HORIZON 2020 DATA ANALYSIS

Douglas County/City of Lawrence

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FORWARD

The following report has been prepared to assist the people of the City of Lawrence and Douglas County in developing a community-based strategic plan as part of the Horizon 2020 project. The purpose of this report is to provide data and analysis which will lead to a better understanding of local and broad scale issues which impact upon the local economy. This is one of several documents being prepared which should help in identifying key issues which should be addressed in plans of action. Results of this report are to be presented at a public meeting to be held in Lawrence during the early fall of 1992 and are summarized in detail in the following chapters.

The Kansas Center for Community Economic Development (KCCED) is funded by a grant from the U.S. Department of Commerce, Economic Development Administration. KCCED is a joint university center between the Institute for Public Policy and Business Research at the University of Kansas and the Kansas Center for Rural Initiatives at Kansas State University. The statements, findings, and conclusions of this report are solely those of the authors and do not necessarily reflect the views of the United States Government, the State of Kansas, the University of Kansas, nor any other individual or organization.

It is hoped that *Horizon 2020 Data Analysis* will serve as a useful source of information. Further reproduction of the data presented in this report is permissible on condition that the source is cited. For those wishing to conduct a more in-depth analysis of their county, additional information may be obtained by contacting the sources cited in this report. KCCED, through the Institute for Public Policy and Business Research at the University of Kansas and the Kansas Center for Rural Initiatives at Kansas State University, has access to additional data and can provide technical assistance, data analysis, and survey support.

Special thanks are extended to the staff at the Kansas Center for Community Economic Development and the Institute for Public Policy and Business Research (IPPBR) who helped make this report possible: Linda Bennett, Office Manager, for her support with word processing and graphics production, and who helped manage work in progress; and to Shakura Jackson, who provided word processing support. Guidance for the report was provided by Dr. Charles Krider, Co-Director, KCCED/KU.

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Executive Summary

This report, commissioned for the Horizon 2020 strategic planning project, surveys some of the more significant demographic and economic trends in the City of Lawrence and Douglas County, Kansas. Through contrast and comparison with counties with similar characteristics, relative strengths and weaknesses have been assessed.

The Lawrence-Douglas County area is a community with a growing population, high quality work force, and modern economic base, enhanced by the presence of a major regional university. Its development in recent years has been shaped by two significant forces. First, with three colleges, it is a major center for college education. Much of its development has been influenced by its large student population. Second, Douglas County is sandwiched between two metropolitan areas, and has captured some of the spillover benefits from this location. Throughout the report which follows, Douglas County's pattern of performance over the past decade has resembled that of either the out- of-state college communities it is compared with, or that of the metropolitan counties it borders, particularly Johnson County.

The People

The population of Douglas County is relatively young, ethnically diverse and well educated, presenting a positive outlook for the sustainability of the community's future economic health and quality of life. The county's population has grown faster than most areas with which it has been compared in this analysis, fueled in part by a net increase in new residents moving into the county from elsewhere. Population growth rates are expected to moderate somewhat, thus allowing for growth to remain manageable. Indications are that the population will continue to be characterized by high levels of educational attainment. In contrast, however, the overall income levels of the community's residents are relatively low. Most of this is centered around the non-family or student households, who typically furnish much part-time and seasonal labor, while family-based households enjoy higher than average incomes.

The Economy

Lawrence and Douglas County possess a diverse economic base with sizable firms in nearly all industrial sectors. The community has experienced high rates of growth in new jobs and in the total number of persons employed. Like most of the areas with which the county is compared in this analysis, unemployment has remained relatively low over the past decade. In addition to employment, the community has seen significant growth in the number of business firms in operation, as well as high steady growth in retail sales. Key industrial sectors to which much of the growth can be attributed include services, retail trade,

and finance, insurance and real estate.

Despite these positive economic trends, many Douglas County workers receive low levels of earnings in comparison with similar communities, including other college communities. Family households fare well, but non-family household incomes are low. A high percentage of residents commute to jobs outside Douglas County, mostly in the Kansas City and Topeka metropolitan areas.

Other positive aspects of the county's economic environment, however, include strength and growth in the community's financial resources and the presence and proximity of technological resources, including the University of Kansas. The community's infrastructure is relatively strong yet subject to pressures and weaknesses such as rapidly increasing highway traffic and lagging growth in nonresidential construction.

Community Resources

Data on public school expenditures and enrollments and the stability of university and college enrollment indicate considerable strength in educational resources in Douglas County. However, there are indications that child care and preschool resources do not adequately fulfill demands for those services, which provide the foundations for the education of the community's children. Cultural resources are relatively abundant in the Lawrence and Douglas County area and provide ample opportunities for adult education and recreation.

Challenges and Opportunities

Amid the high rates of population growth and job creation, many challenges and opportunities present themselves. Rates of home ownership are relatively low, the housing market is characterized as tight, and housing affordability is becoming a concern. Housing unit construction has not kept pace with the formation of new households. While in general terms, incomes for family households are high and poverty rates are low, there are considerable numbers in non-family households earning very low incomes. While overall rates of residential construction have been healthy, Douglas County has not kept pace with its comparatives for non-residential construction. The county presently has relatively low levels of health care resources, although convenient access to health care providers in Kansas City and Topeka areas offset this to some degree. As the population continues to grow and age, Douglas County will need to ensure its medical facilities will be appropriate.

Another challenge for Douglas County may be determining how best to enrich the job market, by transforming some of the present part-time and seasonal jobs into permanent, higher-paying jobs. Among the many opportunities could be capitalizing upon new state technology policies, university linkages and the proximity to metropolitan centers to generate higher value-added employment opportunities in developing industries. Among the assets Douglas County has available are a strong banking industry, nearby centers for technology and capital assistance, and much flexibility in the present capabilities of its local governments for public investment. Its well-educated labor force adds to the Douglas County's attractiveness for investment.

However these challenges and opportunities are dealt with, it is clear that Douglas County will be following a path very different from the typical Kansas community. It is unlike many of the other metropolitan counties, because of the impact of the colleges within it. It is also unlike some of the college communities it is compared with in the report, because of the influence of Johnson County, Kansas upon its development. Ultimately, Douglas County should reap a number of benefits from these two forces. While the former provides a great deal of stability, the latter provides opportunities for growth. How these two forces come together will have a lot to do with the type of community Douglas County will be when Horizon 2020 becomes a reality.

Introduction

This report has been prepared as an initial resource document for the City of Lawrence-Douglas County Horizon 2020 strategic plan. The use of data in strategic planning is important for two reasons. First, data assists a community in "taking stock" and understanding its current situation across several different areas of economic and demographic performance. Data provides insight into the internal and external trends which affect the community, facilitating comparisons of local performance with that of other areas, such as the state or nation. Second, using data in preparing a community strategic plan can ensure the long-run success of the planning effort and its eventual outcomes by:

- *Testing Assumptions*--data can confirm or disprove popular impressions and preconceived ideas that a community might have about its current situation.

- *Building Consensus*--data can foster a common understanding regarding trends and concerns affecting the community, and can move the community toward solving common goals.

- *Establishing the Direction the Process Should Take*--data can serve as a compass in the strategic planning process and can help in determining the next step; for example, a community may decide to delay developing particular strategies until it has a better understanding of the reasons behind trends in the data.

- *Identifying Key Issues*--data analysis can be a very powerful tool for the community in identifying its relative strengths and weaknesses, leading to the development of key issues to be addressed through the strategic action plan.

Data does not by itself lead to a well-founded understanding of the community. Data must be analyzed and interpreted, taking into account local knowledge and intuition about what the overall trends really mean. In other words, data serves as the foundation for an analysis which concludes: 1) what is happening in the community, relative to other regions over time, and 2) what potential impacts or consequences are suggested from the data. From this point, the community can then begin to formulate strategies and solutions.

In the following sections, data is presented and analyzed in overview fashion for regional and national trends and then at a more local scale in chapters which parallel the seven foundations of programming for economic development in Kansas (Human Capital-population and education, Infrastructure Capital, Business Environment, Financial Capital, Innovation and Technology Capital, Commitment and Capacity Capital, and Quality of Life.) Housing has been given a separate section. The organization of data along these themes has been done to help participants link issues and strategies to state and federal strategies, and to help the local community in taking advantage of existing programs wherever possible.

Throughout the report, local-level materials will be presented relating Douglas County's economic performance through the past decade with the State of Kansas, neighboring metropolitan counties and with out of state counties with characteristics similar to Douglas County, i.e. "college communities". The counties to be used for benchmark comparisons of Douglas County's performance are:

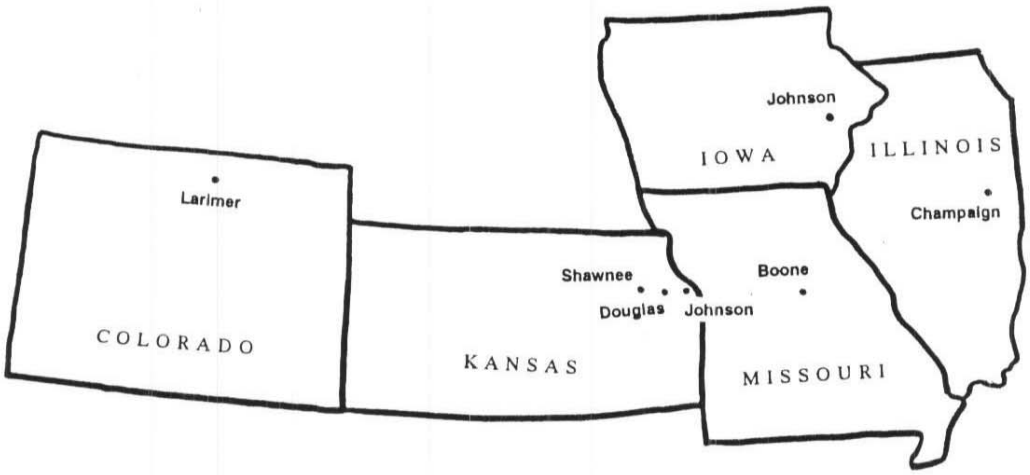
- Within Kansas - Johnson, Shawnee and an aggregate total of the nine counties designated by the US Census as metropolitan (Johnson, Miami, Wyandotte, Leavenworth, Douglas, Shawnee, Sedgwick, Butler and Harvey). On occasion, Douglas County data has been extracted from these totals for better comparison with Douglas County performance. At times, reference will be made to Metropolitan Statistical Areas, which are normally composites of some of the above counties.

- Out-of-state counties - Four counties selected for their similarity in location, employment base, community characteristics, and the presence of a major university: Boone County, Missouri - University of Missouri at Columbia; Johnson County, Iowa - Iowa University at Iowa City; Larimer County, Colorado - Colorado State University at Fort Collins; and, Champaign County, Illinois - University of Illinois at Urbana-Champaign.

These counties will be referred to as "comparative counties" throughout the report. In instances where data is not available or is not consistent for out-of-state comparatives, the term "Kansas comparatives" will be used. Map 0.1, shown below, shows the location of the counties for which data is examined in this report.

Map 0.1

Douglas County Comparative Counties



Section I: Global, Regional & National Trends

While development occurs at the local level, it is becoming increasingly subject to global forces. In the short run, global scale trends may appear too distant; however these trends can have profound impacts upon a community. For example, the worldwide shift from goods-producing economies toward more service-based economies, especially apparent during the early 1980s, created enormous adjustments in local labor forces. Similarly, technological change and the growth in foreign trade have created threats to some communities' well-being, while these have presented others with opportunities for expansion. Worldwide change, while presenting a new set of constraints about what can be done at the local level, has also generated opportunities. In an increasingly competitive global economy, successful communities are positioning themselves to build upon their internal strengths and are anticipating opportunities by preparing in advance rather than reacting in the face of change.

The range of global, national and regional factors which can affect the international competitiveness of a community is very broad. In the following section, some of these are isolated to provide a more complete context for the local level data which is presented in subsequent sections of this report:

- *Population growth rates* and demographic change, evidenced in the *age of the population* and the distribution of *urban and rural population* demonstrate Kansas' recent and expected growth relative to the nation, with implications for the labor force;

- *Educational attainment levels* is an indicator of how well prepared the Kansas workforce is, while the *age structure of the workforce* foreshadows changes in the stability, flexibility and future training needs of the labor force;

- *Employment projections by industry and occupation* indicates where job growth is expected to occur, while changes in the *average weekly earnings by industry* illustrate the industries which have been growing in productivity nationwide over the decade;

- *Job creation, by firm size* shows which types of firms have contributed most to job growth; Employment and per capita income *contrasts between metropolitan and non-metropolitan areas* further explain the changing fabric of the Kansas economy;

- The changing *levels of exports, imports and foreign investment* show how interdependent the U.S. and worldwide economies have become; and,

- The levels of *state and local taxes per capita* indicate the relative tax burden in Kansas, with implications for the level of competitiveness of Kansas firms and the overall standard of living for Kansas residents.

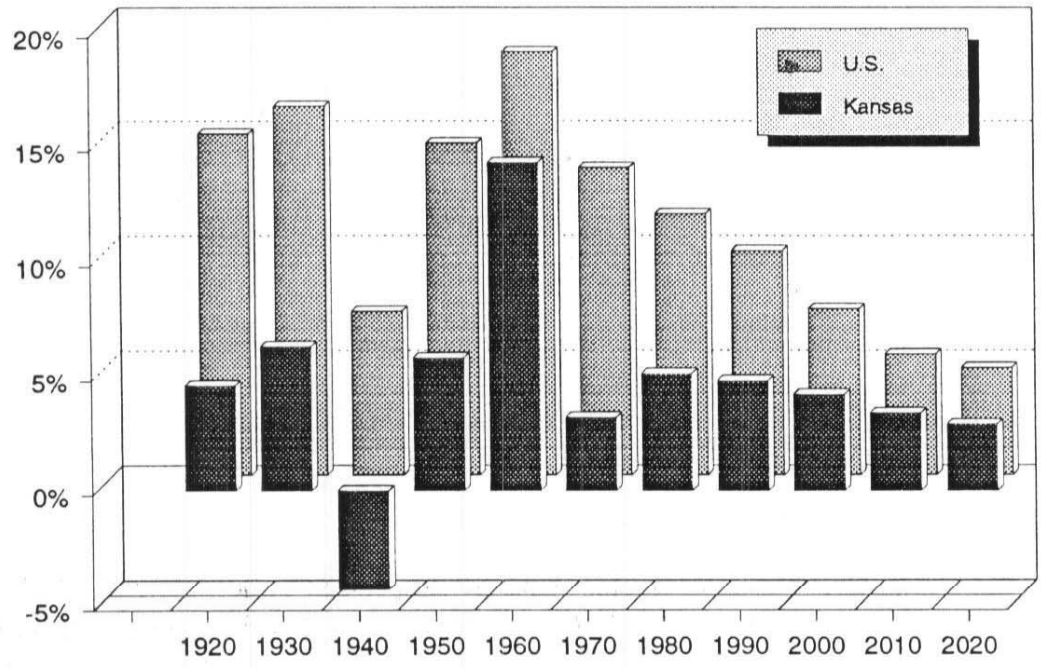
GLOBAL, REGIONAL AND NATIONAL TRENDS: KEY FINDINGS

- Since 1970, Kansas has grown at about one-half the national growth rate. Only moderate growth is projected for Kansas in the future.
- Since the turn of the century, rural population in Kansas has increased in only two of the nine decades.
- Although the median age of the population in Kansas equals the national average, Kansas has relatively more young (0-14) and more old (65+) residents than the nation as a whole.
- Educational attainment levels in Kansas are high in comparison with neighboring states.
- Employment projections call for the greatest growth in the occupations requiring high levels of education or highly specific skills (technicians, professions) with the top three health-related occupations combining for nearly 11 percent of all job creation to 2005.
- Ninety-one percent of all job creation in Kansas since 1980 has occurred in the metropolitan areas.
- Industries showing the greatest increases in average weekly wages since 1983 have been: Services; Mining; Finance, Insurance and Real Estate; and Wholesale Trade.
- Per capita incomes in Kansas are higher than those of most neighboring states; however, Kansas has lost ground in relative terms since the early 1980s.
- Firms with more than 50 employees (4.2% of Kansas firms) generated nearly 60 percent of net new jobs in Kansas from 1980 to 1989.
- During the 1980s, Kansas enjoyed particularly strong output performance from the Transportation and Public Utilities industry, while Finance, insurance and real estate sectors despite strong growth, did not match national output shares.
- By the year 2020, the services industry is expected to account for nearly 27 percent of Kansas jobs, followed by the Government sector with 16.7 percent. Manufacturing is expected to continue to decline in relative importance.
- Since 1961, exports as a share of US GDP have tripled, while imports have more than doubled, each accounting for more than 11 percent of GDP.
- Levels of state and local taxation per capita in Kansas are 10 percent lower than national averages, with high rates of local taxation (ranked 19th in the nation) and low rates of state taxation (ranked 33rd.)

GLOBAL, REGIONAL AND NATIONAL TRENDS: DATA ANALYSIS

Figure 1.1

Ten-Year Population Growth Rates
Kansas and U.S., 1920-2020



Source: KCCED calculations on data from Bureau of Economic Analysis; U.S. Bureau of the Census, *Fifteenth Census of the United States: 1930*, Vol. 1; *Census of Population, 1960*, Number of Inhabitants, Final Report; *1980 Census of Population*, Vol. 1, Chapter A, Part 18; *1990 Decennial Census*, mimeographed sheet.

- Population growth rates in Kansas have consistently lagged those of the U.S. for every decade since the 1920s. Over the last 80 years, population in Kansas has grown at about one-third the U.S rate; since 1970, population growth has been about one-half the U.S. rate.

- In 1920, Kansas represented a 1.67 percent share of the nation's population; in 1990, Kansas accounted for 1 percent of U.S. population.

- Only moderate population growth is projected for Kansas in the future. Over the next thirty years, Kansas is projected to grow at only two-thirds the growth rate for the U.S. as a whole.

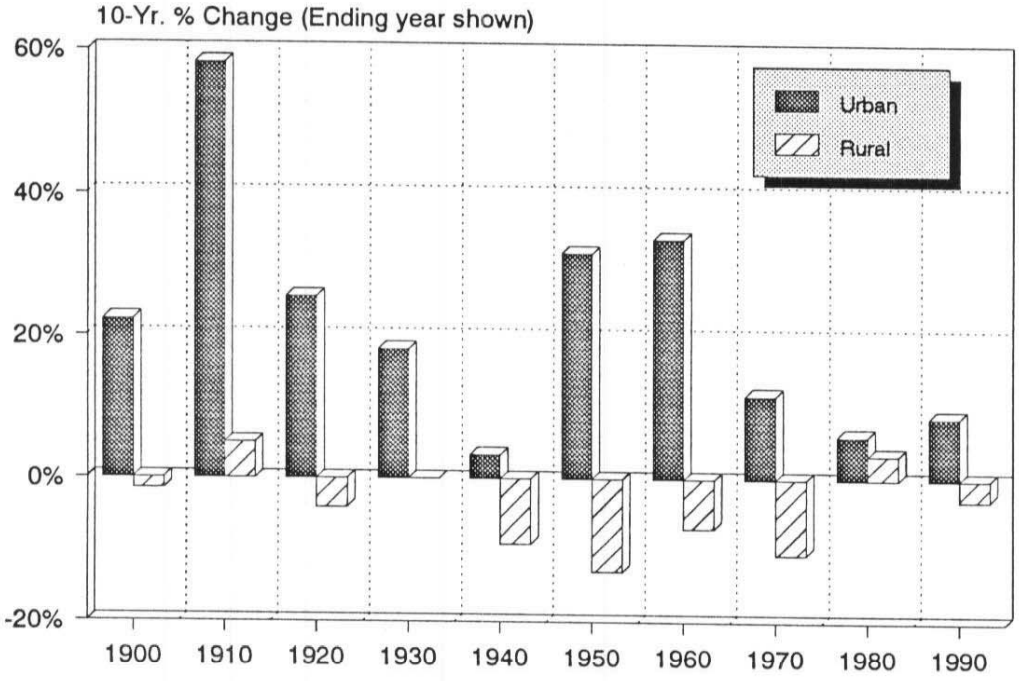
Table 1.1
10-Year Population Growth Rates
Kansas and U.S., 1920-2020

Decade Ending Growth Rates (%)	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
Kansas	4.6%	6.3%	-4.3%	5.8%	14.3%	3.2%	5.1%	4.8%	4.2%	3.4%	2.9%
U.S.	14.9	16.1	7.2	14.5	18.5	13.4	11.4	9.8	7.3	5.3	4.7
Kansas % Share of U.S. Population	1.67	1.53	1.36	1.26	1.21	1.10	1.04	1.00	.97	.95	.94

Source: KCCED calculations on data from Bureau of Economic Analysis; U.S. Bureau of the Census, *Fifteenth Census of the United States: 1930*, Vol. 1; *Census of Population, 1960*, Number of Inhabitants, Final Report; *1980 Census of Population*, Vol. 1, Chapter A, Part 18; *1990 Decennial Census*, mimeographed sheet; Upmeier, Helga and Anthony Redwood, *Kansas Population Projections 1985-2020*, Institute for Public Policy and Business Research Report #158, January 1989.

Figure 1.2

Urban and Rural Population in Kansas
Decade Ending Rates of Change, 1900-1990



Source: U.S. Bureau of the Census, *1960 Census of Population*, PC(1)-18A; *1980 Census of Population*, PC80-1-A-18; *Current Population Reports*, Series P-26, No. 86-WNC-SC; No. 88-WNC-SC.

- Population growth in Kansas has been dominated by urban places. Since the turn of the century, rural population has increased in only two of the nine decades, during the 1930s and the 1980s.

- In recent decades, the urban to rural shift in population has become less pronounced. To some extent, this is due to the new roles for non-metropolitan counties as labor sources for urbanized counties. However, not all rural counties are able to assume this new role. Across the Midwestern states during the period 1982 to 1986, non-metropolitan counties which were adjacent to urban centers grew annually by 0.9 percent, while counties which were not adjacent to urbanized counties declined in population by 0.3 percent per year[1].

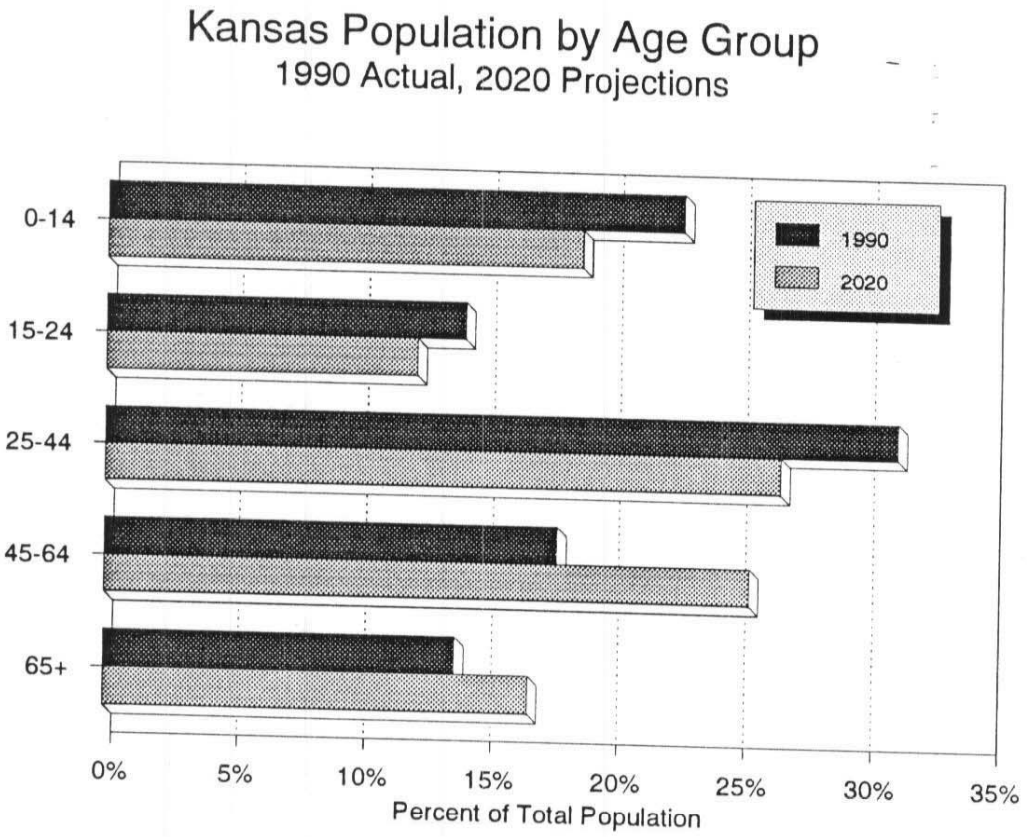
[1] National Governors' Association, *Economic Realities in Rural America: Recent Trends, Future Prospects*, (Washington: National Governors' Association, 1988.)

Table 1.2
Urban and Rural Population in Kansas
Decade Ending Rates of Change, 1900-1990

	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
Urban	22.3%	58.3%	25.5%	18.1%	3.3%	31.7%	33.7%	11.7%	6.1%	8.7%
Rural	-1.5	5.0	-4.0	0.0	-9.0	-12.9	-6.8	-10.4	3.4	-2.9

Source: U.S. Bureau of the Census, *1960 Census of Population*, PC(1)-18A; *1980 Census of Population*, PC80-1-A-18; *Current Population Reports*, Series P-26, No. 86-WNC-SC; No. 88-WNC-SC; 1990 Census of Population, CPH-L-79, *Population and Housing Units by Urban and Rural for Kansas.*

Figure 1.3



Source: Upmeier, Helga, and Anthony Redwood, *Kansas Population Projections 1985-2020*, Institute for Public Policy and Business Research Report #158, January 1989; U.S. Bureau of the Census, *Current Population Reports: Population Estimates and Projections*, Series p-25 No. 952, 1984; 1990 data from U.S. Bureau of the Census, 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population.*

- The median age of the Kansas population is the same as the U.S. median age, 32.9 years. However, Kansas has a greater share of population than the U.S. in the newborn to 24 year old cohorts and in the 65 and over age groups. This concentration of population at the extremes means that Kansas has a smaller share of its population in prime working years, and has a higher proportion of its population in age groups generally considered as 'dependent' upon other age groups for support.

- By the year 2020, the differences in age structure between Kansas and the U.S. are expected to narrow, with the Kansas median age becoming slightly younger than the U.S. figure. The population of both Kansas and the U.S. will become more evenly distributed across age groups, with relatively less emphasis on the Age 5 to 44 age groups than is presently the case due to the aging of 'baby boomers' and their children.

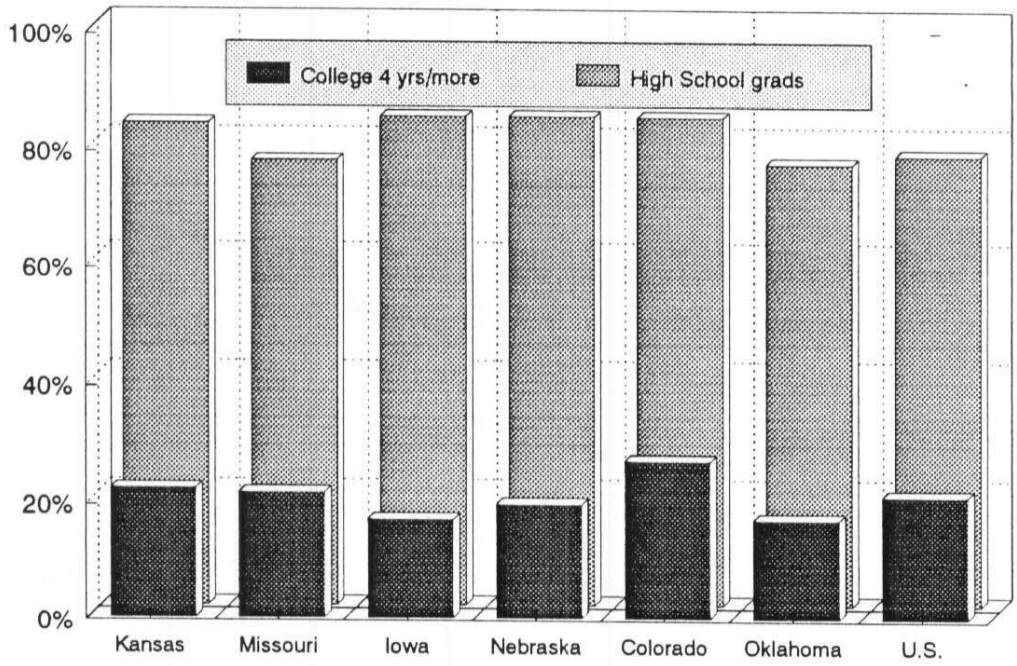
Table 1.3
Age of the Population
Kansas and U.S., 1990 and 2020

	Percentage of Actual or Projected Population			
Age Group	Kansas 1990	Kansas 2020	U.S. 1990	U.S. 2020
0-5	7.6%	6.1%	7.4%	6.1%
5-14	15.2	12.7	14.2	12.4
15-24	14.2	12.3	14.8	12.2
25-34	16.7	13.5	17.4	13.4
35-44	14.6	13.2	15.1	12.5
45-54	9.5	11.5	10.1	12.1
55-64	8.4	14.0	8.5	13.6
65-74	7.5	10.1	7.3	10.0
75+	6.4	6.7	5.3	7.3
Median Age-yrs.	32.9	38.9	32.9	39.3

Source: Upmeier, Helga, and Anthony Redwood, *Kansas Population Projections 1985-2020*, Institute for Public Policy and Business Research Report #158, January 1989; U.S. Bureau of the Census, *Current Population Reports: Population Estimates and Projections*, Series p-25 No. 952, 1984; 1990 data from U.S. Bureau of the Census, 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population.*

Figure 1.4

Levels of Education, Persons Over 25
Kansas, Neighboring States and U.S.,1989



- The Kansas workforce is well educated relative to the national average, with 22.3 percent of adults age 25 or older having 4 or more years' college education. Of the neighboring states only Colorado has higher rates of educational attainment.

- While Iowa and Nebraska have slightly higher rates of high school completion, fewer of their high school graduates complete 4 years of college than do so in Kansas.

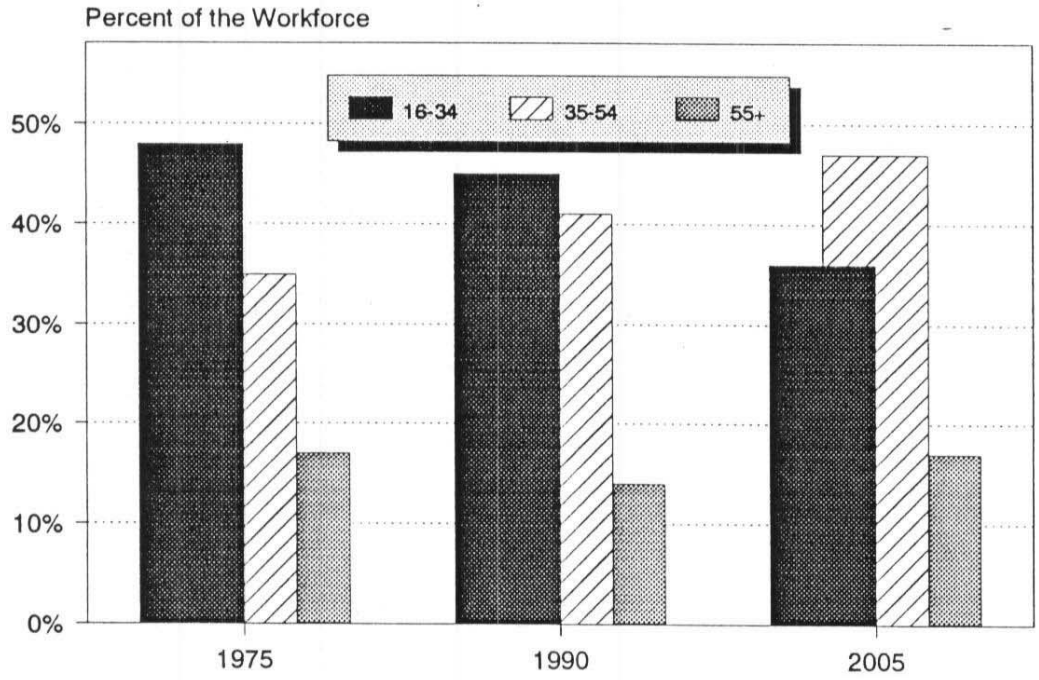
Table 1.4
Levels of Educational Attainment, Persons 25 or Older
Kansas, Neighboring States and U.S., 1989

	Percentage of Adults Age 25 or Older	
	Completed High School	4 or More Years College
Kansas	82.2%	22.3%
Missouri	75.9	21.6
Iowa	83.4	17.1
Nebraska	83.4	19.7
Colorado	83.3	27.0
Oklahoma	75.4	17.1
UNITED STATES	76.9	21.1

Source: U.S. Bureau of the Census, *Educational Attainment in the U.S.*, March 1988 and 1989, Table A, Table 13.

Figure 1.5

Age Structure of the Workforce
U.S., 1975, 1990 and 2005



Source: U.S. Bureau of Labor, *Monthly Labor Review*, November 1991, pg. 36.

- The proportion of the U.S. workforce age 35-54, 35 percent of all workers in 1975, is expected to rise to 47 percent by the year 2005. This older, more experienced and more stable portion of the workforce will also be less flexible, less adaptable to change and less likely to relocate in response to career opportunities than those age 16 through 34.

- The youngest portion of the labor force, those age 16 to 34, will decline from 48 percent in 1975 to 36 percent of all workers in 2005. This reduced supply of new entrants to the workforce will mean there will be greater pressures on retraining older workers as new technologies are introduced.

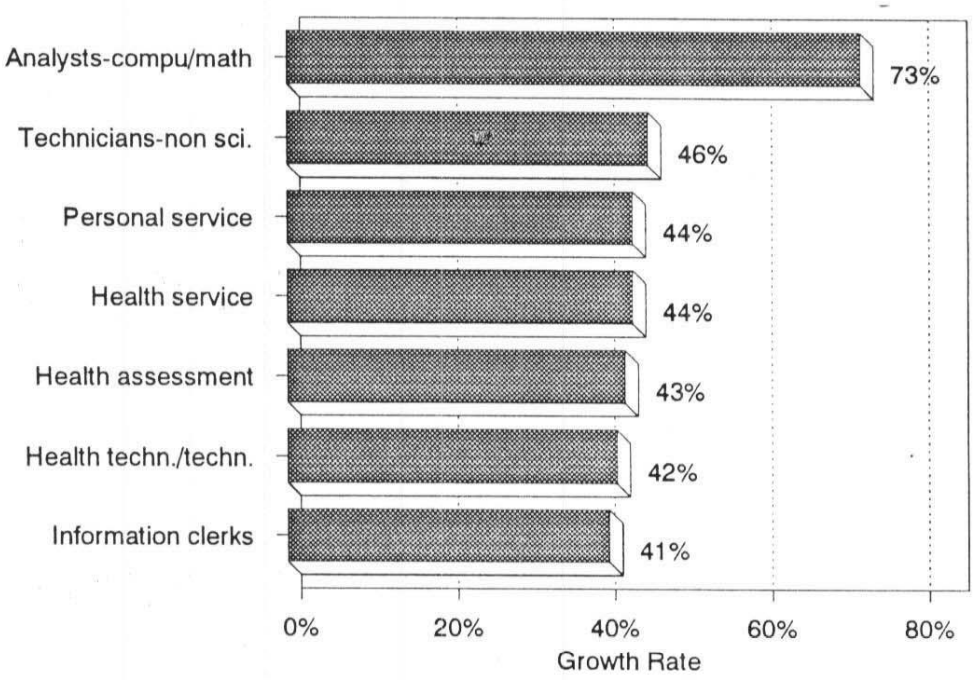
Table 1.5
Age Structure of the Workforce, 1975, 1990 & 2005

Percentage Distribution	1975	1990	2005
Age 16-34	48%	45%	36%
Age 35-54	35	41	47
Age 55+	17	14	17

Source: U.S. Bureau of Labor, *Monthly Labor Review*, November 1991, pg. 36.

Figure 1.6

Fastest Growing Occupational Sub-Groups
U.S., 1990-2005, Job Creation 400,000+



Source: Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 114, No. 1 (November 1991), pp.68-80.

- Employment projections to the year 2005 call for the greatest growth areas in occupations requiring high levels of education or highly specific skills. The two fastest growing occupational groups are technicians (37%) and professional specialties (32%)

- The high-growth occupations are dominated by sub-groups focusing upon personal and medical and information services. Health service, assessment and treating, and health technicians and technologists occupations combined account for nearly 11 percent of all job creation to the year 2005.

Table 1.6
Fastest Growing Occupational Subgroups, 1990-2005
Ranked by Net Job Creation

Group	New Jobs (000s)	Growth Rate
Managers & administrators	2,336	26%
Food preparation & service	2,325	30
Teachers, librarians, & counselors	1,593	28
Miscellaneous clerical & administrative support	1,349	19
Miscellaneous sales & related	1,222	23
Management support	1,079	30
Transportation/material moving machine/vehicle operators	1,013	21
Health assessment & treating	999	43
Personal service	972	44
Retail salespersons	887	24
Total, all groups	24,618	20

Source: Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 114, No. 1 (November 1991), pp.68-80.

Table 1.7
Fastest Growing Major Occupational Groups, 1990-2005
Ranked by Growth Rate

Group	New Jobs (000s)	Growth Rate
Technicians & Related Support	1,550	37%
Professional Specialties	5,107	32
Service	5,602	29
Executive, Administrative & Managerial	3,414	27
Marketing & Sales	3,401	24
Total, all groups	24,618	20

Source: Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 114, No. 1 (November 1991), pp.68-80.

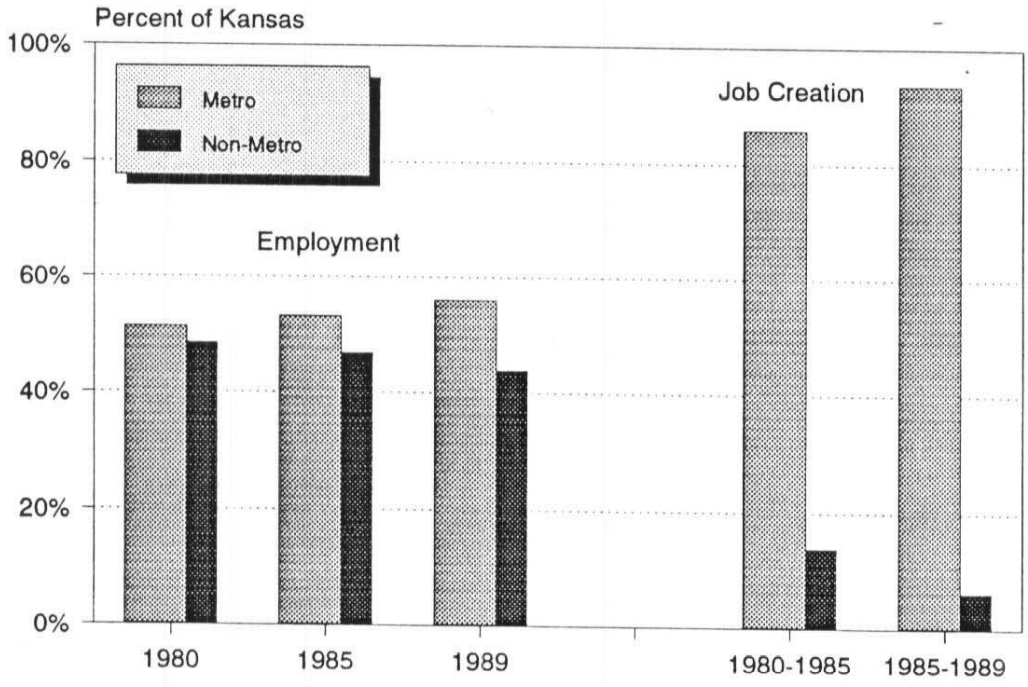
Table 1.8
Fastest Growing Occupational Subgroups, 1990-2005
Ranked by Growth Rate

Group	New Jobs (000s)	Growth Rate
Computer, mathematical, & operations research analysts	416	73%
Travel agents	82	62
Technicians (except health, engineering & science)	475	46
Personal service	972	44
Health service	860	44
Health assessment & treating	999	43
Social scientists	96	43
Health technicians & technologists	763	42
Information clerks	584	41
Gardeners & groundskeepers (non-farm)	348	40
Securities & financial services sales	76	40
Total, all groups	24,618	20%

Source: Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 114, No. 1 (November 1991), pp.68-80.

Figure 1.7

Employment and Job Creation Shares
Kansas Metro and Non-Metro Areas,1980-89



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System*, Table CA25. Metropolitan Statistical Areas include: Kansas City, Kansas MSA (Johnson, Leavenworth, Miami and Wyandotte Counties); Lawrence MSA (Douglas County); Topeka MSA (Shawnee County); and, Wichita MSA (Butler, Harvey and Sedgwick Counties).

- Employment in Kansas has become increasingly concentrated in urban areas. In 1980, metropolitan areas accounted for 51 percent of all employment; by 1989, this figure was 56 percent. Over the period 1980 to 1989, nearly 91 percent of all net new jobs were located in the metropolitan areas: 153,400 jobs were added in the nine metropolitan counties, while the remaining 96 counties shared only 15,800 net new jobs.

- The 1980-1989 job creation rate was 23.2 percent in metropolitan counties and only 2.5 percent in non-metropolitan counties.

Table 1.9
Employment in Kansas
Metropolitan and Non-Metropolitan Areas, 1980, 1985, 1989

	Number Employed			Net Job Creation	
	1980	1985	1989	1980-85	1985-89
			(in thousands)		
Metropolitan Areas	662.5	720.8	815.9	58.3	95.1
Non-Metropolitan Areas	624.3	633.7	640.1	9.4	6.4
State Totals	1,286.7	1,354.5	1,456.0	67.8	101.5

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System*, Table CA25. Metropolitan Statistical Areas include: Kansas City, Kansas MSA (Johnson, Leavenworth, Miami and Wyandotte Counties); Lawrence MSA (Douglas County); Topeka MSA (Shawnee County); and, Wichita MSA (Butler, Harvey and Sedgwick Counties).

- The highest paying industries in the U.S. in 1991 were Mining, with average weekly wages of $631, Construction ($534) and Transportation and Public Utilities ($512).

