better job creators than seed and early stage venture capital companies, and they generally are creating jobs that offer reasonable wages, growth potential and career ladders.

Three models are of particular relevance to the expansion capital needs of Northwest Louisiana.

- ✓ Massachusetts Capital Resource Company (MCRC), the premier privately capitalized, public purpose small cap mezzanine fund in the United States. Four years ago, MCRC created a joint venture with one of the leading privately capitalized, public purpose subordinated debt lending institutions in the United States, Massachusetts Business Development Corporation (MBDC).
- ✓ Indiana Capital Community Business Credit Corporation
- ✓ Goodman Capital Fund of San Diego

For more detailed information on these funds refer to Vol. II, Appendix 7: Models to Invest in Growing New Enterprise.

The decreased risk exposure makes them for less risky investments to investors than venture capital, but generates predictable but lower returns.

Mezzanine financing meets the needs of growing, but profitable, companies prior to a bank being willing to offer a line of credit. This type of financing generally includes subordinated convertible debt and yield based preferred shares, often structured with warrants or options. Mezzanine finance usually takes three to seven years to finance higher risk growth than a bank loan, but yet slower growth than that which can be supported by venture capital. Mezzanine capital is a high risk and, consequently, a high yielding finance mechanism. Typically, mezzanine financing will involve term debt convertible to equity.

Examples of mezzanine transactions include management/leverage buyouts, expansion financings (internal growth and/or acquisitions), and recapitalizations and divestitures.

Types of ventures favored for mezzanine financing include:

- ✓ Manufacturing, distribution and service companies;
- ✓ Sustainable competitive advantages in niche markets;
- ✓ Stable and predictable operating income;
- ✓ Firms less subject to rapid technological change or wide cyclical swings in volume and profit, and
- ✓ Post-"second round" and pre-IPO financing.

A number of CAPCOs and BIDCOs in Louisiana specifically state that they offer mezzanine financing. None of these companies are located in northwest Louisiana.

5.3.4 Angel Networks and Venture Capital Funds

The new century has brought a new awareness to Northwest Louisiana of the need for seed and venture capital to promote entrepreneurs and create new enterprise in the region, as this Strategic Analysis has described in Volume I, Section 3.10, The Missing Economic Base, Creating New Enterprise. A number of independent efforts to create informal angel networks and encourage more formal seed and early stage venture capital headquartered in the region have recently begun. These disparate efforts have now become aware of each other and have shown a willingness to cooperate.

The Science and Technology Council of the Greater Shreveport Chamber of Commerce is a three-year-old organization made up of the providers of biotech and information technology solutions, telecommunications concerns, area educational facilities, and the Chamber Economic Development staff. In the Spring of 2002 the Council held a seminar on Venture Capital that brought together self-identified interested local parties along with representatives from funding organizations such as Stonehenge Capital, one of three South Louisiana based CAPCOs, which want to see deal flow from Northwest Louisiana. The Science and Technology Council is seeking to publicize the existence of technology companies already in the region and attract others. Part of the attraction effort involves developing new funding sources for both start-ups and expansion.

The Louisiana Partnership for Technology & Innovation is based in Baton Rouge, but is responsible to the Louisiana Department of Economic Development to encourage innovation throughout the state. The Partnership worked with the Science and Technology Council of the Greater Shreveport Chamber to produce the spring 2002 Venture Capital seminar. The Louisiana Partnership continues to be involved in deal flow, in advising local businesses on capital formation, and is willing to serve as a “gate-keeper” for angel groups forming in Northwest Louisiana, as they do in other parts of the state.

The InterTech Science Park of the Biomedical Research Foundation also organized a similar seminar in 2002, “Seed Investing as a Team Sport”, presented by The National Association of Seed and Venture Funds. InterTech is working with Taraval Associates to help raise capital for a portfolio company sited in the Science Park, SteriFx, Inc., in which the InterTech Venture Fund, a CAPCO organized by the Biomedical Research Foundation, is also an investor (see Volume I, Section 3.3.8).

Taraval Associates, a seed venture fund based in the heart of Silicon Valley in Menlo Park, California, raised part of their current fund’s capital in Shreveport with a commitment to try and find deals in this area to back. They were successful in this effort when they became the lead investor in the \$500,000 Series “A” seed round of funding for SteriFx, a developer of cold sterilant and advanced disinfectant products. Several local investors have also signed on for the Series “B” round, which recently had its initial closing. \$2.9 million was committed from both local and national investors and funds. A Taraval partner is

currently serving as interim CEO of SteriFx and will also be helping organize angel and venture efforts in Northwest Louisiana.

Partners in several locally owned accounting and legal firms have been attending the seminars and advising their clients, who are both actual and potential investors.

Several local investors are working to keep the groups aware of each other's activities. Most of the angel network activity has so far been in the biotech and IT areas. However, at least some of the potential angels are looking for other areas and, particularly, for African-American community deals to invest in.

As groups in Northwest Louisiana engage in developing more formalized angel networks and building seed and early stage venture capital funds situated in the region, it is important to underline once again the fact that one of the potential assets of the region in new enterprise formation is the substantial personal wealth present to fuel seed and early stage venture capital, as well as substantial history and experience in successfully birthing innovative, rapidly growing small enterprise.

As we have noted, this highly sophisticated local wealth is currently being deployed in other sections of the country and around the world, rather than being reinvested into the region. This wealth will not reinvest in the region unless these local investors can be assured of receiving similar risk-adjusted rates of return to those they now receive in other markets on the East and West Coasts. This local wealth is likely to reinvest if it is confident that it can approximate the risk and return objectives it expects through appropriately structured mechanisms available in the region.

A number of these sophisticated investors who are involved in recent efforts to expand local angel networks and support seed and early stage venture capital efforts in the region have noted that local economic development is one of their objectives. Some have indicated that they might even be willing to assume somewhat greater risk and receive a somewhat more patient rate of return if the potential outcome has a reasonable likelihood of yielding measurable job and wealth creation.

Nevertheless, these investors will insist that angel; seed and early stage capital raised and deployed in Northwest Louisiana must meet the same proven national best practices that they expect of similar investments in California, Texas or Massachusetts. In Volume I, Section 3.10, we describe in detail both the economic importance of creating new enterprise (Sections 3.10.1 and 3.10.2), and the extraordinary financial volatility of new enterprise, as well as successful strategies for managing that high volatility (Section 3.10.3). Every new enterprise is financially volatile; every new technology enterprise is especially volatile; every new biotechnology or biomedical device enterprise is even more risky and volatile. These high promise/high risk investments have a high potential for failure under the best of circumstances, and a *very* high risk of failure *if* proven national best practices are not employed.

The history of such investments to date by the Biomedical Research Foundation of Northwest Louisiana is reported in Volume I, Section 3.3.8.1 above, as are the current,

proven national best practices for similar investments in the most fertile spawning grounds for creating new enterprise on the East and West Coasts.

Later Stage Venture Capital targets established companies that have a successfully developed product line and market niche. Later Stage Venture Capital is usually a straight equity infusion into a growing company. Later Stage Venture Capital will produce a return on investment at or above the mid-twenties.

Because Later Stage Venture Capital finances established companies with an established management, market, and products the amount of risk is not as high as Seed and Early Stage Venture Capital. Later Stage Venture Capital is able to achieve higher returns than Expansion (Mezzanine) Capital by finding companies with a higher rate of growth. Later Stage Venture Capital tends not to be as patient as Expansion (Mezzanine) Capital.

Although there are currently no formal Venture Capital partnerships headquartered in Northwest Louisiana, Venture Capital models can be found in Vol. II, Appendix 6.

Three models are of particular relevance to the venture capital needs of Northwest Louisiana:

- ✓ Alliance Technology Ventures of Georgia
- ✓ Heartland Capital Fund, Ltd. of Nebraska
- ✓ Mid-Atlantic Venture Funds of Pennsylvania

For more detailed information on these funds refer to Vol. II, Appendix 6: Models to Invest in Creating New Enterprise.

The mechanisms for meeting these risk and return objectives are outlined above in Volume I, Section 3.10.3, Profitability, Dynamism and Risk Management.

As a part of this Strategic Action Plan, proposed strategic actions in Volume II, Section 4.1, describe the ‘mechanisms’ needed to meet these risk/return objectives and harness the energy that will create vital new enterprise in Northwest Louisiana over the next generation.

5.4 Commitment Capital

Commitment capital is the institutional capacity to implement a long-term vision and mission with self-renewing resources and energy in the face of dynamically changing global conditions. Commitment Capital is the capacity of private and public leaders to transcend barriers between institutions to integrate all other forms of capital—human, innovation, financial and infrastructure capital—into a future-oriented Northwest Louisiana. Commitment Capital is the institutionalized capacity to mobilize and focus individual Human Capital and collective Social Capital, laser-like, on measurable social and economic goals.

Essentially, Commitment Capital is the most important missing form of capital in Northwest Louisiana. This current weakness becomes even more threatening in the face of

galvanizing regional initiatives now underway from other Louisiana regional rivals such as the New Orleans Chamber/MetroVision and the nine parish Capital Region Competitive Strategy led by the Baton Rouge Chamber.

Northwest Louisiana has an important and rare attribute, which is both a potential strength and a glaring weakness in implementing this Strategic Action, the close interconnectedness of its leaders between and among key institutions.

- ✓ The potential strength is that Shreveport-Bossier City and the region have many capable leaders—black and white—in many fields and communities of all ages. These leaders in the business, political, educational, and social service communities work together *individually* on a day-to-day basis and interact quite effectively compared to other communities in Northwest Louisiana's national cohort.
- ✓ The glaring weakness is that in too many spheres important to the success of this Strategic Action Platform—the three leading health centers, the five gaming hotels, the cities of Shreveport, Bossier and Minden, the Chambers of Commerce and local economic development organizations, many community development and social service providers—the individual institutions operate in separate silos in which the whole is less than the sum of the parts, and—in regional, national and global competition—“we are all likely to all hang separately, rather than all hang together”. These separate silos engender weakness and rob the whole region of its powerful, shared strength, a *collective strength* that has the potential to create tremendous comparative regional advantages for competing in today's global technological economy.

The most important outcome of this Strategic Action Plan must be the ability of the Plan's leaders to work seamlessly with the key institutions of the region to successfully implement the Plan.

As a principal outcome of this Volume I Strategic Analysis of the institutional Commitment Capital in Northwest Louisiana, the Strategic Action Platform in Volume II, Section 6.0 will suggest ways to improve the institutional interconnectedness in the community. The Strategic Actions will create an institutional framework, The “Common Ground” Northwest Louisiana Regional Development Corporation (Volume II, Section 6.0) to:

- ✓ overcome barriers between silos,
- ✓ increase successful outcomes of key benchmarks over time,
- ✓ institutionalize the capacity to both update this study periodically, and
- ✓ adapt constantly to the rapidly changing environment of a dynamic national and global political economy.

Finally, although we all appreciate the successful outcomes of the 1985 study, the First Strategic Action Plan did not lead to an on-going, self-sufficient, private-public regional partnership that could generate its own income sources and constantly re-examine, re-

invigorate, and regenerate itself to seize new opportunities and address new barriers in a changing global economy. Our goal this time around is not just to undertake a study, or create an Action Plan. Together, we will strive to create the ongoing institutional capacity and self-sufficient resources to keep the spirit of 1985 operationally alive seventeen years from now in 2019.

Below are summarized the principal regional organizations that could contribute to the formation of the “Common Ground” Northwest Louisiana Regional Development Corporation outlined in Volume II, Section 6.0.

5.4.1 Geography Served by Strategic Plan Investors

The Investor organizations that back this Strategic Action Plan serve the region individually and collectively:

- ✓ United Way of Northwest Louisiana serves the ten parishes of Caddo, Bossier, Webster, DeSoto, Claiborne, Sabine, Bienville, Natchitoches, Red River and Winn;
- ✓ Louisiana State University in Shreveport has been designated by the Board of Regents as a regional university primarily serving the Shreveport-Bossier Metropolitan area and the Ark-La-Tex region;
- ✓ The Northwest Louisiana Partnership for Economic Development serves private and public members drawn from seven parishes: the four core parishes (Caddo, Bossier, Webster and DeSoto) and the three contiguous parishes (Bienville, Claiborne and Red River);
- ✓ The Bossier Chamber of Commerce principally serves members in Caddo, Bossier, Webster, DeSoto and Red River Parishes.
- ✓ Greater Shreveport Chamber of Commerce principally serves members in Caddo, Bossier and Webster Parishes.
- ✓ Minden-South Webster Chamber of Commerce principally serves members in Webster Parish.
- ✓ The Committee of One Hundred principally draws its members from Caddo and Bossier Parishes.

5.4.2 Northwest Louisiana Council of Governments (NLCOG)

NLCOG is the designated Metropolitan Planning Organization for Northwest Louisiana. The Federal Highway and Federal Transit Administrations and the Governor of the State of Louisiana grant this designation. NLCOG coordinates all transportation projects that have a regional impact or have state and/or federal funding committed to them. NLCOG helps to secure federal funding for projects, maintains a long-range strategic transportation plan, a congestion management plan, a Traffic Incident Management Plan, a Regional ITS Plan, and the early development of several Transit Programs.

In addition to managing regional transportation planning and development issues, NLCOG also maintains the Regional Geographic Information (ReGIS) System. This system is a shared Government Information System (GIS) by the Cities, Parishes, Tax Assessors, Caddo School Board and NLCOG.

NLCOG also provides planning assistance to units of local governments, coordinates planning activities with the State and Federal governments, and reviews, evaluates and makes recommendations on proposed and amended comprehensive land use, open space, transportation, housing and public facilities plans and projects.

5.4.3 The Coordinating & Development Corporation (CDC)

The Coordinating & Development Corporation (CDC) is a private, nonprofit, member-supported corporation that serves the economic, business, workforce, and community development needs of the Ark-La-Tex region. CDC's membership includes: parishes/counties, municipalities, industrial/economic development organizations, businesses and industries, port authorities, special purpose districts, and institutions of higher education. Its Board of Directors is composed of elected officials, representatives of state and federal agencies, and businesses and industry leaders.

CDC provides its services through eleven divisions, including the Divisions of Economic Development; Workforce Development; Community Development; Project Review; Marketing and Industrial Development; Technical Assistance; Culture, Recreation, & Tourism; Natural Resources; International Trade; Technical Services, and Transportation.

CDC also has a number of subsidiary and affiliated corporations that provide specialized services to its membership, including:

- ✓ the Ark-La-Tex Investment and Development Corp., the CDC's 504 business financing instrument (Volume I, Section 5.3.2.4),
- ✓ the Ark-La-Tex Regional Export & Technology Center, Inc., which manages CDC's business incubators, including the Metro/ Regional Business Incubator (Volume I, Section 5.3.2.4), and
- ✓ the Red River Valley BIDCO, Inc, which is administered by the CDC (Volume I, Section 5.3.3.1).

The Coordinating & Development Corp. began in 1954 with the founding of the Northwest Regional Development Board, which was "created to develop and to disseminate information concerning the agricultural, historical, industrial, and recreation advantages and attractions of the seven parishes in the northwest region of Louisiana."

Since its beginnings 50 years ago, it has undergone several name changes, greatly expanded the services it provides its membership, and its service area has been enlarged to include ten parishes in northwest Louisiana, eight counties in northeast Texas, and four counties in southwest Arkansas.

5.4.4 The Northwest Louisiana Partnership

The Northwest Louisiana Partnership for Economic Development was founded in 1997 when the then Chair of the Shreveport Chamber of Commerce, Arlena Acres, directed Marketing Vice Chairman, Gard Wayt, to form an organization to cooperatively market the Northwest Louisiana region as a place to locate, expand or start a business.

Working with the Shreveport Chamber, the Bossier Chamber and the Minden Chamber, it was decided to make the organization public/private and to operate within Caddo, Bossier, Webster and DeSoto parishes and the contiguous parishes of Claiborne, Bienville and Red River.

Cities, towns and parish governments were solicited for membership along with Chambers of Commerce, Economic Development Districts, Utility Companies, major employees and other organizations. The organization focused on advertising the region, developing marketing materials for use by all the members and visits to selected trade shows and site selection consultants.