- The greatest rates of increases in wages over the period 1987-1991 occurred in the Services industry (+20.6%), followed by Mining (+18.7%), Finance, Insurance and Real Estate (+17.9%) and Wholesale Trade (+17.9%).

- The Retail and Construction industries lost ground relative to other industry groups with respect to wage increases throughout the decade. Services and Finance, Insurance and Real Estate performed better than the all-industry average in both the early and late parts of the decade.

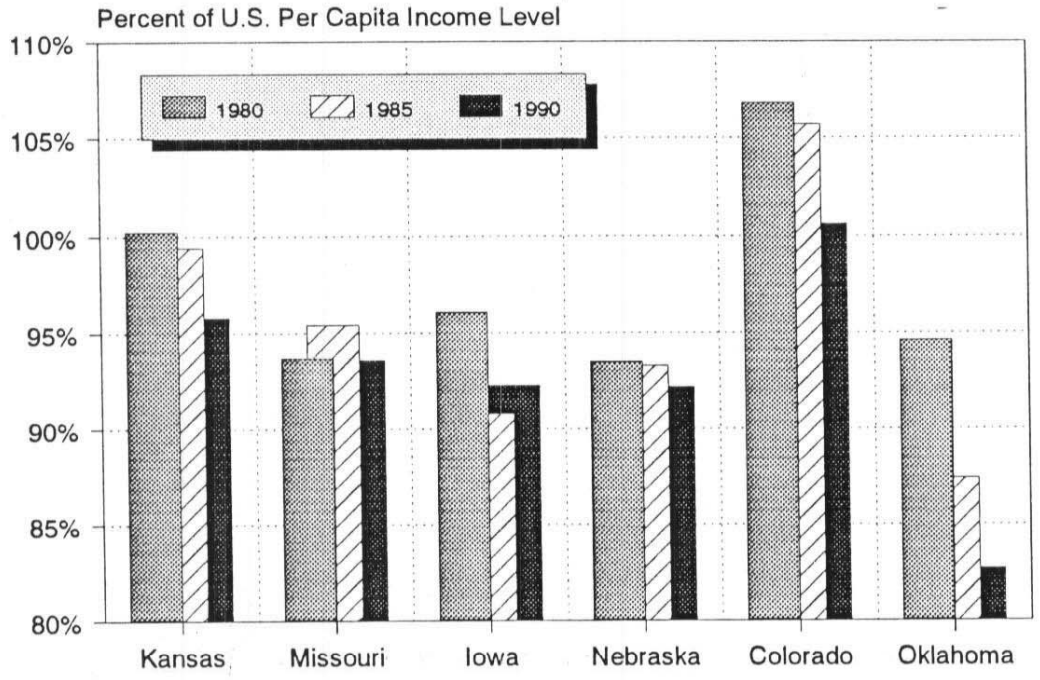
Table 1.10
Average Weekly Earnings by Industry
U.S., 1983, 1987 and 1991

Industry	Average Weekly Earnings			Percentage Change	
	1983	1987	1991	1983-87	1987-91
Mining	$479.40	$531.70	$630.92	10.9%	18.7%
Construction	442.97	480.44	533.78	8.5	11.1
Manufacturing	354.08	406.31	455.03	14.8	12.0
Transportation/Utilities	420.81	471.58	512.00	12.0	8.6
Wholesale	328.25	365.30	425.20	11.3	16.4
Retail	171.13	178.80	200.20	4.5	12.0
Finance, Insurance, Real Estate	263.68	316.37	373.04	20.0	17.9
Services	239.04	276.03	332.80	15.5	20.6
Total Private Sector	280.70	312.50	354.66	11.1	13.5

Source: U.S. Bureau of Labor, *Monthly Labor Review*, February 1992 pg. 81.

Figure 1.8

Per Capita Personal Income Levels
Kansas & Neighboring States, 1980/85/90



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System, Table SA2.*

- Kansas per capita incomes, at $17,896 in 1990, were higher than those of all of the surrounding states except Colorado. However, Kansas per capita incomes in 1990 were 4 percent lower than the U.S. average of $18,685.

- Kansas lost ground relative to the state and most of the surrounding states with respect to per capita personal incomes from 1980 to 1990. Only Oklahoma and Colorado declined more than Kansas did during the decade in relation to the state percent of U.S. per capita incomes.

Table 1.11
Per Capita Personal Income Levels
Kansas, Neighboring States, and U.S., 1980, 1985 and 1990

	Per Capita Income Levels			Percent of U.S. Level		
	1980	1985	1990	1980	1985	1990
Kansas	$9,941	$13,812	$17,896	100.2%	99.4%	95.8%
Missouri	9,298	13,250	17,497	93.7	95.4	93.6
Iowa	9,537	12,619	17,249	96.1	90.8	92.3
Nebraska	9,274	12,967	17,221	93.5	93.3	92.2
Colorado	10,598	14,699	18,794	106.8	105.7	100.6
Oklahoma	9,393	12,139	15,444	94.6	87.4	82.7
Plains Region*	9,534	13,273	17,663	96.1	95.5	94.5
U.S.	9,919	13,896	18,685			

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System, Table SA2.*
*Note: Plains Region includes the states of: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota.

- Per capita incomes in Kansas non-metropolitan areas ($14,862) were 18 percent lower than those of metropolitan areas ($17,937) in 1990. This represented only a marginal improvement for non-metropolitan areas since 1980.

Table 1.12
Per Capita Personal Income Levels
Kansas Metropolitan and Non-Metropolitan Counties, 1980-1989

	1980	1985	1989
Metropolitan	$11,011	$14,952	$17,937
Non-Metropolitan	8,867	12,591	14,862
State of Kansas	9,941	13,804	16,526

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System, Table CA5.*

- The composition of income varies considerably between non-metropolitan counties and the state as a whole. Only 47 percent of personal income in non-metropolitan counties is attributable to employment, compared with a state-wide share of 59 percent.

- Property income, in the form of dividends, interest and rent is more important in non-metropolitan areas (21.0 vs. 18.2% in Kansas), as is Transfer payments (16.7% vs. 13.9%).

Table 1.13
Percentage of Personal Income, by Source, 1985-1989 Average
Non-metropolitan Counties and Kansas Totals

		Proprietorships			
	Wages & Labor	Farm	Non-Farm	Property	Transfers
Non-metropolitan	47.3%	7.1%	9.1%	21.0%	16.7%
Kansas Totals	58.6	3.3	8.0	18.2	13.9

Source: Calculations by KU-IPPBR on data from U.S. Department of Commerce, Bureau of Economic Analysis, *Regional Economic Information System, Table CA5*. Shares do not total 100% since adjustments for residence and social security premium payments are not included.

- Kansas is a small business state. Of businesses with employees (i.e., excluding self-employed proprietors), over 88 percent of Kansas firms have 19 or fewer employees; fully 96 percent of Kansas firms employ fewer than 49 people.

- Net job creation in Kansas however, has been dominated by larger firms. Firms employing 50 or more (4.2% of Kansas firms) have accounted for nearly 60 percent of net new wage-earning jobs since 1980. This is a greater concentration of job creation than the U.S. average; these size firms accounted for 5 percent of U.S. firms and 54 percent of net new jobs in the U.S. over the same period.

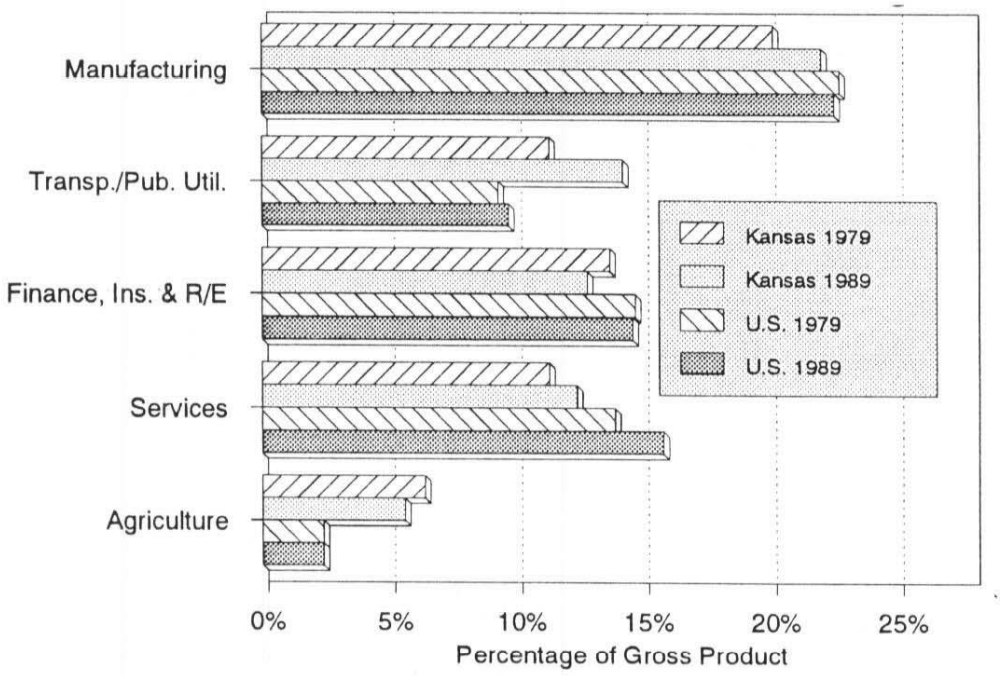
Table 1.14
Net Job Creation by Size of Firm
Firms with Employees, Kansas and U.S. 1980-1989

Firm Size	Percent of Firms, 1989		Percent of Net Job Creation 1980-89	
(# of Employees)	Kansas	U.S.	Kansas	U.S.
1-9	76.1%	74.5%	12.7%	14.8%
10-19	12.2	12.4	12.6	12.4
20-49	7.7	8.1	14.8	18.4
50-99	2.5	2.8	19.2	15.3
100-249	1.3	1.6	24.7	20.3
250+	0.4	0.6	15.9	18.8

Source: Calculations by KU-IPPBR using data from U.S. Bureau of the Census, *County Business Patterns*

Figure 1.9

Gross Product Shares, Selected Industries
Kansas and U.S., 1979 and 1989



Source: Federal Reserve Bank of Kansas City, *Economic Review*, Second Quarter, 1992.

- Kansas' industrial performance relative to the U.S. during the 1980s has been mixed. Transportation and Public Utilities, a Kansas strength, grew rapidly during the 1980s, accounting for 14.2 percent of Kansas output in 1989, compared with the U.S. average of only 9.7 percent. Manufacturing, not one of Kansas' strong suits in 1979, grew to 22 percent of output by 1989, nearly equalling the U.S. average share (22.5%).

- Finance, insurance and real estate, relatively underdeveloped in Kansas in 1979 at 13.7 percent of output, declined further to 12.8 percent during the 1980s, while the industry maintained its share of output nationwide.

- Services grew in importance in Kansas to 12.4 percent of output, but continued to lag the U.S. average of 15.8 percent of output from this industry.

- Agriculture in Kansas accounted for 5.6 percent of output, more than double the nationwide share of output from this industry; agricultural output in 1989 in Kansas was down from 6.4 percent in 1979.

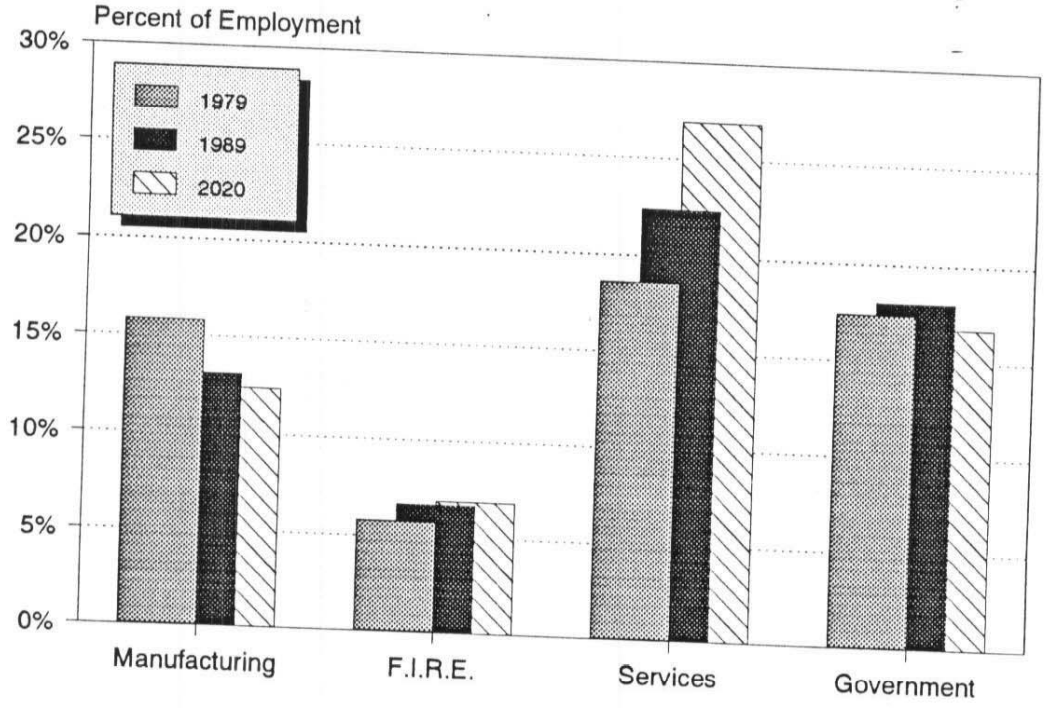
Table 1.15
Output Shares by Major Industry Category
Kansas, and U.S., 1979 and 1989

	Percentage Share of Total Gross Product			
	Kansas		U.S.	
Industry Category	1979	1989	1979	1989
Agriculture	6.4%	5.6%	2.4%	2.4%
Mining	6.0	2.8	4.5	3.1
Construction	5.2	3.2	5.3	4.3
Manufacturing	20.1	22.0	22.7	22.5
Transportation	11.3	14.2	9.3	9.7
Wholesale Trade	6.3	6.9	6.3	7.4
Retail Trade	8.9	9.6	9.3	10.0
Finance, Insurance & Real Estate	13.7	12.8	14.7	14.6
Services	11.3	12.4	13.9	15.8
Government	10.8	10.5	11.7	10.1

Source: Federal Reserve Bank of Kansas City, *Economic Review*, Second Quarter, 1992.

Figure 1.10

Employment Shares, Selected Industries
Kansas, 1979, 1989 and 2020



Source: Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full and Part-Time Employees by Major Industry* and *BEA Regional Projections*, June 1990.

- The services industry is expected to continue to grow in importance in Kansas. By the year 2020, Services will account for nearly 27 percent of all jobs, compared with 22 percent in 1989 and 18.6 percent in 1979.

- Government employment, which increased in importance during the 1980s to 18 percent of Kansas employment, is expected to occupy a 16.7 percent share of all jobs in the year 2020.

- Manufacturing is projected to continue to decline in relative importance, from 1989's 13.1 percent share of employment to 12.4 percent in 2020.

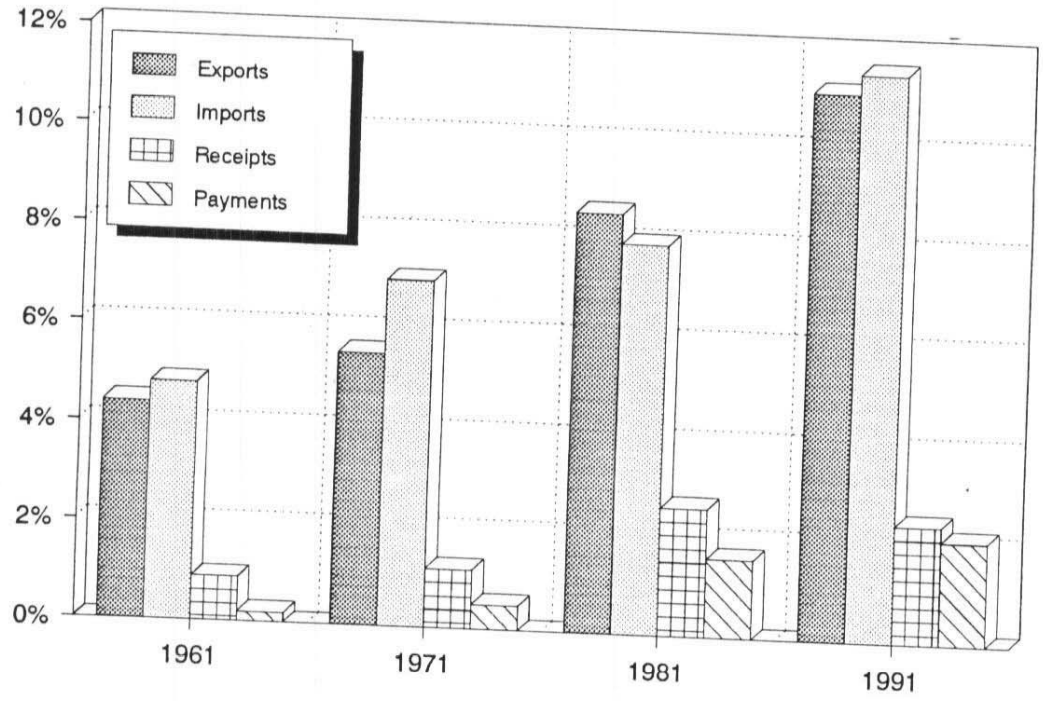
Table 1.16
Employment Shares by Major Industry Category
State of Kansas, 1979, 1989 and 2020

	Percentage Share of Total Employment		
	1979	1989	2020
Farm	7.9%	5.9%	4.6%
Non-Farm Private Sector	74.7	76.1	78.7
Construction	1.8	2.0	1.7
Manufacturing	15.8	13.1	12.4
Transportation/Public Utilities	5.7	5.2	4.9
Wholesale	5.3	5.0	4.9
Retail	15.7	15.8	15.7
Finance, Insurance & Real Estate	5.8	6.7	6.9
Services	18.6	22.4	26.9
Government	17.4	18.0	16.7

Source: Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full and Part-Time Employees by Major Industry* and *BEA Regional Projections*, June 1990.

Figure 1.11

Exports, Imports and Foreign Investment
Percentage Share of GDP, 1961-1991



Source: *Economic Report of the President*, February 1992, Tables B-1, B-2, B-100.
* Foreign investment data (only) shown as 1991 is 1990 data.

- The U.S. economy has become much more interdependent with the economies of other nations over the past thirty years. Since 1961, exports have increased from slightly over 4 percent of Gross Domestic Product to over 11 percent in 1991. Meanwhile, imports have increased from 4.8 percent to 11.5 percent of GDP.

- Direct investment abroad and domestic investment by foreign firms have also increased dramatically, further tying the U.S. economy with international economies. In 1990, payments on foreign investments in the U.S. accounted for ten times the share of GDP that they did in 1961, while receipts on U.S. assets invested aborad nearly tripled from 1961 levels.

Table 1.17
U.S. Exports and Imports and Foreign Investment Income
Percentage Share of U.S. Gross Domestic Product, 1961-1991

	1961	1971	1981	1991*
Exports of Goods & Services	4.4%	5.5%	8.5%	11.1%
(Imports) of Goods & Services	(4.8)	(7.0)	(7.9)	(11.5)
Receipts on U.S. Assets Abroad	.9	1.2	2.6	2.4
(Payments) on Foreign Assets in U.S.	(.2)	(0.5)	(1.6)	(2.1)

Source: *Economic Report of the President*, February 1992, Tables B-1, B-2, B-100.
* Foreign investment data (only) shown in 1991 column is 1990 data.

- Levels of taxation in Kansas are generally consistent with those of the neighboring states. At $2,461, state and local taxes per capita are about 8 percent lower than the national average.

- Kansas relies more heavily upon local taxation than most of the neighboring states. At $1,468, local taxes per capita are more than twice the national average, ranking Kansas 19th in the nation.

- Levels of state taxes in Kansas are 14 percent lower than the national average, ranking Kansas 33rd in terms of per capita state level taxes. When taxation levels from state and local levels of governments are combined, Kansas ranked 29th in the nation.

Table 1.18
State and Local Taxes Per Capita
Kansas, Neighboring States and U.S., 1988-1989

	Level of Taxation and Nationwide Rank					
	State	Rank	Local	Rank	Total	Rank
Kansas	$993	33	$1,468	19	$2,461	29
Missouri	908	38	1,096	42	2,004	45
Iowa	1,112	22	1,431	27	2,543	25
Nebraska	900	42	1,647	10	2,547	24
Colorado	875	45	1,781	5	2,656	19
Oklahoma	1,027	29	1,149	40	2,176	40
U.S.	1,147		648		2,659	

Source: U.S. Bureau of the Census, *State Government Finances in 1989*; *Governmental Finances in 1988-89*; Calculations by the Institute for Public Policy and Business Research.

Section II: Population

Population size and economic activity are closely related. Changes in population size are directly linked to employment opportunities, wage differentials between regions, and a community's overall economic conditions and quality of life. Generally, areas of population growth are also areas of economic growth, whereas areas of population loss suffered previous economic decline and restructuring.

Communities with growing populations are generally regarded to be more able to adapt to a changing economic environment due to the opportunities presented by new residents as additional consumers, taxpayers and suppliers of labor. Without population growth, communities face problems of a tightening labor market, lack of new customers for businesses, a shrinking tax base, and an overall decline in economic activity.

The following section examines population levels, population change, migration, age composition and other population characteristics for Douglas County, the State of Kansas, selected neighboring counties and similar college towns in other states as comparatives. Population characteristics are regarded as indicators of a region's economic conditions and economic potential for the following reasons:

- *The total size and the share of Douglas County's population* relative to the state population reflect the county's overall level of competitiveness with respect to other regions within the state. A minimum population is necessary to sustain a basic level of public and private services and facilities.

- *Past and projected population change is* indicative of community economic trends and can be compared to other counties and the statewide and national averages.

- *Migration is* linked to job opportunities and demand as well as wage differentials between regions. Counties with low rates of job creation and low wages will face higher worker mobility due to a "push" factor (lack of opportunity) or a "pull" phenomenon by urban areas with higher wages, better job opportunities, and a perceived better quality of life. Other determinants of regional migration are age and education. Generally, there is a life cycle pattern to migration with the population aged 18 to 45 being the most mobile age group. The effect of education on migration is reflected by the movement of well-educated workers toward better job matches for themselves and their spouses and their attempts to raise their income levels by migrating to areas with adequate employment opportunities.

- *The age composition of the population* is relevant with respect to the labor supply. A youthful population supplies the labor market with sufficient new workers whereas an over-aged population will eventually create constraints on labor markets and increasing demands for social security, health care programs, public services and assistance, and entertainment. The aging of the population is a statewide and national phenomenon due to better health care and a decline in birth rates. However, aging of the population is more severe in rural America due to out-migration of the younger generation.

- *The distribution of urban and rural population* is studied to understand how concentrated or dispersed the population is. A more concentrated population tends to have a higher demand for all categories of services, which affects the sectoral pattern of economic development.

- The *ethnic composition of the population* shows the diversity of backgrounds of the population and the need to consider a wide range of viewpoints in developing appropriate plans for the community;

- In some communities, special populations are more prevalent. In college towns, the *level of student population* is studied to better understand the impact of this population upon the housing market, the labor force and the local economy in general terms.

POPULATION: KEY FINDINGS

- During the 1980s, Douglas County's population grew by 20.9 percent, four times as fast as the Kansas growth rate, and twice the rate of increase for the U.S. as a whole.

- Population in Douglas County has been growing by 10,000 or more per decade since 1940. Population has nearly doubled over the last thirty years.

- Population is projected to continue to grow in Douglas County, but at a slower pace, about half the current growth rate over the next twenty years.

- By the year 2020, Douglas' population is expected to be nearly 108,000, compared with 82,000 today.

- College towns, with the exception of Urbana-Champaign, have been growing much faster than the national average over the last twenty years.

- Douglas County has experienced high rates of in-migration for the past thirty years. In-migration rates have run counter to state trends, moving in step with Johnson County rates.

- Douglas County has twice the share of population in the Age 15-24 age group that the rest of the state has.

- Currently, 75 percent of the Douglas County population is of working age (15-64) compared with the state average of 63 percent.

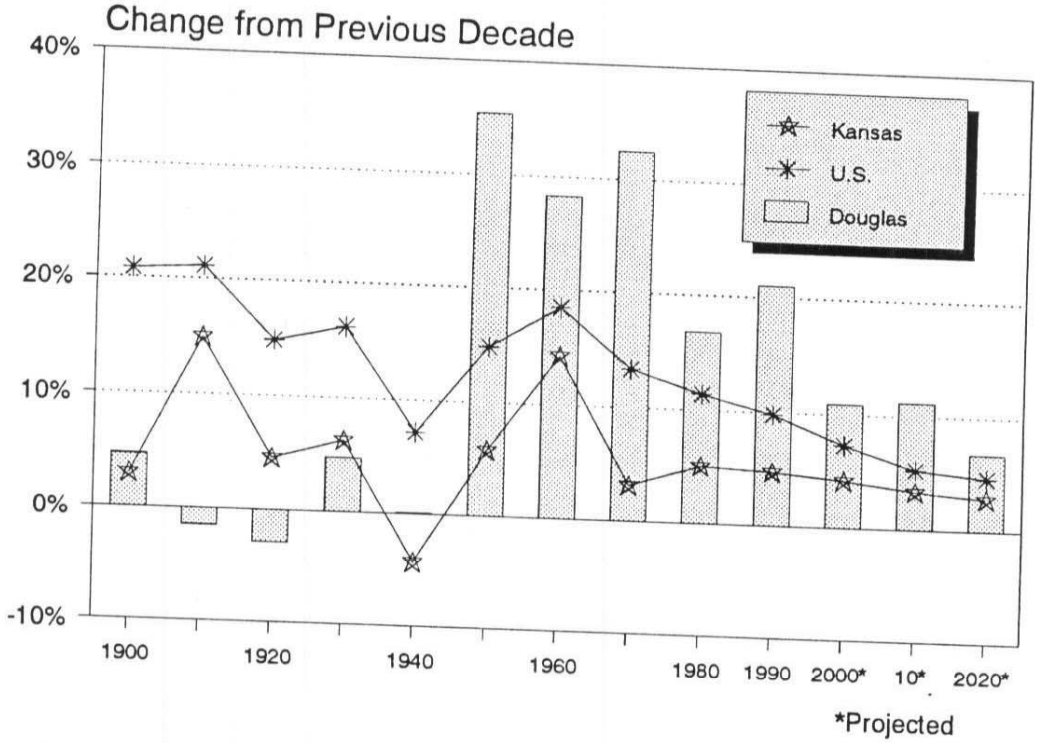
- Population levels in the over-65 age group are expected to increase by 75 percent over the next thirty years, from 6,600 persons in 1990 to 11,500 in the year 2020.

- Douglas County has a more diverse ethnic population than does the state as a whole, and is becoming more diverse.

POPULATION: DATA ANALYSIS

Figure 2.1

Population Growth Rates
Douglas County, Kansas & U.S.



Source: Population Totals: U.S. Bureau of the Census, *Fifteenth Census of the United States, 1930,* Vol. 1; *Census of Population, 1960: Number of Inhabitants; 1980 Census of Population,* PC80-1-A-18; *1990 Census of Population,* STF1-A. Population Projections: Upmeier, Helga and Anthony Redwood, "Kansas Population Trends and Projections," *Kansas Business Review,* Vol. 12, No. 4, Summer 1989.

- Population in Douglas County has been growing by 10,000 or more per decade since 1940. Population has nearly doubled over the last thirty years.

- Growth rates were greatest during the 1940-1970 period, when population increased by 30 percent each decade. In recent decades the Douglas County growth rate has been near the 20 percent mark, twice the national rate.

Table 2.1
Population Totals, Ten-Year Growth Rates and Ranking
Douglas County, Kansas and U.S.
Actual 1890-1990, Projections 1990-2020

	Population Totals			Ten-Year Growth Rates (%)			
Year	Douglas County	Kansas	U.S. (millions)	Douglas County	Kansas	U.S.	County Rank
1890	23,961	1,428,108	62.9				15
1900	25,096	1,470,495	76.0	4.7	3.0	20.8	13
1910	24,724	1,690,949	92.0	-1.5	15.0	21.1	15
1920	23,998	1,769,257	105.7	-2.9	4.6	14.9	17
1930	25,143	1,880,999	122.8	4.8	6.3	16.2	17
1940	25,171	1,801,028	131.7	0.1	-4.3	7.2	16
1950	34,086	1,905,299	151.3	35.4	5.8	14.9	10
1960	43,720	2,178,611	179.3	28.3	14.3	18.5	9
1970	57,932	2,249,071	203.3	32.5	3.2	13.4	6
1980	67,640	2,364,236	226.5	16.8	5.1	11.4	5
1990	81,798	2,477,574	248.7	21.0	4.8	9.8	5
2000*	90,714	2,581,632	266.9	10.9	4.2	7.3	5
2010*	100,874	2,669,408	281.0	11.2	3.4	5.3	5
2020*	107,733	2,746,820	294.2	6.8	2.9	4.7	5

Source: Population Totals: U.S. Bureau of the Census, *Fifteenth Census of the United States, 1930,* Vol. 1; *Census of Population, 1960: Number of Inhabitants; 1980 Census of Population,* PC80-1-A-18; *1990 Census of Population,* STF1-A. Population Projections: Upmeier, Helga and Anthony Redwood, "Kansas Population Trends and Projections," *Kansas Business Review,* Vol. 12, No. 4, Summer 1989.
*Note: Projections were published in 1989 prior to the 1990 Census, and have been modified for purposes of this report, by applying projected growth rates to 1990 actual data. These projections should be interpreted with extreme care since they reflect assumptions made regarding migration trends during the early to mid 1980s.

- Douglas County's 1990 population exceeded the levels projected in the mid 1980s by nearly 8 percent.

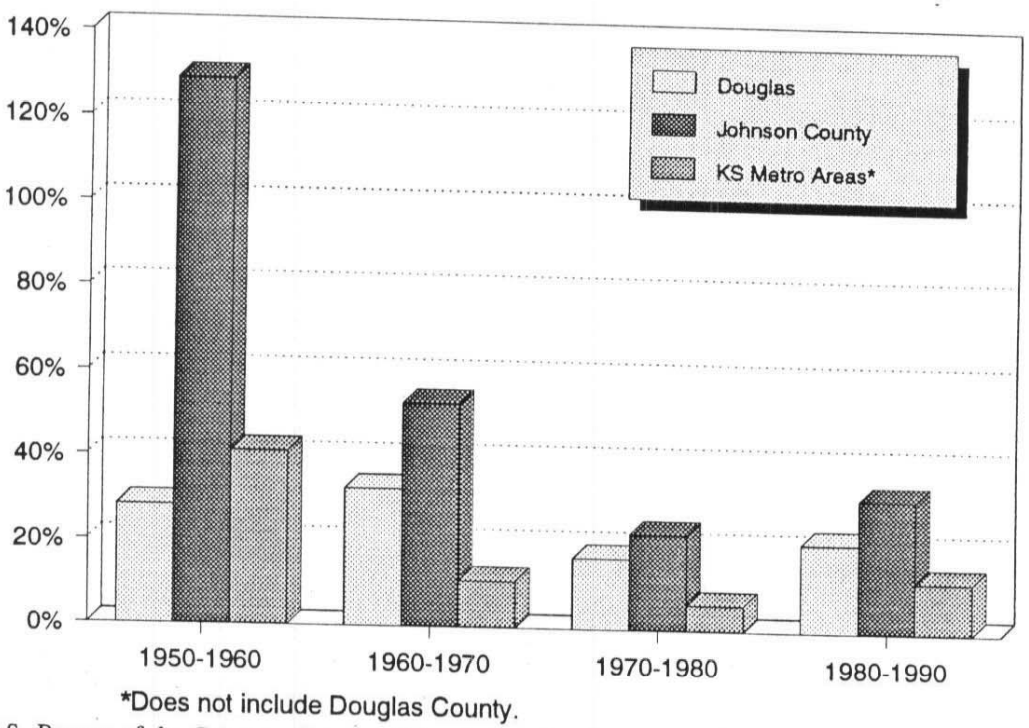
- During the 1980s, Douglas County grew by 21 percent, compared with projections of 12.2 percent.

- Population is projected to continue to grow in Douglas County, but at a slower pace, about half the current growth rate over the next twenty years.

- Population growth in Kansas and the U.S. is expected to slow to rates about one-third less than current growth rates.

Figure 2.2

Rate of Population Change, 1950-1990
Douglas, Comparatives & Kansas



Source: U.S. Bureau of the Census, *Census of Population, 1960: Number of Inhabitants,* Final Report; *1980 Census of Population,* PC80-1-A-18; *1990 Census of Population,* STF1-A.

- During the 1980s, Douglas County's population grew by 20.9 percent, four times as fast as the Kansas growth rate, and twice the rate of increase for the U.S. as a whole.

- Douglas County's growth rate has been less pronounced than Johnson County's but has been about twice the rate for all the remaining metropolitan areas (excluding Douglas County) since the 1960s.

- Since 1970, rates of growth have tapered off in all of the comparative areas except Johnson County.

- College towns, with the exception of Urbana-Champaign, have been growing much faster than the national average over the last twenty years.

Table 2.2
Population Totals, 1950-1990
Douglas and Components, Comparative Counties, Kansas and U.S.

	1950	1960	1970	1980	1990
Douglas	34,086	43,720	57,932	67,640	81,798
Lawrence	23,551	32,858	45,698	52,738	65,608
Other Cities *	2,933	3,707	5,025	6,339	6,586
Bal. of County	7,802	7,155	7,209	8,563	9,604
Johnson	62,783	143,792	220,073	279,269	355,054
Shawnee	105,418	141,286	155,322	154,916	160,976
Boone, MO	48,432	55,202	80,935	100,376	122,379
Johnson, IA	45,756	53,663	72,127	81,717	96,119
Larimer, CO	43,554	53,343	89,900	149,184	186,136
Champaign, IL	106,100	132,436	163,281	168,392	173,025
		(Population in Millions)			
Kansas Bal. of Metro+	.68	.94	1.05	1.12	1.25
Kansas	1.91	2.18	2.25	2.36	2.48
U.S.	151.3	179.3	203.3	226.5	248.7

Source: U.S. Bureau of the Census, *Census of Population, 1960: Number of Inhabitants,* Final Report; *1980 Census of Population,* PC80-1-A-18; *1990 Census of Population,* STF1-A.
*: Other cities include Baldwin City, Eudora and LeCompton. +: All metropolitan areas except Douglas County.

Table 2.3
Population Ten-Year Growth Rates, 1950-1990
Douglas, Comparative Counties, Kansas and U.S.

	Area Population Change, 1950-1990			
	1950-1960	1960-1970	1970-1980	1980-1990
Douglas	28.3%	32.5%	16.8%	20.9%
Lawrence	40.7	39.1	15.4	24.4
Other Cities *	26.4	35.6	26.1	3.9
Bal. of County	-8.3	0.8	18.8	12.2
Johnson	129.0	53.0	22.8	31.4
Shawnee	34.0	9.9	-0.3	3.9
Boone, MO	14.0	46.6	24.0	12.0
Johnson, IA	17.3	34.4	13.3	17.6
Larimer, CO	22.5	68.5	65.9	24.8
Champaign, IL	24.8	23.3	3.1	2.8
Kansas Bal. of Metro+	41.1	11.1	6.2	12.1
Kansas	14.3	3.2	5.1	4.8
U.S.	18.5	13.4	11.4	9.8

Source: U.S. Bureau of the Census, *Census of Population, 1960: Number of Inhabitants,* Final Report; *1980 Census of Population,* PC80-1-A-18; *1990 Census of Population,* STF1-A.
*: Includes Baldwin City, Eudora and LeCompton. +: All metropolitan areas except Douglas County.

- Between 1940 and 1990, Douglas County's population rank within the state increased from sixteenth to fifth.

Table 2.4
County Population Ranking in the State
Douglas and Kansas Comparative Counties, 1940, 1990, and 2020

(Population in Thousands)

1940			1990			2020 (Projected)		
Rank		Pop.	Rank		Pop.	Rank		Pop.
1	Wyandotte	145	1	Sedgwick	404	1	Johnson	476
2	Sedgwick	143	2	Johnson	355	2	Sedgwick	476
3	Shawnee	91	3	Wyandotte	162	3	Wyandotte	190
7	Leavenworth	41	4	Shawnee	161	4	Shawnee	170
9	Johnson	33	**5**	**Douglas**	**82**	**5**	**Douglas**	**100**
10	Butler	32	7	Leavenworth	64	6	Leavenworth	86
16	**Douglas**	**25**	9	Butler	51	9	Butler	57
22	Harvey	22	16	Harvey	31	19	Harvey	30
28	Miami	19	24	Miami	23	20	Miami	30

Source: University of Kansas, IPPBR, *Kansas Statistical Abstract, 1989-90*, "Population of Kansas Counties, 1890-1980; U.S. Bureau of the Census, *Fifteenth Census of the United States, 1930*, Vol. 1; *Census of Population, 1960: Number of Inhabitants; 1980 Census of Population*, Vol. 1, Chapter A, Part 18; *1990 Census of Population and Housing, Summary Population and Characteristics: Kansas*, CPH-1-18; Helga Upmeier and Anthony Redwood, "Kansas Population Trends and Projections," *Kansas Business Review*, Summer 1989.

- The cities of Lawrence, Eudora and Lecompton nearly tripled in population over the past forty years. These growth rates exceeded those of all comparative college towns except Fort Collins.

- Only Wichita, Leavenworth and Overland Park have approached the growth rates of Douglas County communities since 1950.

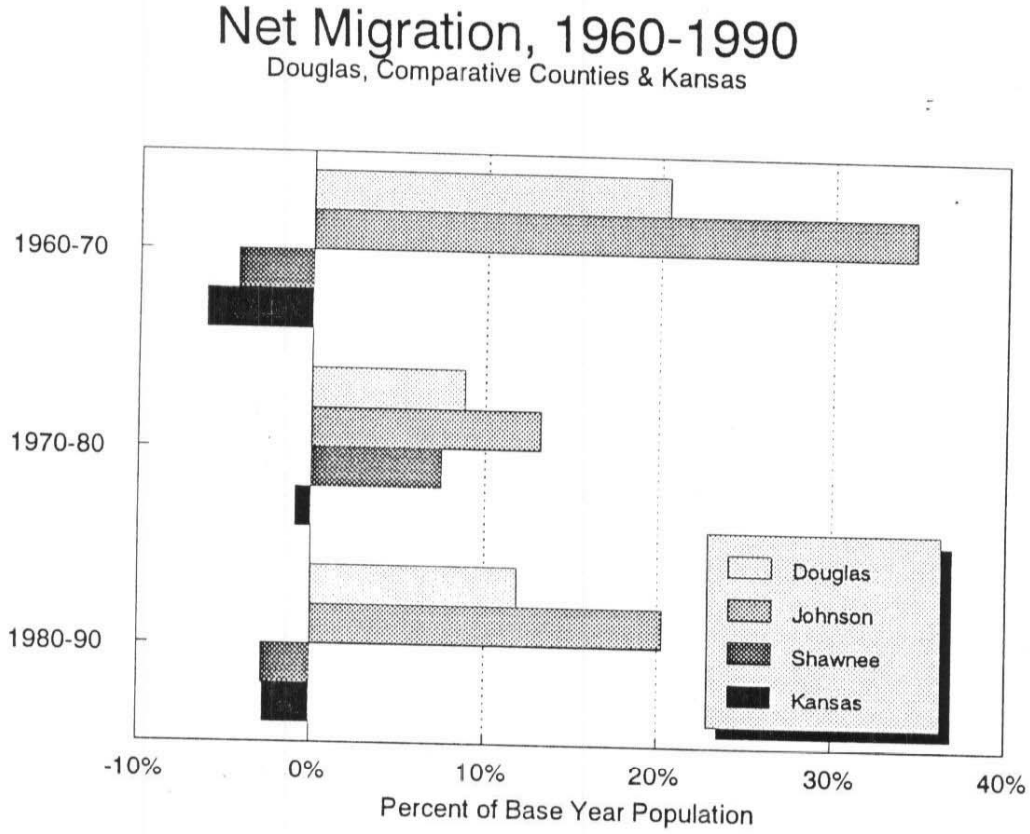
Table 2.5
Population Levels, Selected Cities
Douglas and Comparative Counties, 1950-1990

City	County	1950	1960	1970	1980	1990	Growth 1950-1990
Lawrence	Douglas	23,351	32,858	45,698	52,738	65,608	181.0%
Eudora	Douglas	929	1,526	2,071	2,934	3,006	223.6
Lecompton	Douglas	263	304	434	576	619	135.4
Baldwin City	Douglas	1,741	1,877	2,520	2,829	2,961	70.1
Overland Park	Johnson	*	*	77,394	81,784	111,790	44.4
Leavenworth	Leavenworth	20,579	22,052	25,147	33,656	38,495	87.1
Paola	Miami	3,972	4,784	4,622	4,557	4,698	18.1
Kansas City	Wyandotte	129,553	121,901	168,213	161,087	149,767	15.6
Topeka	Shawnee	78,791	119,484	125,011	115,266	119,883	52.2
El Dorado	Butler	11,037	12,523	12,308	10,510	11,504	4.2
Newton	Harvey	11,590	14,877	15,439	16,332	16,700	44.1
Wichita	Sedgwick	168,279	254,698	276,554	279,272	304,011	80.7
Columbia, MO	Boone	31,974	36,650	58,812	62,061	69,101	116.1
Iowa, City, IA	Johnson	27,212	33,443	46,850	50,508	59,738	119.5
Ft. Collins, CO	Larimer	14,937	25,027	43,337	65,092	87,758	487.5
Champaign, IL	Champaign	39,563	49,583	56,837	58,133	63,502	60.5

*Overland Park City incorporated from parts of Mission, Oxford and Shawnee Townships. Percent growth is calculated between 1970 and 1990.

Source: U.S. Department of Commerce, Bureau of the Census, Census of Population, *Number of Inhabitants*, 1960-PC(1)18A (Kansas); PC (80)-1-A18 (Kansas); *1990 Census of Population and Housing, Summary Population and Housing Characteristics, Kansas* (CPH-1-18).

Figure 2.3



Source: U.S. Bureau of the Census, Kansas Department of Health and Environment, and Kansas Division of the Budget, mimeographed sheet, 1991.

- Douglas County has experienced high rates of in-migration for the past thirty years. In-migration rates have run counter to state trends, moving in step with Johnson County rates.

- While nearly all of the Kansas metropolitan areas have experienced periods of out-migration, Douglas and Johnson County have had continual in-migration. In-migration to Douglas County has occurred at about 60 percent of the Johnson County rates of in-migration.

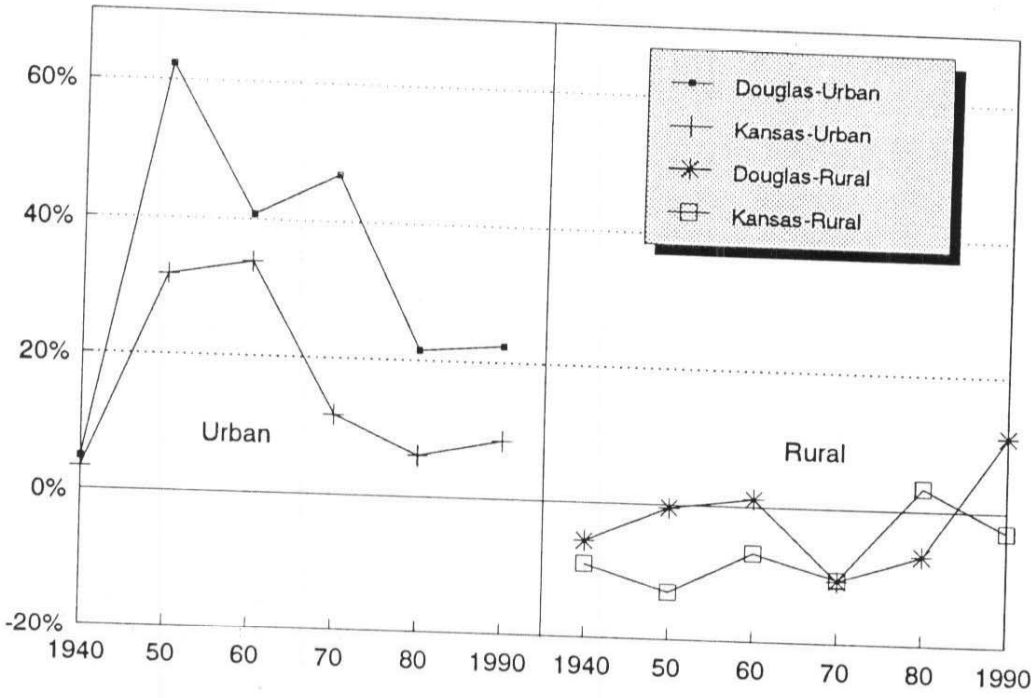
Table 2.6
Net Migration, 1960-1990
Douglas, Comparative Counties, and Kansas

	Net Migration			Percent of Base Year Population		
	1960-1970	1970-1980	1980-1990	1960-1970	1970-1980	1980-1990
Douglas	8,960	5,083	8,017	20.5%	8.8%	11.9%
Johnson	49,946	29,117	54,783	34.7	13.2	20.3
Leavenworth	994	-1,784	5,759	2.0	-3.3	10.5
Miami	-1,226	1,673	845	-6.2	8.7	3.9
Wyandotte	-21,389	-29,232	-25,660	-11.5	-15.6	-14.9
Shawnee	-6,015	11,596	-4,411	-4.3	7.5	-2.8
Butler	-2,548	4,334	2,656	-6.6	11.2	5.9
Harvey	-498	1,894	1,042	-1.9	7.0	-3.4
Sedgwick	-41,893	-17,979	-7,228	-12.2	-5.1	-2.0
Kansas	-132,966	-20,334	-62,854	-6.1	-0.9	-2.7

Source: U.S. Bureau of the Census, Kansas Department of Health and Environment, and Kansas Division of the Budget, mimeographed sheet, 1991.

Figure 2.4

Urban and Rural Population Growth Rates
Douglas County and Kansas, 1940-1990



Source: U.S. Bureau of the Census, *1960 Census of Population* (PC(1)-18A); *1970 Census of the Population, General Population Characteristics* (PC(1)-B18); *1980 Census of Population* (PC80-1-B18); *1990 Census of Population and Housing, Summary Population and Housing Characteristics: Kansas*, CPH-1-18.

- Douglas County's urban growth rates have consistently been higher than the state rates. Rural population change in Douglas outperformed the Kansas rate except for the decades ending in 1970 and 1980.

- All of Douglas County's net growth in the past forty years has been within urban areas (places of 2,500 or more). Approximately 700 fewer lived in rural areas in 1990 than did in 1950.

Table 2.7
Urban and Rural Population Distribution
Douglas County and Kansas, 1930-1990

	Douglas		Kansas	
Year	Urban	Rural	Urban	Rural
1930	13,726	11,417	729,834	1,151,165
1940	14,390	10,781	753,941	1,047,087
1950	23,351	10,735	993,220	912,079
1960	32,858	10,862	1,328,741	849,870
1970	48,218	9,714	1,484,870	761,708
1980	58,573	9,067	1,575,899	787,780
1990	71,722	10,076	1,712,564	765,010

NOTE: 1930-1940 figures are based on the old urban definition while 1950-1990 are based on the current urban definition which now includes unincorporated urban areas.
Source: U.S. Bureau of the Census, *1960 Census of Population* (PC(1)-18A); *1970 Census of the Population, General Population Characteristics* (PC(1)-B18); *1980 Census of Population* (PC80-1-B18); *1990 Census of Population and Housing, Summary Population and Housing Characteristics: Kansas* (CPH-1-18).

Table 2.8
Urban and Rural Population in Douglas County and Kansas, 1930-1990
Population Distribution and Growth Rates

	Urban-Rural Population Distribution				Urban & Rural Growth Rates			
	Douglas		Kansas		Douglas		Kansas	
Year	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
1930	54.6%	45.4%	38.8%	61.2%				
1940	57.2	42.8	41.9	58.1	4.8%	-5.6%	3.3%	-9.0%
1950	68.5	31.5	52.1	47.9	62.3	-0.4	31.7	-12.9
1960	75.2	24.8	61.0	39.0	40.7	1.2	33.8	-6.8
1970	83.2	16.8	66.0	34.0	46.7	-10.6	11.8	-10.4
1980	86.6	13.4	66.7	33.3	21.5	-6.7	6.1	3.4
1990	87.7	12 .3	69.1	30.9	22.4	11.1	8.6	-2.9

Source: U.S. Bureau of the Census, *1960 Census of Population* (PC(1)-18A); *1970 Census of the Population, General Population Characteristics* (PC(1)-B18); *1980 Census of Population* (PC80-1-B18); *1990 Census of Population and Housing, Summary Population and Housing Characteristics: Kansas,* CPH-1-18.

- Douglas County has twice the share of population in the Age 15-24 age group that the state as a whole does. This reflects the importance of the University of Kansas, Baker University and Haskell Junior College to the county.

- Douglas County has a much smaller share of over 65 population (8.1%) than does Kansas as a whole (13.8%). However, the over-65 population is projected to grow from current levels (6,600 persons) to 11,500 persons by the year 2020.

- Currently 75 percent of the Douglas County population is of working age (15-64) compared with the state average of 63 percent. Projections for the year 2020 reflect similar proportions.

Table 2.9
Population Shares by Age Group
Douglas County and Kansas, 1990-2020

DOUGLAS COUNTY

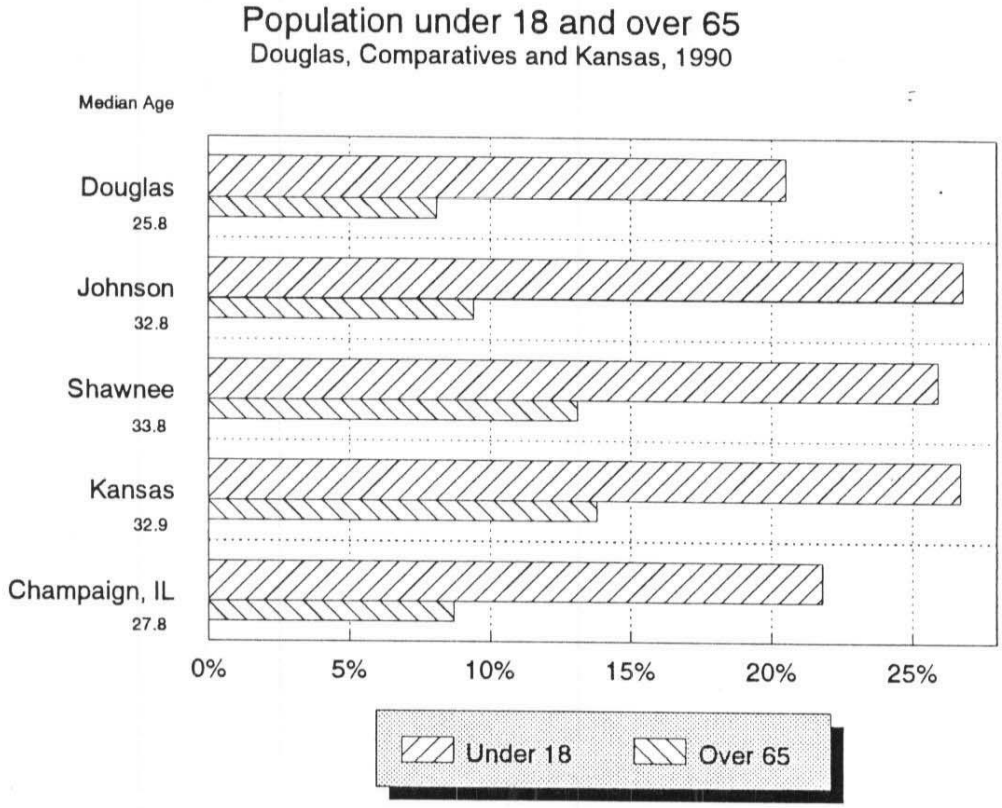
	Actual Population				Projected Shares		
Age Group	1980	Share	1990	Share	2000	2010	2020
0-4	4,117	6.1%	5,132	6.3%	5.6%	5.5%	4.9%
5-14	7,389	10.9	9,245	11.3	11.0	10.1	10.2
15-24	23,625	34.9	25,261	30.9	30.3	28.0	24.4
25-34	12,639	18.7	14,387	17.6	18.8	19.4	19.2
35-44	6,029	8.9	10,676	13.1	10.8	11.2	12.6
45-54	4,660	6.9	5,991	7.3	8.6	9.5	10.2
55-64	4,125	6.1	4,479	5.5	6.6	7.3	8.3
65+	5,056	7.5	6,627	8.1	8.2	8.9	10.4
Total	67,640		81,798				

STATE OF KANSAS

	Actual Population				Projected Shares		
Age Group	1980	Share	1990	Share	2000	2010	2020
0-4	180,877	7.7%	188,390	7.6%	6.6%	6.6%	6.6%
5-14	344,378	14.6	375,454	15.2	14.6	12.8	12.7
15-24	450,509	19.1	352,263	14.2	14.5	14.0	12.3
25-34	374,618	15.8	413,173	16.7	12.8	13.8	13.4
35-44	249,640	10.6	361,326	14.6	16.5	12.1	13.2
45-54	231,429	9.8	235,388	9.5	13.7	15.5	11.5
55-64	225,965	9.6	209,009	8.4	8.5	1.3	16.8
65+	306,263	13.0	342,571	13.8	12.7	13.0	16.8
Total	2,746,820		2,477,574				

Source: 1990 Actual Population: U.S. Bureau of the Census, MARS Data for 1990 Population by Age (Kansas and Counties), Projected and 1980 population shares from University of Kansas, Institute for Public Policy and Business Research, *Kansas Population Projections*, 1988.

Figure 2.5



Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population.*

- The Douglas County median age (25.8) is 20 percent younger than the state average due principally to the large number of students.

- Douglas County has relatively fewer under age 18 than the state average. This can be explained by the large number of non-family households (i.e., unmarried students) living in Douglas County.

- The Douglas County age profile resembles that of Champaign, Illinois (another college town) quite closely.

Table 2.10
Age Composition, 1990
Douglas, Comparative Counties, Kansas and U.S.

	Percent of Population		
	Under 18	18-65	Over 65
Douglas	20.5%	71.5%	8.1%
Johnson	26.8	63.8	9.4
Leavenworth	26.7	63.8	9.5
Miami	27.8	58.4	13.8
Wyandotte	28.4	58.6	13.0
Shawnee	25.9	61.0	13.1
Butler	28.9	57.7	13.4
Harvey	26.3	57.2	16.4
Sedgwick	27.7	60.9	11.4
Boone, MO	22.6	69.0	8.4
Johnson, IA	20.1	72.4	7.4
Larimer, CO	25.3	65.1	9.6
Champaign, IL	21.8	69.4	8.7
Kansas	26.7	59.5	13.8
U.S.	25.6	61.8	12.6

Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population*.

Table 2.11
Median Age of the Population, 1980 and 1990

	Median Age	
	1980	1990
Douglas	24.3	25.8
Johnson	30.4	32.8
Leavenworth	30.1	33.1
Miami	32.5	34.3
Wyandotte	28.8	31.7
Shawnee	30.3	33.8
Butler	31.0	33.8
Harvey	31.1	34.7
Sedgwick	28.7	31.8
Champaign, IL	N/A	27.8
Kansas	30.1	32.9
U.S.	30.0	32.9

Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population*. Median age data for Boone, MO, Johnson, IA and Larimer, CO was unavailable.

- Douglas County has a more diverse ethnic population that the state as a whole and is becoming more diverse. Much of this can attributed to the large number of students who come to Douglas County to study.

- Despite the overall levels of diversity, there are fewer blacks living in Douglas County than the state average.

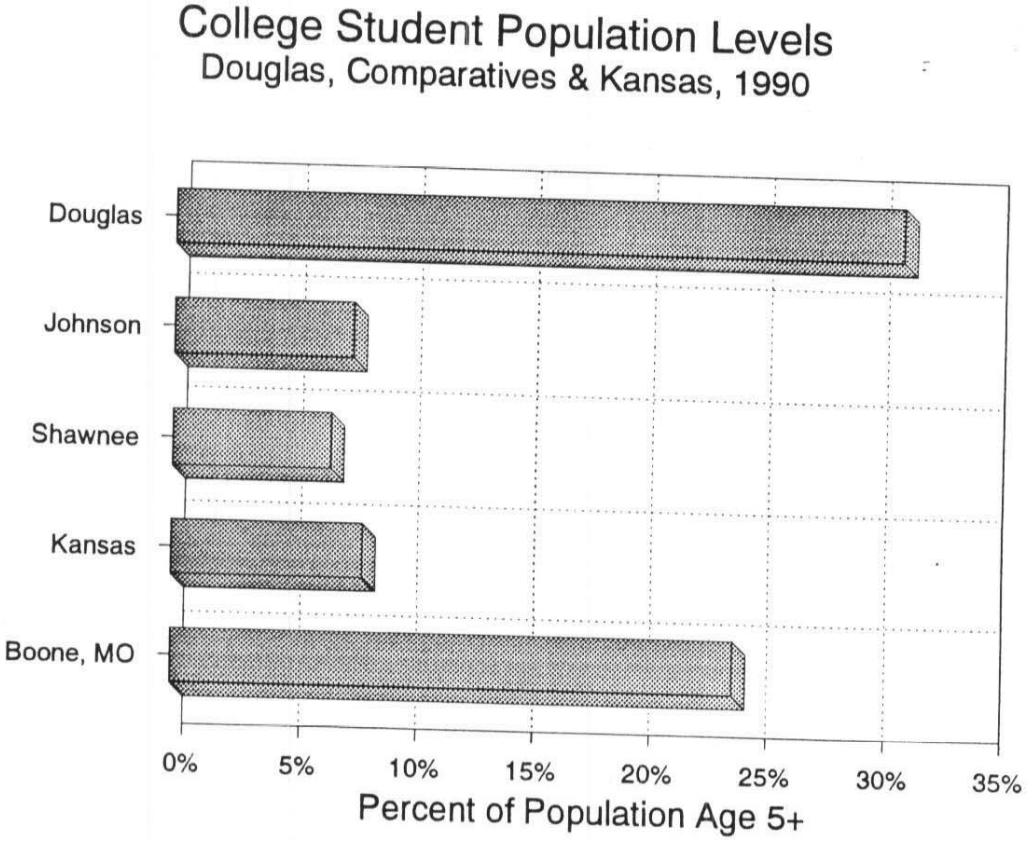
- Nine percent of the Kansas Indian population reside in Douglas County, compared with 3 percent of population for all ethnic groups. This reflects the significance of Haskell Junior College.

Table 2.12
Ethnic Composition of the Population, 1980 and 1990
Douglas County and Kansas

	Population by Race				Percent of Total Population			
	Douglas Co.		Kansas		Douglas Co.		Kansas	
	1980	1990	1980	1990	1980	1990	1980	1990
White	60,422	71,747	2,168,221	2,231,986	89.3%	87.7%	91.8%	90.1%
Black	3,065	3,724	126,127	143,076	4.5	4.6	5.3	5.8
American Indian	1,753	2,020	15,373	21,965	2.6	2.5	0.7	0.9
Asian/Pacific Islander	1,032	2,541	15,078	31,750	1.5	3.1	0.6	1.3
Other Race	1,363	78	38,880	48,797	2.0	0.1	2.0	2.0
Hispanic (any race)	1,548	2,138	63,339	93,670	2.2	2.6	2.7	3.8
Total Population	67,640	81,798	2,363,679	2,477,574				

Source: U.S. Bureau of the Census, 1980 and 1990 Census of the Population, Summary Tape File 1A, *Characteristics of the Population.*

Figure 2.6



Source: 1990 Census of Population, Table STF3.

- There were 23,938 college students living in Douglas County in 1990. This represented 31.2 percent of Douglas County's population over age 5.

- The student population (elementary through college) totals 45 percent of the Douglas County population. This is 67 percent higher than the state average, and higher than that of Boone County, Missouri (39 %) or Johnson County, Iowa (43%).

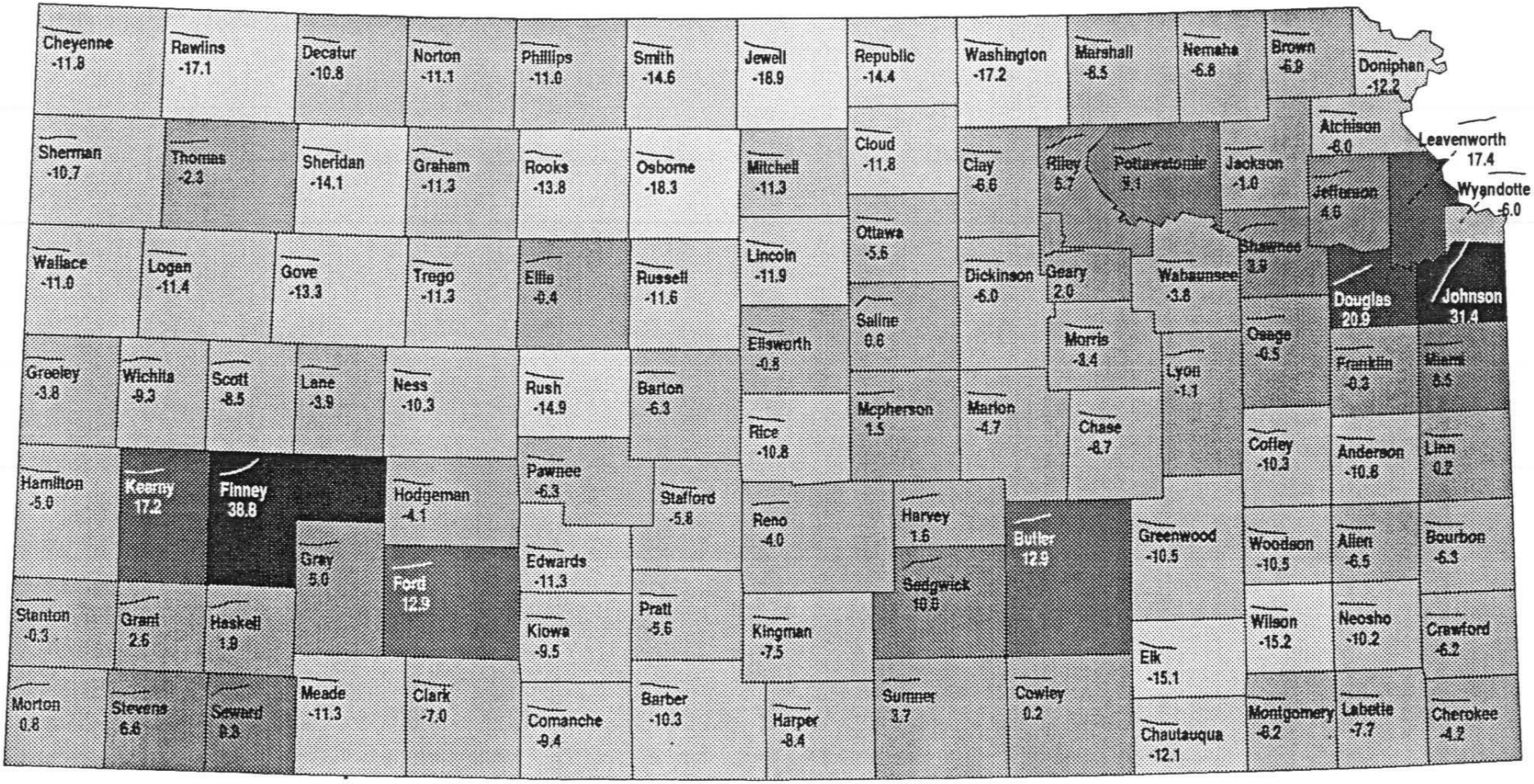
Table 2.13
Student Population Levels
Douglas, Comparatives and Kansas, 1990

	College Students			Elementary & High School Students		
	Public	Private	Percent of Population 5 years +	Public	Private	Percent of Population 5 Years +
Douglas	22,482	1,456	31.2%	10,248	322	13.8%
Johnson	20,395	4,847	7.7	52,015	7,716	18.3
Shawnee	8,569	1,601	6.8	24,931	2,319	18.2
Kansas	162,781	24,349	8.2	398,178	33,473	18.9
Boone, MO	22,667	2,512	24.1	14,869	743	15.0
Johnson, IA	26,073	794	29.9	10,715	809	12.8

Source: 1990 Census of Population, Table STF3.

Map 2.1

Percent Population Change, 1980 to 1990, and 1950-1990 Trend



Counties are shaded by 1980 to 1990 % change (listed below county name). Line graphs show the 1950-1990 trend.
Institute for Public Policy and Business Research, Univ. of Kansas, using data from
"1980 Census of Population," PC80-1-A-18; "1990 Decennial Census," mimeographed sheet.

Section III: Housing

The nature of a community's housing is an important aspect of its vitality. If those within the community are able to locate a comfortable place to live at a price which does not strain the household budget, they will be more likely to remain within the community and perhaps within the neighborhood. Communities with an appropriate supply of housing, at affordable prices, with a proper tenure mix (rental/owned) and of a reasonable quality, will be more stable communities than those lacking one or more of these ingredients. If one or more of these characteristics are lacking, those within the community may relocate until they have found more suitable accommodation for themselves or their family. Some categories of people may choose not to relocate, and will tolerate compromises in housing costs or housing and neighborhood quality. If the supply of housing is appropriate, fewer compromises may be necessary between household preferences and housing quality or affordability.

The following section reviews a number of characteristics of households and housing at the county and state level, comparing these with other counties with similar conditions:

- *The number of housing units relative to the number of households* is a direct indicator of the match between the supply and demand for housing. Where housing demand outstrips supply, an affordability problem may develop;

- The number and *composition of households* in the community is a direct indicator of the demands being made upon housing supply. The changing housing needs associated with household formation or consolidation and the position of individuals in the life cycle (school age, single living, raising a family, retirement) affects not only the number of housing units needed, but also the types of housing;

- *Housing occupancy and tenure patterns* show what proportions of the housing market are available to home buyers and renters. High rates of home ownership suggest long-term neighborhood stability; however some communities with special populations (students, military, high proportions of young people or retirees, or vacation/resort areas) may require more rental accommodation than the average community; and,

- *Vacancy rates* help show how tight a housing market is. When vacancy rates are very low, residents have little to choose from; when vacancy rates are high, particularly for long periods of time, there may be other problems, such as problems with quality or price.

- Housing costs, measured by *median home value and median rent*, when considered in conjunction with income data for the area can show whether or not the housing within the community is generally affordable.

HOUSING: KEY FINDINGS

- The rate of household formation outstripped the rate at which new housing units were constructed within Douglas County during the 1980s, tightening the housing market.

- Household formation rates in Douglas County have grown more rapidly in Douglas County than in all of the comparatives except Johnson County and Larimer County, Colorado.

- The typical Douglas County household, at 2.42 persons, is smaller than the Kansas average (2.53 persons) and the U.S. average (2.63).

- The rate of owner occupancy in Douglas County was lower in 1990 than in any comparative county, at 49.7 percent. The proportion of the housing market available for renters (47.7%) was similar to other college communities.

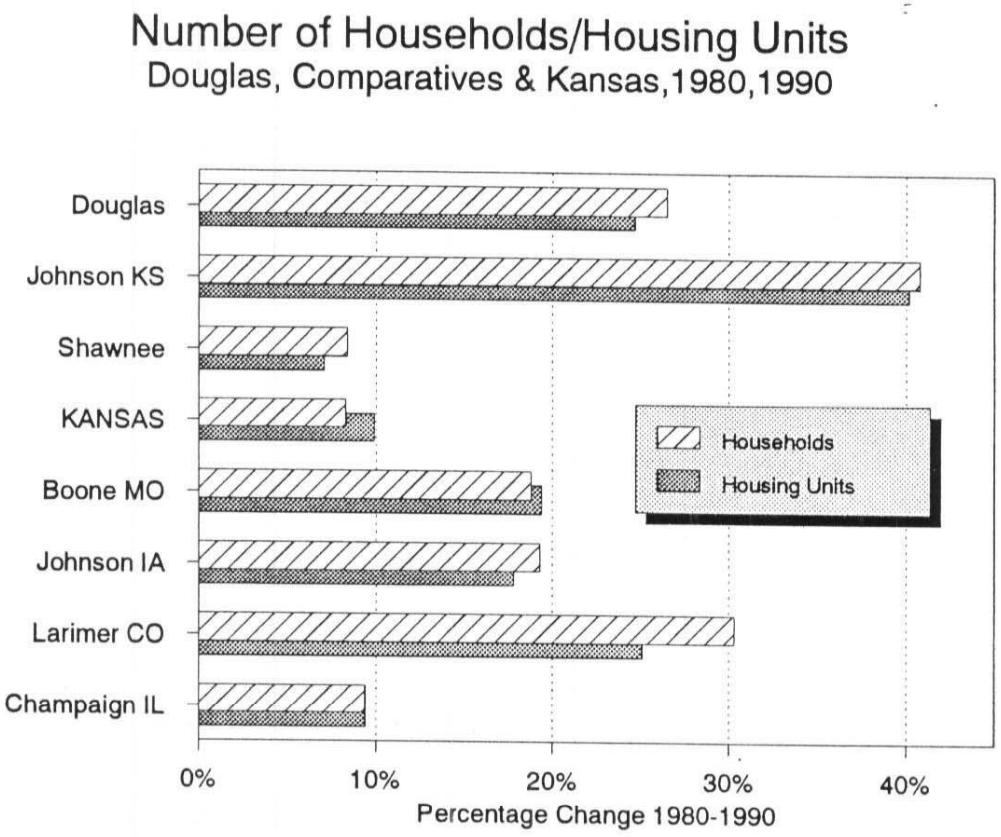
- The number of housing units vacant 6 or more months (especially for rentals) may indicate a relatively tight housing market in Douglas County. Less than a third (29.3%) of total vacancies in Douglas had been vacant 6 or more months.

- The median value of Douglas County owner-occupied housing surged from $46,900 in 1980 to $68,000 in 1990. However, relative to increases in housing prices nationwide, Douglas County fared well with respect to affordability.

- The median rent in Douglas County jumped from $203 in 1980 to $343 in 1990. In general, Kansas counties noted a greater increase in the cost of rental housing during the 1980s than in owned housing. This was not the case nationwide.

HOUSING: DATA ANALYSIS

Figure 3.1



Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population*. Out of state data from Slater & Hall, *1992 County and City Extra* (Lanham, Md: Bernam Press, 1992) based upon U.S. Bureau of the Census data. 1980 Out-of-state data estimated by KU-IPPBR using percentage change data and 1990 data.

- The rate of household formation outstripped the rate at which new housing units were constructed within Douglas County during the 1980s, tightening the housing market. Although the housing supply grew by nearly 25 percent, households in Douglas grew by nearly 27 percent. Household formation rates in Douglas County have grown more rapidly in Douglas County than in all of the comparatives except Johnson County and Larimer County, Colorado.

- By 1990, Douglas County had a lower ratio of housing units per household than any of the Kansas metropolitan counties, and lower than all college town comparatives except Johnson County, Iowa. With only 5 percent more housing units than households, the Lawrence housing market was extremely tight.

Table 3.1
Number of Housing Units, 1980 and 1990
Douglas, Comparative Counties, and Kansas

	Total Households		Number of Housing Units		Housing Units per Household		Percent Change	
	1980	1990	1980	1990	1980	1990	House-holds	Housing Units
Douglas	23,817	30,138	25,479	31,782	1.07	1.05	26.5%	24.7%
Lawrence	18,773	24,513	20,179	25,893	1.07	1.06	30.6	28.3
Baldwin City	878	902	941	961	1.07	1.07	2.7	2.1
Eudora	986	1,083	1,040	1,136	1.05	1.05	9.8	9.2
LeCompton	197	212	215	221	1.09	1.04	7.6	2.8
Johnson, KS	96,927	136,433	102,827	144,155	1.06	1.06	40.8	40.2
Shawnee	58,832	63,768	64,393	68,991	1.09	1.08	8.4	7.1
Sedgwick	137,744	156,571	145,562	170,159	1.06	1.09	13.7	16.9
Butler	16,087	18,488	17,192	20,072	1.07	1.09	14.9	16.8
Harvey	10,947	11,581	11,559	12,290	1.06	1.06	5.8	6.3
Leavenworth	17,030	19,715	18,412	21,264	1.08	1.08	15.8	15.5
Miami	7,571	8,402	8,436	8,971	1.11	1.07	11.0	6.3
Wyandotte	63,392	61,514	68,404	69,102	1.08	1.12	-3.0	1.0
Kansas	872,239	944,726	950,151	1,044,112	1.09	1.11	8.3	9.9
Boone, MO	35,300	41,937	37,400	44,695	1.06	1.07	18.8	19.4
Johnson, IA	30,200	36,037	31,600	37,200	1.05	1.03	19.3	17.8
Larimer, CO	54,100	70,472	62,200	77,811	1.14	1.10	30.3	25.1
Champaign, Il	58,400	63,900	62,500	68,416	1.07	1.07	9.4	9.4

Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population*. Out of state data from Slater & Hall, *1992 County and City Extra* (Lanham, Md: Bernam Press, 1992) based upon U.S. Bureau of the Census data. 1980 Out-of-state data estimated by KU-IPPBR using percentage change data and 1990 data.

- The typical Douglas County household, at 2.42 persons, is smaller than the Kansas average (2.53 persons) and the U.S. average (2.63).

- As would be expected in a college community, one-person households are more prevalent in Douglas County than in the nation as a whole. Douglas' proportion of households which consisted of one-person (27%) is similar to most of the college county comparatives, slightly higher than the Kansas average (25.9%) and notably higher than the U.S. average (24.6%).

- Douglas County has fewer female household heads than most of the comparatives.

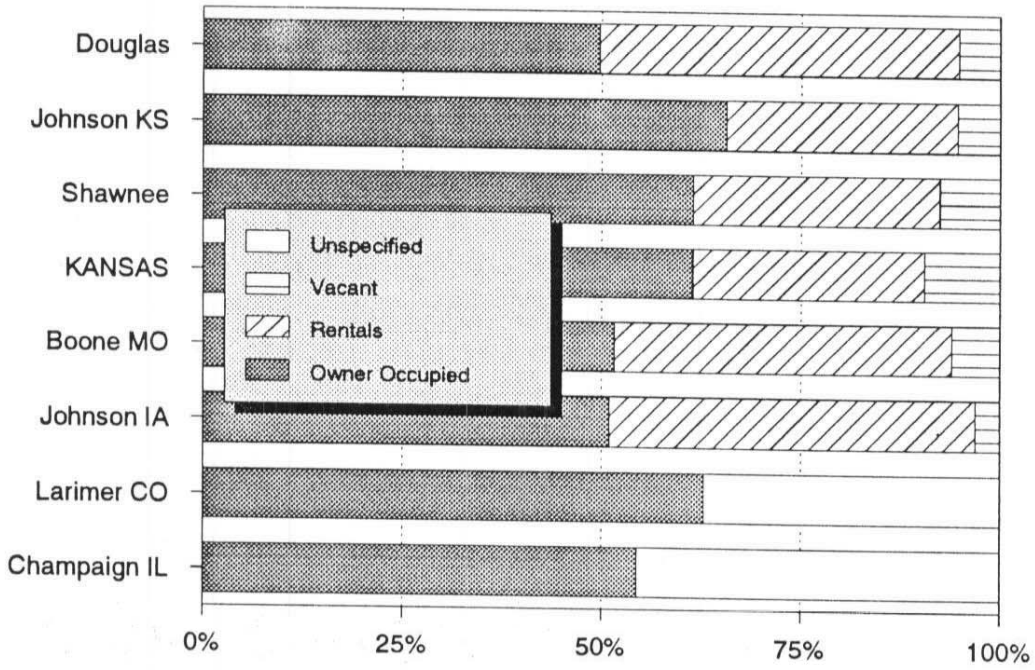
Table 3.2
Household Composition
Douglas, Comparative Counties and Kansas, 1990

	Number of Households	Change 1980-1990	Persons per Household	Female Householder[1]	One-Person Households
Douglas	30,138	26.5%	2.42	7.6%	27.0%
Johnson	136,433	40.8	2.58	7.8	23.0
Shawnee	63,768	8.4	2.46	10.5	27.6
Kansas	944,726	8.3	2.53	8.6	25.9
Boone, MO	41,937	18.8	2.42	9.5	27.5
Johnson, IA	36,037	19.3	2.41	6.7	27.8
Larimer, CO	70,472	30.3	2.55	7.6	23.0
Champaign, IL	63,900	9.4	2.43	8.4	28.7
U.S.	91,947,410	14.4	2.63	11.6	24.6

Source: Slater & Hall, *1992 County and City Extra* (Lanham, Md: Bernam Press, 1992) based upon U.S. Bureau of the Census data.
[1] No spouse present.

Figure 3.2

Housing Units by Occupancy and Tenure
Douglas, Comparatives & Kansas, 1990



Sources: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population*; Iowa State University, *Iowa's Counties 1991*; University of Missouri-Columbia, *Statistical Abstract for Missouri, 1991*; Colorado and Illinois data from Slater & Hall, *1992 County & City Extra*.

- The rate of owner occupancy in Douglas County in 1990 was lower than in any comparative county, at 49.7 percent. The proportion of the housing market available for renters (47.7%) was similar to other college communities.

- Of homes available for homeowner occupancy in 1990, Douglas County had the lowest vacancy rates of the nine Kansas comparison counties, at 0.8 percent. Although the rental vacancy rate was higher, it was still very low compared to the Kansas average of 11.1 percent.

- The proportion of owner to rental occupied units in Douglas suggests that the county has a much higher base of rental housing property than any of the Kansas comparative counties. While most of the other counties appear to have at least a 2:1 owner to rental ratio, Douglas has a 1.1:1 ratio. Boone County Missouri and Johnson County, Iowa also have owner to rental ratios greater than Douglas'.

Table 3.3
Housing Occupancy and Tenure, 1990
Douglas, Comparative Counties, and Kansas

	Total Housing Units	Owner Occupied		Renter Occupied	Vacant Total	Vacant Seasonal	Vacancy Rates Owned	Rental
Douglas	31,782	15,823	49.7%	14,315	1,644	46	0.8%	2.7%
Johnson, KS	144,155	94,661	65.7	41,722	7,722	303	2.1	9.5
Shawnee	68,991	42,450	61.5	21,318	5,223	109	1.3	3.8
Sedgwick	170,159	99,753	58.6	56,818	13,588	249	2.2	13.4
Butler	20,072	13,931	69.4	4,557	1,584	170	1.4	2.6
Harvey	12,290	7,925	64.4	3,656	709	33	1.0	2.0
Leavenworth	21,264	12,849	60.4	6,866	1,549	23	1.8	3.3
Miami	8,971	6,476	72.2	1,926	569	28	1.0	2.2
Wyandotte	69,102	38,714	56.0	22,800	7,588	77	1.6	6.4
Kansas	1,044,112	641,762	61.5	302,964	99,386	7,336	2.3	11.1
Boone, MO	44,695	23,078	51.6	18,859	2,758	NA	NA	NA
Johnson, IA	37,210	18,999	51.1	17,068	1,143	102	NA	NA
Larimer, CO	77,811	70,472	62.9	NA	NA	NA	NA	NA
Champaign, IL	68,416	63,900	54.5	NA	NA	NA	NA	NA

Sources: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population*; Iowa State University, *Iowa's Counties 1991*; University of Missouri-Columbia, *Statistical Abstract for Missouri, 1991*; Colorado and Illinois data from Slater & Hall, *1992 County & City Extra*.

Table 3.4
Percentage of Housing Units Owner Occupied
Lawrence, Comparative Metropolitan Statistical Areas and Kansas, 1980, 1990

Metropolitan Statistical Area/State	Percent of Housing Units Owner Occupied 1980	1990
Lawrence	54.5%	52.5%
Kansas City MO-KS	66.8	65.4
Topeka	67.6	66.6
Kansas	70.2	67.9
Columbia	56.4	55.0
Iowa City	54.1	52.7
Fort Collins-Loveland	64.3	62.9
Champaign-Urbana-Rantoul	53.9	54.5

Sources: 1980 data from U.S. Bureau of the Census, *State and Metropolitan Area Data Book, 1991*; 1990 data from Slater & Hall, *1992 County and City Extra*, based upon Bureau of the Census data.

- The number of housing units vacant 6 or more months (especially for rentals) may indicate a relatively tight housing market in Douglas County. Less than a third (29.3%) of total vacancies in Douglas had been vacant 6 or more months. Johnson was in a similar position, with only 20.5 percent of its housing units vacant for the same period.

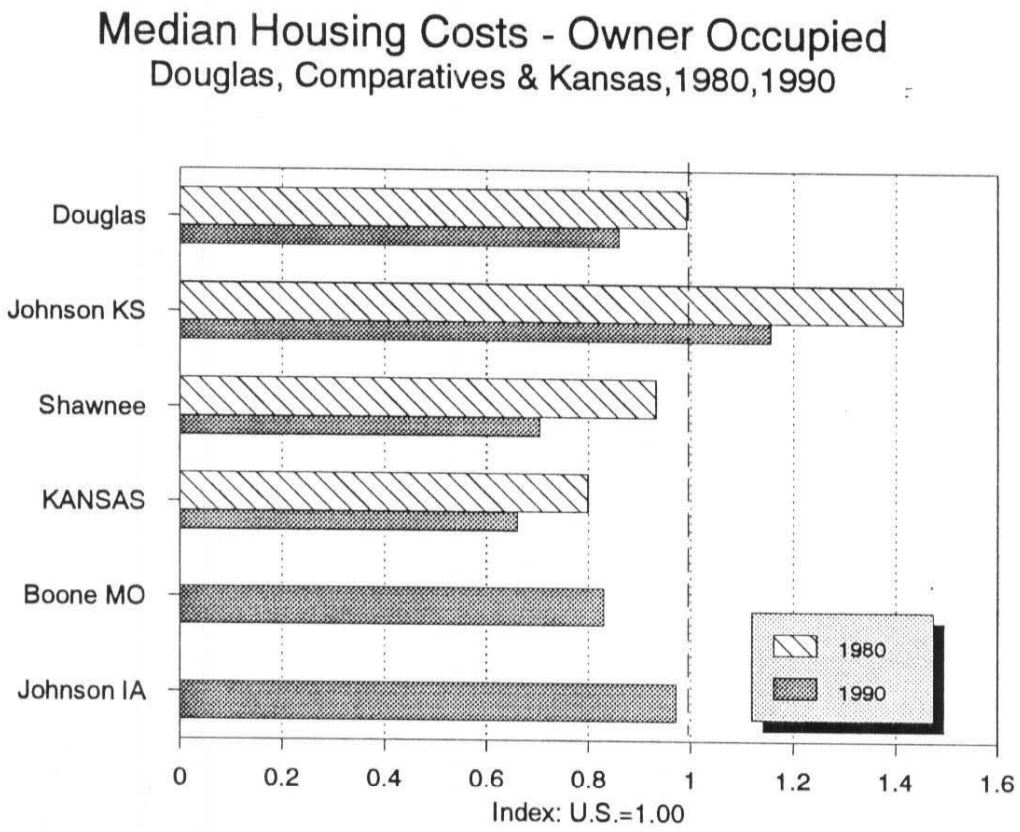
- As expected, Johnson and Douglas both shared a lower than average percentage of rentals and for-sale units vacant 6 or more months. In 1990, 12.2 percent of Johnson's rentals and 18.7 percent of Douglas' rentals were in this position. The percentage of units for sale 6 or more months were 29.1 and 32.7 for Douglas and Johnson, respectively.

Table 3.5
Housing Units Vacant 6 or More Months, 1990
Douglas, Kansas Comparative Counties, and Kansas

	Total Vacancies		Rentals Vacant		Units for Sale	
	Number	% Vacant	Number	% Vacant	Number	% Vacant
Douglas	482	29.3%	162	18.7%	72	29.1%
Johnson, KS	1,585	20.5	485	12.2	639	32.7
Shawnee	1,992	38.1	632	24.0	381	43.6
Sedgwick	4,595	33.8	1,795	23.5	881	41.1
Butler	754	47.6	160	30.3	140	50.0
Harvey	355	50.1	90	36.3	67	56.3
Leavenworth	551	35.6	131	18.8	155	40.1
Miami	310	54.5	58	29.9	41	45.6
Wyandotte	2,732	36.0	1,193	27.0	544	50.3
Kansas	49,844	50.2	11,220	29.8	8,256	54.1

Note: Percentages are equivalent to the percentage of units vacant 6 or more months within each classification (i.e. Total, Rentals, Units for Sale).
Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population*.

Figure 3.3



Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population.* Out-of-state data from Slater & Hall, *1992 County and City Extra*, using Bureau of the Census data.