The Partnership was incorporated in 2000. There is no paid staff; the program of work is accomplished through monthly meetings of the members and meeting of an Executive Committee and subcommittees appointed by the Chairman. A newsletter is published three times a year and distributed to members, public officials, site selection consultants and companies identified by various means as prospects for expansion or relocation.

6.0 Analysis: Strengths, Weaknesses, Opportunities and Threats (SWOT)

Regional economies and their communities have the capacity to make willful choices as to the investment of scarce human, technological, financial and natural resources to Strengthen regional and community comparative economic advantages, repair Weaknesses, capitalize on Opportunities and address Threats.

6.1 Regional SWOT Analysis

The *SWOT* Analysis that results from the detailed analysis of Northwest Louisiana's regional comparative economic advantages, its dominant growth industries, and its key supply factors, is summarized below. These observed Strengths, Weaknesses, Opportunities, and Threats facing the Shreveport-Bossier region are derived from the stakeholder interviews, data review, and our experience.

The challenge is to build upon the region's Strengths, improve its Weaknesses, exploit its Opportunities, and protect itself from Threats.

6.1.1 Regional Strengths

- ✓ A relatively diversified regional economy for its size, with significant manufacturing, tourism, government, and medical services serving as the region's primary sectors.
- ✓ Large, stable private-sector employers in the region's primary industries, particularly automotive and medical services.
- ✓ The economic presence of two industries, medical services and tourism, considered growth industries in Northwest Louisiana and/or nationally for the next several decades, associated with the large and aging baby-boom population.
- ✓ The stabilizing presence of federal and state government-supported employment and expenditures at Barksdale, medical institutions, and public higher-education institutions.
- ✓ Research institutions in knowledge-based industries, such as medical and biomedical.
- ✓ A critical mass of tourism destinations, primarily casinos and special event venues, that generate demand for hotels, dining, and entertainment, provide significant fiscal resources, and employ semi-skilled workers with limited opportunities.
- ✓ Nationally connected roadway, rail, port, and airport infrastructure.
- ✓ A quality workforce trained locally, or brought to the region through Barksdale, major manufacturers, and the medical institutions.
- ✓ A diverse and integrated network of higher-educational institutions for training the workforce.

- ✓ A relatively high quality of life that is affordable.
- ✓ Relatively affordable wages and business occupancy costs.
- ✓ An abundant regional supply of commercial and industrial land.
- ✓ Relatively significant locally-based private capital.
- ✓ Natural resources and amenities.
- ✓ A defined central core with a potentially high-amenity riverfront and traditional urban location.
- ✓ A rich history and music tradition.

6.1.2 Regional Weaknesses

- ✓ Less than optimal regional coordination for economic development and planning.
- ✓ Less than optimal industry development coordination among major regional institutions within the medical and biomedical cluster.
- ✓ Relatively limited primary research at higher-education institutions that can generate new companies and industries.
- ✓ A political delegation that is a geographic minority within State politics.
- ✓ Limited generation of new, locally-owned primary-industry companies to diversify the economy, and over reliance on decision-making made outside the region in both the private and public sectors.
- ✓ Less-than-optimal direct interstate access linking the region to Little Rock, Houston, and other metropolitan areas.
- ✓ Limited graduate programs and State commitment to develop a large research university in Shreveport to serve Ark-La-Tex.
- ✓ Relatively weak real estate market for generating demand, supporting high-value development, or attracting capital, particularly in the commercial and industrial sectors.
- ✓ Relative distance from large metropolitan markets and major ports or airports.
- ✓ Limited number of direct feeder markets to support the region's tourism sector.
- ✓ Lack of financial support for the regional university serving the Shreveport-Bossier metro area and the Ark-La-Tex region.
- ✓ The lack of coherent planning, and vision by the public sector to develop infrastructure, redevelop the inner city, and foster the regional coordination needed to realize regional strengths and minimize weaknesses.

6.1.3 Regional Opportunities

- ✓ Leverage the region's medical industry cluster and research institutions to conduct primary research and generate new medical services, bioinformatics, and medical instruments businesses.

- ✓ Coordinate regional economic planning, infrastructure investment, and business recruitment and retention in order to increase jobs, wealth and regional tensile strength.
- ✓ Complete I-49 and I-69 to improve direct access to markets within the central United States.
- ✓ Dramatically increase local regional markets and the strength of the economic base in healthcare, tourism, manufacturing and higher education by eliminating the current disparities between poor and rich, blacks and whites.
- ✓ Enhance the region's entrepreneurial environment and network to create new locally-based companies and industries, working with higher-education, the financial sector, the research institutions, and business organizations.
- ✓ Improve trade-infrastructure linkages to other markets and facilities.
- ✓ Develop a growing consumer market with military retirees and their dependents.
- ✓ Revitalize and strengthen Downtown Shreveport-Bossier central core as a high-amenity, image-defining, urban riverfront location.
- ✓ Increase the benefits of the tourism sector by extending the length-of-stay and amount of expenditures through more diversified tourism offerings, including entertainment, music and culture, conventions, and outdoor recreation, and increasing the number of feeder markets.
- ✓ Enhance the role of LSUS and the region's higher-education institutions to include more applied research that has the potential of creating or attracting new businesses and industries.
- ✓ Use the military's presence and the universities to infuse the region with new trained talent.
- ✓ Develop companies that can compete nationally and internationally to export goods and services to buyers from outside the region, such as 1) capital intensive, high value-added manufacturing and production industries that rely on affordable location costs, good semi-skilled and skilled workforce, affordable transportation costs, and/or custom or semi-custom fabrication, and 2) medical, business, and tourism services that serve the Northern Louisiana and Ark-La-Tex regional market.

6.1.4 Regional Threats

- ✓ The economy's dependence on non-local decision-making, particularly in the automotive, military, healthcare and higher-education sectors.
- ✓ Counterproductive internal competition that constrains the region's potential to develop a stronger national market image.
- ✓ Over-dependence on gaming and a limited number of feeder markets for tourism.
- ✓ Regional competition from Texas, Arkansas, and elsewhere in Louisiana.

- ✓ The cost competitiveness of the international markets, particularly from Asia, Latin America, and Mexico for consumer goods manufacturing.
- ✓ The increasing cost of sprawl that may result in unnecessarily high regional business and household costs.
- ✓ Intense national competition from more established markets with stronger institutions and better access to venture capital in the bio-tech and biomedical field.
- ✓ Lack of organized venture capital capacity.

6.2 Community SWOT Analysis

Below is a summary of the Strengths, Weaknesses, Opportunities, and Threats (SWOT) drawn from the Analysis found in Volume I, Section 4.0, the Most Important Supply Factor: People.

6.2.1 Community Strengths

- ✓ A recognition among many leaders in the region, representing diverse locations, sectors, and races, is that the region's economic potential is diminished if the human capital needs and distribution of opportunities are not addressed. And, more importantly, a willingness to come together to do something about it.
- ✓ A community of committed private, not-for-profit organizations and citizens groups that are addressing aspects of the region's human capital and community development needs (such as education, day care, health care, housing, and spiritual support) that could do more with focused and coordinated support from the business community and government.

6.2.2 Community Weaknesses

- ✓ Under-achieving low and moderate income community that represents a significant share of the potential work force, entrepreneurial capacity, and consumer market.
- ✓ Under-achieving primary and secondary education in many neighborhoods.
- ✓ Pockets of poverty and neighborhood blight near the region's central core and tourism concentration.
- ✓ Departure of talented youths entering the labor force, leaving for better opportunities elsewhere, depleting the local economy of valuable human resources.
- ✓ An aging workforce with a diminishing share of younger workers in age-cohorts associated with lower-cost, entry-level jobs that typically support new industrial development or robust industry growth.

6.2.3 Community Opportunities

- ✓ Leverage the partnerships between industry and the region's higher-education institutions to develop new training programs that support the region's newer industries, such as hospitality, medical services, and automotive manufacturing.
- ✓ Improve the educational, job, business, and income opportunities for all residents to maximize the region's workforce, business, and consumer market potential.
- ✓ Reinvest in the older, blighted communities comprehensively to repair physical blight and improve the quality of life for residents.