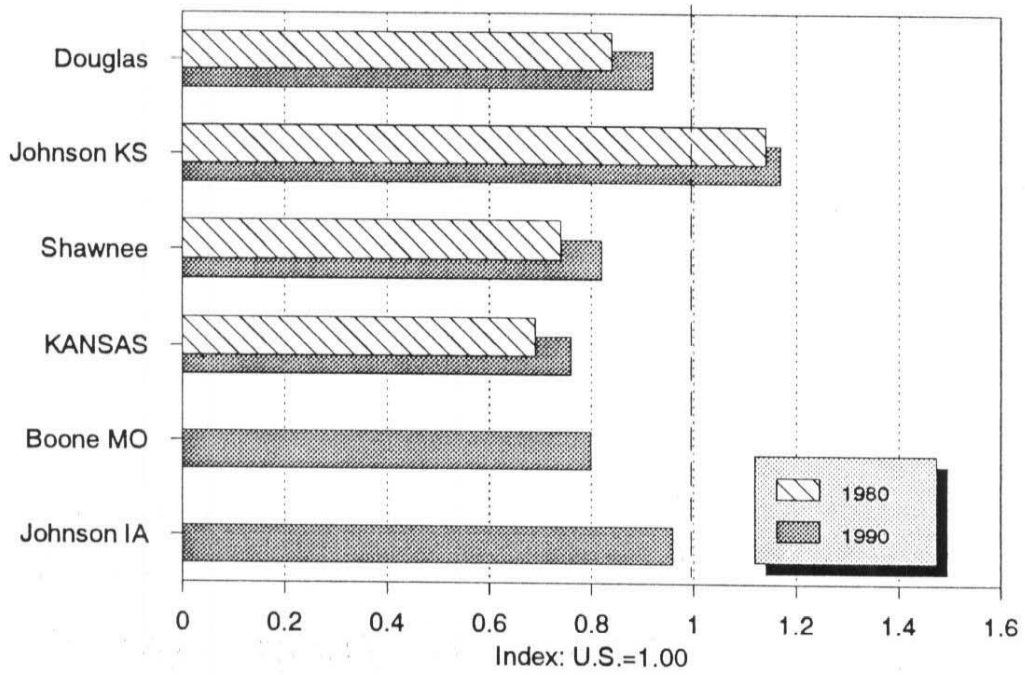
- The median value of Douglas County owner-occupied housing surged from $46,900 in 1980 to $68,000 in 1990. This 45 percent increase was the third highest of the nine Kansas metropolitan counties, behind that of Leavenworth (58%) and Wyandotte (45.9%).

- Relative to increases in housing prices nationwide, Douglas County fared well with respect to affordability. In 1980, the median value of an owner-occupied dwelling nearly matched the U.S. median value; in 1990, the typical Douglas County was 15% less costly than the national median value.

- Owner-occupied homes in general in Douglas County were valued 13 percent higher than the Kansas median value of $52,200 in 1990.

Figure 3.4

Median Housing Costs - Renter Occupied
Douglas, Comparatives & Kansas,1980,1990



Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population.* Out-of-state data from Slater & Hall, *1992 County and City Extra*, using Bureau of the Census data.

- The median rent in Douglas County jumped from $203 in 1980 to $343 in 1990. Although the 1990 figure was the second highest for the nine Kansas metropolitan counties, Douglas' percentage increase (69.0%) was smaller than those in Miami (92.6%), Leavenworth (89.0%), Wyandotte (85.1%), and Shawnee (70.6%).

- In general, Kansas counties noted a greater increase in the cost of rental housing during the 1980s than in owned housing. This was not the case nationwide.

- Monthly rents in Douglas County, while higher than most Kansas metropolitan counties, are similar to those of counties with high proportions of college students.

Table 3.6
Median Housing Costs, 1980 and 1990
Douglas, Comparative Counties, and Kansas

	Owner-Occupied Median Value		Renter-Occupied Median Rent		Percent Change	
	1980	1990	1980	1990	Owner-Occupied	Rental Occupied
Douglas	$ 46,900	$ 68,000	$ 203	$ 343	45.0%	69.0%
Johnson, KS	66,900	91,500	276	438	36.8	58.7
Shawnee	44,100	55,700	180	307	26.3	70.6
Sedgwick	42,300	58,500	200	302	38.3	51.0
Butler	37,800	51,800	148	243	37.0	64.2
Harvey	36,700	47,100	154	231	28.3	50.0
Leavenworth	40,500	64,000	181	342	58.0	89.0
Miami	34,000	47,700	122	235	40.3	92.6
Wyandotte	29,000	42,300	154	285	45.9	85.1
Kansas	37,800	52,200	168	285	38.1	69.6
U.S.	47,300	79,100	243	374	67.2	54.0
Boone, MO	NA	65,700	NA	299	NA	NA
Johnson, IA	NA	76,900	NA	360	NA	NA
Larimer, CO	NA	83,900	NA	368	NA	NA
Champaign, IL	NA	67,700	NA	336	NA	NA

Source: U.S. Bureau of the Census, 1990 Census of the Population, Summary File Tape 1A, *Characteristics of the Population.* Out-of-state data from Slater & Hall, *1992 County and City Extra*, using Bureau of the Census data.

Section IV: Education

As present and future jobs begin to require higher skilled employees, the education of the local workforce becomes a high priority. The ideal local labor market, in terms of being attractive and conducive to business growth, has an ample supply of workers who have basic skills, advanced skills, and a strong work ethic. A higher concentration of lower skilled workers means that the community must rely on low skilled jobs with low wages in industries which are either mature or declining. This, in turn, means that unemployment may be a continual or cyclical problem as these firms go out of business due to competition or obsolescence.

Education refers not only to K-12 instruction, but to higher education at universities and community colleges as well. Equally valuable are workers possessing a strong, adaptable technical education from an area vocational technical school (AVTS), community college or other technical institution. This section presents the following measures of education for Douglas County, comparative counties, and the state of Kansas:

- *The highest level of completed education, ages 25 and over* demonstrates the average length of education for county residents. Lower levels may be indicative of lower skilled, less adaptable workers, while higher levels may mean a better opportunity to create, attract, and retain high growth, highly productive businesses.

- The *full time enrollment figures* provide an indication of the number of students in grades K-12 and at local colleges and universities. These are the people currently in the educational system that will be the workers of tomorrow.

- The *pupil-teacher ratios* compare the number of pupils and instructors in grades K-12. Low ratios suggest there may be opportunities for individual problem-solving and learning; increases in this ratio may indicate growing budgetary pressures on school districts.

- The *expenditure per pupil* reflects the financial expenditure being used to finance one year's education to a student in the public education system. Traditionally, higher expenditures per pupil have reflected the district's willingness to invest in the education of their children. However, lower expenditures per pupil may indicate an efficient school system that can deliver quality education at lower costs. High expenditures per pupil may be indicative of districts with low enrollments and fixed overhead costs.

- The *high school dropout rate* indicates the relative completion rate of high school students. High dropout rates may be the result of difficult economic or social situations. The result of high dropout rates is a workforce which is not properly prepared to participate in today's workplace without additional education.

EDUCATION: KEY FINDINGS

- Nearly two-thirds (64%) of the over-25 population in Douglas County have some college education, compared with 48 percent statewide.

- Douglas County had a very low share of its over-25 population with less than complete elementary educations (3.8%). Only Johnson County's 2.2 percent was lower.

- University of Kansas enrollments have remained stable at around 26,500 students at the Lawrence campus. KU enrollment levels have been more stable than those of the comparative universities.

- Enrollments at Baker University in Baldwin City have held around the 900 mark throughout the 1980s.

- Haskell Indian Junior College enrollments have stabilized at around 900 students, after falling to the 750 level in the mid-1980s.

- Enrollments in Douglas County public schools have been increasing at an average rate of 270 students per year, consistent with population trends.

- Average expenditures per pupil in Douglas County were $3,793 in 1991-1992, a 33 percent increase in five years.

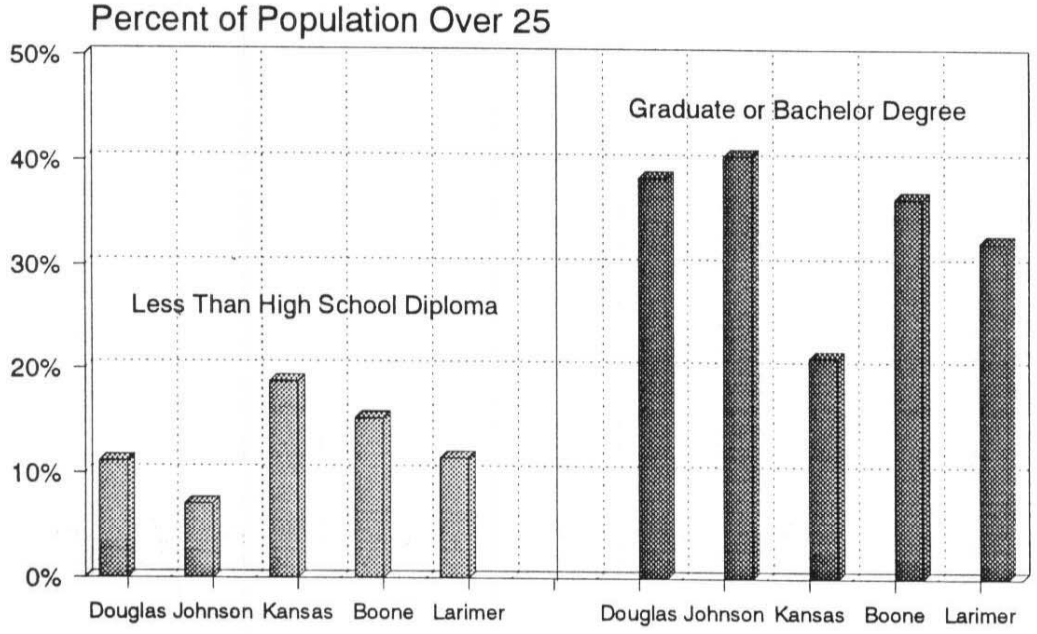
- The pupil-teacher ratio in Douglas County (17.7) was slightly higher than the Kansas average in 1990-1991 (16.1).

- The high school dropout rate had been increasing rapidly in Douglas County until 1988-89, when it peaked at 5 percent of headcount. In 1990-1991, the dropout rate declined to 2.8 percent.

EDUCATION: DATA ANALYSIS

Figure 4.1

Highest Level of Educational Attainment
Population Over 25
Douglas, Comparatives and Kansas, 1990



Source: U.S. Bureau of the Census, *1990 Census of Population,* STF3a.

- Douglas County has the highest proportion of any comparative county for 1990 population over 25 with graduate degrees, at 16.7 percent. This was more than double the Kansas rate (7.0%).

- Nearly two-thirds (64%) of the over-25 population in Douglas County have some college education, compared with 48 percent statewide.

- Douglas County had a very low share of its over-25 population with less than complete elementary educations (3.8%). Only Johnson County's 2.2 percent was lower.

Table 4.1
Highest Level of Completed Education, 1990
Douglas, Comparative Counties and Kansas, Population 25 Years & older

	College			High School		Elementary
	Graduate Degree	Bachelors Degree	Associate Degree	Some College	Diploma	No Diploma	Less than 9 Years
Douglas	16.7%	21.7%	4.0%	21.2%	25.2%	7.3%	3.8%
Johnson	12.4	28.1	6.4	24.3	21.7	4.9	2.2
Shawnee	7.4	14.9	3.4	22.6	36.1	9.9	5.7
Boone, MO	16.2	20.3	5.3	17.7	25.3	9.3	5.9
Johnson, IA	20.0	24.0	7.8	17.4	21.3	5.1	4.4
Larimer, CO	12.1	20.2	7.0	23.7	25.6	7.2	4.2
Kansas	7.0	14.1	5.4	21.9	32.8	11.0	7.7

Source: U.S. Bureau of the Census, *1990*. Summary Tape File 3A. Champaign County STF3a not available at this time.

- Following a large increase from 1985 to 1986, University of Kansas enrollments have remained stable at around 26,500 students at the Lawrence campus. This is 10 percent higher than 1981 levels.

- Baker University's Baldwin City campus enrollments held around the 900 mark throughout 1980s.

- Haskell Indian Junior College enrollments declined during the mid 1980s but in 1991 rebounded to around 900 students, to almost equal their 1981 peak year enrollment figures.

Table 4.2
Fall Head Count Enrollment
University of Kansas, Baker University and Haskell Junior College, 1981-1991

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
KU-Lawrence	23,990	24,400	24,219	24,436	24,774	25,822	26,306	26,020	26,320	26,436	26,661
Baker Univ.*	934	839	821	818	840	856	879	878	848	869	860
Haskell J.C.	925	879	936	775	894	799	756	842	827	831	898
Total	25,849	26,118	25,976	26,029	26,508	27,477	27,941	27,740	28,268	28,634	29,262

Sources: University of Kansas, Office of Institutional Research and Planning. University of Kansas Profiles; Baker University; Haskell Indian Junior College.
*Baker University enrollment at Baldwin City campus only - does not include satellite campus in Overland Park.

- KU's enrollment levels have shown more year-to-year stability than its peer institutions. Both Iowa and Missouri had lower enrollments in 1991 than had been the case earlier in the decade.

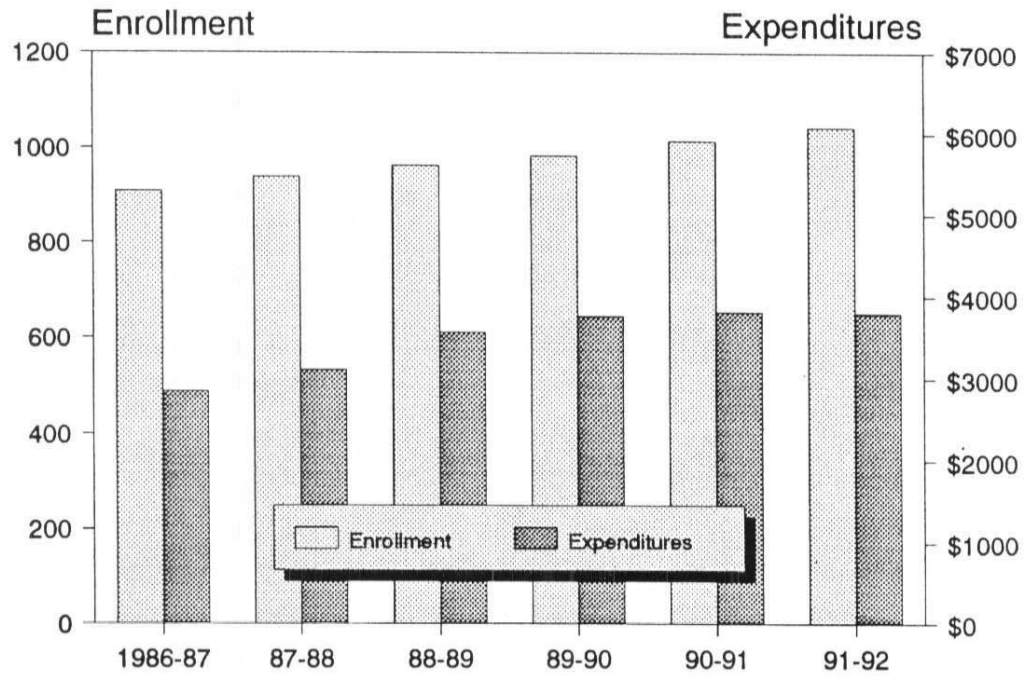
Table 4.3
Fall Head Count Enrollment
University of Kansas and Peer Institutions

University	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
	(enrollment in thousands)										
Kansas	24.0	24.4	24.2	24.4	24.8	25.8	26.3	26.0	26.3	26.4	26.7
Missouri	25.1	24.8	24.3	23.6	23.0	22.7	23.0	23.4	24.3	25.1	24.7
Iowa	26.5	28.1	29.6	29.7	29.7	29.5	29.1	29.2	28.9	28.1	27.9
Illinois	35.2	34.9	34.6	34.8	36.0	36.3	36.3	36.1	37.5	38.2	38.8

Source: University of Kansas Office of Institutional Research and Planning, *University of Kansas Profiles*, Jan. 1992, 1987, Dec. 1984. Information for Colorado State University not readily available. Data shown is for main campus enrollments (Lawrence, Columbia, Iowa City, Urbana and Fort Collins).

Figure 4.2

Enrollment and Expenditures Per Pupil
Douglas County, 1986-87 to 1991-92



Source: League of Kansas Municipalities, *Kansas Government Journal,* January, 1987-1992.

- Enrollments have been increasing in Douglas County public schools at an average rate of 270 students per year since 1986-1987. This rate of increase (+15%) is consistent with population trends for Douglas County and its Kansas comparatives.

- Average expenditures per pupil in Douglas County were $3,793 in 1991-1992. This represented a 33 percent increase over a five-year period.

- The pupil-teacher ratio in Douglas County (17.7) was slightly higher than the Kansas average in 1990-1991 (16.1), but was similar to those of Johnson and Shawnee Counties.

Table 4.4
Full-Time Enrollment, Public Schools
Douglas, Comparative Counties, and Kansas, 1986-1992

	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992
Douglas	9,081	9,374	9,618	9,831	10,140	10,432
Johnson	50,984	52,323	53,380	54,965	56,993	58,680
Shawnee	24,315	24,703	24,957	25,014	25,416	25,778
Kansas	395,180	399,982	403,871	408,394	414,847	423,517

Source: League of Kansas Municipalities, *Kansas Government Journal,* January 1986-1992.
Data shown is full-time equivalent data.

Table 4.5
Weighted Expenditure Per Pupil (Full-time equivalent)
Douglas and Comparative Counties, 1986-1992

	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	1991-1992	% Change 1986-1992
Douglas	$2,847	$3,107	$3,559	$3,759	$3,810	$3,793	33.2%
Johnson	3,191	3,518	3,775	4,022	4,180	4,195	31.5
Shawnee	2,877	2,972	3,179	3,454	3,544	3,561	23.8

Source: League of Kansas Municipalities, *Kansas Government Journal,* January 1987-1992.
Note: Data shown are weighted averages for all school districts in the county, calculated by IPPBR.

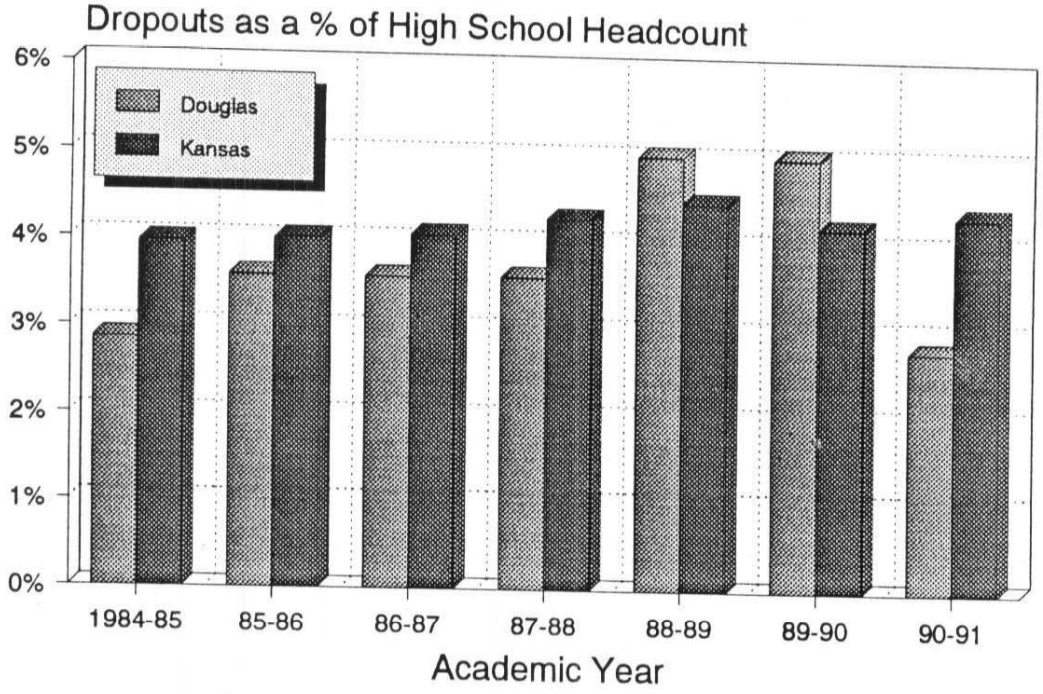
Table 4.6
Pupil-Teacher Ratio, Public Schools
Douglas, Comparative Counties, & Kansas, 1989-90 and 1990-91

	1989-90	1990-91
Douglas	17.43	17.67
Johnson	16.85	16.80
Shawnee	18.03	18.09
Kansas	15.97	16.08

Source: Kansas State Board of Education, *Pupil-Teacher Ratios of Unified School Districts,* 1989-1990, April 1990; 1990-1991, March 1991.

Figure 4.3

High School Dropout Rates
Douglas and Kansas, 1984-1991



Source: Kansas State Board of Education, *Kansas USD's High School Dropouts 1984-85 Through 1988-89 and 1986-87 Through 1990-91*, January 1990, February 1992.

- High school dropout rates have been climbing in Kansas since 1984, and until 1990-1991 had been climbing rapidly in Douglas County also, peaking at 5 percent of the student body in 1988-1989. In 1990-1991, the Douglas County dropout rate declined to 2.8 percent.

- Over the last seven years, the Douglas County high school dropout rate has averaged 10 percent lower than the state rate.

Table 4.7
High School Dropout Rates
Douglas County and Kansas, 1984-85 to 1990-91

Academic Year	Headcount Grades 9-12	High School Dropouts	Drop Out Rate	Kansas Average Dropout Rate
1984-85	2,693	77	2.86%	3.96%
1985-86	2,813	101	3.59	4.01
1986-87	2,824	101	3.58	4.06
1987-88	2,866	103	3.59	4.26
1988-89	2,859	143	5.00	4.46
1989-90	2,827	141	4.99	4.19
1990-91	2,882	80	2.78	4.34
Seven-year weighted average			3.77	4.18

Note: Douglas County data shown are weighted average for USD 348 Baldwin City, USD 491 Eudora, USD 497 Lawrence. The Kansas definition of a dropout is a pupil "who leaves a school for any reason, except death, before graduation or completion of a program of studies and without transferring to another school."
Source: Kansas State Board of Education, *Kansas USD's High School Dropouts 1984-85 Through 1988-89 and 1986-87 through 1990-91*, January 1990, February 1992.

Section V: Employment, Earnings & Income

Employment levels are an important measure of a community's economic vitality. Unemployed workers mean that the community's resources are not being fully utilized and that the locally generated flow of goods and services is less than it could be. It also represents a drain on tax revenues and a higher demand for social services.

Income and earnings are the sources of revenue for the community residents. There are five principal sources of income, including: (1) ***wages and salaries;*** (2) ***farm property;*** (3) ***non-farm property;*** (4) earnings from ***dividends, interest, and rental income***; and (5) ***transfer payments,*** including social security payments and unemployment insurance. These sources of income describe the economic base of the community. Higher average wages and salaries may indicate a greater number of jobs in high growth, high performance businesses. Low wage growth may indicate a higher concentration of stable, declining industries. Sources of earnings may demonstrate the ability of the community to generate its own income and may give some indication of the population's age (i.e., older people tend to depend more on investment and entitlement income). Declining or stable earnings over time may indicate a decrease in the standard of living for the community.

In the following section, employment and unemployment levels are examined for Douglas County, its comparative counties, and the State of Kansas as a determinant of the level of economic activity. In order to have a better understanding of the employment picture, three key employment measures are compared simultaneously:

- the *size of the labor force* shows the number of people who are either working or willing to work. The size of the labor force is influenced not only by population but also by the perceptions of individuals that suitable job opportunities exist. Diverse, healthy economies tend to offer the widest variety of job opportunities and therefore attract a large number of job-seekers, which increases the size of the labor force;

- the level of *unemployment* reflects the amount of economic activity within an area and how well the local market is able to match the supply and demand for labor;

- *job creation rates (net change in average annual employment)* reflect the growth in employment levels and the range of employment opportunities. As some jobs are lost in a community due to changing economic circumstances, they may be replaced by new jobs. Net job creation reflects the net gain or loss in jobs over a given period of time;

- *place of work vs. residence* indicates the extent to which residents in the community work where they live. This data provides useful information about commuting patterns and the levels of employment opportunity within the area;

- *full-time, part-time and seasonal employment* details the nature of employment in the community and is also useful in understanding earnings and income levels;

Income and earnings are also examined for Douglas County, the comparative counties, and Kansas using the following measures:

- *average earnings per job* is normally determined by the productivity of local labor and the performance of local businesses. Over time, wages will increase in real terms only if labor is considered to be productive and if businesses are performing well relative to their competitors.

- *per capita personal income* indicates the relative wealth of the area compared to the state. As the productivity of business and industry increase, personal per capita income also rises. Decreasing or stable rates may be the result of mature or declining industry;

- *income levels by household type* and *poverty status* describe the distribution of income within the community;

- *sources of personal income* show what the population relies on for support. High proportions of wage and salary income indicate a productive local economy; reliance on outside sources of income, such as transfer payments, suggest a less productive local economy, but indicate stability in future streams of income. High ratios of proprietorship income illustrate a strong community entrepreneurial climate.

EMPLOYMENT, EARNINGS & INCOME: KEY FINDINGS

- The civilian labor force in Douglas County grew from 34,000 in 1982 to 45,000 in 1991. This 32 percent increase was three times the state growth rate. Since 1987, the civilian labor force has grown by 13.3 percent, nearly twice the growth rate of Johnson County, Kansas.

- Douglas County unemployment rates from 1982 to 1991 ranged from between 3.2 percent and 4.9 percent, and were consistently lower than the state averages.

- Nearly 7,500 net new jobs were created in Douglas County between 1985 and 1989. This job creation rate (20.8%) was nearly three times the state average and nearly four times the rate for the remaining Kansas metro counties.

- Douglas County has higher rates of part-time employment (11% of over-16 population) than the state average (7%) and has much higher rates of seasonal employment (27%) than the Kansas rate (16%).

- Douglas County has the highest rate of commuting to work outside the county of any of the comparatives. More than 18 percent of workers over 16 (7,500) commute to work outside Douglas County.

- Douglas County average earnings per job, at $16,000 in 1989, were lower than that of any of the comparatives, were 15 percent below the state average, and were nearly 30 percent less than the national average. This gap increased during the 1980s.

- Jobs increased in number at a faster rate than total earnings in Douglas County during the 1980s, meaning that new jobs commanded lower wages than existing jobs.

- Per capita income in Douglas County, at $13,886 in 1989, was well below the Kansas average of $16,526 and well below the U.S. average of $17,592.

- Family households in Douglas County had a median income of $35,361 in 1989; this was 8 percent higher than the Kansas average. Over 61 percent of family households have incomes above $30,000.

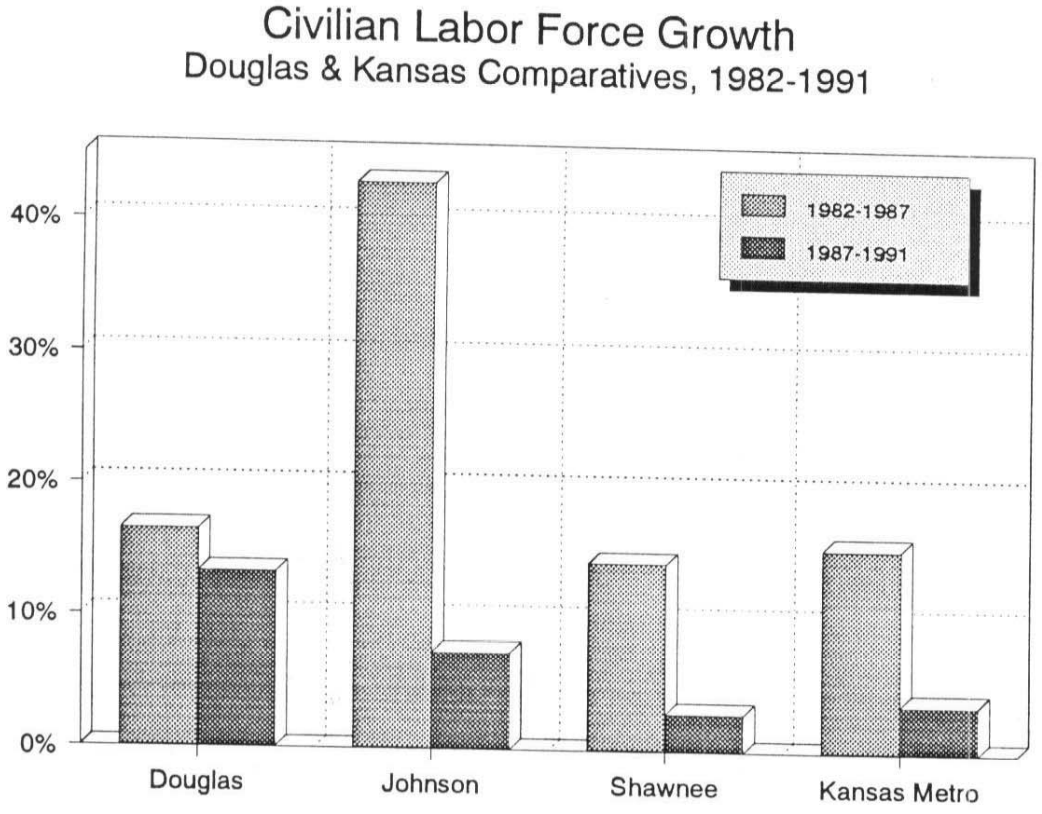
- Non-family households, 43 percent of Douglas households, had a 1989 median income of $12,597, well below any comparative and 15 percent less than the Kansas average.

- Douglas County has low poverty rates in each of the age categories which do not principally apply to the college student population.

- Non-farm proprietorships and investment income are growing in importance in Douglas County as sources of income.

EMPLOYMENT, EARNINGS & INCOME: DATA ANALYSIS

Figure 5.1



Source: Kansas Department of Human Resources, Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Services.

- The civilian labor force in Douglas County grew from 34,000 in 1982 to 45,000 in 1991. This 32 percent increase was three times the state growth rate.

- Since 1987, Douglas County has led all of the comparatives with a 13.3 percent labor force growth rate. This growth rate was nearly four times that of Kansas metropolitan area counties and was nearly double the growth rate for Johnson County, Kansas.

- The labor force growth rate between 1982 and 1991 in Douglas County was similar to that of other college counties and 63 percent greater than metropolitan counties in Kansas. Johnson County's labor force grew by 53 percent over this same period.

Table 5.1
Civilian Labor Force
Douglas, Comparative Counties, and Kansas, 1982-1991

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Douglas	34,066	34,103	34,225	36,360	37,160	39,689	40,753	42,651	44,397	44,956
Johnson, KS	133,406	132,951	136,468	175,274	176,042	190,606	199,110	204,796	206,718	204,486
Shawnee	78,991	81,470	83,566	87,224	86,544	90,171	92,085	92,152	92,966	92,733
Kansas Metro*	570,104	572,645	585,373	619,353	619,269	658,011	673,484	678,715	685,703	681,889
Kansas (in thousands)	1,186	1,186	1,197	1,235	1,224	1,267	1,277	1,285	1,300	1,295
Boone, MO	54,596	57,950	57,873	60,275	63,246	65,036	65,717	67,070	68,555	70,991
Johnson, IA	45,980	48,240	53,960	54,750	58,130	59,520	60,600	62,000	61,900	NA
Larimer, CO	80,517	84,198	87,173	88,232	89,283	92,688	95,178	96,957	102,633	103,773
Champaign, IL	NA	NA	NA	NA	85,946	86,980	87,815	91,718	91,966	NA

Source: Kansas Department of Human Resources, Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Services. NA: Not available
*Excluding Douglas County

Table 5.2
Net Growth in Civilian Labor Force
Douglas County, Comparatives and Kansas, 1982-1991

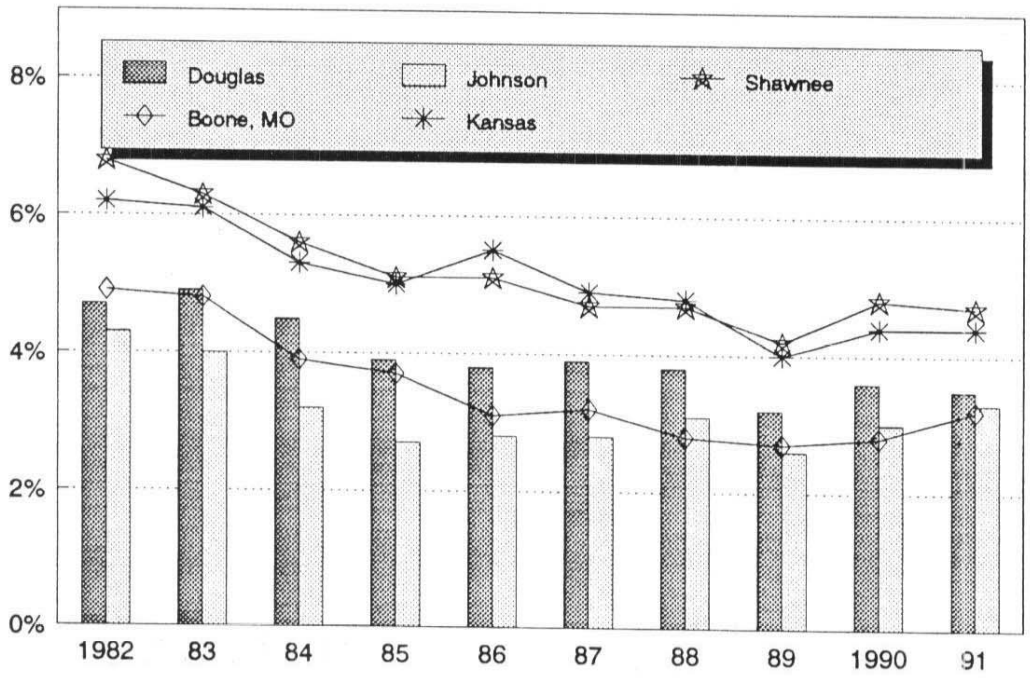
	Net Change in Labor Force		Percent Change in Labor Force	
	1982-1987	1987-1991	1982-1987	1987-1991
Douglas	5,623	5,267	16.5%	13.3%
Johnson	57,200	13,880	42.9	7.3
Shawnee	11,180	2,562	14.2	2.8
Kansas Metro*	87,907	23,878	15.4	3.6
Kansas	81,000	28,000	6.8	2.2
Boone, MO	10,440	5,955	19.1	9.2
Johnson, IA (1982-1990)	13,540	2,380	29.4	4.0
Larimer, CO	12,171	11,085	15.1	12.0
Champaign, IL (1986-1990)	--	6,020	--	7.0

Sources: Kansas Department of Human Resources, Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Services; University of Illinois, *1991 Illinois Statistical Abstract*; University of Missouri-Columbia, *Statistical Abstract for Missouri 1991*; Iowa State University, *Iowa's Counties, 1991 Edition*;
Note: Kansas total is lower than Kansas Metro due to net loss in Labor Force by Non-metropolitan counties.
* Excluding Douglas County.

Figure 5.2

Unemployment Rates, 1982-1991

Douglas and Comparatives and Kansas



Sources: Kansas Department of Human Resources, Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Services; University of Missouri-Columbia, *Statistical Abstract for Missouri 1991*

- Douglas County unemployment rates from 1982 to 1991 ranged from between 3.2 percent and 4.9 percent, consistently lower than state averages.

- Johnson County Kansas, Boone County Missouri, and Johnson County Iowa have generally experienced lower rates of unemployment than Douglas County.

Table 5.3
Unemployment Rates (Place of Residence)
Douglas, Comparative Counties and Kansas, 1982-1991

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Douglas	4.7%	4.9%	4.5%	3.9%	3.8%	3.9%	3.8%	3.2%	3.6%	3.5%
Johnson, KS	4.3	4.0	3.2	2.7	2.8	2.8	3.1	2.6	3.0	3.3
Shawnee	6.8	6.3	5.6	5.1	5.1	4.7	4.7	4.2	4.8	4.7
Kansas	6.2	6.1	5.3	5.0	5.5	4.9	4.8	4.0	4.4	4.4
Boone, MO	4.9	4.8	3.9	3.7	3.1	3.2	2.8	2.7	2.8	3.2
Johnson, IA	4.2	3.5	2.4	3.1	2.6	2.0	1.8	1.5	1.6	NA
Larimer, CO	7.0	5.9	5.2	5.5	6.5	6.7	5.8	5.1	4.4	4.1
Champaign, IL	NA	NA	NA	NA	5.0	4.0	4.0	3.9	NA	NA

Sources: Kansas Department of Human Resources, Labor Market Information Services, in cooperation with the U.S. Bureau of Labor Services; University of Illinois, *1991 Illinois Statistical Abstract*; University of Missouri-Columbia, *Statistical Abstract for Missouri 1991*; Iowa State University, *Iowa's Counties, 1991 Edition*; Colorado Department of Local Affairs printout.

Table 5.4
Average Annual Employment Levels (Place of Work)
Douglas, Comparative Counties, and Kansas, 1980-1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Douglas	34,058	33,272	33,273	33,642	34,931	36,034	37,042	38,775	41,479	43,519
Johnson	141,148	145,770	152,382	159,133	173,690	185,482	201,105	213,165	224,127	235,453
Shawnee	95,088	94,782	93,424	93,560	97,844	99,001	100,301	103,513	107,675	109,833
Boone, MO	56,810	56,300	56,132	59,351	61,498	63,584	65,802	68,736	71,805	73,638
Johnson, IA	50,764	49,910	51,223	51,713	54,411	55,264	55,906	56,992	59,868	62,418
Larimer, CO	71,921	73,119	74,749	78,939	84,901	87,533	89,659	92,407	95,741	101,006
Champaign, IL	91,445	94,043	95,258	93,739	96,933	99,869	104,635	108,281	110,984	110,927
Kansas Metro*	628,415	633,647	626,684	632,936	667,333	684,744	706,975	728,819	751,572	722,373
(Data in millions)										
Kansas	1,287	1,293	1,282	1,294	1,341	1,354	1,361	1,389	1,426	1,456
U.S.	112,257	113,313	112,565	114,147	119,485	123,176	125,592	129,060	132,906	136,075

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, Table CA25, Peer county calculations by University of Kansas, IPPBR-KCCED.
* Kansas Metro data includes Douglas County.

- Nearly 9,500 net new jobs were created in Douglas County between 1980 and 1989, nearly 7,500 since 1985. Since 1985, Douglas County has led all of the comparatives except Johnson County, with a 20.8 percent job creation rate. This was nearly three times the Kansas job creation rate (7.5%) over that period.

- Boone County Missouri, Johnson County Kansas and Larimer County Colorado had greater rates of job creation than Douglas (35%, 67% and 40%, respectively).

Table 5.5
Net Job Creation and Percentage Change in Employment
Douglas County, Comparatives and Kansas, 1980-1989

	Net Job Creation		Percent Change	
	1980-1985	1985-1989	1980-1985	1985-1989
Douglas	1,976	7,485	5.8%	20.8%
Johnson	44,334	49,971	31.4	26.9
Shawnee	3,913	10,832	4.1	10.9
Boone, MO	6,774	10,054	8.4	15.8
Johnson, IA	4,500	7,154	8.9	12.9
Larimer, CO	15,612	13,473	21.7	15.4
Champaign, IL	8,424	11,058	9.2	11.1
Kansas Metro*	56,329	37,629	9.0	5.5
Kansas	67,000	102,000	5.2	7.5

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System, Table CA25.
*Kansas Metro data includes Douglas County

- Douglas County has the lowest rate of any comparative for residents working within their own community. More than 18 percent of Douglas County workers over 16 (7,500 workers) commute to work outside of Douglas County

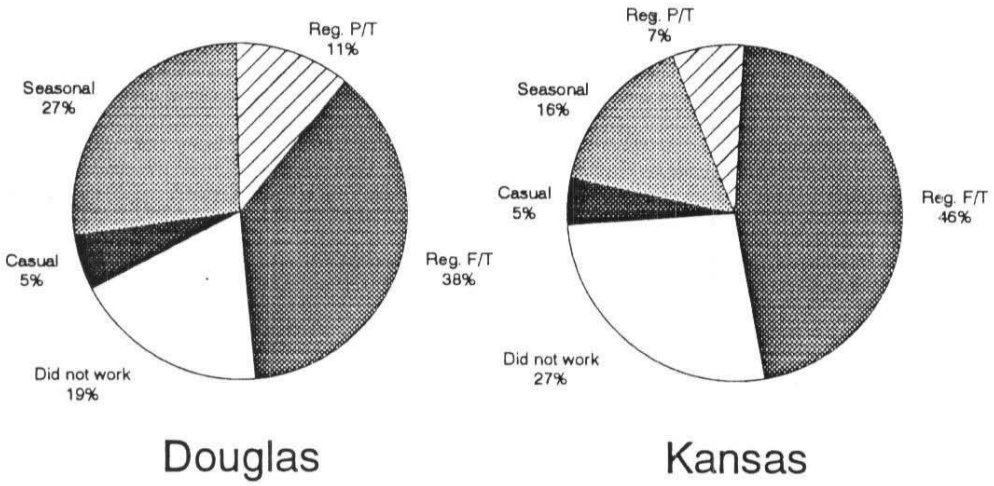
Table 5.6
Place of Work Versus Residence, Persons Ages 16 and Over
Douglas, Comparative Counties, and Kansas, 1990

County of Residence	Place of Work (Number of Workers)			
	Within Metro Area of Residence		Outside Metro Area of Residence	
	Number of Workers	Percent of Workers	Number of Workers	Percent of Workers
Douglas	33,159	81.6%	7,501	18.4%
Johnson KS*	188,335	97.6	4,671	2.4
Shawnee	76,470	96.2	3,026	3.8
Boone MO	52,320	92.0	4,540	8.0
Johnson IA	47,907	89.7	5,503	10.3
Larimer CO	80,195	86.4	12,614	13.6
Kansas Metro Areas	635,112	96.6	22,406	3.4

*The number listed is for the Kansas City Metropolitan Statistical Area (MSA). Of that number, 120,204 work in Johnson County and 68,131 work in other counties within the MSA in either Kansas or Missouri. A total of 72,802 Johnson County residents work outside of the county. Of that number, 17,615 work in Kansas and 55,187 work in Missouri or other states.
Source: Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

Figure 5.3

Full-time and Part-time Employment
Douglas County and Kansas, 1989



Source: U.S. Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3a.
Note: For purposes of these charts, Full-time = 35+ hours per week for 40+ weeks per year; Part-time = 15 to 34 hours per week for 40+ weeks per year; Seasonal = 15-35 hours per week for <40 weeks per year; Casual = all other categories of work.