6.2.4 Community Threats

- ✓ The opportunities forfeited and the social and public cost of an under-achieving low and moderate income community.
- ✓ Continuation of talented youth leaving the region to pursue employment opportunities elsewhere.
- ✓ An under-educated workforce.
- ✓ The danger that this large, unattended problem undermines the overall regional economic health and community integrity.

Appendix 1: Northwest Louisiana Strategic Action Key Investors

Greater Shreveport Chamber of Commerce

Harold Turner, Chairman 2002

Robert Hamm, Chairman 2003

Richard Bremer, President

Lindy Broderick, Senior Vice President Government & Transportation

Bossier Chamber of Commerce

Helen Black, 2002 President

Rick Osburne, 2003 President

Don Pierson, Executive Director

John Hubbard, Greater Bossier Economic Development Foundation 2003
Chairman

LSUS Foundation

Harry McInnis, 2002 Chairman

James "Jim" K Elrod, 2003 Chairman

Vincent Marsala, Chancellor LSUS

United Way of Northwest Louisiana

Andy Taft, 2002 Board President

Nancy Dugas, 2003 Board President

Joe Pierce, Executive Director

Minden-South Webster Chamber of Commerce

Sherburne Sentell, 2002 Chairman

Philip McInnis, 2003 Chairman

Sue Gruber, President

Committee of One Hundred

Robert Hamm, 2002 President

Vernon Chance, 2003 President

Cecil Ramey, Executive Director

Northwest Louisiana Partnership for Economic Development

Gard Wayt

Appendix 2: Contacts and Interviews

Reginald Abrams	Abrams & LaFargue, LLC
Arlena Acree	City of Shreveport
Jennifer Adams	Shreveport-Bossier Convention & Tourist Bureau
Susan Adams	Shreveport Bossier Service Connection
Martin E. Albritton	LSUS
David Alexander	Downtown Development Authority
Bill Altimus	Bossier Parish Police Jury
Ron Anderson	Lighthouse
Ken Antee	City of Shreveport
John Austin	LSUS
Lisa Babin	LSU Health sciences Foundation in Shreveport
Lindora Baker	Lifecare Hospitals of Shreveport
Carol Barnes	Cole, Evans & Peterson, CPAs
John Beard	Softdisk Internet Services
Susan Beal	LSU in Shreveport
Ron Bean	LA State Senate
Dr. Ray Belton	Southern University
David Berzina	Greater Shreveport Chamber of Commerce
Rev. Harry Blake	Mt. Canaan Baptist Church
Willie Bradford	Willis-Knighton Medical Center
Ed Bradley	Channel 12 -- KSLA
Bishop Larry Brandon	Priase Temple Full Gospel Baptist Church
Patti Brannan, MD	
Dick Bremer	Greater Shreveport Chamber of Commerce

Kim Brice	Shreveport-Bossier Convention & Tourist Bureau
Major Brock	
Lindy Broderick	Greater Shreveport Chamber of Commerce
Stacey Brown	Shreveport-Bossier Convention & Tourism Bureau
Ray Brown	Alliance for Education
Beverly G. Bruce	LA House of Representatives
Morris Bruce	Representative Beverly G. Bruce's Office
Roy A. Burrell	Inner City Entrepreneur Institute
Robert Burton	Shreveport City Council Staff
Joe Callaway, Jr.	Risk Services, Inc.
Debbie Camus	Lea Hall Properties
Tom Carleton	Bossier Parish Community College
Thomas Carmody	Shreveport City Council
John D. Caruthers, Jr.	Private Investor
Witt Caruthers	Caruthers Producing Company, Inc.
Libby Cassibry	Bossier School Board
Joseph Chambers	CenterPoint Energy
Vernon Chance	Committee of 100
Sherri Cheek	Legislative Aide to Senator Ron Bean
Alvin Childs	Vintage Realty Company
Bob Church	Desoto Parish Industrial District
Jimmy Cochran	Bossier Parish Police Jury
Linc Coleman	U.L.Properties Companies
Jim Conerly	Alliance for Education
James Cooper	Milam Street Development Project

Dewey Corley	Private Investor
Jay Covington	Forum News
Mike Craft	The Times
Tom Craig	North Webster Industrial District
George Dement	Mayor, City of Bossier City
David Dodd	
Jean Doerge	LA House of Representatives
Norman Dolch	LSUS
Severn Doughty	LSUS
Zazell Dudley	Dudley Enterprises/African American Chamber of Commerce
Nancy Dugas	CHRISTUS Schumpert Health System
Paige Ebner	United Way
Stephanie Edmiston	The Port of Shreveport-Bossier
Jim Elrod	Willis-Knighton Health System
Eric England	Port of Shreveport -Bossier
Glenda Erwin	LSUS
Rev. Dennis Everett	Lake Bethlehem Baptist Church
Rand Faulbaum	Sealy and Company
Larry Ferdinand	City of Shreveport
Don Floyd	CWA Local 3411
Arnie Frankel	AEP/SWEPCO
Rev. Carl Franklin	Fountain of Life Christian Center
John M. Frazier	Roos & Frazier, LLP
James N. Fritze	Red River Motor Company
J. Peter Gaffney	Heard, McElroy & Vestal

Rev. Joe Gant	Shreveport Airport Authority/Calvary Baptist Church
James C. Gardner	Former Mayor/Shreveport
Dave Gibbons	General Motors Corporation
Mike Gibson	Shreveport City Council
Pam Glorioso	City of Bossier City
John Good	Louisiana Riverwalk, LLC
Dr. Faye Green	Evergreen Baptist Church
Patsy Griffin	Pabst Creative
Nelva Griggs	Griggs Enterprises
Sue Gruber	Minden-South Webster Chamber of Commerce
Jessica Gudritz	Royal Limousine Service, Inc.
Dorothy Gwin, EdD	Comm. Foundation of Shreveport-Bossier
Robert B. Hamm	Berg, Inc.
Josh Hanson	Springhill/North Webster Chamber of Commerce
Rev Richard Hardy	St. Mary Baptist Church
Dave Harmon	General Motors—Shreveport Assembly Plant
Jerome Hatcher	LSUS
Sarah Haynes	Minden Medical Center
Willie Henderson	Caddo Parish School Board
Brent Henley	Pyramid Group
Simone Hennessee	Providence House
Ray Hicks	Grambling State University
Keith Hightower	Mayor, City of Shreveport
Miles Hitchcock	CHRISTUS Schumpert Health System
John Hoffman	Economic Development for Bossier Parish Community College

Jeff Hogan	Shreveport City Council
Susan Holmes	United Way
John W. Holt	The Port of Shreveport-Bossier
Roy Hopkins	LA House of Representatives
Herschel Horton	Louisiana Technical College--Natchitoches
Mike Howard	Isle of Capri Casino
Bishop Thomas Hoyt	Fourth Episcopal District
John Hubbard	AEP/SWEPCO
Scott Hughes	Morgan, Hill Sutton, Mitchell
John Hussey	Former Mayor/Shreveport
Lydia Jackson	LA House of Representatives
Theron Jackson	Shreveport City Council
Don Jagot	Pierre Bossier Mall
Bobby E. Jelks	KPMG LLP
Kathy Jiles	United Way of Northwest Louisiana
Dorothy Johnson	Association for Community Training
Don Jones	Former Mayor/Bossier City
Mark Jusselin	NTB Associates Inc.
Joe Kane	The Lamar Companies
Pat Keel	CHRISTUS Schumpert Health Systems
George Khoury	George A Khoury Foundation, Inc.
Pastor A. B. Kimble	New Covenant Baptist Church
Glenn Kinsey	Kinsey Interests, Inc.
Margaret W. Kinsey	
Sue Krebs	General Motors Plant

Horace R. Ladymon	Ladymon Company
Calvin Lester	Shreveport City Council
Arnold Lincove	Caddo Management, Inc.
Matt Locke	Locke Homes, Inc.
Karen Logan	Community Renewal
Dennis E. Lower	Biomedical Research Foundation of Northwest LA
Michael H. Madison	AEP SWEPCO
Michelle Mafuffie	Times
Dr. Vincent Marsala	Chancellor, LSUS
Brett Mattison	AEP-Southwestern Electric Power
Liz McCain	Greater Shreveport Chamber of Commerce
Mack McCarter	Shreveport Bossier Community Renewal
Rev. Clifford McClain	Little Union Baptist Church
Darrin McClary	North Webster Industrial District
Percy McCraney	Louisiana Technical College—Shreveport
Dr. John McDonald	Chancellor, LSUHSC-S
Bill McFadden	Stirling Properties
Harry E. McInnis, Jr.	McInnis Brothers Construction, Inc.
Philip McInnis	McInnis Brothers Construction, Inc.
Brandy McNeill	Providence House
Emily Metzgar	FAME
Joe Miciotto	Hospital Administrator, LSUHSC-S
Roy Miller	Shreveport Airport Authority
Dr. Stuart Mills	LSUS
Kim Mitchell	Morgan, Hill, Sutton & Mitchell Architects

Liz Mitchell	United Way of Northwest Louisiana
Jessica Monk	Greater Bossier Economic Development Foundation
David Montgomery	City of Bossier City Montgomery Insurance
Bonnie Moore	Centerpoint
Malcolm S. Murchison	Lemle, Kelleher, Barlow and Hardtner
Carolyn Nelson	Querbes and Nelson
Rick Osburne	CenturyTel
Michael Pabst	Pabst Creative
Joe Pierce	United Way of Northwest Louisiana
Carl Pierson	President, Caddo Commission
Don Pierson	Greater Bossier Economic Development Foundation Bossier Chamber of Commerce
Linda Price	United Way
Cecil Ramey	Lemle, Kelleher, Barlow and Hardtner
John Rankin	Goodwill Industries
John Richards	United Way
Elton Richey	LSUS Alumni President
Willie Roberson	Queensborough Neighborhood Association
Bill Robertson	Mayor, City of Minden
J. Kent Rogers	Northwest Louisiana Council of Governments
James Rogers	Bossier City Council
George Rolfe	Minden Main Street Public Works Director
Dr. Philip Rozeman	Alliance for Education
Larry Russo	Wiener, Weiss & Madison
Maxine Sarpy	Inner City Entrepreneur Institute
Charlotte Schaff	Willis-Knighton Medical Center

John Schmidt	KPMG LLP
Kenneth Schwab	Centenary College
Patricia Schwartz	Contracts with Work Commission
Mark Sealy	Sealy and Company
Aaron Selber, Jr.	Private Investor
Wayne Sensor	CHRISTUS Schumpert Health System
Sherburne Sentell	2002 Chairman, Minden South Webster Chamber of Commerce
John F. "Jack" Sharp	Biomedical Research Foundation of Northwest LA
Virginia Shehee	Biomedical Research Foundation of Northwest LA Kilpatrick Life Insurance
Diana Simek	Ark-la-tex Regional Export & Technology Center, Inc.
Bruce Simon	Bruce Simon Construction
Paul Sisson	LSUS
C. Stewart Slack	Slack, Alost & McSwain
Bill Smith	Desoto Parish Chamber of Commerce
Rev. Louis Smith	New Bethel Missionary Baptist Church
Ron Smith	Ron Smith Graphics
Ann Stokes	Louisiana Workforce Commission
Steve Tadlock	Century Tel Center
Andy Taft	Downtown Development Authority
Judy Talley	Minden Main Street Manager
Gregory Tarver	LA State Senate
Joe Taylor	Louisiana Dept of Economic Development
Don Terry	Entergy
Anita Thomas	Milam Street Development Project

Mary Ann Tice	Shreveport Sports Authority
Dian Tooke	Centenary College
Patti Trudell	CERT
Ronnie Tuminello	Up-In-Smoke
Harold Turner	Hibernia National Bank
Donald R. Updegraff	Northwestern Mutual Life Insurance Company/ Biomedical Research Foundation of Northwest LA
Al Vekovius	LSUS
Murray Viser	Viser Investments
Wayne Waddell	LA House of Representatives
Monty Walford	Shreveport City Council
Arthur L. Walker	Communications One
Lorenz Walker	City of Bossier City
Steve Walker	Bank One
Alton Warwick	Louisiana Hayride
Maggie Warwick	FAME
Markey Washington	Hollywood Casino & Hotel
Dr. Juan Watkins	Drs. Pou, Watkins, Thornton, Pou, Hollier & Watkins
Gard Wayt	Northwest Louisiana Partnership Wayt Insurance
Don P. Weiss	Wiener, Weiss & Madison
Kelly J. Wells	Shreveport-Bossier Convention & Tourist Bureau
Booker White	Greater Shreveport Chamber of Commerce
C. Cody White	Heard, McElroy & Vestal
Drew White	Northwest Louisiana Commerce Center
Judy O. Williams	Williams Creative Group, Inc.
Ernestine Williams Smith	E. Williams-Smith Associates, LLC

Charles Wilson	LSUS
Marcus Wren	South Webster Industrial District Minden
Donald Zadeck	LSU Health sciences Foundation Zadeck Energy Group

Appendix 3: Shift-Share Analysis

Appendix Table 1
Shift-Share, 1990-1997

SIC Code	Industry Code Description	Shreveport-Bossier MSA*			United States			Economic Growth Factor	Proportional Shift Factors	Differential Shift Factors	Note*
		1990	1997	% Change	1990	1997	% Change				
07--	AG. SERVICES, FORESTRY, & FISHING	719	1,107	54%	531,010	727,344	37%	0.1265	0.2433	0.1699	
700	Agricultural services	671	989	47%	500,048	685,704	37%	0.1265	0.2448	0.1019	(1)
800	Forestry	35	76	117%	17,981	26,530	48%	0.1265	0.3490	0.6960	(3)
10--	MINING	3,244	1,988	-39%	723,190	586,227	-19%	0.1265	-0.3159	-0.1978	
1300	Oil & gas extraction	3,044	1,872	-39%	291,970	268,645	-8%	0.1265	-0.2064	-0.3052	(1)
1400	Nonmetallic minerals, except fuels	10	20	111%	102,737	98,792	-4%	0.1265	-0.1649	1.1437	(2)
15--	CONSTRUCTION	9,532	13,397	41%	5,239,067	5,490,475	5%	0.1265	-0.0785	0.3575	
	General contractors & operative										
1500	builders	1,677	2,360	41%	1,352,043	1,274,707	-6%	0.1265	-0.1837	0.4649	(1)
1600	Heavy construction, except building	2,732	3,752	37%	734,499	768,283	5%	0.1265	-0.0805	0.3274	
1700	Special trade contractors	5,076	7,401	46%	3,130,012	3,447,485	10%	0.1265	-0.0251	0.3566	(2)
					19,173,38						
20--	MANUFACTURING	29,250	28,303	-3%	2	18,632,696	-3%	0.1265	-0.1547	-0.0042	
2000	Food & kindred products	736	562	-24%	1,452,803	1,539,682	6%	0.1265	-0.0667	-0.2957	(1)
2200	Textile mill products	175	10	-94%	655,010	553,198	-16%	0.1265	-0.2819	-0.7873	(3)
2300	Apparel & other textile products	264	309	17%	1,027,456	835,219	-19%	0.1265	-0.3136	0.3557	(3)
2400	Lumber & wood products	391	590	51%	706,949	745,254	5%	0.1265	-0.0723	0.4567	(3)
2500	Furniture & fixtures	79	213	171%	510,423	514,504	1%	0.1265	-0.1185	1.7054	(1)
2600	Paper & allied products	499	649	30%	631,448	621,072	-2%	0.1265	-0.1429	0.3170	(1)
2700	Printing & publishing	1,775	1,626	-8%	1,551,685	1,501,714	-3%	0.1265	-0.1587	-0.0517	(2)