- High rates of student population in the labor force are evident in the pattern of work in Douglas County. Douglas has considerably more part-time workers (23.1%) than the state average (13.1%).

- Fewer Douglas County residents did not work than was the case statewide (26.6%).

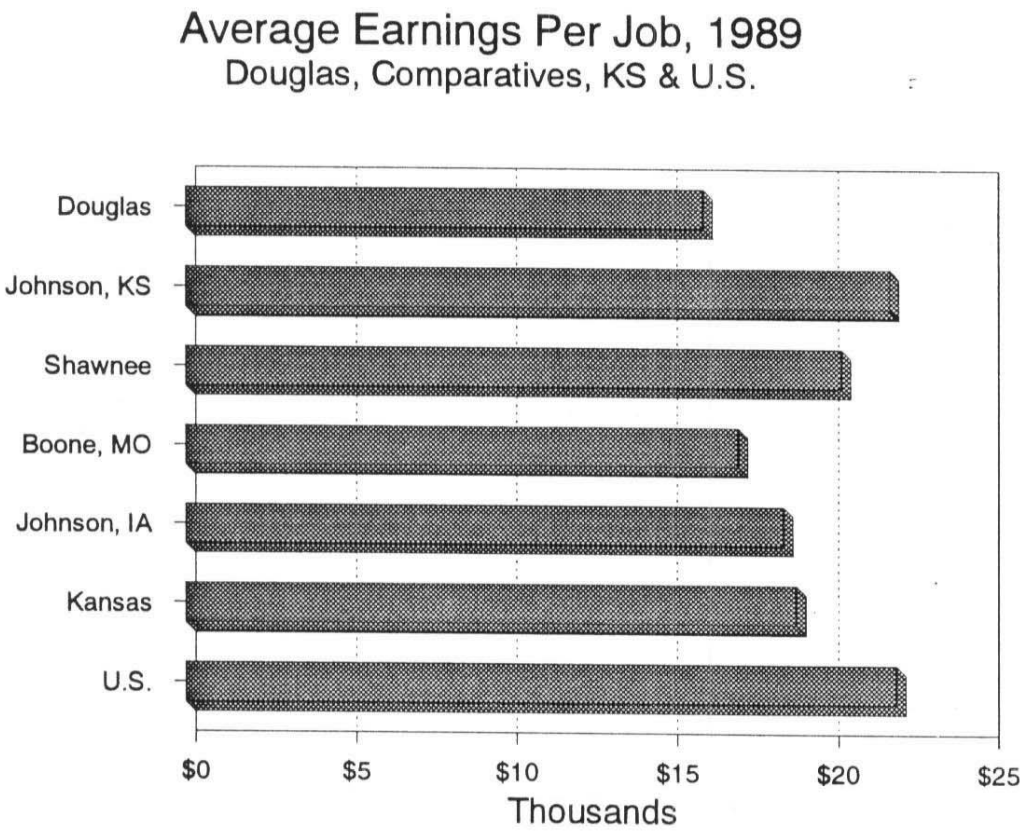
- Short-term employment is much more prevalent in Douglas County than in Kansas. In Douglas County, 27 percent of those over 16 were employed for less than 40 weeks (for 15+ hours per week), compared with only 16 percent statewide.

Table 5.7
Full-Time, Part-Time and Seasonal Employment
Douglas County and Kansas, 1989

	Number of Hours Worked Per Week							
	Douglas				Kansas			
Weeks Worked per Year	35+	15-34	1-14	Total	35+	15-34	1-14	Total
40+	37.7%	11.1%	1.7%	50.5%	46.2%	6.9%	2.0%	55.1%
27-39	3.8	4.1	0.9	8.8	3.4	1.8	0.6	5.8
1-27	11.2	7.9	2.8	21.9	6.1	4.4	2.0	12.5
0				18.8				26.6
Total	52.7	23.1	5.3	81.2	55.7	13.1	4.5	73.4
Persons 16+				66,653				1,880,434

Source: U.S. Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3a.

Figure 5.4



Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, December 1990, Table CA3

- Douglas County average earnings per job, at $16,100 in 1989, were lower than that of any of the comparatives, were 15 percent below the state average, and were nearly 30 percent less than the national average. The high proportion of part-time and seasonal employment in Douglas County was a contributing factor to lower average earnings.

- The gap in average earnings per job between Douglas and its comparatives increased during the 1980s. Douglas County showed the least growth in average earnings (46%) of any of the comparatives, below the Kansas and U.S. growth rates (49% and 47%, respectively).

Table 5.8
Average Earnings Per Job by Place of Work (in $ Thousands)
Douglas, Comparative Counties and Kansas, 1980-1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change
Douglas	11.0	12.3	12.7	13.4	13.9	14.3	15.2	15.3	15.6	16.1	46%
Johnson	13.8	15.0	15.9	17.0	17.9	18.9	19.6	20.5	21.5	21.9	58
Shawnee	13.5	14.7	15.8	16.8	17.4	18.2	18.9	19.3	19.7	20.4	51
Boone, Mo	11.7	12.6	13.4	14.1	14.5	15.2	15.6	16.2	16.7	17.2	47
Johnson, Ia	11.9	13.1	13.7	14.7	14.8	15.4	16.1	16.8	17.6	18.6	56
Larimer, Co	12.6	13.9	14.9	15.5	16.2	16.9	17.6	18.3	19.0	19.5	55
Champaign, IL	11.6	12.8	13.7	14.4	15.0	15.5	16.0	16.7	17.5	18.0	55
Kansas	12.7	14.0	14.8	15.5	16.2	16.8	17.5	17.9	18.5	19.0	49
U.S.	14.0	15.3	16.3	17.1	17.9	18.7	19.5	20.4	21.4	22.1	57

Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, December 1990, Table CA3

- Douglas County performed better with respect to total payroll growth (+82%) than it did for growth in average earnings (+46%). Jobs increased in number at a faster rate than total earnings, meaning that new jobs did not command the same wages as existing jobs.

Table 5.9
Wages, Salaries and Other Labor Income (in $ Millions)
Douglas, Comparative Counties and Kansas, 1980-1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	Percent Change 1980-89
Douglas	357	385	396	419	449	472	515	542	596	647	81.5%
Johnson	1,781	1,994	2,190	2,420	2,768	3,104	3,498	3,898	4,302	4,649	161.0
Shawnee	1,255	1,355	1,433	1,517	1,644	1,730	1,817	1,921	2,041	2,150	71.3
Boone, MO	627	665	703	779	830	884	945	1,023	1,110	1,173	87.0
Johnson, IA	578	623	671	728	771	810	866	926	1,024	1,131	95.8
Larimer, CO	794	884	960	1,039	1,151	1,227	1,314	1,402	1,506	1,647	107.5
Champaign, IL	994	1,128	1,217	1,263	1,361	1,444	1,572	1,699	1,823	1,868	87.9
Kansas Metro	8,576	9,412	9,829	10,322	11,362	12,101	13,027	13,789	14,730	15,517	81.1
(Data in billions)											
Kansas	14.7	16.1	16.8	17.5	19.0	19.8	20.8	21.8	23.1	24.2	64.6
U.S.	1,504.5	1,654.8	1,743.0	1,842.9	2,014.3	2,154.6	2,285.7	2,450.8	2,647.9	2,804.2	86.4

Source: Bureau of Economic Analysis, Regional Economic Information System, Table CA5.

Table 5.10
Per Capita Personal Income Levels
Douglas, Comparative Counties, Kansas and the U.S., 1980-1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Douglas	$8,124	$8,983	$9,287	$9,899	$10,615	$11,283	$11,710	$12,273	$13,055	$13,886
Johnson	13,912	15,295	16,217	16,976	18,029	19,491	20,487	21,643	22,503	23,346
Shawnee	10,718	12,113	12,679	13,292	13,962	14,761	15,397	16,055	16,816	17,886
Boone, MO	8,836	9,646	10,237	11,171	11,828	12,583	13,519	14,510	15,677	16,851
Johnson, IA	9,711	10,898	11,537	12,015	13,080	13,728	14,770	15,501	16,493	17,890
Larimer, CO	9,199	10,244	10,923	11,521	12,364	12,924	13,452	14,151	14,850	15,925
Champaign, IL	8,639	9,807	10,378	10,789	11,979	12,651	13,310	14,212	15,131	16,063
Kansas	9,941	11,188	11,809	12,133	13,017	13,804	14,470	14,966	15,699	16,526
U.S.	9,919	10,949	11,482	12,100	13,116	13,899	14,597	15,425	16,510	17,592

Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, Table CA5.

Table 5.11
Ten-Year Percent Change in Per Capita Income
Douglas County, Comparatives and Kansas, 1980-1989

	Percent Change 1980-1989
Douglas	70.9%
Johnson	67.8
Shawnee	66.9
Boone, MO	90.7
Johnson, IA	84.2
Larimer, CO	73.1
Champaign, IL	85.9
Kansas	66.2
U.S.	77.4

Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, Table CA5.

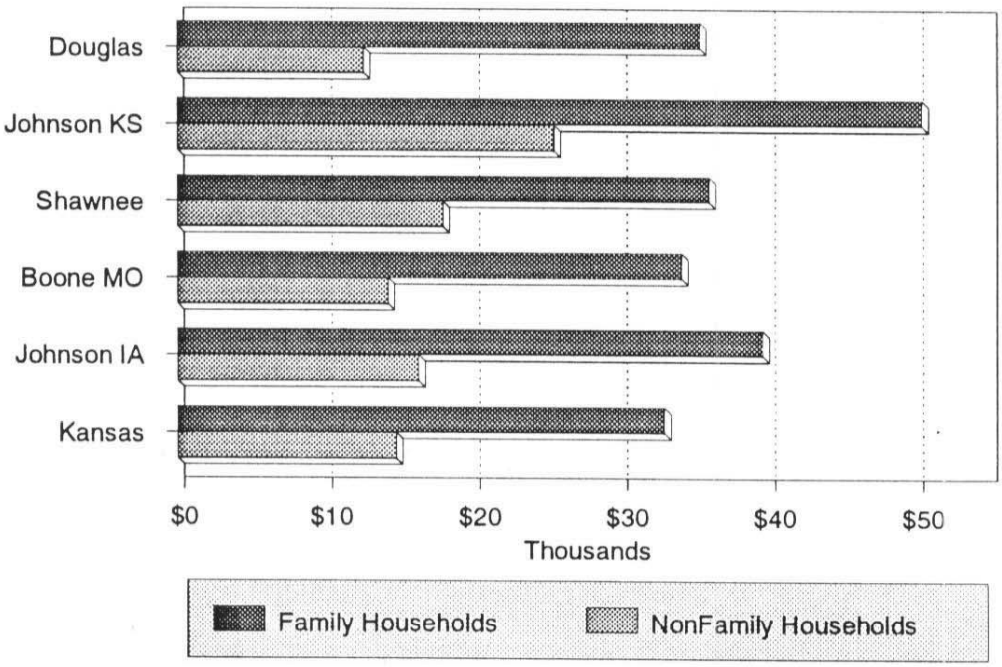
Table 5.12
Total Personal Income Levels (Place of Residence)
Douglas, Comparative Counties, and Kansas, 1980-1989

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
					(in Millions of Nominal Dollars)					
Douglas	$552	$620	$645	$687	$744	$805	$860	$919	$999	$1,087
Johnson, KS	3,776	4,213	4,551	4,883	5,354	5,973	6,513	7,178	7,778	8,397
Shawnee	1,663	1,890	1,992	2,100	2,222	2,358	2,474	2,607	2,771	2,977
Boone, MO	NA	985	1,057	1,158	1,242	1,320	1,414	1,534	1,659	1,781
Larimer, CO	1,380	1,570	1,723	1,871	2,051	2,206	2,361	2,535	2,702	2,954
Champaign, IL	NA	NA	NA	NA	NA	2,156	2,274	2,436	2,604	2,778
					(in Billions of Nominal Dollars)					
Kansas Metro*	13.1	14.7	15.5	16.2	17.5	18.8	20.0	21.3	22.7	24.4
Kansas	23.6	26.7	28.5	29.5	31.8	33.8	35.6	37.0	39.2	41.5

Source: Bureau of Economic Analysis, Regional Economic Information System, Table CA5; Colorado Department of Local Affairs printout. Iowa data not available.
* Kansas Metro includes Douglas County

Figure 5.6

Median Income by Household Type
Douglas, Comparatives & Kansas, 1989



Source: U.S. Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3

- Family households fare well in Douglas County with respect to median incomes. Over 61 percent of family households have incomes above $30,000 annually, comparing well with any comparative except Johnson County, Kansas.

- Median incomes for family households in Douglas County were $35,361 in 1989, 8 percent higher than the Kansas average and on par with Shawnee County and Boone County, Missouri.

- Family households constitute only 57 percent of Douglas households, compared with 70 percent statewide.

- The median non-family household (principally student households) income level in Douglas, was $12,597 in 1989, well below any of the comparatives and 15 percent below the Kansas average. Well over half of Douglas non-family households (56.4%) have incomes below $15,000.

Table 5.13
Number of Households by Household Type and Income Level,
Douglas County and Kansas, 1989

Income Level	Douglas County		Kansas	
	Families	Non-Family Households	Families	Non-Family Households
Less than $15,000	2,718	7,224	104,814	142,360
$15,000-29,999	3,936	3,350	186,290	85,664
$30,000-49,999	5,803	1,588	207,643	39,068
$50,000-74,999	3,230	451	110,669	10,138
$75,000 or more	1,610	195	55,252	4,355
Total	17,297	12,808	664,668	281,585

Source: U.S. Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

Table 5.14
Percentage of Family Households by Income Level,
Douglas, Comparative Counties, and Kansas, 1989

	Income Level (in $ thousands)				
	< 15	15-29.9	30-49.9	50-74.9	>75
Douglas	15.7%	22.8%	33.5%	18.7%	9.3%
Johnson	5.1%	15.3%	28.9%	28.3%	22.3%
Shawnee	13.3	24.6	33.8	19.7	8.6
Boone (MO)	16.2	26.1	30.2	18.7	9.0
Johnson (IA)	12.7	21.9	29.9	21.5	14.1
Kansas	15.8	28.0	31.2	16.7	8.3

Source: Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

Table 5.15
Percentage of Non-Family Households by Income Level,
Douglas, Comparative Counties, and Kansas, 1989

	Income Level (in $ Thousands)				
	< 15	15-29.9	30-49.9	50-74.9	>75
Douglas	56.4%	26.2%	12.4%	3.5%	1.5%
Johnson	24.5	35.3	25.9	9.7	4.6
Shawnee	41.0	36.5	16.5	4.4	1.6
Boone (MO)	52.2	30.4	12.3	3.7	1.4
Johnson (IA)	46.0	32.5	15.1	4.6	1.8
Kansas	50.6	30.4	13.9	3.6	1.5

Source: Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

Table 5.16
Median Income by Household Type,
Douglas, Comparative Counties, and Kansas, 1989

	Family	Non-Family	Total
Douglas	$35,631	$12,597	$25,244
Johnson	50,348	25,479	42,741
Shawnee	35,987	17,965	29,879
Boone (MO)	34,122	14,254	25,647
Johnson (IA)	39,606	16,298	27,862
Kansas	32,966	14,795	27,291

Source: Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

- While 20 percent of the Douglas County population have incomes below the poverty line, most of this population is in the age 18-24 group. Excluding this age group, 11.3 percent of the Douglas County population has poverty status, compared with 10.5 percent statewide. The 1989 poverty thresholds were $12,674 for a family of five and $6,310 for a person living alone.[1]

- Douglas County has lower poverty rates than the state average in all of the age categories which do not apply to undergraduate or graduate students.

Table 5.17
Poverty Status by Age Group
Douglas County and Kansas, 1989

Age Group	Douglas County	% Population	Kansas	% of Population
0-17	2,268	13.8%	93,066	14.3%
18-24	8,497	56.4	46,739	21.7
25-34	2,310	16.2	41,780	10.3
35-64	1,375	6.5	54,735	6.9
65+	562	9.1	38,303	12.0
Total	15,012	20.6	274,623	11.5

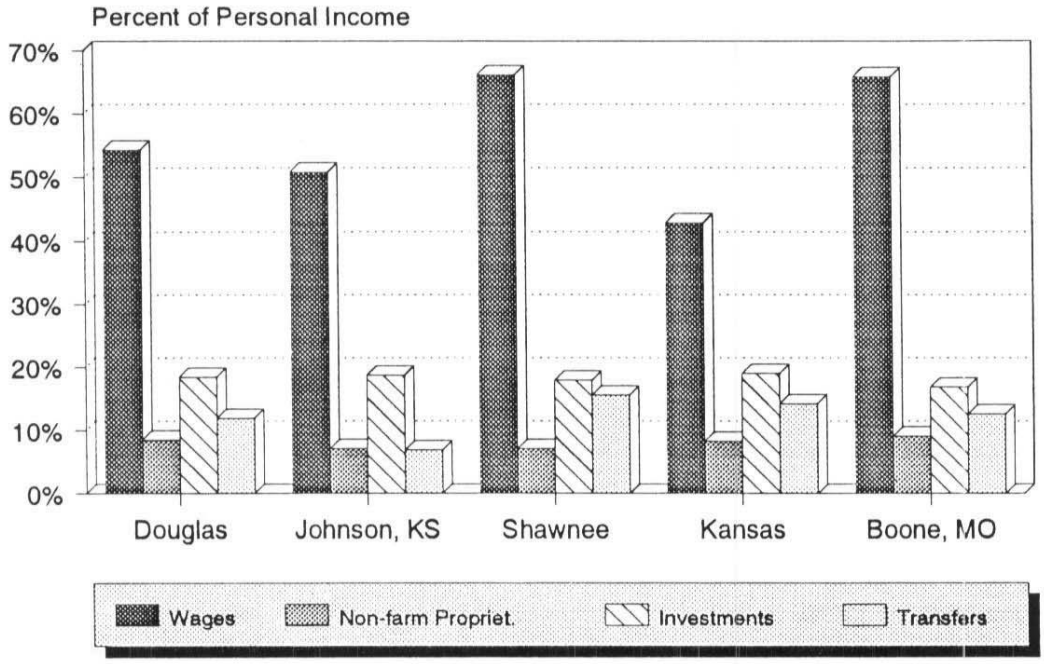
Source: Bureau of the Census, *1990 Census of Population and Housing*, Summary Tape File 3.

[1]U.S. Bureau of the Census, *Poverty in the United States: 1989.*

Figure 5.7

Share of Personal Income, by Source

Douglas and Comparatives, 1989



Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, Table CA5.

- Employment accounts for 54 percent of Douglas County total personal income, down from 59 percent in 1980.

- Non-farm proprietorships and investment income are growing in importance in Douglas County as sources of income.

Table 5.18
Components of Personal Income as a Percentage of Total Personal Income
Douglas County, 1980-1989

	Wages, Salaries and Other Labor Income	Proprietorship Farm	Proprietorship Non-Farm	Dividends, Interest, & Rent	Transfer Payments	Total Other Adjustments
1980	59.1%	0.0%	7.4%	15.1%	12.4%	6.3%
1981	56.9	0.3	6.5	17.4	12.8	6.2
1982	56.0	0.3	6.1	17.3	13.1	7.2
1983	55.5	0.0	6.6	17.3	13.5	7.1
1984	55.1	0.3	7.1	17.6	12.7	7.2
1985	53.7	0.1	7.6	18.2	13.0	7.2
1986	54.9	0.2	8.1	18.1	11.7	7.1
1987	54.1	0.1	8.8	17.8	11.8	7.5
1988	54.5	0.2	8.8	17.6	11.7	7.2
1989	54.4	0.1	8.5	18.4	11.9	6.8

Source: U.S. Bureau of Economic Analysis, *Regional Economic Information System*, Table CA5.

Table 5.19
Components of Personal Income as a Percentage of Total Personal Income
Douglas County, Comparatives and Kansas, 1989

	Labor Income	Proprietorships Farm	Proprietorships Non-Farm	Dividends, Interest, & Rent	Transfer Payments
Douglas	54.4%	0.1%	8.5%	18.4%	11.9%
Johnson	50.8	0.1	7.1	18.7	6.9
Shawnee	66.2	4.6	7.1	17.9	15.5
Kansas	42.9	4.1	8.3	19.0	14.2
Boone, MO	65.9	*	9.1	16.8	12.6
Johnson, IA	71.9	*	9.5	14.6	9.5
Larimer, CO	55.8	*	9.4	18.1	12.0
Champaign, IL	67.3	*	9.9	17.8	13.4

Source: Slater and Hall, (*1992 County and City Extra*), using data from Bureau of Economic Analysis, Regional Economic Information System, Table CA5.
* Note: Proprietorship income for out-of-state counties includes combined farm and Non-Farm income. Totals will not add to 100% due to adjustments for place of residence and for social security premiums.

Section VI: Geographic Location and Infrastructure

Some of a community's most important assets are specific to its location. Location-specific assets such as resource availability, climate and capital investment in infrastructure and public facilities, are immobile factors which contribute to a community's natural advantages or disadvantages. Significant changes in these factors tend to take place only over the long term; it is therefore essential that the community make the best use of its locational assets in the short and medium term.

In the following section, each of the following indicators are examined:

- *land area and population density* show how extensive the public infrastructure needs of the community are. Densely populated communities can usually deliver public services such as water and sewer systems more cost effectively;

- *percent of land in farms* and *natural resources* indicate the natural assets and the economic opportunities provided by the land;

- *average annual precipitation* indicates how favorable the land in the area is for agriculture and indicates how much demand can be placed upon local water supplies through settlement or manufacturing and processing;

- *highway and rail transportation networks* show how well connected the community is with external sources of supplies and customers for local firms;

- *traffic counts* help estimate the demands being made upon the existing infrastructure, and provides an indication of changing patterns in economic activity, as communities become more interdependent;

- *the accessibility of local public utilities* indicate the levels of service available within a community;

- *the value of residential and non-residential building permits*, over time, indicates changes in the level of demand upon public infrastructure.

GEOGRAPHIC LOCATION AND INFRASTRUCTURE: KEY FINDINGS

- Douglas County is located in the northeast part of Kansas, accessible by Interstate 70, U.S. Highways 24, 40, 56 and 59 and state highways K-10, K-32, and K-33. This location is accessible to key markets as it is less than 30 miles from both the Kansas City metropolitan area and Topeka, is 160 miles from Wichita and within 300 miles of St. Louis. Other major markets within a 600 mile radius of Lawrence include Denver, Minneapolis-St. Paul, Chicago, Indianapolis, Louisville, Nashville, Memphis and Dallas-Fort Worth.

- Douglas County, at nearly 1,200 square kilometers, is similar in area to Johnson and Shawnee Counties and is smaller in area than all of the college comparatives.

- Douglas County has a higher percentage of its land used for farming than Johnson or Shawnee Counties.

- Average annual precipitation in Douglas County is 36.3 inches, among the highest levels received in the state.

- Douglas County has considerably fewer public highway, interstate and state highway miles than the comparative counties.

- Since completion of Highway K-10 to I-435 in 1985, light commercial and passenger volumes between Johnson and Douglas Counties have doubled to 14,000 vehicles per day. Heavy commercial traffic has also increased 50 percent over this period.

- A large proportion of Douglas County residences are connected to water services (94%) and to sewer systems (88%).

- The rate of residential construction activity in Douglas County has matched those of college comparative counties, averaging $46 million per year from 1987-1990.

- Non-residential construction in Douglas County averaged $17.5 million per year between 1987 and 1990, well below the level in all of the comparative areas except Johnson County, Iowa.

GEOGRAPHIC LOCATION AND INFRASTRUCTURE: DATA ANALYSIS

- Douglas County, at nearly 1,200 square kilometers, is similar in area to Johnson and Shawnee counties, and is smaller in area than all of the college counties.

- Population density in Douglas is one-quarter that of Johnson County, 40 percent less than Shawnee, and approximately the level of density of those of the four college comparative counties. Larimer County's area is equivalent to that of 5 Kansas counties.

Table 6.1
Land Area and Population Density, 1990
Douglas and Comparative Counties

	Land Area (Sq. Kilometers)	Population per Sq. Kilometer
Douglas	1,184	69.1
Johnson, KS	1,235	287.5
Shawnee	1,424	113.0
Kansas	211,922	11.7
Boone, MO	1,775	63.3
Johnson, IA	1,592	60.4
Larimer, CO	6,738	27.6
Champaign, IL	2,583	67.0

Source: *1992 County and City Extra, Annual Metro, City and County Data Book*, ed. Courtenay M. Slater and George E. Hall.

- Douglas County has a higher percentage of its land used for farms than Johnson and Shawnee counties.

Table 6.2
Percent of Land in Farms and Natural Resources

	Percent of Land in Farms	Natural Resources
Douglas	78	CRU, SAN, GRA
Johnson	55	CRU, SAN, GRA, OIL, TIM, GAS
Shawnee	66	CRU, SAN, GRA, TIM

Key: TIM - Timber, SAL - Salt, SAN - Sand, GRA - Gravel, CLA - Clay, VOL - Volcanic Ash, CRU - Crushed Rock.
Source: John Clements, Kansas Facts (Dallas: Clements Research II, Inc., 1990).

- Average annual precipitation in Douglas County is 36.3 inches, among the highest levels received in the state

Table 6.3
Thirty-Year (1951-80) Average Annual Precipitation, Kansas
(in inches)

Douglas	36.3
Johnson	37.4
Shawnee	33.6
Regions:	
North West	19.9
West Central	19.6
South West	18.6
North Central	26.3
Central	27.7
South Central	26.3
North East	34.3
East Central	35.4
South East	36.5
Statewide	27.0

Source: Kansas Agricultural Statistics, *Kansas Farm Facts, 1990.*

- While Douglas is similar in area to Johnson and Shawnee counties, it has considerably fewer public highway, interstate and state highway miles.

- Douglas County is served by two rail carriers: Atchison, Topeka and Santa Fe and Missouri Pacific.

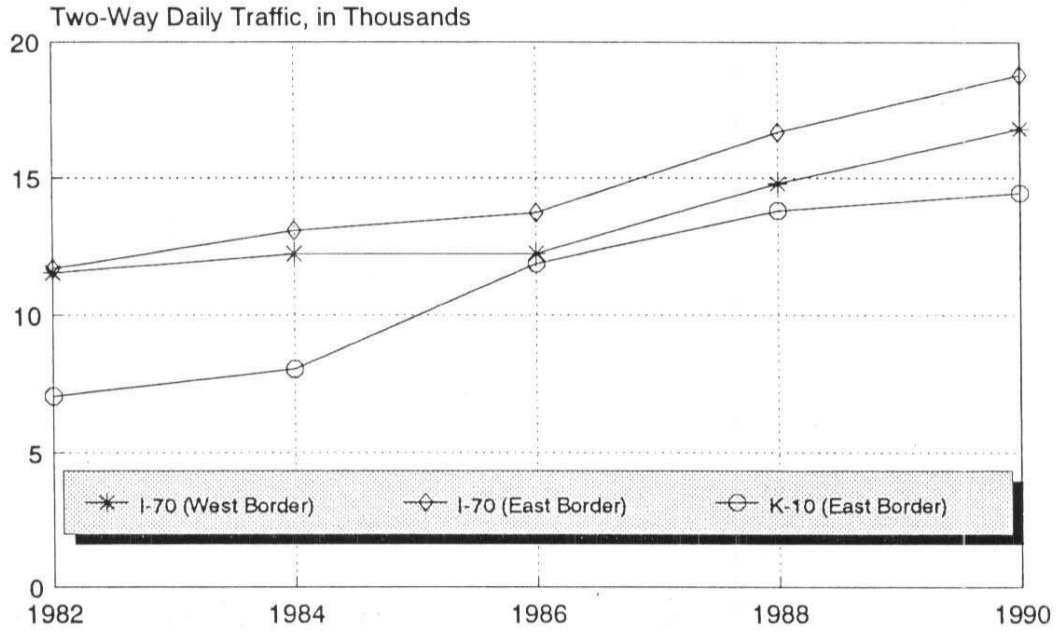
Table 6.4
Highway and Rail Freight Transportation

	Total Public Highway Miles	Interstate & State Mile	Rail Freight Carriers
Douglas	1,135	114	AT, MP
Johnson	2,516	189	AT, MP, BN
Shawnee	1,731	174	AT, MP, SP

Key: AT - Atchison, Topeka and Santa Fe, MP - Missouri Pacific, SP - Southern Pacific, BN - Burlington Northern.
Source: John Clements, *Kansas Facts* (Dallas: Clements Research II, Inc., 1990).

Figure 6.1

Average Daily Traffic Volume
Douglas Co. Points of Entry/Exit
1982-1990



Source: Kansas Department of Transportation, Traffic Flow Maps, 1980-1990.

- Vehicle traffic into and out of Douglas County increased 52 percent from 1982 to 1990.

- Since completion of Highway K-10 to I-435 in 1985, light commercial and passenger volumes between Johnson and Douglas Counties have doubled to 14,000 vehicles per day. Heavy commercial traffic has also increased 50 percent over this period.

Table 6.5
Average Daily Traffic Volumes at Points of Entry/Exit
Douglas County, 1982-1990

	1982	1984	1986	1988	1990	Percent Change 1982-1990
	Two-Way Daily Traffic Counts					
Total	47,547	50,535	52,762	63,655	72,397	52.3%
Heavy Commercial	6,400	7,122	7,699	7,717	9,105	42.2
Light Commercial & Passenger.	41,147	43,413	45,063	55,938	63,292	53.8
K-10 and I-70 checkpoints only:						
I-70 (East border-To/from Kansas City)						
Total	11,519	12,209	12,206	14,794	16,806	45.9
Heavy Commercial	2,455	2,660	2,660	2,823	3,220	31.2
Light Commercial & Passenger	9,064	9,549	9,546	11,971	13,586	50.0
I-70 (West border-To/from Topeka)						
Total	11,678	13,054	13,702	16,682	18,785	60.9
Heavy Commercial	2,150	2,419	3,014	2,624	3,652	69.9
Light Commercial & Passenger	9,528	10,635	10,688	14,058	15,133	58.8
K-10 (East border-to/from Johnson County)						
Total	7,050	8,040	11,855	13,780	14,440	104.8
Heavy Commercial	420	380	530	560	625	48.8
Light Commercial & Passenger	6,630	7,660*	11,325	13,220	13,815	108.4

*K-10 Highway completed between K-7 and I-435 in March 1985; from county line to K-7 in November 1979.
Checkpoints: K-10 near the Johnson border, K-32 near the Leavenworth border, US 24/59 near the Leavenworth border, US 24/59 near the Jefferson border, US 59 near the Franklin border, US 40 near the Shawnee border, I-70 near the Shawnee border, I-70 near the Leavenworth border, US 56 near the Osage border, US 56 near the Franklin border and K-33 near the Franklin border.
Source: Kansas Department of Transportation, Traffic Flow Maps, 1980-1990.

- A large proportion of Douglas County residences are connected to water services (94%) and to sewer systems (88%).

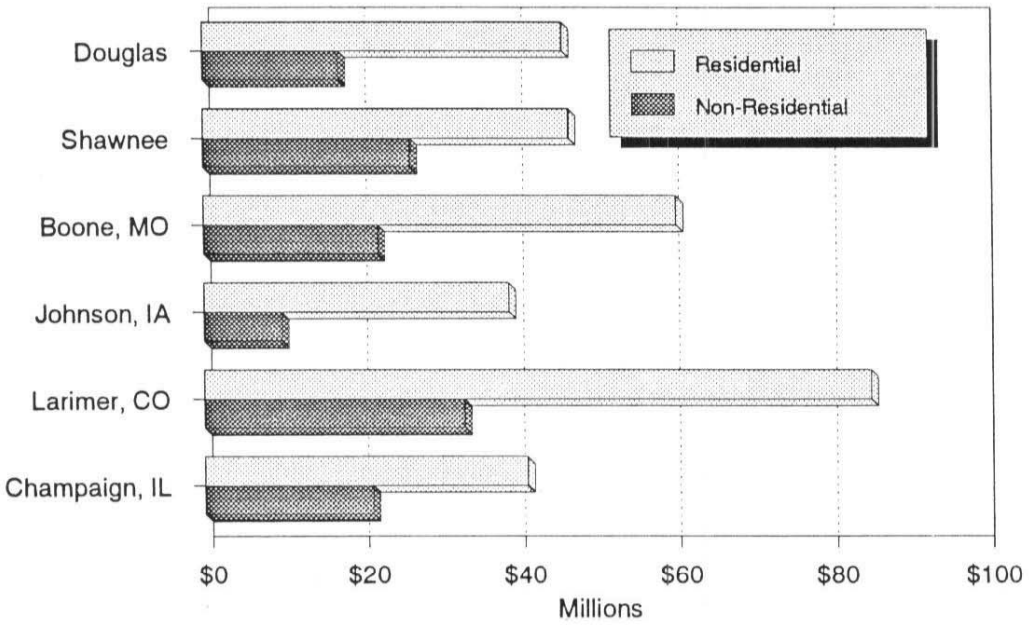
Table 6.6
Access to Public Utilities

	Percent of Permanent Residences Connected to Water	Percent of Permanent Residences Connected to Sewer
Douglas	94%	88%
Johnson	99	92
Shawnee	97	86

Source: John Clements, *Kansas Facts* (Dallas: Clements Research II, Inc., 1990).

Figure 6.2

Value of Construction
Douglas and Comparative Counties
4 Year Average, 1987-1990



Source: *State and Metropolitan Area, Data Book 1991*, U.S. Department of Commerce, and *1992 County and City Extra, Annual Metro, City and County Data Book*, ed. Courtenay M. Slater and George E. Hall, Using data from U.S. Bureau of the Census, *Building Permits Survey*.

- The rate of residential construction activity in Douglas County has more or less kept pace with college-comparative metro areas (except Larimer County, CO), averaging $46 million a year from 1987-1990.

- Non-residential construction in Douglas County has not kept pace with any of the comparative areas (except Johnson County, IA), averaging $17.5 million per year from 1987-1990.

Table 6.7
Total Value of Residential Building Permits
Douglas Comparative Counties, 1987-1990

	Construction Authorized by Building Permits ($ millions)				
	1987	1988	1989	1990	4-Year Average
Douglas	$ 44	$ 55	$ 34	$ 51	$ 46.0
Kansas City KS/MO Metro Area*	938	796	665	709	777.0
Shawnee	64	75	65	47	46.8
Boone, MO	63	55	63	47	60.5
Johnson, IA	24	34	48	50	39.0
Larimer, CO	88	81	80	92	85.3
Champaign, IL	48	47	37	33	41.3

*Data shown is for Metropolitan Statistical areas which are identical to county level data for all except Johnson County, KS.
Source: *State and Metropolitan Area, Data Book 1991*, U.S. Department of Commerce, and *1992 County and City Extra, Annual Metro, City and County Data Book*, ed. Courtenay M. Slater and George E. Hall, Using data from U.S. Bureau of the Census, *Building Permits Survey*.

Table 6.8
Total Value of Non-Residential Building Permits
Douglas and Comparative Counties, 1987-1990

	Construction Authorized by Building Permits ($ millions)				
	1987	1988	1989	1990	4-Year Average
Douglas	$ 21	$ 11	$ 23	$ 15	$ 17.5
Kansas City KS/MO Metro Area*	417	340	275	322	338.5
Shawnee	26	28	31	21	26.5
Boone, MO	19	9	12	49	22.3
Johnson, IA	7	6	9	18	10.0
La rimer, CO	20	23	74	16	33.3
Champaign, IL	22	21	30	13	21.5

*Data shown is for Metropolitan Statistical areas which are identical to county level data for all except Johnson County, KS.
Source: *State and Metropolitan Area, Data Book 1991*, U.S. Department of Commerce, and *1992 County and City Extra, Annual Metro, City and County Data Book*, ed. Courtenay M. Slater and George E. Hall.
Using data from U.S. Bureau of the Census, *Building Permits Survey*.

Section VII: Business Environment

A community's business environment is affected by several things. Past decisions by investors, business managers, taxpayers and policy makers each contribute to shape a climate which either promotes or inhibits the productivity of local businesses and therefore affects decisions about growth and expansion. Other contributing factors include the level of competition, the availability of suppliers and supporting industries, the cost of labor, and taxation and regulation within the community. Some types of establishments will thrive in an environment which other firms cannot operate in profitably. Among other things, studying the business environment can lead to a better understanding about which types of businesses are doing well and how business conditions and the performance of particular industries is changing over time.

This section reviews the following indicators:

- *distribution of firms, by number of employees and sector* to determine what changes are taking place at the firm level in the local economy;
- *average annual pay per employee by sector* as an indicator of changing patterns in business productivity, reflected by increases or decreases in relative wages;
- *distribution of employment by sector* to assess how local sectoral performance compares with larger scale trends, and *net job creation by industry*, to determine which industries are growing most quickly at the local level;
- *levels of taxable retail sales* and *per capita sales tax collections* as indicators of retail sector performance and the overall strength of the local consumer market;
- the *number of farms, acres harvested, average farm size* and the *value of field crops and livestock and poultry* to reflect the levels of farm activity and the changing character of farming;
- changes in *assessed tangible valuation* indicates investment growth over time as well as the capacity and flexibility of modifying existing tax structures; and
- *levels of assessment, bonded indebtedness and tax levies* which reveal the capacity of the public sector to take on new public investments.

BUSINESS ENVIRONMENT: KEY FINDINGS

- The number of firms in Douglas County grew by 50 percent between 1980 and 1989, from 1,246 to 1,878. This compared with a 19 percent increase statewide.

- Over the period 1980-1989, Douglas County manufacturing, construction and wholesale firms tended to employ fewer people per firm, while retail firms, on average, expanded slightly in terms of the average number of employees.

- During the decade, the average Douglas County average firm size fell from 13.8 employees to 12.6 employees, slightly smaller than the statewide average.

- Average annual pay per employee, at $15,400 lagged the statewide average by nearly 20 percent in 1989 across nearly every sector. This gap widened from 18 percent during the 1980s.

- Services and government together accounted for slightly more than half of all Douglas County jobs in 1989.

- Manufacturing accounted for 14 percent of employment in 1980, but only 11 percent in 1989.

- Over 9,400 new jobs were created in Douglas County during the 1980s, an increase of about 28 percent in total employment. This rate of job creation was 25 percent higher than the national average and was comparable to that of all college communities.

- The leading sectors for job creation in Douglas County during the 1980s were Services (5,069 net new jobs), Retail (1,923 jobs) and Finance, Insurance and Real Estate (941 jobs). These three sectors accounted for 84 percent of all job creation in Douglas County from 1980 to 1989.

- The service sector, which had been underdeveloped in Douglas County in 1980, matured by 1989 to account for a 26 percent share of employment, typical for college communities.

- The retail sector continued to be an area of strength with respect to employment; Douglas' 18 percent share of employment in 1989 was 2 percentage points higher than retail sectors in all of the comparatives except Johnson County, Kansas.

- Government employment declined in relative importance in Douglas County, from 25 percent of employment in 1980 to 18 percent in 1989.

- Employment in manufacturing remained stable in Douglas County during the 1980s at around 4,900 jobs.

- The Finance, Insurance and Real Estate sector remains underdeveloped in Douglas County, accounting for 6 percent of employment relative to an 8.3 percent share in Kansas metro areas and a 6.8 percent share statewide.

- Farm employment accounted for less than 1,000 jobs in Douglas County in 1989, just over 2 percent of all employment.

- Retail sales in Douglas County reached a level of $569 million in 1991. This represented 31 percent growth in real terms over the decade, while the state experienced a 2 percent decline in real terms.

- The average Douglas County farm is 270 acres, well under half the size of the average Kansas farm.

- Unlike the rest of the state, Douglas County farmers did not shift toward greater reliance on livestock and poultry receipts.

- Assessment levels grew by 11 percent in Douglas County from 1990 to 1992, equalling the growth rate in Johnson County.

- As a proportion of assessed valuation, Douglas County had one of the smallest debt loads of any comparative, with bonded indebtedness representing only 3.3 percent of tangible assessed valuation.

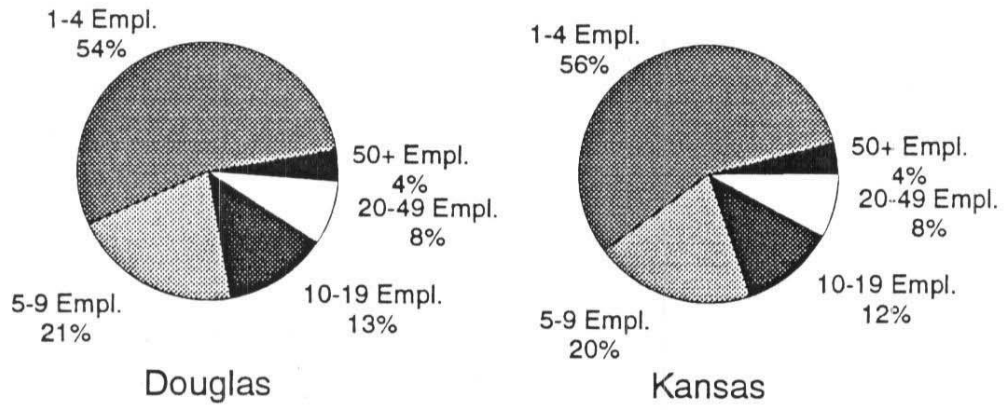
- Changes in assessment levels over the last two years have been applied toward the retirement of bonded indebtedness in Douglas County and most of its cities and school districts.

BUSINESS ENVIRONMENT: DATA ANALYSIS

Figure 7.1

Size of Firms, by Number of Employees

Douglas County & Kansas, 1989



Source: U.S. Bureau of the Census, *County Business Patterns*, 1980 and 1989.

- As measured by percentage distribution by size, Douglas County firms are very similar to those of the state as a whole; slightly more than three-quarters have fewer than ten employees while roughly one in twenty-five has at least fifty.

- The number of firms in Douglas County grew by 50 percent between 1980 and 1989, from 1,246 to 1,878. This compared with a 19 percent increase statewide.

- Douglas County, like the state as a whole, enjoyed increases in the number of firms in every size category (1-4, 5-9, 10-19, 20-49 and 50+); the increases were spread rather evenly among all sizes of firms.