SIC Code	Industry Code Description	Shreveport–Bossier MSA*			United States			Economic Growth Factor	Proportiona l Shift Factors	Differential Shift Factors	Note*
		1990	1997	% Change	1990	1997	% Change				
2800	Chemicals & allied products	6,195	6,196	0%	864,307	832,546	-4%	0.1265	-0.1632	0.0369	(1)
2900	Petroleum & coal products	2,419	2,559	6%	113,467	107,829	-5%	0.1265	-0.1762	0.1074	(3)
3000	Rubber & misc. plastics products	852	728	-15%	882,821	1,015,177	15%	0.1265	0.0234	-0.2955	(2)
3200	Stone, clay, & glass products	2,111	1,772	-16%	522,856	500,828	-4%	0.1265	-0.1686	-0.1183	(1)
3300	Primary metal industries	325	249	-23%	722,603	686,161	-5%	0.1265	-0.1769	-0.1834	(1)
3400	Fabricated metal products	3,351	2,274	-32%	1,483,334	1,537,591	4%	0.1265	-0.0899	-0.3580	(2)
3500	Industrial machinery & equipment	1,511	1,653	9%	1,922,159	1,954,761	2%	0.1265	-0.1095	0.0770	
3600	Electronic & other electronic equipment	3,984	2,239	-44%	1,556,961	1,528,348	-2%	0.1265	-0.1449	-0.4197	(1)
	(continued next page)										
3700	Transportation equipment	5,509	5,674	3%	1,797,524	1,573,789	-12%	0.1265	-0.2510	0.1544	(3)
3800	Instruments & related products	121	87	-28%	965,916	813,612	-16%	0.1265	-0.2842	-0.1203	(3)
3900	Misc. manufacturing industries	290	183	-37%	394,154	399,391	1%	0.1265	-0.1132	-0.3812	(1)
40--	TRANSPORTATION & PUBLIC UTILITIES	12,074	11,551	-4%	5,591,848	6,246,593	12%	0.1265	-0.0094	-0.1604	
4100	Local & interurban passenger transit	179	598	235%	329,040	451,196	37%	0.1265	0.2448	1.9761	(1)
4200	Trucking & warehousing	3,240	2,900	-10%	1,574,833	1,940,123	23%	0.1265	0.1055	-0.3369	(2)
4400	Water transportation	466	409	-12%	158,031	178,281	13%	0.1265	0.0017	-0.2495	(1)
4500	Transportation by air	764	797	4%	674,058	796,445	18%	0.1265	0.0551	-0.1390	
4600	Pipelines, except natural gas	79	75	-4%	15,310	15,023	-2%	0.1265	-0.1452	-0.0258	(3)
4700	Transportation services	494	303	-39%	370,094	421,621	14%	0.1265	0.0127	-0.5252	(3)
4800	Communication	2,739	2,842	4%	1,273,849	1,413,655	11%	0.1265	-0.0167	-0.0721	(1)
4900	Electric, gas, & sanitary services	3,154	2,924	-7%	871,335	839,970	-4%	0.1265	-0.1625	-0.0371	(2)
50--	WHOLESALE TRADE	11,061	11,966	8%	6,327,616	6,810,072	8%	0.1265	-0.0502	0.0056	(2)
5000	Wholesale trade – durable goods	6,852	7,003	2%	3,559,942	3,850,321	8%	0.1265	-0.0449	-0.0595	(1)
5100	Wholesale trade – nondurable goods	3,310	4,823	46%	2,433,023	2,636,490	8%	0.1265	-0.0429	0.3737	(1)

SIC Code	Industry Code Description	Shreveport-Bossier MSA*			United States			Economic Growth Factor	Proportiona l Shift Factors	Differential Shift Factors	Note*
		1990	1997	% Change	1990	1997	% Change				
		19,815,05									
52--	RETAIL TRADE	35,420	44,317	25%	4	22,002,559	11%	0.1265	-0.0161	0.1408	
5200	Building materials & garden supplies	1,365	1,818	33%	703,306	856,865	22%	0.1265	0.0919	0.1135	
5300	General merchandise stores	4,638	6,660	44%	2,135,262	2,445,425	15%	0.1265	0.0188	0.2907	
5400	Food stores	5,398	5,578	3%	3,123,616	3,162,132	1%	0.1265	-0.1142	0.0210	
5500	Automotive dealers & service stations	4,687	5,952	27%	2,103,540	2,311,582	10%	0.1265	-0.0276	0.1710	
5600	Apparel & accessory stores	2,256	2,282	1%	1,192,512	1,084,560	-9%	0.1265	-0.2170	0.1018	
5700	Furniture & home furnishings stores	1,416	1,478	4%	749,066	866,807	16%	0.1265	0.0307	-0.1134	(2)
5800	Eating & drinking places	10,802	15,668	45%	6,460,638	7,597,133	18%	0.1265	0.0494	0.2746	
5900	Miscellaneous retail	4,331	4,630	7%	2,486,995	2,807,467	13%	0.1265	0.0024	-0.0597	(1)
60--	FINANCE, INSURANCE, & REAL ESTATE	9,529	8,272	-13%	6,956,484	7,366,687	6%	0.1265	-0.0675	-0.1909	
6000	Depository institutions	3,453	2,670	-23%	2,032,758	2,066,890	2%	0.1265	-0.1097	-0.2436	
6100	Nondepository institutions	788	668	-15%	505,793	566,999	12%	0.1265	-0.0055	-0.2728	(1)
6200	Security & commodity brokers	221	488	121%	410,826	674,821	64%	0.1265	0.5161	0.5683	(1)
6300	Insurance carriers	1,806	949	-47%	1,406,594	1,561,115	11%	0.1265	-0.0166	-0.5842	(2)
6400	Insurance agents, brokers, & service	1,188	1,323	11%	712,305	718,531	1%	0.1265	-0.1177	0.1049	
(continued next page)											
6500	Real estate	1,811	1,876	4%	1,374,297	1,417,634	3%	0.1265	-0.0949	0.0046	(1)
6700	Holding & other investment offices	326	331	2%	263,153	269,358	2%	0.1265	-0.1029	-0.0067	(1)
		28,800,08									
70--	SERVICES	51,425	82,845	61%	8	37,380,074	30%	0.1265	0.1714	0.3131	(2)
7000	Hotels & other lodging places	1,371	9,186	570%	1,528,711	1,696,642	11%	0.1265	-0.0166	5.5904	
7200	Personal services	2,292	2,891	26%	1,196,387	1,287,106	8%	0.1265	-0.0507	0.1855	
7300	Business services	6,141	10,877	77%	5,118,730	8,017,839	57%	0.1265	0.4399	0.2048	
7500	Auto repair, services, & parking	1,743	2,070	19%	876,852	1,107,152	26%	0.1265	0.1362	-0.0750	

SIC Code	Industry Code Description	Shreveport–Bossier MSA*			United States			Economic Growth Factor	Proportiona l Shift Factors	Differential Shift Factors	Note*
		1990	1997	% Change	1990	1997	% Change				
7600	Miscellaneous repair services	1,162	1,446	24%	403,351	423,502	5%	0.1265	-0.0765	0.1944	
7800	Motion pictures	365	485	33%	429,843	555,926	29%	0.1265	0.1668	0.0354	
7900	Amusement & recreation services	2,053	5,653	175%	1,032,442	1,466,346	42%	0.1265	0.2938	1.3333	
8000	Health services	21,467	32,129	50%	8,811,000	11,348,141	29%	0.1265	0.1615	0.2087	
8100	Legal services	1,673	1,953	17%	931,807	971,998	4%	0.1265	-0.0833	0.1246	(1)
8200	Educational services	2,042	2,056	1%	1,755,206	2,183,438	24%	0.1265	0.1175	-0.2369	(1)
8300	Social services	3,092	3,991	29%	1,750,179	2,246,164	28%	0.1265	0.1569	0.0074	
	Museums, botanical, zoological gardens	69	50	-27%	63,590	90,117	42%	0.1265	0.2907	-0.6872	(1)
8400	gardens	69	50	-27%	63,590	90,117	42%	0.1265	0.2907	-0.6872	(1)
8600	Membership organizations	4,861	5,787	19%	1,891,992	2,207,886	17%	0.1265	0.0405	0.0235	(2)
8700	Engineering & management services	2,540	3,751	48%	2,472,932	3,181,353	29%	0.1265	0.1600	0.1903	
8900	Services, n.e.c.	300	262	-13%	184,489	99,865	-46%	0.1265	-0.5852	0.3318	(1)
	Total Employment	162,800	203,869	25%	93,476,087	105,299,123	13%				

*Comprised of Bossier, Caddo, and Webster Parishes.