Table 7.1
Distribution of Private Non-Farm Firms
by Sector and Size (Number of Employees)
Douglas County, 1980 and 1989

Sector / Industry	Year	Total	1-4	5-9	10-19	20-49	50+
All Private Sectors	1989	1,878	1,011	395	235	155	82
	1980	1,246	662	267	160	104	53
Agricultural Services	1989	26	18	6	2	0	0
	1980	15	13	2	0	0	0
Mining	1989	3	3	0	0	0	0
	1980	4	2	1	0	1	0
Construction	1989	231	145	53	24	6	3
	1980	127	75	30	12	7	3
Manufacturing	1989	81	26	12	10	16	17
	1980	51	11	5	10	9	16
Transp. & Pub. Util.	1989	59	21	19	8	4	7
	1980	42	17	9	3	9	4
Wholesale Trade	1989	91	40	25	14	12	0
	1980	65	18	26	14	7	0
Durable Goods	1989	57	26	16	7	8	0
	1980	42	12	16	9	5	0
Nondurable Goods	1989	34	14	9	7	4	0
	1980	23	6	10	5	2	0
Retail	1989	512	196	131	93	65	27
	1980	380	151	104	59	49	17
Automotive	1989	63	26	20	10	4	3
	1980	52	29	9	4	9	1
Eating & Drinking	1989	130	34	13	25	45	13
	1980	96	30	8	26	25	7
F.I.R.E.	1989	134	89	25	8	7	5
	1980	105	71	15	10	5	4
Banking	1989	17	3	4	3	4	3
	1980	8	1	1	2	1	3
Insurance	1989	35	30	3	1	1	0
	1980	22	19	1	2	0	0
Real Estate	1989	56	38	12	4	2	0
	1980	37	28	6	1	1	1
Services	1989	619	372	113	69	42	23
	1980	380	239	65	51	16	9
Lodging	1989	41	24	4	9	3	1
	1980	42	27	7	6	2	0
Personal	1989	54	34	13	6	0	1
	1980	50	36	9	3	1	1
Business	1989	87	46	21	10	6	4
	1980	29	13	5	9	1	1
Health	1989	115	65	23	11	8	8
	1980	85	54	16	8	3	4

Source: U.S. Bureau of the Census, *County Business Patterns*, 1980 and 1989.

Table 7.2
Distribution of Private Non-Farm Firms
by Sector and Size (Number of Employees)
Kansas, 1980 and 1989

Sector / Industry	Year	Total	1-4	5-9	10-19	20-49	50+
All Private Sectors	1989	65,692	36,471	13,327	8,047	5,082	2,765
	1980	55,021	30,569	11,129	6,696	4,376	2,251
Agricultural Services	1989	889	620	181	66	16	6
	1980	547	413	98	26	9	1
Mining	1989	1,087	624	212	127	88	36
	1980	1,137	567	195	156	152	67
Construction	1989	5,446	3,344	1,099	594	286	123
	1980	5,149	3,271	934	494	308	142
Manufacturing	1989	3,186	945	570	510	530	631
	1980	2,919	747	497	498	523	624
Transp. & Pub. Util.	1989	3,221	1,786	507	465	284	179
	1980	2,881	1,359	712	349	292	169
Wholesale Trade	1989	5,575	2,448	1,419	1,034	507	167
	1980	5,267	2,172	1,405	990	546	154
Durable Goods	1989	3,179	1,384	843	588	284	80
	1980	2,848	1,149	752	574	294	79
Nondurable Goods	1989	2,298	1,037	554	419	210	78
	1980	2,319	1,000	629	401	231	58
Retail	1989	16,602	7,619	4,116	2,536	1,715	615
	1980	15,204	7,538	3,556	2,291	1,397	422
Automotive	1989	2,760	1,323	867	358	156	56
	1980	2,765	1,608	664	290	160	43
Eating & Drinking	1989	4,204	1,382	666	963	974	219
	1980	3,242	1,099	510	891	614	128
F.I.R.E.	1989	5,515	3,512	884	555	364	200
	1980	4,893	3,082	842	494	320	155
Banking	1989	841	105	227	250	176	83
	1980	649	52	195	194	143	65
Insurance	1989	1,595	1,298	184	74	19	20
	1980	1,119	899	144	49	20	7
Real Estate	1989	1,654	1,260	240	79	53	22
	1980	1,477	1,172	182	77	31	15
Services	1989	20,231	12,094	4,045	2,055	1,230	807
	1980	14,270	8,930	2,679	1,331	813	517
Lodging	1989	540	260	61	88	89	42
	1980	539	296	74	73	68	28
Personal	1989	2,007	1,293	440	203	49	22
	1980	1,779	1,257	353	114	36	19
Business	1989	2,233	1,198	461	257	184	133
	1980	1,429	796	263	199	108	63
Health	1989	3,914	1,937	976	339	304	358
	1980	3,237	1,921	637	197	230	252

Source: U.S. Bureau of the Census, *County Business Patterns*, 1980 and 1989.

- Douglas County has relatively few small firms and relatively more large firms in the transportation and public utilities sector than Kansas as a whole.

- Retail firms, on average, are larger in Douglas County than in the state as a whole.

- Douglas County has relatively few medium size firms (10-19 or 20-49 employees) in Finance, Insurance and Real Estate, when compared with Kansas totals.

Table 7.3
Percentage Distribution of Firms by Sector and Size
Douglas County:Kansas, 1989

Sector / Industry	1-4	5-9	10-19	20-49	50+
	Number of Employees in Percentages				
All Private Sector	54:56	21:20	13:12	8:8	4:4
Agricultural Services	69:70	23:20	8:7	0:2	0:1
Mining	100:57	0:20	0:12	0:8	0:3
Construction	63:61	23:20	10:11	3:5	1:2
Manufacturing	32:30	15:18	12:16	20:17	21:20
Transp. & Pub. Util.	36:55	32:16	14:14	7:9	12:6
Wholesale Trade	44:44	27:25	15:19	13:9	0:3
Retail	38:46	26:25	18:15	13:10	5:4
F.I.R.E.	66:64	19:16	6:10	5:7	4:4
Services	60:60	18:20	11:10	7:6	4:4

Source: U.S. Bureau of the Census, *County Business Patterns,* 1980 and 1989.
F.I.R.E.: Finance, Insurance, and Real Estate

- Over the period 1980-1989, Douglas County manufacturing, construction and wholesale firms tended to employ fewer employees per firm, while retail firms, on average, expanded slightly in terms of the average number of employees per firm.

Table 7.4
Percentage Distribution of Firms by Sector and Size
Douglas County, 1980 and 1989

Sector / Industry		1-4	5-9	10-19	20-49	50+
		Percent of Employees, by Sector				
All Private Sector	1989	54%	21%	13%	8%	4%
	1980	53	21	13	8	4
Agricultural Services	1989	69	23	8	0	0
	1980	87	13	0	0	0
Mining	1989	100	0	0	0	0
	1980	50	25	0	25	0
Construction	1989	63	23	10	3	1
	1980	59	24	9	6	2
Manufacturing	1989	32	15	12	20	21
	1980	22	10	20	18	31
Transp. & Pub. Util.	1989	36	32	14	7	12
	1980	40	21	7	21	10
Wholesale Trade	1989	44	27	15	13	0
	1980	28	40	22	11	0
Retail	1989	38	26	18	13	5
	1980	40	27	16	13	4
F.I.R.E.	1989	66	19	6	5	4
	1980	68	14	10	5	4
Services	1989	60	18	11	7	4
	1980	63	17	13	4	2

Source: U.S. Bureau of the Census, *County Business Patterns*, 1980 and 1989.
F.I.R.E.: Finance, Insurance, and Real Estate

- During the decade, average firm size (employees per firm) in Douglas County fell from 13.8 to 12.6; while the statewide average fell (13.9 to 13.2), the average Douglas County firm continued to be slightly smaller than its statewide counterpart.

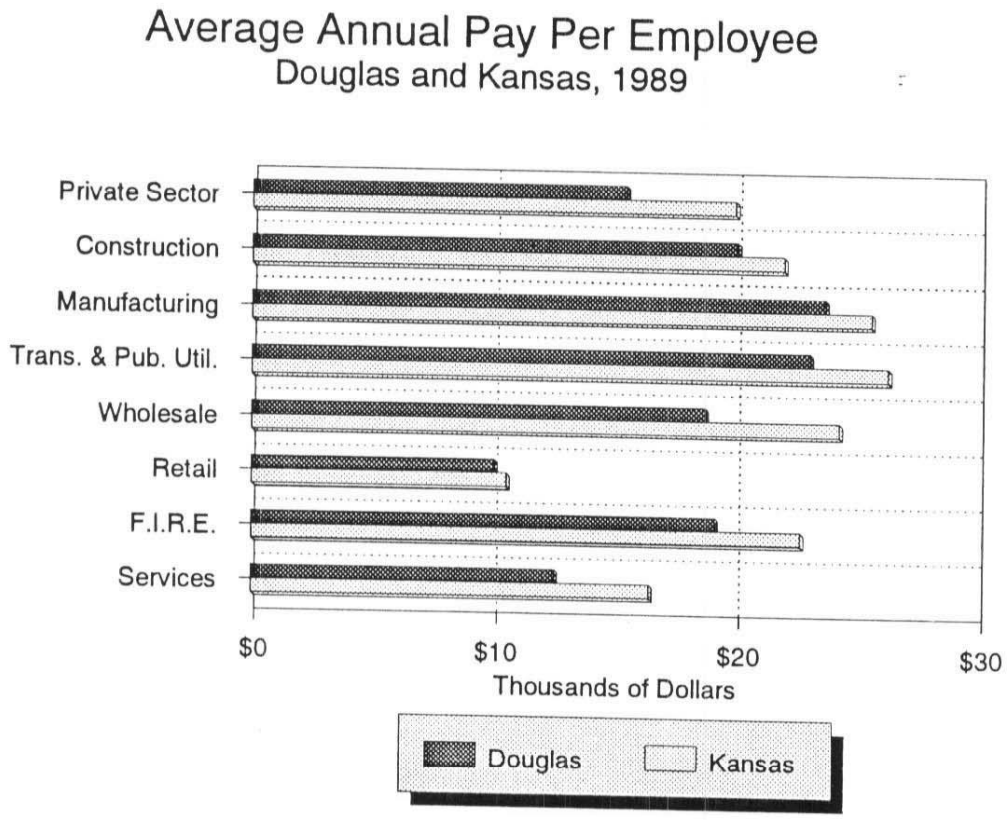
- In the manufacturing and service sectors, Douglas County firms are similar in size to the statewide average. Douglas firms are larger than average in the retail sector and transportation and public utilities sector; construction, wholesale and finance insurance and real estate firms are smaller than the Kansas average.

Table 7.5
Average Size of Private, Non-Farm Firms
Douglas County and Kansas, 1980 and 1989

Sector / Industry	Employees per Firm	Douglas	Kansas
Private Sector	1989	12.6	13.2
	1980	13.8	13.9
Agricultural Services	1989	3.4	5.4
	1980	NA	4.0
Mining	1989	NA	10.0
	1980	NA	15.3
Construction	1989	5.9	7.8
	1980	7.5	9.4
Manufacturing	1989	60.4	60.4
	1980	88.9	71.0
Transp. & Pub. Util.	1989	19.2	17.7
	1980	28.3	17.9
Wholesale Trade	1989	7.8	11.3
	1980	9.3	11.4
Retail	1989	13.9	11.6
	1980	14.3	10.8
F.I.R.E.	1989	7.5	10.5
	1980	8.2	10.1
Services	1989	11.3	11.7
	1980	8.9	10.9

Source: U.S. Bureau of the Census, *County Business Patterns*, 1980 and 1989.
F.I.R.E.: Finance, Insurance, and Real Estate

Figure 7.2



Source: U.S. Bureau of Economic Analysis, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- Average annual pay per employee in Douglas County in 1989 lagged the statewide average across every sector of the economy except agricultural services.

- In 1989, Douglas County average annual pay per employee was $15,400, nearly 20 percent less than the statewide average.

- The gap between Douglas County and the state as a whole, in terms of average pay per employee, widened slightly during the decade; in 1980 Douglas County pay was 18 percent less than the state average ($10,300 vs. $12,600) while in 1989 it was 20 percent less ($15,400 vs. $19,100).

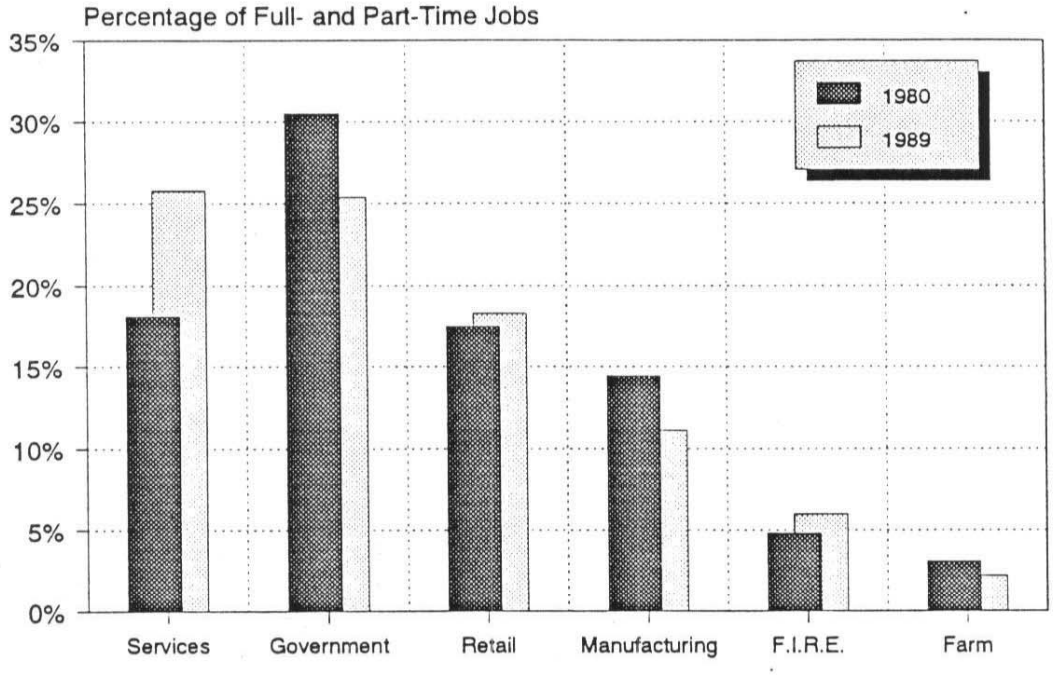
Table 7.6
Average Annual Pay Per Employee by Sector
Private, Non-Farm Firms (in $Thousands)
Douglas County and Kansas, 1980 and 1989

Sector / Industry	Year	Douglas	Kansas
Private Sector	1989	$15.4	$19.1
	1980	10.3	12.6
Agricultural Services	1989	16.1	12.1
	1980	NA	9.7
Mining	1989	NA	25.4
	1980	NA	21.2
Construction	1989	20.0	23.2
	1980	16.1	16.1
Manufacturing	1989	23.6	25.5
	1980	14.2	15.4
Transp. & Pub. Util.	1989	23.0	26.2
	1980	12.7	16.1
Wholesale Trade	1989	18.7	24.2
	1980	12.5	15.7
Retail	1989	10.0	10.5
	1980	6.7	7.4
F.I.R.E.	1989	19.1	22.6
	1980	10.6	13.3
Services	1989	12.5	16.4
	1980	8.1	9.8

Source: U.S. Bureau of the Census, *County Business Patterns,* 1980 and 1989.
F.I.R.E.: Finance, Insurance, and Real Estate

Figure 7.3

Distribution of Jobs, Selected Sectors
Douglas County, 1980, 1989



Source: U.S. Bureau of Economic Analysis, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The Douglas County economy in 1989 had a greater employment emphasis in services, retail and finance, insurance and real estate than it did in 1980.

- Services and government together accounted for slightly more than half of all Douglas County jobs in 1989.

- Manufacturing accounted for 14 percent of employment in 1980, but only 11 percent in 1989.

Table 7.7
Distribution of Jobs by Sector,
Douglas County and Kansas, 1980-1989

Douglas County

Industry	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	34,058	33,272	33,273	33,642	34,931	36,034	37,042	38,775	41,479	43,519
Farm	1,061	1,045	1,055	1,111	1,080	1,044	982	985	972	960
Construction	1,673	1,330	1,241	1,378	1,549	1,620	1,913	2,131	2,284	2,329
Manufacturing	4,909	4,743	4,521	4,434	4,526	4,541	4,676	4,664	4,753	4,940
Transp. & Pub. Util.	1,338	1,318	1,219	1,174	1,208	1,242	1,239	1,239	1,234	1,236
Wholesale	671	727	679	648	715	783	726	735	734	940
Retail	6,046	5,950	6,121	6,304	6,563	6,751	7,117	7,581	7,739	7,969
F.I.R.E.	1,649	1,702	1,723	1,768	1,873	1,948	2,006	2,174	2,405	2,590
Service	6,171	6,324	6,464	6,676	7,393	8,054	8,590	9,320	10,300	11,240
Government	10,382	9,960	10,065	9,959	9,838	9,851	9,603	9,708	10,808	11,044
Other	158	173	185	190	186	200	190	238	250	271

Kansas (thousands)

Industry	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	1,287	1,293	1,282	1,294	1,341	1,354	1,361	1,390	1,427	1,456
Farm	102	97	96	101	98	94	87	89	88	86
Construction	65	62	59	61	66	65	67	68	66	66
Manufacturing	195	193	173	169	181	179	179	181	186	187
Transp. & Pub. Util.	73	73	71	72	75	74	72	72	73	75
Wholesale	68	69	69	67	69	70	70	70	71	72
Retail	198	200	200	201	208	211	212	218	226	232
F.I.R.E.	77	79	81	83	86	90	92	95	98	99
Service	244	251	257	266	280	287	296	306	321	339
Government	228	227	233	228	230	237	245	251	258	262
Other	36	42	43	46	47	47	40	40	39	38

Note: "Other" category includes agricultural services, fisheries, mining, and international organizations.
F.I.R.E.: Finance, Insurance, & Real Estate.
Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

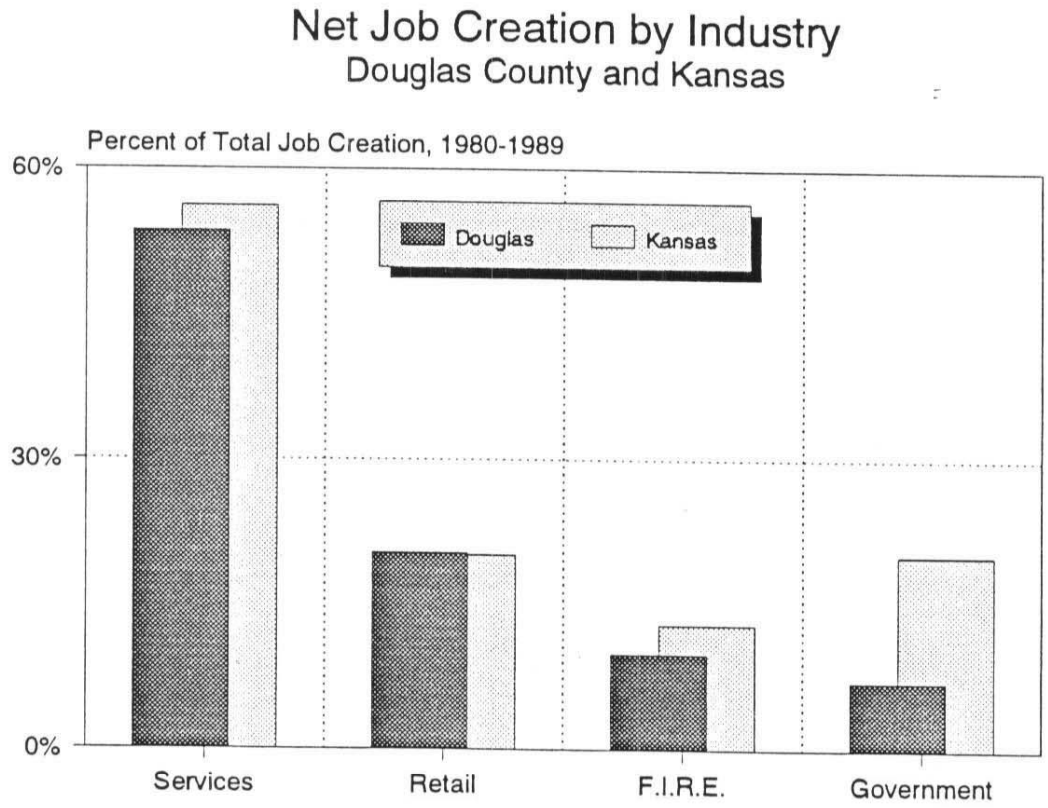
- Over 9,400 new jobs were created in Douglas County during the 1980s, an increase of about 28 percent in total employment. This rate of job creation was 25 percent higher than the national average and was comparable to that of all college communities.

Table 7.8
Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	1980	1989	Net Change	Percent Change
Douglas	34,058	43,519	9,461	27.78%
Kansas Metro Areas	628,415	772,373	143,958	22.91
Johnson, KS	141,148	235,453	94,305	66.81
Shawnee	95,088	109,833	14,745	15.51
Sedgwick	232,771	262,355	29,584	12.71
Butler	17,143	19,282	2,139	12.48
Harvey	16,655	16,533	-122	-0.73
Leavenworth	24,209	27,409	3,200	13.22
Miami	9,345	9,555	210	2.25
Wyandotte	92,056	91,953	-103	-0.11
Boone, MO	56,810	73,638	16,828	29.62
Johnson, IA	50,764	62,418	11,654	22.96
Larimer, CO	71,921	101,006	29,085	40.44
Champaign IL	91,445	110,927	19,482	21.30
Kansas	1,286,742	1,455,976	169,234	13.15
United States	112,256,700	136,074,700	23,818,000	21.22

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

Figure 7.4



Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The leading sector for job creation in Douglas County during the 1980s were Services (5,069 net new jobs), Retail (1,923 jobs) and Finance, Insurance and Real Estate (941 jobs). These three sectors accounted for 84 percent of all job creation in Douglas County from 1980 to 1989.

- Statewide, the leading job creation sectors during the 1980s were Services (95,000 net new jobs), Government and Retail (each with 34,000 net new jobs).

Table 7.9
Net Job Creation by Industry
Douglas County and Kansas, 1980-1989

	Net Increase in Number of Jobs			
	Douglas	Percent of Net New Jobs	Kansas (Thousands)	Percent of Net New Jobs
Farm	-101	--	-16	--
Construction	656	6.9%	1	--
Manufacturing	31	0.3	-8	--
Trans. & Util.	-102	--	2	1.1%
Wholesale	269	2.8	4	2.2
Retail	1,923	20.3	34	20.1
F.I.R.E.	941	9.9	22	13.0
Services	5,069	53.6	95	56.2
Government	662	7.0	34	20.1
Other	113	1.2	2	1.1
Total	9,461		169	

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The Service sector accounted for 11,240 jobs in 1989, 25.8 percent of Douglas County employment.

- The Service sector, which had been underdeveloped in Douglas County in 1980, matured during the decade. While Douglas County had a smaller share of its jobs in this sector than the state average in 1980 (18.1% vs. 18.9%), by 1989 its 25.8 percent share of employment was typical of metropolitan areas as well as of college communities.

Table 7.10
Service Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	6,171	18.1%	11,240	25.8%	5,069	82.14%
Johnson, KS	35,382	25.1	68,133	28.9	32,751	92.56
Shawnee	21,508	22.6	29,318	26.7	7,810	36.31
Kansas Metro Areas	133,931	21.3	199,633	25.8	65,702	49.06
Boone, MO	11,175	19.7	18,981	25.8	7,806	69.85
Johnson, IA	9,441	18.6	13,310	21.3	3,869	40.98
Larimer, CO	13,913	19.3	26,262	26.0	12,349	88.76
Champaign, IL	17,653	19.3	27,225	24.5	9,572	54.22
Kansas	243,640	18.9	338,864	23.3	95,224	39.08
United States	24,401,000	21.7	36,764,800	27.0	12,363,800	50.67

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The retail sector, with nearly 8,000 jobs in 1989 was the third most important sector with respect to Douglas County employment accounting for an 18.3 percent share.

- Retailing, an area of strength for Douglas County with respect to employment in 1980, continued to do well throughout the decade. The 18.3 percent share of 1989 employment was about 2 percentage points higher than the typical proportions of employment for metro areas, college communities and the nation as a whole. Only Johnson County, with 19.1 percent of 1989 employment in retailing, had a greater share.

Table 7.11
Retail Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	6,046	17.5%	7,969	18.3%	1,923	31.81%
Johnson, KS	29,726	21.1	45,011	19.1	15,285	51.42
Shawnee	14,688	15.4	18,771	17.1	4,083	27.80
Kansas Metro Areas	99,953	15.9	128,514	16.6	28,561	28.57
Boone, MO	8,600	15.1	11,963	16.2	3,363	39.10
Johnson, IA	7,730	15.2	10,334	16.6	2,604	33.69
Larimer, CO	13,399	18.6	18,314	18.1	4,915	36.68
Champaign, IL	15,345	16.8	17,159	15.5	1,814	11.82
Kansas	198,491	15.4	232,284	16.0	33,793	17.02
United States	17,808,800	15.9	22,562,900	16.6	4,754,100	26.70

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The Government sector grew in employment more slowly than most sectors during the 1980s and as a consequence declined in relative importance in Douglas County.

- At 25.4 percent of employment in 1989 Douglas County depends more heavily on Government employment than the average for Kansas metro areas (15.4%) the Kansas average (18%) or the U.S. average (15.2%). However, for three of the four college comparative counties, the Government sector accounts for about one-third of all jobs.

Table 7.12
Government Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	10,382	30.5%	11,044	25.4%	662	6.38%
Johnson	14,525	10.3	22,916	9.7	8,391	57.77
Shawnee	20,779	21.9	23,965	21.8	3,186	15.33
Kansas Metro Areas	100,204	15.9	118,617	15.4	18,413	18.38
Boone, MO	19,754	34.8	22,352	30.4	2,598	13.15
Johnson, IA	21,500	42.4	24,201	38.8	2,701	12.56
Larimer, CO	14,529	20.2	19,264	19.1	4,735	32.59
Champaign, IL	34,051	37.2	37,425	33.7	3,374	9.91
Kansas	227,929	17.7	261,909	18.0	33,980	14.91
United States	18,801,000	16.7	20,737,000	15.2	1,936,000	10.30

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- Employment in manufacturing remained stable in Douglas County during the 1980s at around 4,900 jobs.

- Manufacturing employment declined statewide and in Kansas metro areas as a whole except for Johnson County, Kansas. All of the out-of-state college communities showed increases in manufacturing employment, perhaps building upon local capabilities for technology transfer.

Table 7.13
Manufacturing Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	4,909	14.4%	4,940	11.4%	31	0.63%
Johnson, KS	16,929	12.0	20,410	8.7	3,481	20.56
Shawnee	10,209	10.7	9,819	8.9	-390	-3.82
Kansas Metro Areas	118,922	18.9	111,796	14.5	-7,126	-5.99
Boone, MO	4,218	7.4	4,795	6.5	577	13.68
Johnson, IA	3,396	6.7	4,623	7.4	1,227	36.13
Larimer, CO	12,707	17.7	14,872	14.7	2,165	17.04
Champaign, IL	7,231	7.9	9,019	8.1	1,788	24.73
Kansas	195,121	15.2	186,928	12.8	-8,193	-4.20
United States	20,766,100	18.5	19,943,300	14.7	-822,800	-3.96

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

- The Finance, Insurance and Real Estate sector remains underdeveloped in Douglas County, accounting for 6 percent of employment relative to an 8.3 percent share in Kansas metro areas and a 6.8 percent share statewide.

Table 7.14
Finance, Insurance, and Real Estate Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	1,649	4.8%	2,590	6.0%	941	57.06%
Johnson, KS	16,727	11.9	30,035	12.8	13,308	79.56
Shawnee	8,186	8.6	9,553	8.7	1,367	16.70
Kansas Metro Areas	46,312	7.4	64,220	8.3	17,908	38.67
Boone, MO	5,190	9.1	5,782	7.9	592	11.41
Johnson, IA	2,037	4.0	2,531	4.1	494	24.25
Larimer, CO	5,628	7.8	7,790	7.7	2,162	38.42
Champaign, IL	4,223	4.6	4,971	4.5	748	17.71
Kansas	76,849	6.0	98,786	6.8	21,937	28.55
United States	7,555,500	6.7	10,304,600	7.6	2,749,100	36.39

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

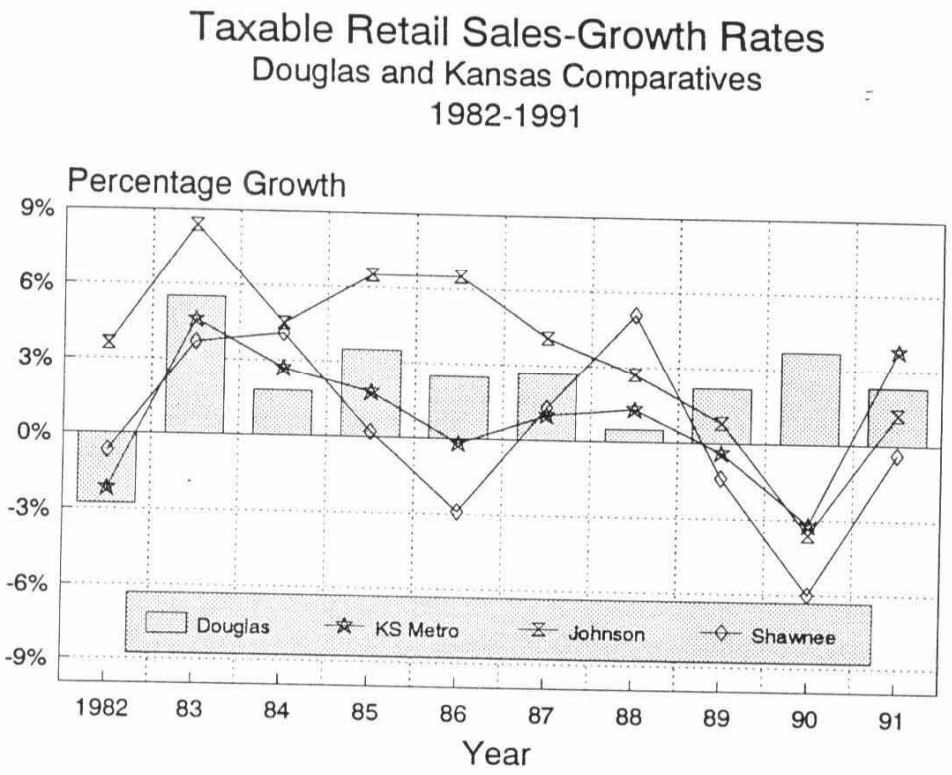
- Farm employment accounted for less than 1,000 jobs in Douglas County in 1989, just over 2 percent of all employment.

Table 7.15
Farm Employment
Percent of Total Employment, Net Change and Percent Change
Douglas, Comparative Counties, Kansas and U.S., 1980 - 1989

County	Percent of 1980	Percent of 1980 Total	Net 1989	Percent 1989 Total	Change	Change
Douglas	1,061	3.1%	960	2.2%	-101	-9.52%
Johnson, KS	1,067	0.8	893	0.4	-174	-16.31
Shawnee	1,253	1.3	1,049	1.0	-204	-16.28
Kansas Metro Areas	10,660	1.7	9,246	1.2	-1,414	-13.26
Boone, MO	1,689	3.0	1,556	2.1	-133	-7.87
Johnson, IA	2,031	4.0	1,731	2.8	-300	-14.77
Larimer, CO	1,724	2.4	1,684	1.7	-40	-2.32
Champaign IL	2,774	3.0	2,057	1.9	-717	-25.85
Kansas	102,162	7.9	85,974	5.9	-16,188	-15.85
United States	3,819,000	3.4	3,168,000	2.3	-651,000	-17.05

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, Table CA25, *Full- and Part-Time Employees by Major Industry.*

Figure 7.5



Source: Wichita State University, Center for Economic Development and Business Research.

- Retail sales in Douglas County reached a level of $569 million in 1991. This represented 31 percent growth in real terms over the decade, while the state experienced a 2 percent decline in real terms.

- The 10-year average of Douglas County's retail sales growth rates was 2.4 percent, well above that of Kansas metro areas (0.9%) and the Kansas average (-0.4%).

- Douglas County retail sales have grown in real terms by 2.2 percent or more in seven of the last 10 years.

Table 7.16
Retail Sales Levels, Nominal and Real Dollars
Douglas County, Kansas Comparatives and Kansas, 1981, 1991

	Nominal ($ current)		Ten-Year Percentage	Real ($ 1982-84)		Ten-Year Percentage
	1981	1991	Change	1981	1991	Change
Douglas	$ 303.7	$ 568.7	87.3%	$ 314.5	$ 412.9	31.3%
Johnson, KS	1,637.8	3,482.5	112.6	1,800.4	2,529.1	40.5
Shawnee	876.5	1,356.7	54.8	963.7	988.6	2.5
Kansas	13,477.0	19,988.0	48.3	14,821.8	14,503.7	-2.1

Source: Wichita State University, Center for Economic Development and Business Research.

Table 7.17
Annual Percentage Growth for Real Levels of Retail Sales ($1982-84)
Douglas and Kansas Comparatives, 1982-1991

	1982	83	84	85	86	87	88	89	90	91	Avg. Rate
Douglas	-2.8%	5.5%	1.8%	5.5%	2.5%	2.7%	0.5%	2.2%	3.7%	2.3%	2.4%
Johnson, KS	3.6	8.4	4.5	6.5	6.5	4.1	2.7	0.8	-3.6	1.2	3.5
Shawnee	-0.7	3.7	4.1	0.2	-2.9	1.3	5.1	-1.4	-6.0	-0.4	0.3
Kansas Metro Areas	-2.2	4.6	2.7	1.8	-0.2	1.0	1.3	-0.4	-3.2	3.8	0.9
Kansas	-2.9	4.3	1.3	-0.4	-2.7	-0.1	0.7	-2.0	-1.5	0.4	-0.4

Source: Wichita State University, Center for Economic Development and Business Research. Kansas metro areas calculations by KU-IPPBR.

Table 7.18
Per Capita Sales Tax Collections
Douglas, Kansas Comparatives and Kansas, 1987-1991

	1987	1988	1989	1990	1991	Percent Change 1987-90
Douglas	$222.82	$231.89	$241.01	$272.85	$302.79	35.9%
Johnson	337.90	349.00	361.77	397.84	406.82	20.3
Shawnee	271.33	97.85	313.23	336.76	334.62	23.3
Kansas	259.00	275.39	285.18	268.02	278.39	7.5

Source: Kansas Department of Revenue, *Annual Report, Fiscal Year 1987.* Data for Fiscal Years 1988 and 1989 were calculated by IPPBR from data supplied by the Kansas Department of Revenue and the U.S. Bureau of the Census; Fiscal Years 1990 and 1991, Kansas Department of Revenue, unpublished data.

Table 7.19
Average Farm Size
Douglas, Kansas Comparatives and Kansas, 1980, 1990

	Total Land in Farms (thousands of acres)		Number of Farms		Average Farm Size (acres)	
	1980	1990	1980	1990	1980	1990
Douglas	236	230	855	850	276	270
Johnson	174	167	795	660	219	253
Shawnee	225	233	855	850	263	274
Kansas	43,300	47,900	75,000	69,000	644	694

Source: Kansas Agricultural Statistics, *Kansas Farm Facts.*

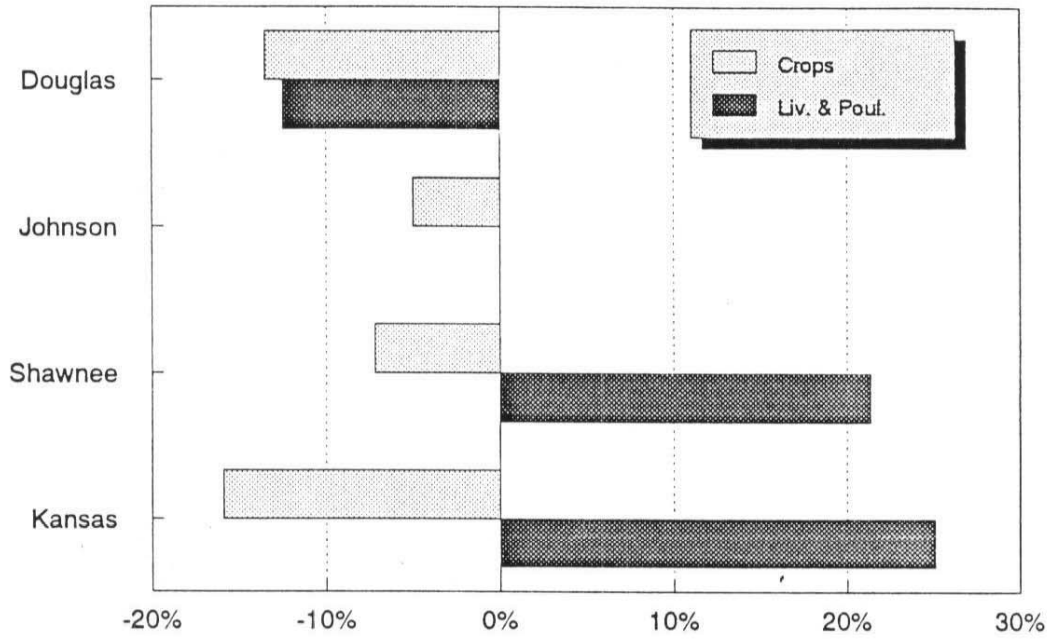
- The number of farms and average farm size remained stable in Douglas County during the 1980s. Statewide, the number of farms declined by 8 percent, while average farm size increased by 8 percent.

- The average Douglas County farm is 270 acres (well under half the size of the average Kansas farm).

Figure 7.6

Value of Agriculture Products

Percent Change in Nominal Dollar Value
1980-81 to 1989-90



Source: Institute for Public Policy and Business Research, *Kansas Statistical Abstract*, various issues, using data from Kansas Agricultural Statistics, *Kansas Farm Facts*.

- While the number of farms remained stable in Douglas County over the decade, the number of acres harvested declined by 11 percent, consistent with statewide trends.

- Consistent with statewide trends, Douglas County farms raised 13.5 percent less revenue from field crops harvested at the end of the decade compared with the early 1980s.

- Unlike the rest of the state, Douglas County farmers did not shift toward greater reliance on livestock and poultry receipts

Table 7.20
Number of Farms and Acres Harvested
Douglas, Kansas Comparatives and Kansas, 1980-81 vs. 1989-90

	Number of Farms			Acres Harvested (000s)		
	1980-1981	1989-1990	Percent Change	1980-1981	1989-1990	Percent Change
Douglas	813	850	4.6%	135	120	-11.2%
Johnson	785	660	-15.9	80	78	-2.5
Shawnee	855	850	-0.5	7	125	-1.6
Kansas	75,500	69,000	-8.0	21,931	19,823	-9.7

Note: Values shown as two year averages due to substantial inter-year variability in farm production (i.e., acres harvested. Number of farms varies much less from year to year but, to be consistent, is presented in the same format as acres harvested.
Source: Kansas Agricultural Statistics, Kansas Farm Facts.

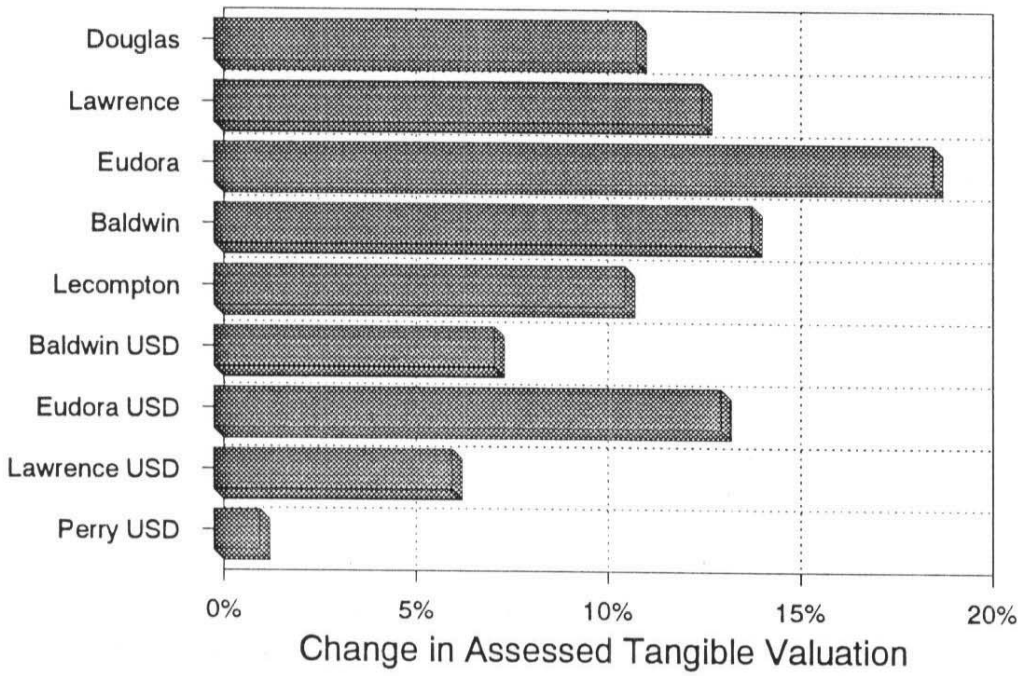
Table 7.21
Value of Field Crops, Livestock and Poultry
Douglas, Kansas Comparatives and Kansas, 1980-81 vs. 1989-90

	Field Crops			Livestock & Poultry		
	1980-1981	1989-1990	Percent Change	1980-1981	1989-1990	Percent Change
	$ millions			$ millions		
Douglas	$ 19.3	$ 16.7	-13.5%	$ 16.8	$ 14.7	-12.5%
Johnson	12.1	11.5	-5.0	10.0	10.0	0.0
Shawnee	19.4	18.0	-7.2	8.4	10.2	21.4
Kansas	2,996.0	2,519.0	-15.9	2,229.9	2,790.2	25.1

Note: Values shown as two year averages due to substantial inter-year variability in farm production (i.e., acres harvested. Number of farms varies much less from year to year but, to be consistent, is presented in the same format as acres harvested.
Source: Kansas Agricultural Statistics, Kansas Farm Facts.