**Census reports data in employment range categories for industries where individual firm data could be revealed otherwise. For purposes of this analysis, the midpoint of the corresponding employment category was used. MSA values are the sum of employment in Bossier, Caddo and Webster Parishes, any one of which may have reported employment in a range, as follows:

- (1) 1990 MSA data includes the midpoint of the range reported by Census for at least one county.
- (2) 1997 MSA data includes the midpoint of the range reported by Census for at least one county.
- (3) 1990 and 1997 MSA data both include the midpoint of the range reported by Census for at least one county.

Source: County Business Patterns (US Census Bureau) and Economics Research Associates.

Appendix Table 2
Shift-Share, 1998-2000

NAICS		Shreveport-Bossier MSA			United States			Economic Proportiona			
		1998	2000	% Change	1998	2000	% Change	Growth Factor	1 Shift Factors	Differential Shift Factors	Note
11	Forestry, fishing, hunting, & agriculture support	375	369	-1%	187,133	183,565	-2%	0.0550	-0.0741	0.0044	(1)
113	Forestry & logging	175	375	115%	84,170	83,143	-1%	0.0550	-0.0672	1.1583	(2)
114	Fishing, hunting & trapping	n/a	n/a	n/a	9,313	9,988	7%	0.0550	0.0175	n/a	
115	Agriculture & forestry support activities	175	175	0%	93,650	90,434	-3%	0.0550	-0.0893	0.0343	(3)
21	Mining	1,539	1,546	0%	497,843	456,128	-8%	0.0550	-0.1388	0.0883	
211	Oil & gas extraction	750	750	0%	97,039	83,012	-14%	0.0550	-0.1996	0.1446	(3)
212	Mining (except oil & gas)	60	60	0%	225,303	204,329	-9%	0.0550	-0.1481	0.0931	(3)
213	Mining support activities	750	750	0%	175,501	168,787	-4%	0.0550	-0.0933	0.0383	(3)
22	Utilities	3,750	1,750	-53%	682,217	655,230	-4%	0.0550	-0.0946	-0.4938	(3)
221	Utilities	3,750	1,750	-53%	682,217	655,230	-4%	0.0550	-0.0946	-0.4938	(3)
23	Construction	9,224	9,263	0%	5,798,261	6,572,800	13%	0.0550	0.0786	-0.1294	
233	Building, developing & general contracting	2,280	2,132	-6%	1,434,123	1,604,913	12%	0.0550	0.0641	-0.1840	
234	Heavy construction	1,353	1,242	-8%	803,924	900,987	12%	0.0550	0.0657	-0.2028	
235	Special trade contractors	5,591	5,889	5%	3,560,214	4,066,900	14%	0.0550	0.0873	-0.0890	
31	Manufacturing	18,295	16,854	-8%	16,945,834	16,473,994	-3%	0.0550	-0.0829	-0.0509	
311	Food mfg	375	750	100%	1,464,419	1,468,254	0%	0.0550	-0.0524	0.9987	(3)
312	Beverage & tobacco product mfg	10	10	0%	172,892	169,230	-2%	0.0550	-0.0762	0.0212	(3)
313	Textile mills	10	10	0%	385,454	339,394	-12%	0.0550	-0.1745	0.1195	(3)
314	Textile product mills	60	60	0%	217,355	215,669	-1%	0.0550	-0.0628	0.0078	(3)
315	Apparel manufacturing	175	60	-66%	671,184	510,482	-24%	0.0550	-0.2944	-0.4196	(3)
316	Leather & allied product mfg	n/a	n/a	n/a	79,325	68,512	-14%	0.0550	-0.1913	n/a	
321	Wood product mfg	750	750	0%	580,290	597,684	3%	0.0550	-0.0250	-0.0300	(3)
322	Paper mfg	750	750	0%	567,891	553,943	-2%	0.0550	-0.0796	0.0246	(3)
323	Printing & related support activities	750	750	0%	845,053	813,389	-4%	0.0550	-0.0925	0.0375	(3)
324	Petroleum & coal products mfg	750	750	0%	111,000	109,223	-2%	0.0550	-0.0710	0.0160	(3)

NAICS Code	Industry Description	Shreveport-Bossier MSA			United States			Economic Proportiona			
		1998	2000	% Change	1998	2000	% Change	Growth Factor	I Shift Factors	Differential Shift Factors	Note
325	Chemical mfg	750	750	0%	900,706	885,848	-2%	0.0550	-0.0715	0.0165	(3)
326	Plastics & rubber products mfg	1,197	1,174	-2%	1,030,378	1,056,507	3%	0.0550	-0.0296	-0.0446	
327	Nonmetallic mineral product mfg	1,750	1,750	0%	508,270	523,698	3%	0.0550	-0.0247	-0.0304	(3)
331	Primary metal mfg	375	175	-53%	615,171	601,627	-2%	0.0550	-0.0770	-0.5120	(3)
332	Fabricated metal product mfg	2,979	2,642	-11%	1,816,198	1,790,817	-1%	0.0550	-0.0690	-0.0992	
	(continued next page)										
333	Machinery mfg	1,750	1,750	0%	1,444,438	1,377,950	-5%	0.0550	-0.1010	0.0460	(3)
334	Computer & electronic product mfg	1,750	750	-57%	1,680,833	1,557,087	-7%	0.0550	-0.1286	-0.4980	(3)
335	Electrical equip, appliance & component mfg	1,750	1,750	0%	602,395	589,406	-2%	0.0550	-0.0766	0.0216	(3)
336	Transportation equipment mfg	3,750	3,750	0%	1,911,337	1,872,630	-2%	0.0550	-0.0753	0.0203	(3)
337	Furniture & related product mfg	163	60	-63%	603,853	640,444	6%	0.0550	0.0056	-0.6956	(2)
339	Miscellaneous mfg	393	409	4%	737,392	732,200	-1%	0.0550	-0.0620	0.0478	
42	Wholesale trade	7,709	7,442	-3%	5,884,946	6,112,029	4%	0.0550	-0.0164	-0.0732	
421	Wholesale trade, durable goods	4,210	4,079	-3%	3,466,550	3,624,617	5%	0.0550	-0.0094	-0.0767	
422	Wholesale trade, nondurable goods	3,499	3,363	-4%	2,418,396	2,487,412	3%	0.0550	-0.0265	-0.0674	
44	Retail trade	20,985	21,020	0%	14,240,726	14,840,775	4%	0.0550	-0.0129	-0.0405	
441	Motor vehicle & parts dealers	3,263	3,169	-3%	1,757,196	1,866,293	6%	0.0550	0.0071	-0.0909	
442	Furniture & home furnishing stores	718	710	-1%	509,699	549,184	8%	0.0550	0.0225	-0.0886	
443	Electronics & appliance stores	375	273	-27%	361,876	407,321	13%	0.0550	0.0706	-0.3966	(1)
444	Bldg material & garden equip & supp dealers	1,644	1,737	6%	1,131,161	1,235,387	9%	0.0550	0.0371	-0.0356	
445	Food & beverage stores	3,301	3,341	1%	2,943,644	3,004,410	2%	0.0550	-0.0344	-0.0085	
446	Health & personal care stores	1,426	1,300	-9%	940,220	913,896	-3%	0.0550	-0.0830	-0.0604	
447	Gasoline stations	1,844	1,599	-13%	946,405	937,083	-1%	0.0550	-0.0649	-0.1230	
448	Clothing & clothing accessories stores	1,972	1,810	-8%	1,280,356	1,368,665	7%	0.0550	0.0140	-0.1511	
451	Sporting goods, hobby, book & music stores	619	750	21%	579,768	616,237	6%	0.0550	0.0079	0.1479	(2)
452	General merchdise stores	4,438	4,645	5%	2,479,150	2,526,107	2%	0.0550	-0.0361	0.0277	
453	Miscellaneous store retailers	1,079	1,219	13%	795,891	849,661	7%	0.0550	0.0126	0.0622	
454	Nonstore retailers	375	375	0%	515,360	566,531	10%	0.0550	0.0443	-0.0993	(3)

NAICS Code	Industry Description	Shreveport-Bossier MSA			United States			Economic Proportiona			
		1998	2000	% Change	1998	2000	% Change	Growth Factor	I Shift Factors	Differential Shift Factors	Note
48	Transportation & warehousing	3,049	3,324	9%	3,462,472	3,790,002	9%	0.0550	0.0396	-0.0044	
481	Air transportation	164	176	7%	560,023	615,605	10%	0.0550	0.0442	-0.0261	
483	Water transportation	n/a	n/a	n/a	72,754	67,574	-7%	0.0550	-0.1262	n/a	
484	Truck transportation	1,750	1,750	0%	1,327,086	1,415,794	7%	0.0550	0.0118	-0.0668	(3)
485	Transit & ground passenger transportation	175	375	115%	349,343	386,874	11%	0.0550	0.0524	1.0387	(3)
486	Pipeline transportation	60	60	0%	49,406	52,960	7%	0.0550	0.0169	-0.0719	(3)
487	Scenic & sightseeing transportation	10	n/a	n/a	23,076	23,612	2%	0.0550	-0.0318	n/a	(1)
488	Transportation support activities	340	375	10%	421,740	472,372	12%	0.0550	0.0650	-0.0186	(2)
492	Couriers & messengers (continued next page)	375	375	0%	539,551	619,313	15%	0.0550	0.0928	-0.1478	(3)
493	Warehousing & storage	175	175	0%	119,493	135,898	14%	0.0550	0.0823	-0.1373	(3)
51	Information	3,034	3,263	8%	3,141,957	3,545,731	13%	0.0550	0.0735	-0.0530	
511	Publishing industries	750	750	0%	1,011,090	1,080,664	7%	0.0550	0.0138	-0.0688	(3)
512	Motion picture & sound recording industries	167	289	73%	281,701	304,204	8%	0.0550	0.0249	0.6507	
513	Broadcasting & telecommunications	1,750	1,750	0%	1,462,680	1,631,832	12%	0.0550	0.0606	-0.1156	(3)
514	Information & data processing services	175	175	0%	386,486	529,031	37%	0.0550	0.3138	-0.3688	
52	Finance & insurance	4,999	4,861	-3%	5,770,209	5,963,426	3%	0.0550	-0.0215	-0.0611	
521	Monetary authorities – central bank	n/a	n/a	n/a	21,456	22,337	4%	0.0550	-0.0139	n/a	
522	Credit intermediation & related activities	2,561	2,654	4%	2,688,253	2,753,190	2%	0.0550	-0.0309	0.0122	
523	Security, commodity contracts & like activity	375	375	0%	724,207	866,222	20%	0.0550	0.1411	-0.1961	
524	Insurance carriers & related activities	1,914	1,750	-9%	2,312,341	2,290,162	-1%	0.0550	-0.0646	-0.0764	
525	Funds, trusts, & other financial vehicles (part)	60	60	0%	23,952	31,515	32%	0.0550	0.2607	-0.3158	
53	Real estate & rental & leasing	2,057	2,121	3%	1,812,621	1,942,046	7%	0.0550	0.0164	-0.0403	
531	Real estate	1,750	1,750	0%	1,197,428	1,279,547	7%	0.0550	0.0136	-0.0686	
532	Rental & leasing services	750	750	0%	592,602	636,037	7%	0.0550	0.0183	-0.0733	
533	Lessors of other nonfinancial intangible asset	10	10	0%	22,591	26,462	17%	0.0550	0.1163	-0.1714	(3)
54	Professional, scientific & technical services	5,049	4,685	-7%	6,051,636	6,816,216	13%	0.0550	0.0713	-0.1984	
541	Professional, scientific & technical services	5,049	4,685	-7%	6,051,636	6,816,216	13%	0.0550	0.0713	-0.1984	

NAICS Code	Industry Description	Shreveport-Bossier MSA			United States			Economic Proportiona			
		1998	2000	% Change	1998	2000	% Change	Growth Factor	I Shift Factors	Differential Shift Factors	Note
55	Management of companies & enterprises	750	613	-18%	2,703,798	2,873,521	6%	0.0550	0.0078	-0.2449	(3)
551	Management of companies & enterprises Admin, support, waste mgt, remediation services	750	613	-18%	2,703,798	2,873,521	6%	0.0550	0.0078	-0.2449	(3)
56	Administrative & support services	9,239	13,125	42%	7,774,610	9,138,100	18%	0.0550	0.1204	0.2452	
561	Administrative & support services	7,500	17,500	133%	7,487,211	8,846,617	18%	0.0550	0.1266	1.1519	(3)
562	Waste management & remediation services	375	375	0%	287,399	291,483	1%	0.0550	-0.0408	-0.0142	(3)
61	Educational services	1,452	1,298	-11%	2,323,744	2,532,324	9%	0.0550	0.0348	-0.1958	
611	Educational services	1,452	1,298	-11%	2,323,744	2,532,324	9%	0.0550	0.0348	-0.1958	
62	Health care & social assistance	25,656	26,735	4%	13,757,996	14,108,655	3%	0.0550	-0.0295	0.0166	
621	Ambulatory health care services	5,988	5,493	-8%	4,482,156	4,566,196	2%	0.0550	-0.0363	-0.1014	
622	Hospitals	17,500	13,780	-21%	5,011,337	5,014,641	0%	0.0550	-0.0543	-0.2132	(1)
623	Nursing & residential care facilities	3,968	4,387	11%	2,511,150	2,592,119	3%	0.0550	-0.0228	0.0734	
624	Social assistance	3,750	3,075	-18%	1,753,353	1,935,699	10%	0.0550	0.0490	-0.2839	(1)
71	Arts, entertainment & recreation (continued next page) Performing arts, spectator sports, & related ind.	4,640	3,750	-19%	1,583,783	1,741,497	10%	0.0550	0.0446	-0.2915	(2)
711	ind.	750	750	0%	312,051	351,919	13%	0.0550	0.0728	-0.1278	(3)
712	Museums, historical sites & like institutions Amusement, gambling & recreation industries	60	60	0%	96,511	110,380	14%	0.0550	0.0887	-0.1437	(3)
713	industries	3,750	3,750	0%	1,175,221	1,279,198	9%	0.0550	0.0335	-0.0885	(3)
72	Accommodation & food services	16,685	16,866	1%	9,466,088	9,880,923	4%	0.0550	-0.0112	-0.0330	
721	Accommodation	5,508	5,598	2%	1,708,002	1,767,782	3%	0.0550	-0.0200	-0.0187	
722	Food services & drinking places	11,177	11,268	1%	7,758,086	8,113,141	5%	0.0550	-0.0092	-0.0376	
81	Other services (except public administration)	8,369	9,402	12%	5,037,866	5,293,399	5%	0.0550	-0.0043	0.0727	
811	Repair & maintenance	2,039	2,004	-2%	1,302,873	1,334,206	2%	0.0550	-0.0310	-0.0412	
812	Personal & laundry services	1,803	2,121	18%	1,247,387	1,293,215	4%	0.0550	-0.0183	0.1396	
813	Religious, grantmaking, civic, prof & like org.	4,527	5,277	17%	2,487,606	2,665,978	7%	0.0550	0.0167	0.0940	
95	Auxiliaries (exc corporate, subsidiary & reg	375	375	0%	916,349	1,001,015	9%	0.0550	0.0374	-0.0924	(3)

NAICS Code	Industry Description	Shreveport-Bossier MSA			United States			Economic Proportiona			
		1998	2000	% Change	1998	2000	% Change	Growth Factor	I Shift Factors	Differential Shift Factors	Note
99	Unclassified establishments mgt)	60	175	193%	77,642	143,600	85%	0.0550	0.7945	1.0833	(3)
	Total	146,661	149,813	2%	108,117,731	114,064,97	6%	0.0550	0.0000	-0.0335	

(1) 1998 MSA data is the midpoint of the range reported by Census (for industries where the employment of individual firms could be determined, Census reports a range only to protect anonymity).

(2) 2000 MSA data is the midpoint of the range reported by Census (for industries where the employment of individual firms could be determined, Census reports a range only to protect anonymity).

(3) Both 1998 and 2000 MSA data are the midpoint of the ranges reported by Census (for industries where the employment of individual firms could be determined, Census reports a range only to protect anonymity).

Source: County Business Patterns, US Census Bureau (www.census.gov), and Economics Research Associates.