Figure 7.7

Growth in Assessment Base, 1989-1992
Douglas Co., Comp. Cities & School Dist.



Source: *Kansas Government Journal*, January 1990 and January 1992.

- Assessment levels grew by 11 percent in Douglas County from 1990 to 1992, equalling the growth rate in Johnson County.

- Assessment levels increased by nearly 19 percent in the city of Eudora and by nearly 13 percent in the Eudora School District. Only the cities of Olathe and Lenexa had similar growth rates over this period.

Table 7.22
Assessed Tangible Valuation Levels, 1990 and 1992
Douglas County, Lawrence, and Comparative Counties, Cities and School Districts
($ millions)

Counties:	1990	1992	Percentage Change 1990-1992
Douglas	$ 327.0	$ 363.0	11.0%
Johnson	2,430.5	2,700.0	11.1
Shawnee	782.7	814.0	4.0
Cities:			
Lawrence	234.1	263.9	12.7
Eudora	6.9	8.2	18.7
Baldwin City	6.2	7.1	14.0
Lecompton	1.2	1.2	0.7
Overland Park	899.9	1,000.0	11.1
Olathe	273.1	326.2	19.4
Lenexa	326.0	384.4	17.9
Shawnee	173.1	191.1	10.4
Spring Hill	6.4	7.3	13.9
Topeka	587.3	596.0	1.5
School Districts:			
Baldwin	20.7	22.2	7.3
Eudora	11.9	13.5	13.2
Lawrence	298.5	316.9	6.2
Perry (Lecompton)	19.2	20.6	7.2
Spring Hill	22.6	24.5	8.2
Olathe	434.3	466.9	7.5
Shawnee Mission	1,473.8	1,500.0	1.8
Blue Valley	531.2	582.7	9.7
Topeka	443.5	451.0	1.7

Source: *Kansas Government Journal*, January, 1990 and January, 1992.
Note: Statewide reclassification and reappraisal completed by 1989.
School district data refers to 1989-1990 and 1991-1992 school years.

- Douglas County had $12 million in bonded indebtedness at the beginning of 1992, a decrease of 7 percent from 1990 levels.

- As a proportion of assessed valuation, Douglas County had one of the smallest debt loads of any comparative, with bonded indebtedness representing only 3.3 percent of tangible assessed valuation. Only Overland Park's 3.1 percent was smaller.

Table 7.23
Bonded Indebtedness, 1990 and 1992
Douglas County, Lawrence, and Comparative Counties, Cities and School Districts
($ millions)

			Percentage Change
Counties:	1990	1992	1990-1992
Douglas	$ 12.9	$ 12.0	-7.0%
Johnson	134.6	138.1	2.6
Shawnee	53.7	56.0	4.3
Cities:			
Lawrence	31.7	27.8	-12.1
Eudora	0.9	0.7	-19.8
Baldwin City	0.7	1.2	71.3
Lecompton	0.0	0.3	n/a
Overland Park	28.8	31.0	7.5
Olathe	96.1	111.1	15.6
Lenexa	55.0	54.8	-0.4
Shawnee	22.8	25.4	11.3
Spring Hill	2.9	2.6	-10.1
Topeka	113.9	132.8	16.6
School Districts:			
Baldwin	1.1	1.0	-8.4
Eudora	0.3	0.2	-29.8
Lawrence	6.9	5.2	-25.0
Perry (Lecompton)	1.5	1.4	-4.9
Spring Hill	1.1	0.8	-23.4
Olathe	68.7	104.9	52.6
Shawnee Mission	20.0	26.5	32.6
Blue Valley	87.8	122.6	39.7
Topeka	0.8	0.4	-47.6

Source: *Kansas Government Journal*, January, 1990 and January, 1992.
School district data refers to 1989-1990 and 1991-92 school years.

Table 7.24
Bonded Indebtedness as a Percentage of Assessed Valuation, 1990 and 1992
Douglas County, Lawrence, and Comparative Counties, Cities and School Districts
($ millions)

			Percentage Change
Counties:	1990	1992	1990-1992
Douglas	3.9%	3.3%	-16.2%
Johnson	5.5	5.1	-7.6
Shawnee	6.9	6.9	0.2
Cities:			
Lawrence	13.5	10.6	-22.0
Eudora	12.7	8.6	-32.4
Baldwin City	11.0	16.5	50.2
Lecompton	0.0	23.9	n/a
Overland Park	3.2	3.1	-3.2
Olathe	35.2	34.1	-3.2
Lenexa	16.9	14.2	-15.5
Shawnee	13.2	13.3	0.8
Spring Hill	44.9	35.5	-21.1
Topeka	19.4	22.3	14.9
School Districts:			
Baldwin	5.2	4.4	-14.6
Eudora	2.4	1.5	-38.0
Lawrence	2.3	1.6	-29.4
Perry (Lecompton)	8.0	7.1	-11.3
Spring Hill	4.7	3.3	-29.2
Olathe	15.8	22.5	42.0
Shawnee Mission	1.4	1.8	30.2
Blue Valley	16.5	21.0	27.3
Topeka	0.2	0.1	-48.4

Source: *Kansas Government Journal*, January, 1990 and January, 1992.
Bonded indebtedness data shown is for the upcoming year, reported in January of the year 1.
Data in columns have been rounded; percentages are correct.
Data for Perry School District includes Jefferson County schools in addition to Lecompton area.
Statewide reclassification and reappraisal completed by 1989.
School district data refers to 1989-1990 and 1991-92 school years.

- Mill levies in Douglas County, at 27.114 mills in 1992, are slightly lower than those in Shawnee County, at 31.770 mills.

- Lawrence's city mill levies, 28.170 mills in 1992, are comparable to those of Olathe and Lenexa.

- School district levies in Lawrence, at 77.040 mills are higher than those of the Shawnee Mission School District (45.590 mills), but are well below the 112.9 mills levied in Olathe.

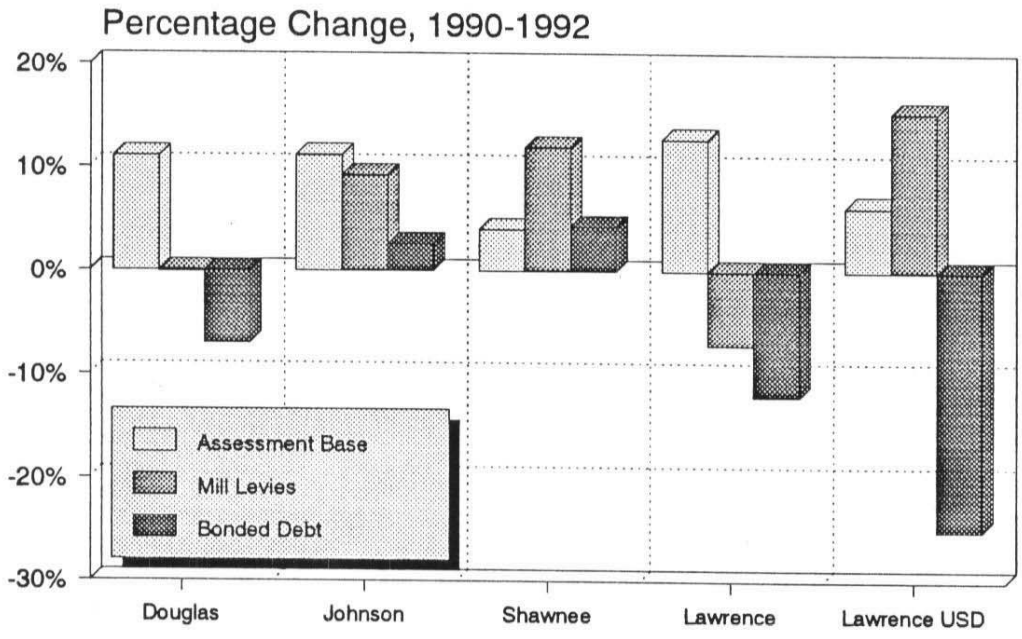
Table 7.25
City, County and School District Tax Levies in Mills, 1990 and 1992
Douglas County, Lawrence, and Comparative Counties, Cities and School Districts

	1990		1992		Percentage Change 1990-1992	
Counties:	City/County Levy	School District Levy	City/County Levy	School District Levy	City/County	School District
Douglas	27.130		27.114		-0.1%	
Johnson	14.946		16.328		9.2	
Shawnee	28.380		31.770		11.9	
Cities/School Districts:						
Lawrence	30.330	66.840	28.170	77.040	-7.1	15.3%
Eudora	12.910	64.020	11.913	50.880	-7.7	-20.5
Baldwin City	18.630	64.450	24.441	76.870	31.2	19.3
LeCompton	32.060	63.590	22.453	69.200	-30.0	8.8
*Overland Park	8.773	45.280	9.305	45.590	6.1	0.7
Olathe	28.592	77.480	30.273	112.900	5.9	45.7
*Lenexa	26.476	45.280	26.973	45.590	1.9	0.7
*Shawnee	19.070	45.280	24.437	45.590	28.1	0.7
Spring Hill	39.789	83.010	41.637	91.610	4.6	10.4
Blue Valley USD		74.500		80.650		8.3
Topeka	54.610	71.310	93.700	88.210	71.6	23.6

*Shawnee Mission Public School System.
Source: *Kansas Government Journal*, January, 1990 and January, 1992.
Data shown is for upcoming year, reported in January of 1990 or 1992.
Data for Lecompton includes Jefferson County schools in Perry School District.
School district data refers to 1989-1990 and 1991-92 school years.

Figure 7.8

Tax Base, Mill Rate and Bonded Debt
Douglas County and Selected Components
1989-1992



Source: Calculations by University of Kansas, Institute for Public Policy and Business Research using data from *Kansas Government Journal*, January, 1990 and January, 1992.

- With the exception of Baldwin City, changes in assessment levels over the last two years have been applied toward the retirement of bonded indebtedness. In Baldwin City, an increase in bonded debt has been partly met by increased assessment levels, with increases in mill levies covering the remainder of the city's obligations.

Table 7.26
Changes in Tax Base, Mill Levies and Bonded Debt, 1990-1992
Douglas County, Lawrence, and Comparative Counties, Cities and School Districts

	Assessment Base	Mill Levies	Bonded Debt
Counties:			
Douglas	11.0%	-0.1%	-7.0%
Johnson	11.1	9.2	2.6
Shawnee	4.0	11.9	4.3
Cities			
Lawrence	12.7	-7.1	-12.1
Eudora	18.7	-7.7	-19.8
Baldwin City	14.0	31.2	71.3
Lecompton	0.7	-30.0	0.0
Overland Park	11.1	6.1	7.5
Olathe	19.4	5.9	15.6
Lenexa	17.9	1.9	-0.4
Shawnee	10.4	28.1	11.3
Spring Hill	13.9	4.6	-10.1
Topeka	1.5	71.6	16.6
School Districts:			
Baldwin City	7.3	8.8	-8.4
Eudora	13.2	-20.5	-29.8
Lawrence	6.2	15.3	-25.0
Perry (Lecompton)	7.2	8.8	-4.9
Spring Hill	8.2	10.4	-23.4
Olathe	7.5	45.7	52.6
Shawnee Mission	1.8	0.7	32.6
Blue Valley	9.7	8.3	39.7
Topeka	1.7	23.6	-47.6

Source: Calculations by University of Kansas, Institute for Public Policy and Business Research using data from *Kansas Government Journal*, January, 1990 and January, 1992.
Statewide reclassification and reappraisal completed by 1989.
Data for Perry School District includes Jefferson County schools in addition to Lecompton.
School district data refers to 1989-1990 and 1991-92 school years.

Section VIII: Financial Capital

Businesses must have adequate access to capital in order to take advantage of special opportunities, such as developing new products, purchasing/refurbishing equipment, or undergoing expansion. Local financial institutions play a vital role in assisting business start-ups, expanding existing businesses, retaining businesses, or working with relocated firms.

It is critical for a community to have a sound financial base for business development. In particular, the safety and strength of local banks is especially important because they make the vast majority of business loans. Additionally, the willingness of banks to make local loans -- instead of investing in opportunities outside of a community -- is important as well.

Because new and/or small businesses may have limited sources of funds -- due to their riskier nature -- the development of other sources of investment capital have been encouraged by the State of Kansas through tax credits and other assistance. As a result, Venture Capital Pools, Seed Capital Pools, and Certified Development Companies have been created state-wide to serve the needs of these businesses.

The types of data presented in this section include:

- the *total number of banks*, *total assets*, *assets per capita*, and *average return on assets* for banks located in the county. The average return on assets is a measure of bank profitability, demonstrating the relative success of bank management in making profitable investments. Assets per capita provide a yardstick for the relative size of banks headquartered within the county.

- *overall bank strength* (or a *Z score*) is a calculation of bank strength which is based upon several components: a) *return on assets*; b) *core capital to assets* - a safety measure of the amount of cushion (core capital) available to absorb future losses; c) *total overhead expense to average earning assets* - a measure of operating efficiency; d) *non-performing loans to gross loans* - a measure of the proportion of bad loans (non-performing) to the bank's overall loans; and e) *loans to assets* - shows the bank's tendency to accept risks by making loans instead of investing in government securities or other "safer" investments.

- the location of *venture capital pools, seed capital pools,* and *certified development companies*. These represent opportunities for local business to tap into alternative sources of financing. The location of *venture/seed capital investments* shows where pools have committed their funds.

FINANCIAL CAPITAL: KEY FINDINGS

- While Douglas County's total banking assets were smaller than those of five of the nine Kansas metropolitan counties, its banks had a stronger, more profitable average return on assets over the 1986-1990 period.

- Banks in Douglas County were stronger than those in other regions of the state and the state as a whole. This was due in part to better profitabilities, stronger Core Capital, and better loan quality.

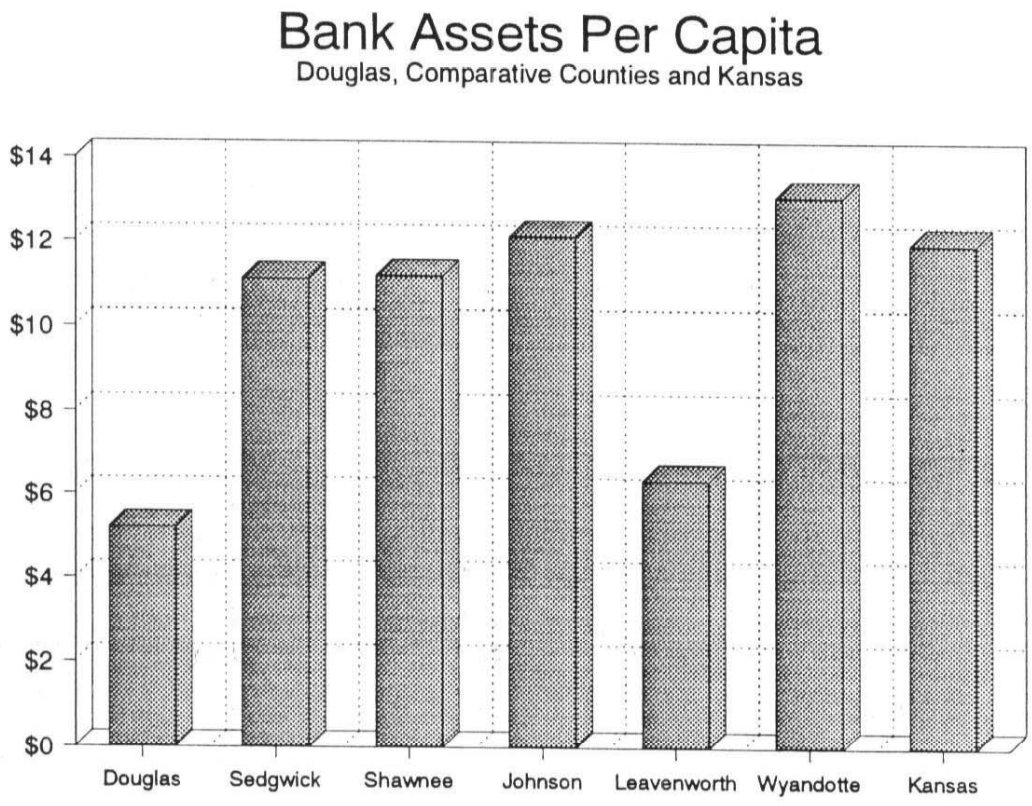
- On the other hand, Douglas County banks were not as efficient -- in terms of overhead expenses -- than those in any of the regions and the state as a whole. This could place them at a competitive disadvantage to larger, outside banks.

- Douglas County banks had a higher percentage of Loans to Assets than those banks in any of the regions and the state as a whole. While this may be a relatively riskier position, it does provide relatively more capital opportunities for local citizens and businesses.

- Douglas County is one of only four counties with both a Kansas Certified Venture Capital pools and a Certified Development Company.

FINANCIAL CAPITAL: DATA ANALYSIS

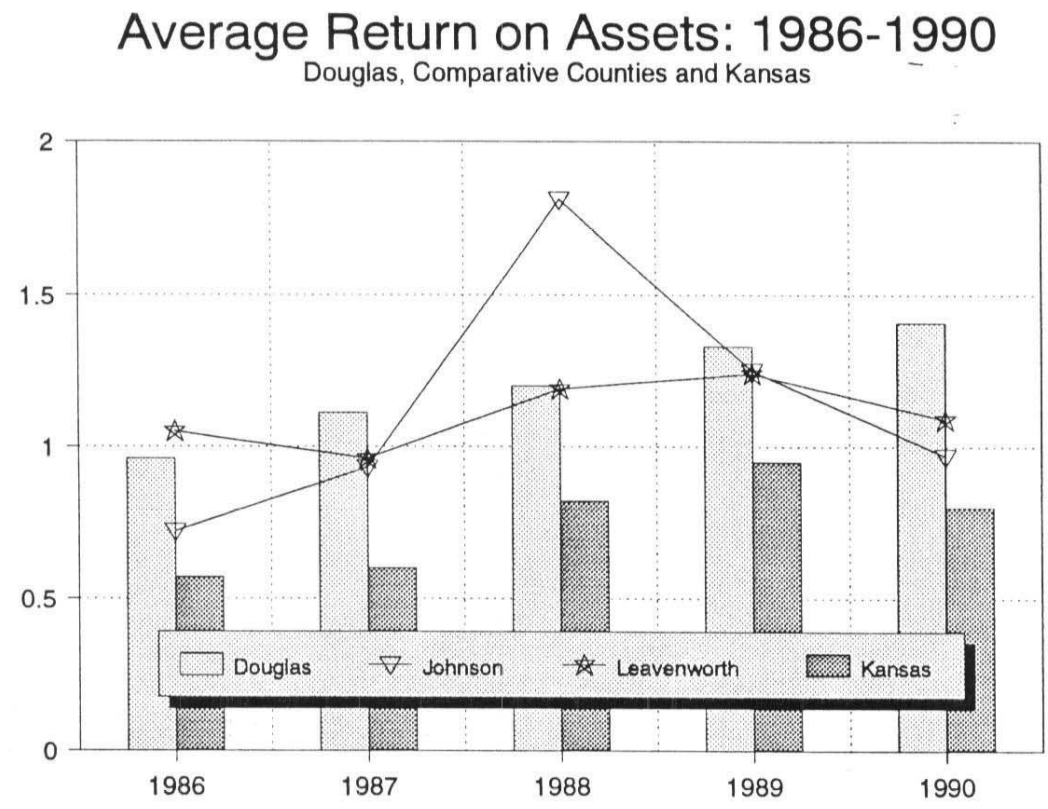
Figure 8.1



Source: Sheshunoff & Company, *Banks in Kansas, 1990* (Austin Texas, 1991)

- Douglas County' six banks had total assets of $425,332,000, which ranked it sixth out of the nine comparison counties in terms of overall size. On a per capita basis, total banking assets were equivalent to $5,200, nearly half the state average and the smallest of the nine counties.

Figure 8.2



Source: Sheshunoff & Company, *Banks in Kansas, 1990* (Austin Texas, 1991)

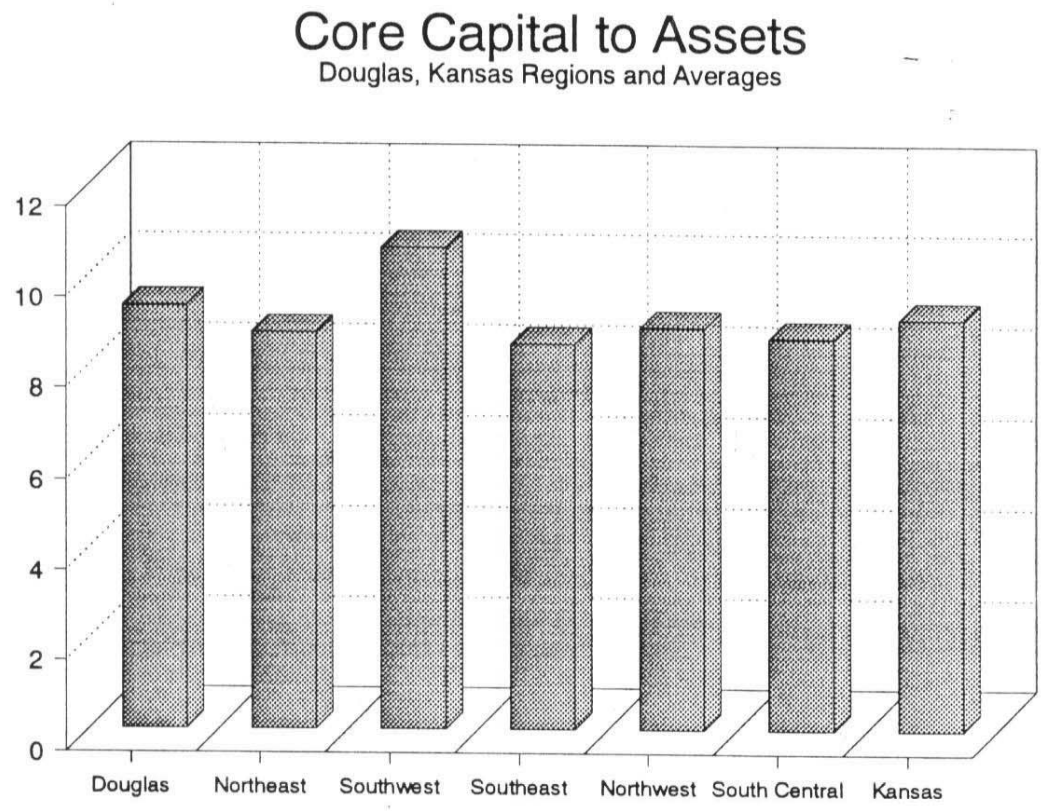
- Average return on assets (ROA) steadily increased over the 1986-1990 period in Douglas County. After a low of .96 in 1986, the average ROA for the county's banks topped out at 1.41 in 1990. Douglas was the only county of the nine to have a consistently increasing average ROA during 1986-1990 period, and it was beaten only three times: by Leavenworth (1.05) and Miami (1.08) in 1986 and by Johnson (1.81) in 1988.

Table 8.1
Total Number of Banks, Total Assets, and Average Return on Assets:
Douglas, Comparison Counties, and Kansas Totals (1986-1990)[1]

	Total Number of Banks	Bank Assets (000's) Total[2]	Per Cap.	Average R.O.A. 1986	1987	1988	1989	1990
Douglas	6	$ 425,332	$ 5,200	.96	1.11	1.2	1.33	1.41
Sedgwick	23	4,481,667	11,103	.76	.48	.97	1.08	.66
Shawnee	14	1,798,389	11,172	.93	.85	1.07	1.09	.81
Butler	12	428,652	8,475	.77	-.01	.26	.65	.84
Harvey	8	290,215	9,353	.66	.55	-.22	.73	.91
Johnson	33	4,302,341	12,117	.72	.93	1.81	1.25	.97
Leavenworth	7	407,575	6,332	1.05	.96	1.19	1.24	1.09
Miami	5	248,583	10,593	1.08	1.02	1.11	0.96	0.99
Wyandotte	16	2,118,843	13,080	.94	.91	.89	.88	.45
Kansas	555	$29,600,000	$11,947	.57	.60	.82	.95	.80

[1]Banks headquartered in county.
[2]Expressed in thousands.
Source: IPPBR calculations based on data from Sheshunoff & Company, *Banks of Kansas, 1990* (Austin, Texas, 1991).

Figure 8.3



Source: Sheshunoff & Company, *Banks of Kansas*, 1990 (Austin, Texas, 1991) and Kirk A. Zoellner, "Regional Banking Strength in Kansas," *Kansas Business Review* (Vol. 15, No. 1, Fall 1991), Lawrence, Kansas: Institute for Public Policy and Business Research, The University of Kansas.

- Douglas County's overall banking strength, or "Z score", was equivalent to 1.28 in 1990. This figure easily surpassed those in all other regions of the state and the state as a whole.

- The county's banking strength may be due in part to better average return on assets, the support of a stronger base of core capital to assets (9.31 in 1990), and a significantly lower ratio of non-performing loans to gross loans (0.87). On the other hand, Douglas County banks were more likely to have higher overhead expenses to average earning assets (3.61), relative to those in the comparison regions and the state as a whole. In the future, this could place Douglas' banks at a disadvantage to larger, outside competition.

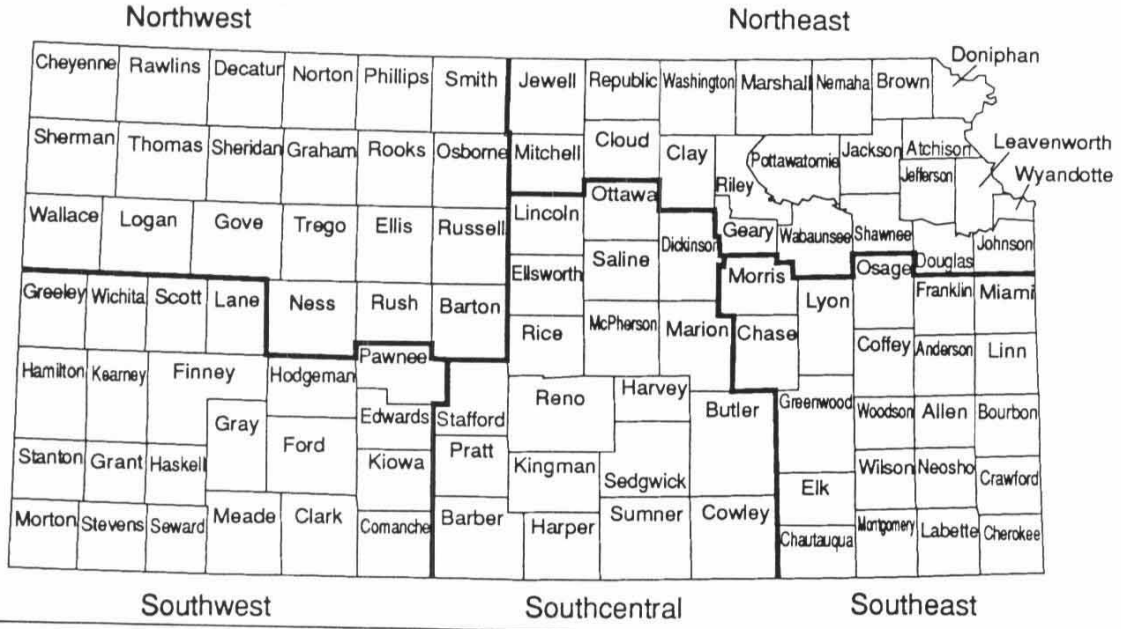
Table 8.2
Overall Banking Strength:
Douglas County, Kansas Regions, and Kansas Averages, 1990

	Strength (Z score)[1]	Profitability (ROA)[2]	Safety (CCAP)[3]	Efficiency (OH)[4]	Loan Qual. (NONP)[5]	Loan Risk (LNS)[6]
Douglas	1.28	1.49	9.31	3.61	0.87	.592
Northeast	0.961	0.89	8.72	2.49	1.18	.480
Southwest	1.014	1.05	10.60	3.08	1.93	.465
Southeast	0.976	0.90	8.48	2.54	1.34	.433
Northwest	0.925	0.90	8.84	3.32	2.22	.430
South Central	0.919	0.79	8.62	2.75	2.09	.476
Kansas	0.959	0.91	9.05	2.84	1.75	.457

[1]Score is a calculation of relative bank strength based on the following formula: 1.016261 + .053414(ROA) + .047769(CCAP) - .067381(OH) - .019039(NONP) - .00686(LNS).
[2]Profitablity based on average Return on Assets.
[3]Safety based on average Core Capital to Assets.
[4]Efficiency based on average Total Overhead Expense to Average Earning Assets.
[5]Loan Quality is based upon average Non-performing Loans to Gross Loans.
[6]Loan Risk is based on average Loans to Assets.

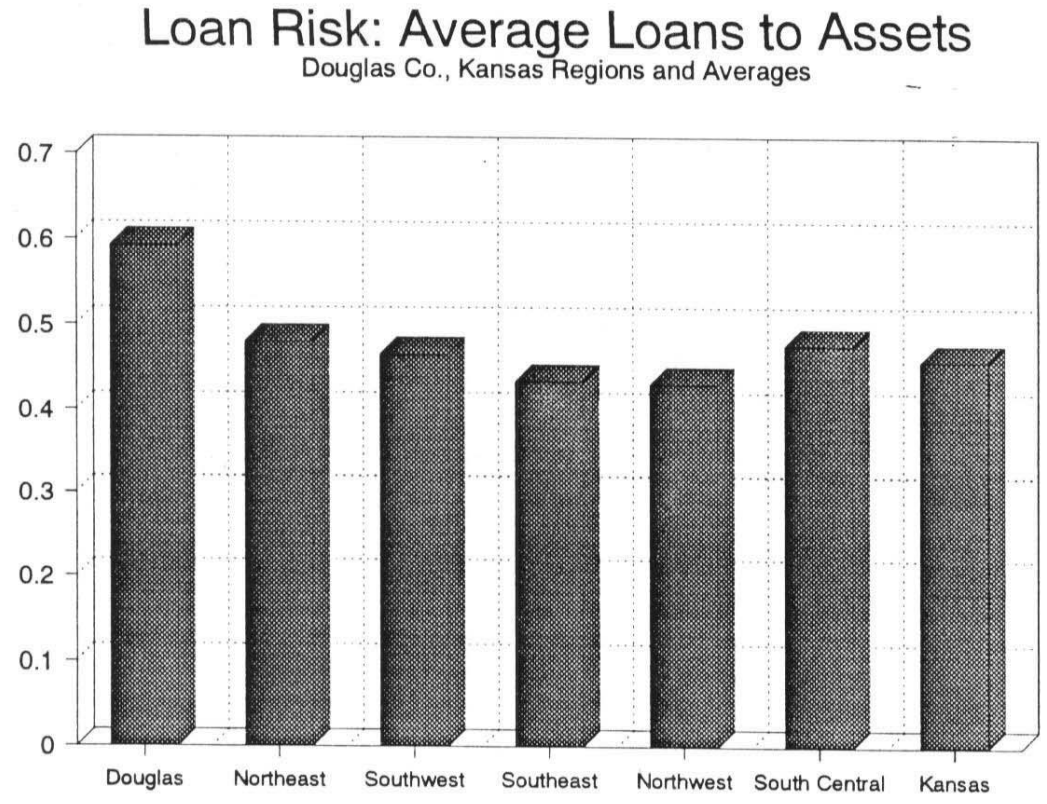
Source: Sheshunoff & Company, *Banks of Kansas*, 1990 (Austin, Texas, 1991) and Kirk A. Zoellner, "Regional Banking Strength in Kansas," *Kansas Business Review* (Vol. 15, No. 1, Fall 1991), Lawrence, Kansas: Institute for Public Policy and Business Research, The University of Kansas.

Map 8.1
Kansas Regions



Source: Kirk A. Zoellner, "Regional Banking Strength in Kansas," *Kansas Business Review* (Vol. 15, No. 1, Fall 1991), Lawrence, Kansas: Institute for Public Policy and Business Research, The University of Kansas.

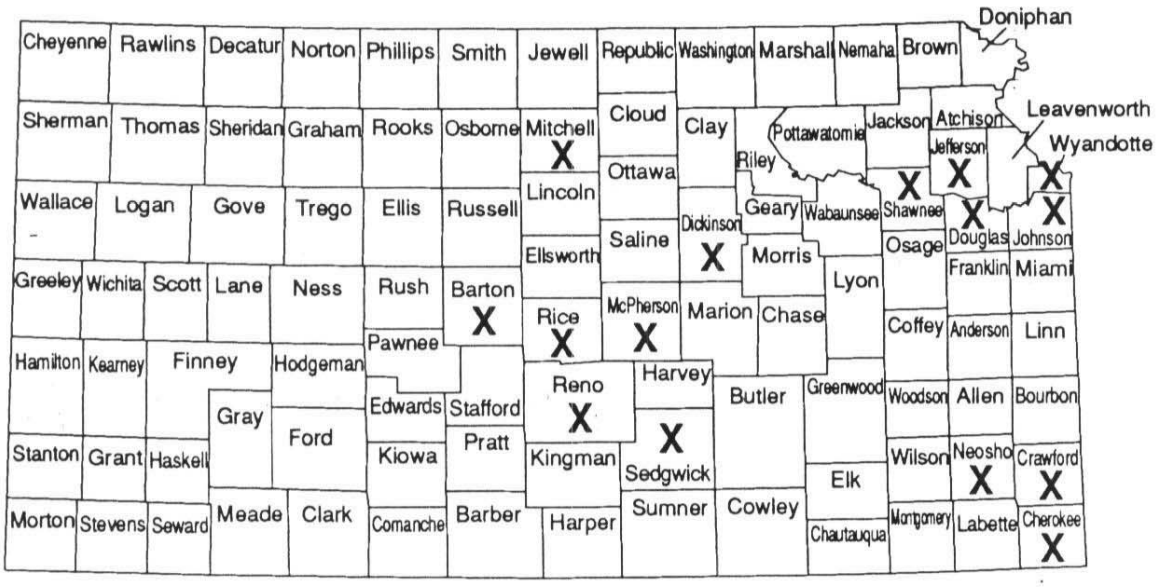
Figure 8.4



Source: Sheshunoff & Company, *Banks of Kansas*, 1990 (Austin, Texas, 1991) and Kirk A. Zoellner, "Regional Banking Strength in Kansas," *Kansas Business Review* (Vol. 15, No. 1, Fall 1991), Lawrence, Kansas: Institute for Public Policy and Business Research, The University of Kansas.

- Douglas County banks were more likely to make loans than those banks located in any of the regions and the state as a whole. In 1990, the Average Loans to Assets ratio was equivalent to .592. While this exposes banks to more risk, it may provide more capital opportunities to local citizens and businesses.

Map 8.2
Location of Venture/Seed Capital Investments



Source: Steve Kelly, Division of Existing Industry Development, Kansas Department of Commerce, 1992.

- Certified Venture/Seed Capital Companies are located in four Kansas counties: Douglas, Johnson, Sedgwick, and Shawnee. However, their investments -- through calendar year 1990 -- were located in fifteen of the state's 105 counties (see map 8.2).

- There are fifteen Certified Development Companies in Kansas which serve fourteen regions. Douglas County is served by Wakarusa Valley Development, Inc., located in Douglas County.

Table 8.3
Location of Venture Capital, Seed Capital, Certified Companies,
and Venture/Seed Capital Investments

	Location of:			
	Venture Capital Co.[1]	Seed Capital Pools[2]	CDCs[3]	Venture/Seed Cap. Investments[4]
Barton				●
Cherokee				●
Crawford			●	●
Dickinson				●
Douglas	●		●	●
Ford			●	
Graham			●	
Jefferson				●
Johnson	●		●	●
Leavenworth			●	
Lyon			●	
McPherson			●	●
Mitchell			●	●
Neosho				●
Reno				●
Rice				●
Riley			●	
Sedgwick	●	●	●	●
Shawnee	●		●	●
Wyandotte			●	●

[1]Certified Kansas Venture Capital Companies.
[2]Certified Kansas Local Seed Capital Pools.
[3]Kansas Certified Development Companies.
[4]Includes those venture capital investments made through calendar year 1990.
Source: Steve Kelly, Division of Existing Industry Development, Kansas Department of Commerce, 1992.

Section IX: Innovation & Technology

To compete in today's rapidly changing global economy, firms must keep pace with innovations in technology. Not keeping pace with the current technology can cause a once thriving firm to become inefficient and slow to respond to customer needs. The ability to keep current with changes in technology, and further, to be innovative and cause changes in technology, will enable firms to become more efficient, cut costs, and gain competitive advantages. Not only will firms that are innovative in the technology arena gain the advantages listed above, technological innovation will also lead to the improvement of current products, the creation of new products, and hence, the spawning of new industries.

Obviously, small and medium-sized firms often do not have the resources necessary to pursue such a path of technological innovation. Because of this, government entities, public/private cooperatives and educational institutions are offering their assistance to help these firms gain the competitive edge that comes through technological innovation.

The following section outlines the current status of technology and innovation in the state of Kansas. Measures are given that show the current state of the technological environment in Kansas and how it compares to the same environments in surrounding states. This is followed by a description of efforts that are being undertaken in Kansas to improve the state's technological resources.

The following measures are used to evaluate the technological resources of Kansas and surrounding states:

- *The number of Ph.D. scientists and engineers in the workforce* indicates the potential pool of innovators in the state. The larger this number the greater the opportunities for innovation. Even though not all scientists and engineers are innovators and vice-versa, the greater the technical capacity of the labor force, the greater the opportunities for innovative advances in technology.

- *The number of science and engineering graduate students* in a state gives an indication as to the level of science training in the state. Although this measure does not 'capture' how many of these students remain in the state after graduation, "the history of industrial innovation indicates that new businesses are spawned, more often than not, in the same place entrepreneurs received their degrees." (Corporation for Enterprise Development)

- *The number of patents issued* is an indication of the level of innovation in a state. However, caution should be used with this number because patents are often issued at the site of an organization's headquarters, not necessarily at the location where the innovation was developed.

- *University research and development* provides a measure of the research and development spending at universities in a state (excluding private universities). Such research has often led to associated business development.

- There is also a correlation between *federal research and development* and private business development. However, in states where much of the federal research is classified, there is less likelihood of transfer to the private sector.

INNOVATION & TECHNOLOGY: KEY FINDINGS

- Kansas ranks last in the comparison group of surrounding states and 44th in the nation in terms of the number of Ph.D. scientists and engineers per 1,000 workers.

- Kansas ranks second in the group of surrounding states and tenth in the nation in the number of science and engineering graduate students per 1 million population.

- Kansas ranks fifth in the group of six comparison states and 31st in the nation in the number of patents issued per 1 million population.

- Kansas ranks fifth in the group of six comparison states and 35th in the nation in university research and development at $46.28 per capita.

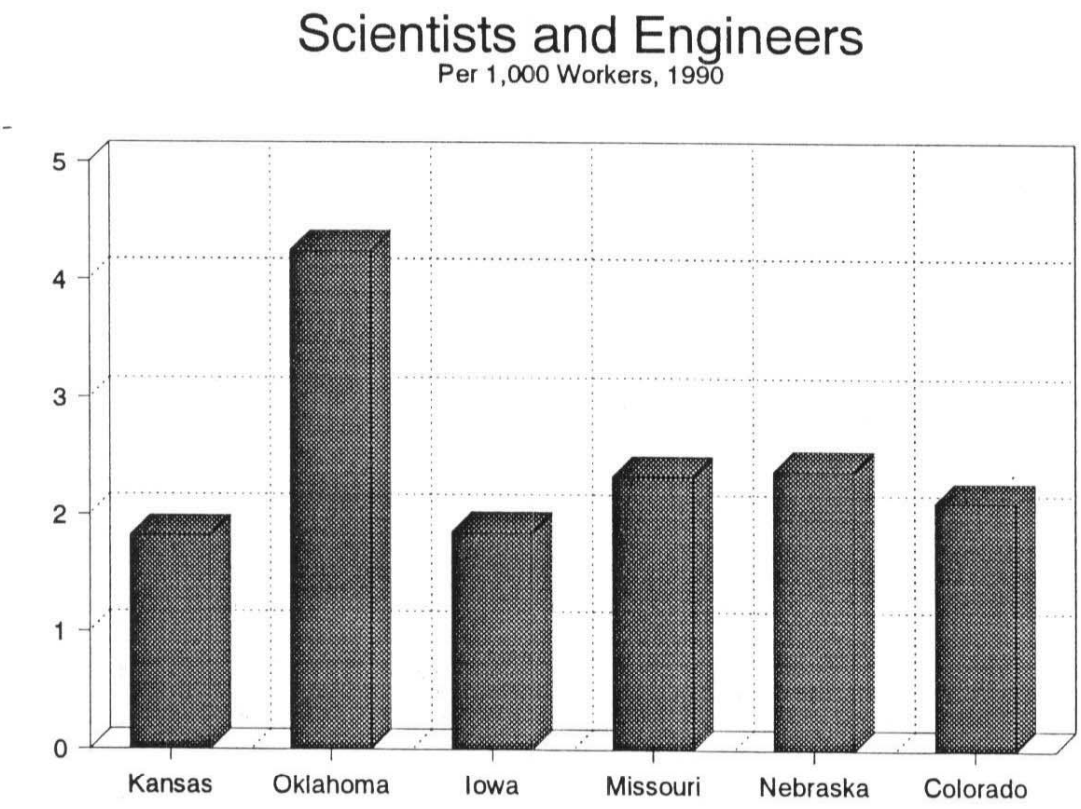
- Among the six comparison states, Kansas ranks 4th in federal research and development at $51.99 per capita, while it ranks 42nd in the nation.

- When the five measures listed above are combined into an index of technology resources, Kansas ranks last in the group of six comparison states and 41th in the nation.

- In an effort to develop its technology resources, Kansas has been a leader in state policy designed to develop technology and innovation.

INNOVATION AND TECHNOLOGY: DATA ANALYSIS

Figure 9.1

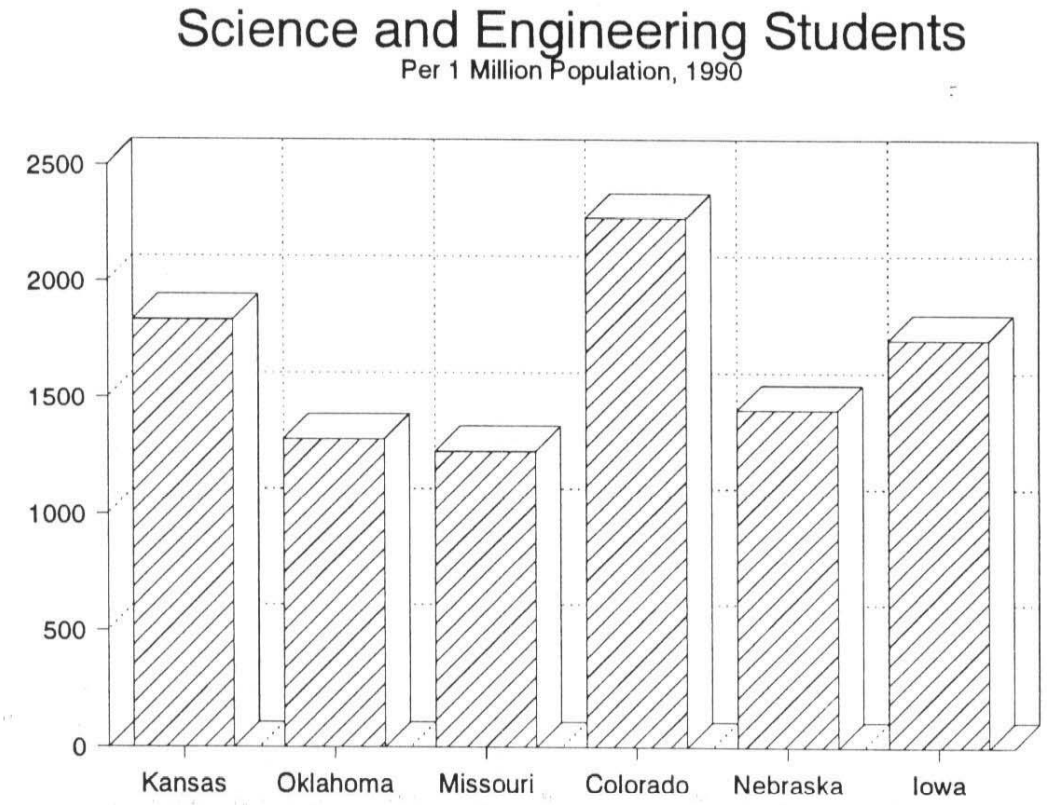


Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

- While Kansas ranks last in the comparison group of surrounding states and 44th in the nation in the number of Ph.D. scientists and engineers per 1,000 workers, it ranks second in the group of surrounding states and tenth in the nation in the number of science and engineering graduate students per 1 million population.

- Conversely, Missouri ranks third in the comparison group of six states and 31st in the nation in the number of Ph.D. scientists and engineers per 1,000 workers. However, Missouri ranks last among the comparison group and 34th in the U.S. in the number of science and engineering graduate students per 1 million population. This could possibly be partially the result of Kansas graduates working in Missouri after graduation.

Figure 9.2



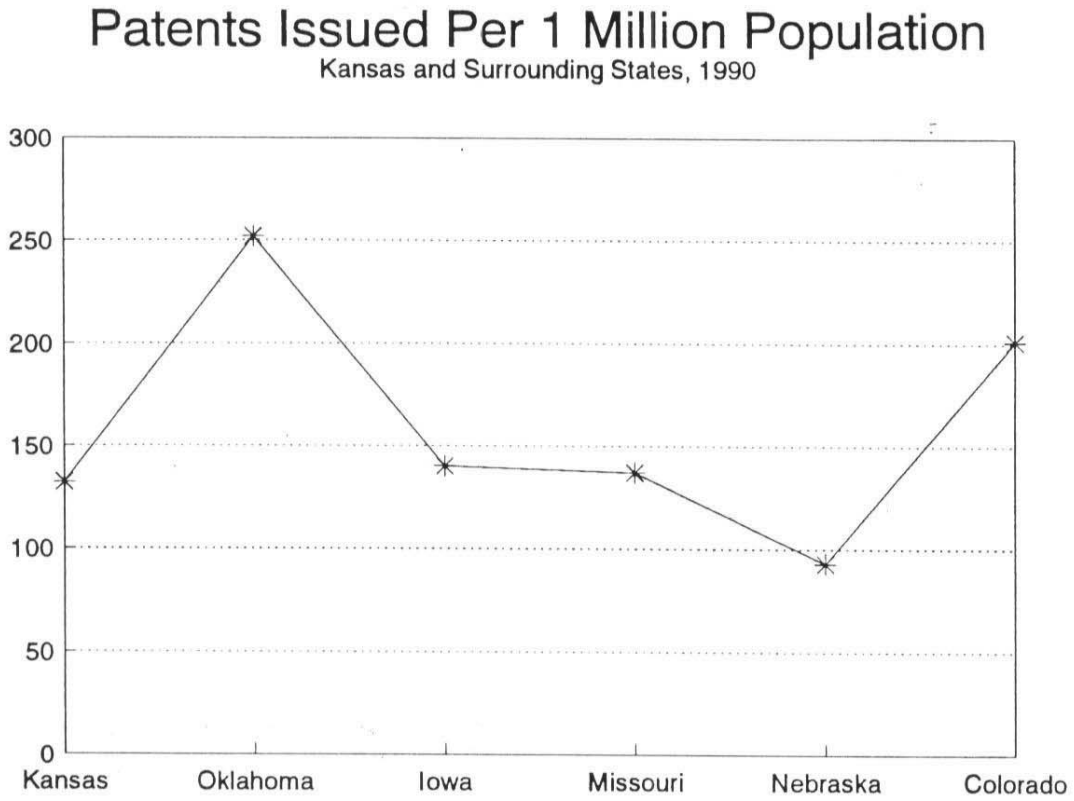
Source: Corporation for Enterprise Development, *The 1991 Development Report Card for the States.*

Table 9.1
Science and Engineering Professionals and Students
Kansas and Surrounding States, 1989/1990

	Ph.D. Scientists & Engineers Per 1,000 Workers[1]	Rank	Science & Engineering Students Per 1 Million Population[2]	Rank
Kansas	1.82*	44	1,808*	10
Oklahoma	4.24*	6	2,300*	2
Iowa	1.85*	43	1,709*	14
Missouri	2.33*	31	1,233*	34
Nebraska	2.38*	29	1,399*	26
Colorado	2.11*	38	1,281*	30

[1]1989 data; [2]1990 data. *Numbers are rounded.
Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

Figure 9.3



Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

- Kansas ranks fifth in the group of comparison states and 31st in the nation in the number of patents issued per 1 million population.

Table 9.2
Patents Issued Per 1 Million Population[1]
Kansas and Surrounding States, 1990

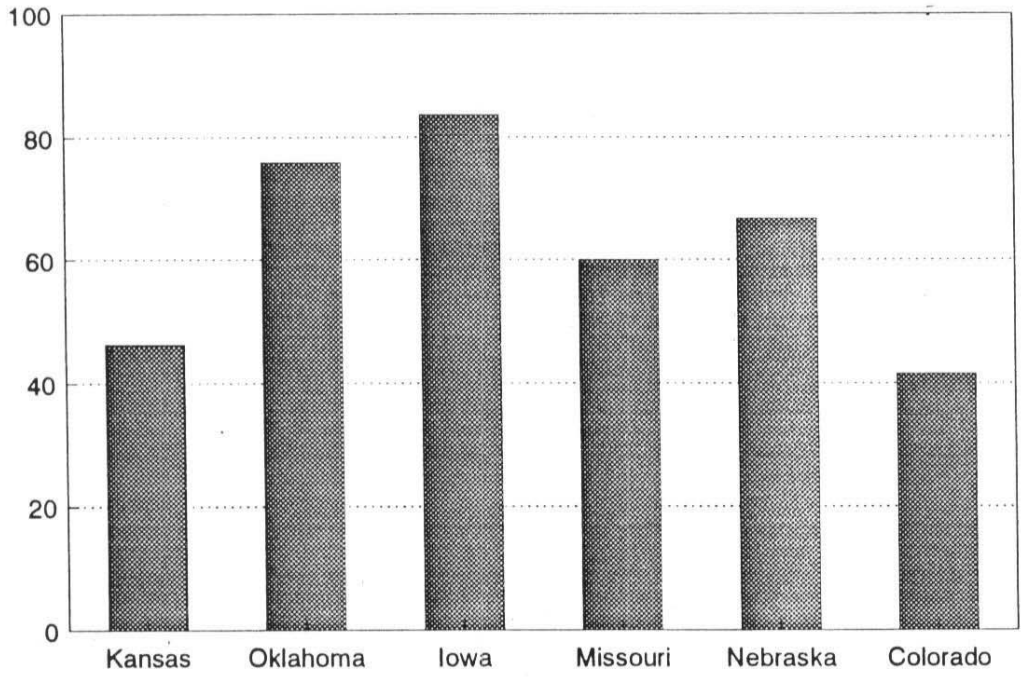
	Number*	Rank
Kansas	132	31
Oklahoma	252	11
Iowa	140	27
Missouri	137	28
Nebraska	93	38
Colorado	201	19

[1]1990 data; *Numbers are rounded.
Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

Figure 9.4

University Research and Development

Per Capita, 1990



Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

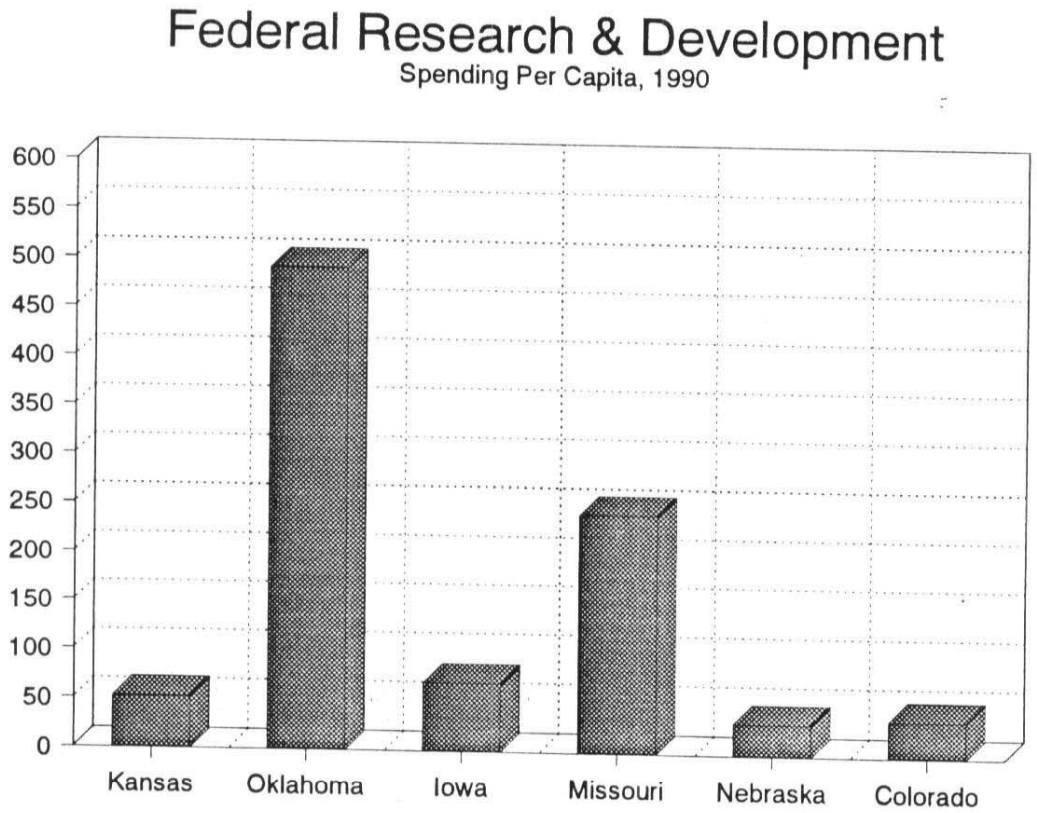
- Kansas ranks fifth in the group of six comparison states and 35th in the nation in university research and development at $46.28 per capita.

Table 9.3
University Research and Development Per Capita[1]
Kansas and Surrounding States, 1990

	$	Rank
Kansas	46.28	35
Oklahoma	75.87	11
Iowa	83.60	7
Missouri	54.94	29
Nebraska	66.76	18
Colorado	41.53	39

[1]1990 data.
Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

Figure 9.5



Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

- Among the six comparison states, Kansas ranks 4th last in federal research and development at $51.99 per capita, while it ranks 42nd in the nation.

Table 9.4
Federal Research & Development Spending Per Capita[1]
Kansas and Surrounding States, 1990

	$	Rank
Kansas	51.99	42
Oklahoma	491.18	4
Iowa	68.76	34
Missouri	242.70	12
Nebraska	32.45	47
Colorado	37.37	46

[1]1990 data.
Source: Corporation for Enterprise Development, *The 1992 Development Report Card for the States.*

- When the five measures are combined into an index of technology resources, Kansas ranks last in the group of six comparison states and 41st in the nation with a grade of "C".

Table 9.5
Technology Resources Subindex of
Development Capacity Report Card

	Rank	Grade
Kansas	41	C
Colorado	2	A
Iowa	28	C
Missouri	30	C
Nebraska	34	C
Oklahoma	38	D

Notes: Rank ranges from 1 to 50 (for the number of states), with 1 being the best and 50 the worst. The rank and grade are based on the data from the five categories in the previous tables.
Source: Corporation for Enterprise Development, *The 1992 Development Report Card For The States."*

- In an effort to develop its technology resources, Kansas has been a leader in state policy designed to develop technology and innovation. Kansas tied for second (with Missouri and Oklahoma) among the six comparison group states in state policy for technology and innovation.

Table 9.6
State Policy Report Card, 1991
Technology & Innovation Subindex

	Rank	Grade
Kansas	7	A
Colorado	18	B
Iowa	1	A
Missouri	7	A
Nebraska	37	D
Oklahoma	7	A

Notes: Rank ranges from 1 to 50 (for the number of states), with 1 being the best and 50 the worst. The rank and grade are based on the data from the five categories in the previous table.
Source: Corporation for Enterprise Development, *The 1991 Development Report Card For The States."*

DESCRIPTION OF TECHNOLOGY POLICY EFFORTS

As mentioned above, Kansas has implemented policy aimed at developing the state's technology resources. The following is a description of efforts to increase the state's levels of technology and innovation.

Kansas Technology Enterprise Corporation (KTEC):

KTEC is a non-profit corporation that was created by the state of Kansas in 1987. KTEC's mission is "to create and maintain employment by fostering innovation, stimulating the commercialization of new technologies and promoting the creation, growth and expansion of Kansas enterprises."[1]

KTEC is involved in several programs that help develop the state's technology and innovation. They include:

1) Mid-America Manufacturing Technology Center (MAMTC)

In March 1991, the National Institute of Standards and Technology (NIST) awarded KTEC a $12.9 million grant (over six years) to help establish MAMTC. MAMTC's purpose is to help small manufacturers become more competitive and productive. A goal of MAMTC is to bring advanced manufacturing technology to Kansas firms. MAMTC provides assistance in four main ways:

i) Direct consultation-engineers visit companies, identify and resolve problems.
ii) Training-customized and general seminars and workshops.
iii) Networks-discuss problems, develop new relationships, tell MAMTC what is needed.
iv) Demonstrations-give companies a chance to see equipment without having to purchase it.

MAMTC accomplishes its goals through its head office in Overland Park, and regional offices in Manhattan, Wichita, Pittsburg, Lenexa, and Great Bend.

2) Centers of Excellence

The Centers of Excellence are research centers, based at universities throughout Kansas, that are designed to cater to the technical needs of Kansas businesses. There are five Centers of Excellence, each with its own technology focus:

a) Advanced Manufacturing Institute (AMI). Located at Kansas State University, this Center works with Kansas companies to "enhance their manufacturing technology, develop new products, and increase productivity."

[1]This and all subsequent quotes in this section taken from: Kansas Technology Enterprise Corporation. (1991). *1991 Annual Report.* Topeka.

b) Center for Excellence in Computer Aided Systems Engineering (CECASE). Located at the University of Kansas, this Center conducts research into "methodologies for computer aided analysis and design of advanced engineering systems, and the development of (sic) prototype software products."

c) Center for Technology Transfer (CTT). Located at Pittsburg State University, this Center's technical expertise and research programs help companies design, test, and develop prototypes, products and processing methods.

In addition, CTT works with the Institute for Economic Development at Pittsburg State University in order to provide clients with expertise in management methods, capital creation, and technology transfer.

d) Higuchi Biosciences Center (HBC). This center, located at the University of Kansas, includes the Center for Biomedical Research, the Center for Bioanalytical Research, the Center for Drug Delivery Research, and the Center for Molecular Engineering and Immunology.

The research foci of these Centers include the "three activities that are essential to the preclinical phase of drug therapy development-analysis, delivery, and formulation."

e) National Institute for Aviation Research (NIAR). This Center at Wichita State University. caters to the research and technology needs of the aviation industry.

3) Applied Research Matching Fund

KTEC awards funds to private businesses and Kansas educational institutions for projects that "apply current scientific and technological knowledge and lead to new developments that can have a positive impact on the Kansas economy." Each application for funds is carefully screened by KTEC and a network of technical experts. If the application is accepted, KTEC will fund up to 40 percent of the project's costs.

4) Small Business Innovation Research Grants

Under this program, KTEC will provide matching funds up to a maximum of $5,000 per proposal to small Kansas businesses to be used for preparation of proposals to federal agencies under the Small Business Innovation Research (SBIR) program. Proposals that meet the federal requirements are eligible for up to $500,000 in federal grants. Eligible firms may receive up to three grants from KTEC annually.

In addition, KTEC also offers a "support network for SBIR concept evaluation, identification of appropriate SBIR solicitation topics, federal agency contact, and technical assistance." The cost of using the network qualifies for SBIR matching funds.

5) Training Equipment Grants

In FY 1989 and 1991, KTEC matched funds with seven Kansas area vocational technical schools and community colleges in order to finance training equipment necessary to train Kansas workers at current levels of technology.

6) Kansas Agriculture Value-Added Processing Center (KVAC)

Associated with Kansas State University, the KVAC makes efforts to "enhance agricultural, economic and rural revitalization by promoting the growth of value-added processing facilities in Kansas."

7) Ad Astra Fund

In a limited partnership with a venture capital management firm, the state of Kansas and private industry combine funds to invest in "quality, high return investments in companies whose technology has a broad market appeal and a management team which is highly motivated, capable and dedicated to the creation of a successful business."

OTHER PROGRAMS

Kansas Industrial Training (KIT) and Kansas Industrial Retraining (KIR)

The Kansas Industrial Training program is offered through the Kansas Department of Commerce and is available to companies wanting to locate a new facility in Kansas or for existing companies wanting to expand their current Kansas workforce. The Kansas Industrial Retraining program is designed to assist restructuring Kansas companies whose employees may lose their jobs because of obsolete job skills and knowledge. Both programs are available to manufacturing, distribution, and regional or national service-related operations training 10 or more employees. Each company receiving KIT/KIR funds designs its own particular training program using its own supervisory staff, a vocational-technical school, a community college, consultants, or a mix of these to meet the company's specific training needs.

Therefore, if a firm desires to pursue new and advanced technologies, but does not have a local workforce capable of working with this technology, the KIT/KIR programs may be able to help.

Section X: Quality of Life

Quality of Life represents those characteristics which make a community a pleasant and enjoyable place to live. Healthy, stable communities have a climate which encourages young people to stay in their community and one which attracts new residents.

Individual viewpoints on Quality of Life are based upon personal values and may differ from person to person. In general, a good Quality of Life is based on many strengths, including low crime and poverty, a wide range of recreational activities, access to health and child care, and affordable housing.

In this section, the following measures are examined:

- *overall indices* take into account the number of volumes in public libraries (per capita), sites on the National Register of Historic Places, museums, local events, and state/ federal recreation areas;

- *crime index offenses* indicate social stability and level of public safety;

- *hospital beds and physicians* determine access to doctors and public medical infrastructure; *infant deaths* may pinpoint pockets of poverty or barriers to adequate health care; *adult care homes' licensed beds* demonstrate the local capacity to care for the elderly;

- *day care* and *preschool facilities* represent child care options for working families;

- *persons receiving food stamps* indicate the distribution of income within a community; and

- *contaminated water sites, underground storage tanks,* and *above-ground spills* highlight community environmental needs.

QUALITY OF LIFE: KEY FINDINGS

- Douglas County exceeded the other eight Kansas metropolitan counties in terms of the number of sites on the National Register of Historic Places and the number of state/federal recreation areas. However, it lagged behind the group when comparing the number of public library volumes per capita and the number of museums.

- The overall 1990 crime rate of Douglas County was much higher than the state average and was exceed by only three counties: Wyandotte, Shawnee, and Sedgwick. Douglas had a lower than average violent crime rate per 1,000 population thank did Kansas as a whole. The greatest increase in Douglas County's crime rate over the 1980-1990 period was due to an increase in property crime.

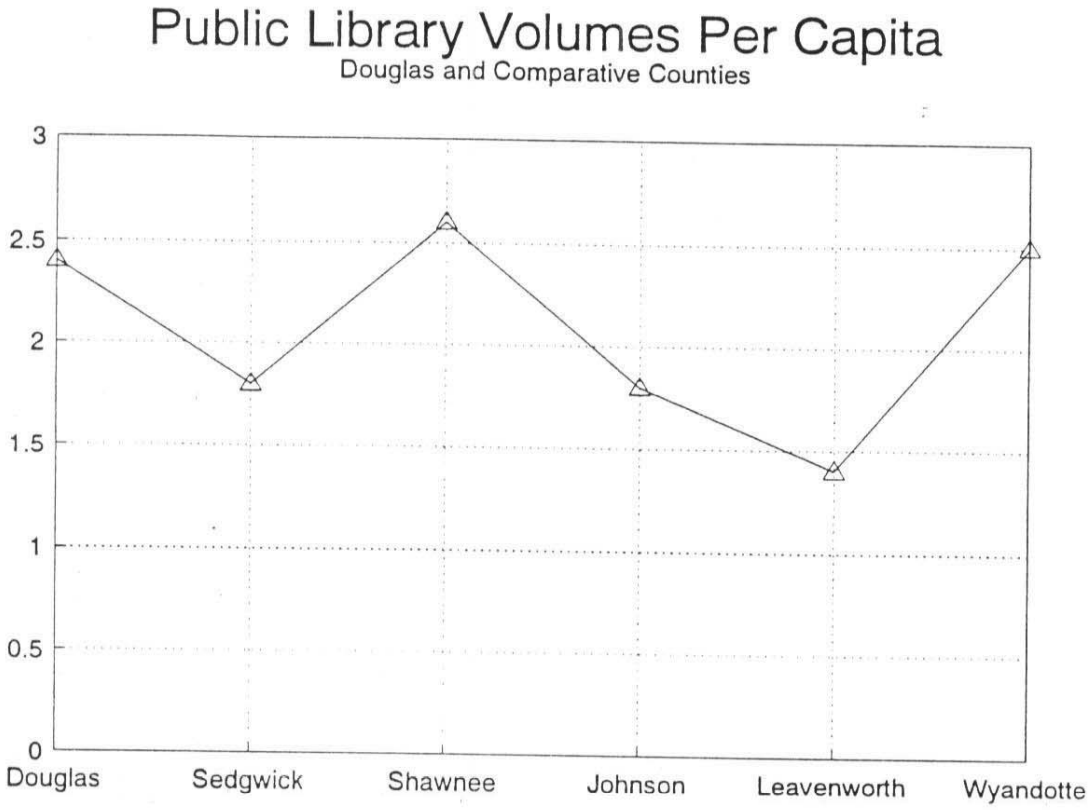
- When compared to the other eight Kansas metropolitan counties, Douglas had the lowest number of hospital beds per thousand population in 1989. The number of Douglas County's residents per physician was high, and both of these measures suggest that Douglas may not have medical services comparable to that of its peers.

- In 1989, the number of children per licensed day care centers and pre-schools in Douglas County exceeded the rate for the state and many of the comparative counties, perhaps indicating that there are limited child care options for working parents.

- There were fewer food stamp recipients per 1,000 population in Douglas County than in seven of the Kansas comparison counties. Although the overall number of Douglas County recipients increased 30.6 percent over the 1980-1989 period, this represented the fourth lowest percentage change in the nine Kansas counties.

- Environmentally speaking, Douglas County appears to be better than the majority of the Kansas metropolitan counties. Douglas had far fewer contaminated water/soil sites in 1991 and one of the highest number of sites resolved. There were only 9 above-ground spills in Douglas in 1991; only one of the eight comparative counties, Leavenworth had fewer.

Figure 10.1



Source: John Clements, *Flying the Colors: Kansas Facts*, Dallas, Texas: Central Research II, Inc., 1990.

- Douglas County's public libraries had 2.4 volumes per capita in 1990 and only three counties had less: Sedgwick (1.8), Johnson (1.8), and Leavenworth (1.4). Douglas also had fewer museums (3) than the majority of the counties. The data for libraries and museums did not include any educational institutions located in the counties.

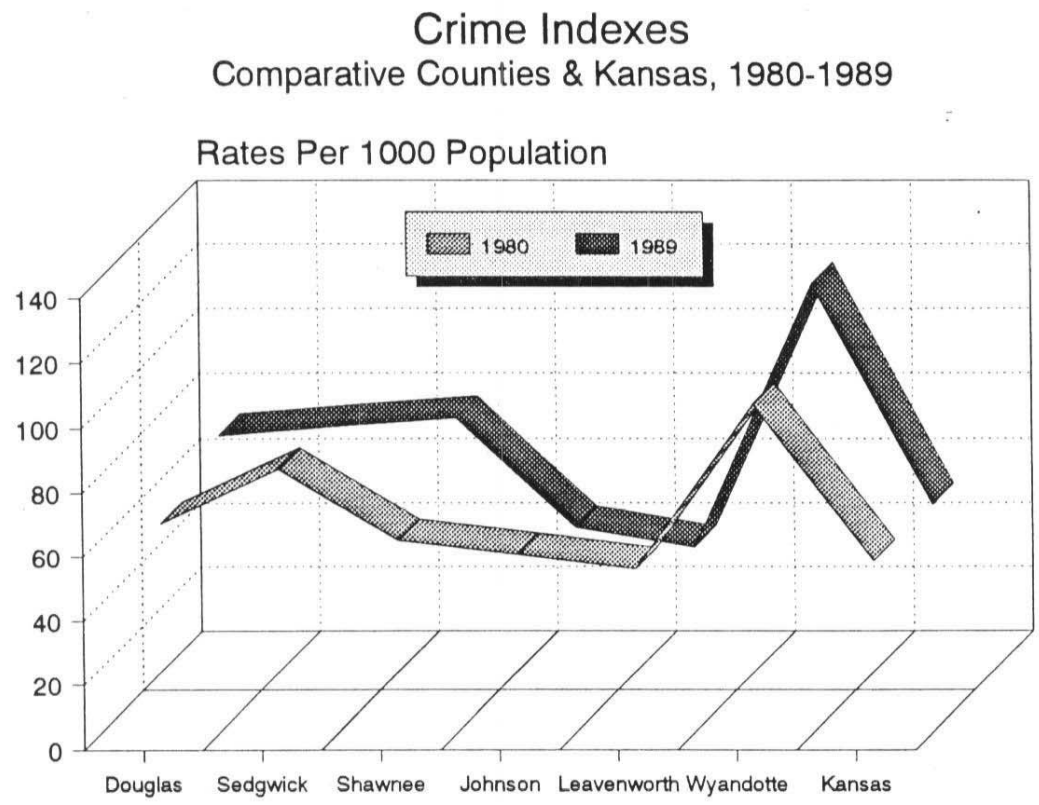
- Douglas had the largest number of sites (30) on the National Register of Historic Places and tied with Miami for the greatest number of state/federal recreation areas (4 each). Douglas also exceeded the counties' average number of annual community events.

Table 10.1
Quality of Life: Overall Indices
Douglas and Comparative Counties

	Public Library Volumes Per Capita	Number of Sites on National Register of Historical Places	Number of Museums	Number of Events[1]	Number of State/Federal Recreational Areas[2]
Douglas	2.4	30	3	33	4
Sedgwick	1.8	29	14	58	1
Shawnee	2.6	28	6	48	2
Butler	2.8	5	5	20	2
Harvey	5.0	10	4	24	--
Johnson	1.8	5	4	34	2
Leavenworth	1.4	16	3	21	2
Miami	2.9	7	1	12	4
Wyandotte	2.5	17	3	15	2

[1]Includes festivals, antiques/flea markets, product expositions, holiday/religious events, arts and crafts shows, athletic events, etc.
[2]Includes wildlife refuges and historic trails
Source: John Clements, *Flying the Colors: Kansas Facts*, Dallas, Texas: Central Research II, Inc., 1990.

Figure 10.2



Source: Kansas Bureau of Investigation, *Crime in Kansas 1988, 1989*; State of Kansas, *Uniform Crime Report, Crime in Kansas, 1980.*

- Douglas County's crime index rate grew slightly over the 1980-1990 period, increasing from 64.7 to 73.6, respectively. The largest increase came from property rather than violent crimes. Of the nine Kansas counties, Douglas had the fourth highest overall crime index in 1990, exceeded by Wyandotte (120.1), Shawnee (78.9), and Sedgwick (76.4).

- Although Douglas' 1990 overall crime rate was much higher than the state average of 52.1, its violent crime rate (4.2) was slightly lower than the state figure (4.5).

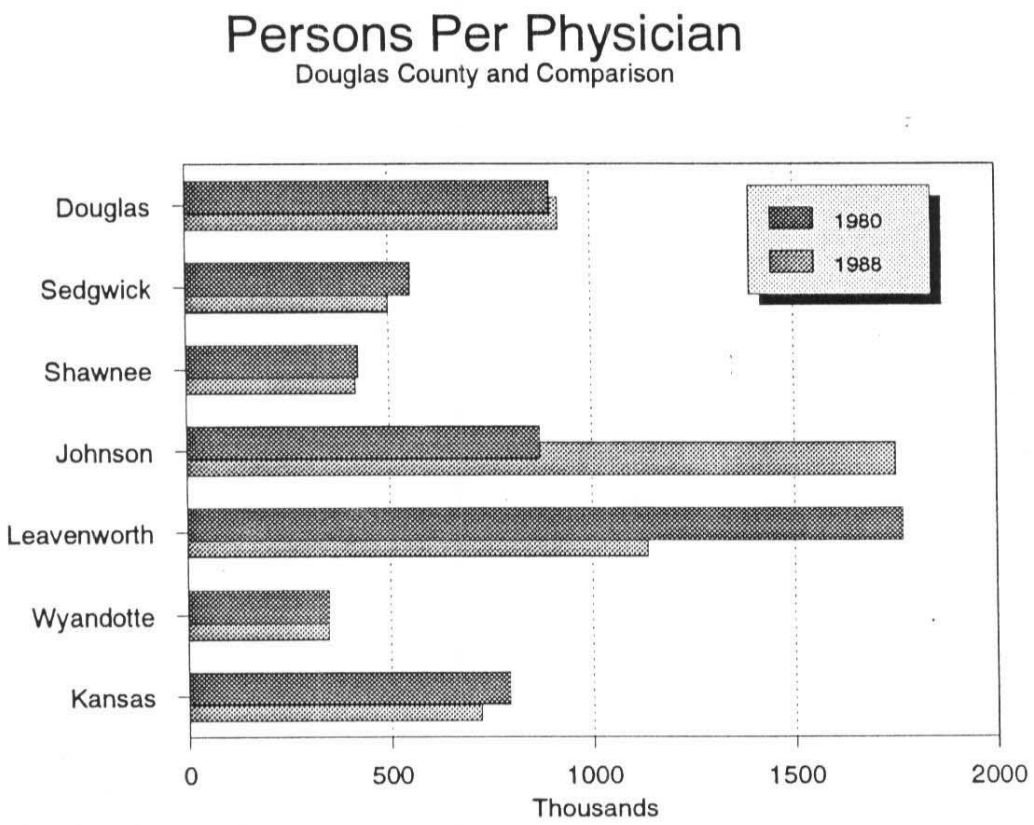
- While property crime rates fell over the 1980-1990 period in Sedgwick, Butler, Harvey, Johnson, Leavenworth, and Miami and the state, they increased from 60.7 to 69.4 in Douglas. However, this increase was not as dramatic as those in Shawnee and Wyandotte counties over the same period.

Table 10.2
Crime Indexes: Rate per 1,000 Population
Douglas, Comparative Counties, and Kansas, 1980 and 1990

	Crime Index Offenses		Violent Crime		Property Crime	
	1980	1990	1980	1990	1980	1990
Douglas	64.7	73.6	4.0	4.2	60.7	69.4
Johnson	54.9	44.9	3.2	2.7	51.8	42.1
Shawnee	59.3	78.9	4.7	7.9	54.6	71.0
Sedgwick	81.6	76.4	5.9	6.4	75.8	70.1
Butler	32.3	31.5	2.3	1.6	29.9	29.8
Harvey	33.2	26.1	1.1	0.9	32.0	25.2
Leavenworth	50.3	38.7	4.7	3.5	45.6	35.2
Miami	37.3	23.4	2.4	1.2	35.0	22.2
Wyandotte	101.6	120.1	13.3	18.4	88.3	101.8
Kansas	52.9	52.1	3.8	4.5	49.0	47.6

Note: Crime Index Offenses are murder, non-negligent manslaughter, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft.
Source: Kansas Bureau of Investigation, *Crime in Kansas 1988, 1989*; State of Kansas, *Uniform Crime Report, Crime in Kansas, 1980.*

Figure 10.3



Source: American Hospital Association, *American Hospital Association Guide to the Health Care Field, 1981 Edition; 1989 Edition*; Kansas Department of Health and Environment, Office of Information Systems and Computing.

- In 1989, Douglas County had the lowest number of hospital beds per thousand population of the nine Kansas counties and the state. Specifically, Douglas had 2.4 hospital beds per thousand population, which was half the state figure (6.0). Douglas also had a higher number of admissions per bed; its 1989 figure (30.0) ranked fifth out of the nine Kansas metropolitan counties.

- Over the 1980 to 1989 period, the number of hospital beds per thousand and admissions per bed fell.

- Unlike the larger comparison counties, Douglas did not have a relatively lower number of persons per physician. Its 1989 figure was the fourth highest: Butler (1,931), Leavenworth (1,750), Miami (1,138), and Douglas (922).

Table 10.3
Health Care Access: Hospital Beds and Physicians
Douglas, Kansas Comparatives, and Kansas, 1980 and 1989

	Number of Hospital Beds Per 1,000 Population[1]		Admissions Per Bed		Persons Per Physician	
	1980	1989	1980	1989	1980	1989
Douglas	3.5	2.4	33.6	30.0	902	922
Johnson	2.6	3.2	38.8	31.3	872	701
Shawnee	16.0	13.1	16.5	15.0	426	418
Sedgwick	6.8	5.0	26.2	35.4	556	500
Butler	5.2[2]	4.0	14.4	31.5	1947	1931
Harvey	13.7[2]	9.0	29.5	28.3	456	434
Leavenworth	14.2[2]	7.5	17.6	22.0	1768	1750
Miami	24.2	16.7	5.8	4.6	1663	1138
Wyandotte	7.6[2]	6.6	34.2	32.0	349	347
Kansas	7.5	6.0	23.1	24.3	794	723

[1]1980 admissions per bed based on total number of beds; 1989 based on number of bed in reporting hospitals.
[2]Incomplete data.
Source: American Hospital Association, *American Hospital Association Guide to the Health Care Field, 1981 Edition; 1989 Edition*; Kansas Department of Health and Environment, Office of Information Systems and Computing.

- Douglas County experienced 10 infant deaths in 1980, which was equivalent to 1.04 percent of the year's births in the county. Although this was close to the state figure of 1.01, it was the third highest rate, following those of Wyandotte (1.65) and Sedgwick (1.10). The rate dropped dramatically in 1987, with the county bearing only five deaths. This was equal to 0.47 percent of the year's births and was the lowest rate of the nine Kansas counties as well as the state.

Table 10.4
Number of Deaths, Infants Less Than 1 Year of Age, 1980 and 1987
Douglas, Comparative Counties, and Kansas

	Total Number of Deaths		Percent of Year's Births	
	1980	1987	1980	1987
Douglas	10	5	1.04%	0.47%
Johnson	35	30	0.87	0.52
Shawnee	25	25	0.97	1.00
Sedgwick	78	88	1.10	1.17
Butler	7	9	0.93	1.22
Harvey	3	6	0.56	1.38
Leavenworth	4	10	0.51	1.12
Miami	2	2	0.62	0.57
Wyandotte	58	37	1.65	1.19
Kansas	412	325	1.01	0.84

Source: KCCED County Database, from Kansas Department of Health and Environment, Bureau of Registration and Health Statistics, *Annual Summary of Vital Statistics*. IPPBR percentage calculations based on data from Kansas Department of Health and Environment, Office of Information Systems and Computing.

- The number of licensed beds in Douglas County adult care homes increased from 398 to 523 over the 1983-1990 period.

- As a result, the number of beds per population 65 and older remained constant over the period, 0.08. When comparing each county's number of beds on the basis of population, Douglas tied for fourth, behind Harvey (0.15), Miami (0.13), Shawnee (0.10), and Johnson (0.08). Douglas' figure also matched the state average.

Table 10.5
Adult Care Homes: Licensed Beds, 1983 and 1990
Douglas, Comparative Counties, and Kansas

	Number of Licensed Beds		Number of Beds Per Population 65 and Older	
	1983	1990	1983[1]	1990
Douglas	398	523	0.08	0.08
Johnson	1,413	2,591	0.07	0.08
Shawnee	1,794	2,139	0.10	0.10
Sedgwick	2,325	2,823	0.07	0.06
Butler	452	558	0.08	0.08
Harvey	731	764	0.16	0.15
Leavenworth	320	411	0.06	0.07
Miami	436	419	0.13	0.13
Wyandotte	1,169	1,180	0.06	0.06
Kansas	25,584	28,723	0.08	0.08

[1]Calculations based upon 1980 population totals.
Source: KCCED County Database, from Kansas Department of Health and Environment, Office of Information Systems and Computing.

- There were 42 licensed day care centers in Douglas County in 1989. On a child per center basis (children age 0-5), Douglas had approximately 146.6. This was the third highest ratio, following those of Leavenworth (261.0) and Butler (156.4).

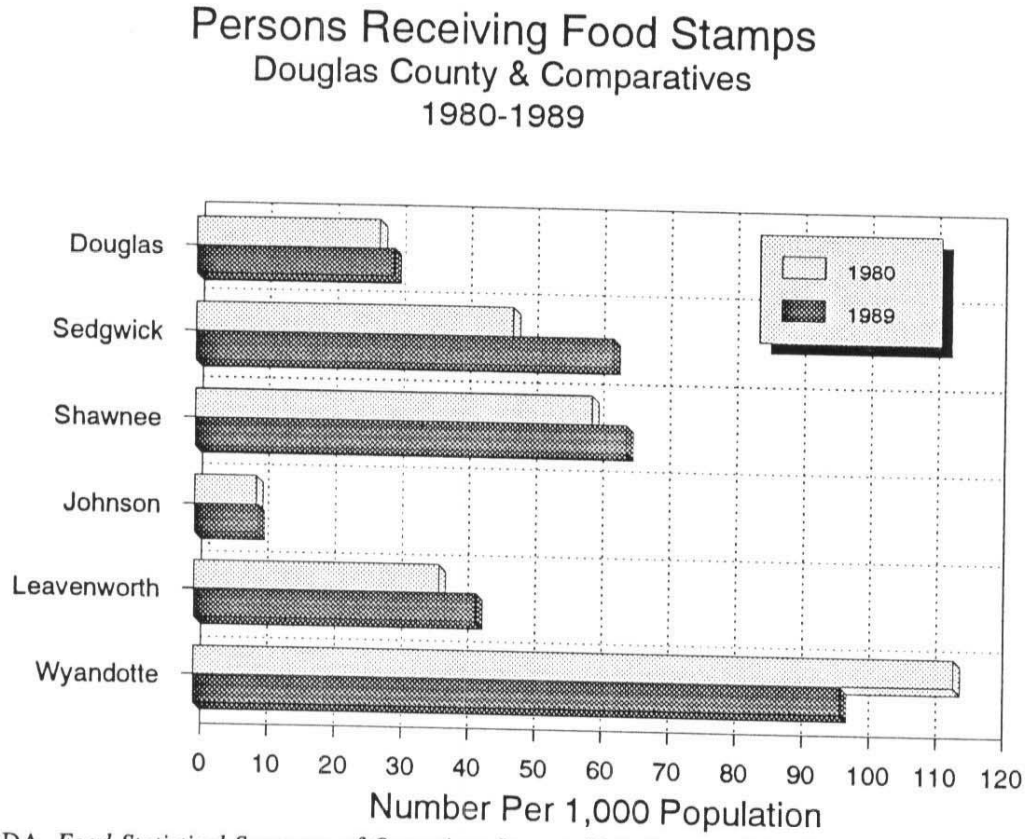
- Similarly, the number of pre-schools in Douglas County totalled five, which was equivalent to 398.0 children per center. This was the second highest figure and was exceeded only by Wyandotte (453.0). The data for licensed day care centers and pre-schools suggests that there are limited child care options for working parents in Douglas County.

Table 10.6
Access to Day Care and Preschool, 1989
Douglas, Comparative Counties, and Kansas

	Number of Licensed Day Care Centers		Number of Pre-schools	
	Total	Children Per Center[1]	Total	Children Per School[2]
Douglas	42	146.6	5	398.0
Johnson	580	58.0	32	355.8
Shawnee	425	33.2	18	263.7
Sedgwick	295	139.9	40	344.0
Butler	30	156.4	9	183.7
Harvey	22	116.7	6	153.0
Leavenworth	21	261.0	10	191.2
Miami	27	76.3	4	177.8
Wyandotte	158	102.6	12	453.0
Kansas	3,177	71.7	404	191.0

[1]Calculations based upon number of persons aged 0-5 according to 1990 population totals.
[2]Calculations based upon number of persons aged 3-4 according to 1990 population totals.
Source: Robert H. Poresky, Department of Human Development and Family Studies (Kansas State University), Kansas Department of Health and Environment, Bureau of Adult and Child Care Facilities. Data collected by KCCED/IPPBR, KCRI/KSU.

Figure 10.4



Source: USDA, *Food Statistical Summary of Operations Report*, U.S. Bureau of the Census, *County City Databook, 1988.*

- The number of persons receiving food stamps in Douglas County increased 30.6 percent, from 1,849 to 2,414 persons over the 1980-1989 period. This was the fourth lowest percentage change and was relatively close to the state average over the same period.

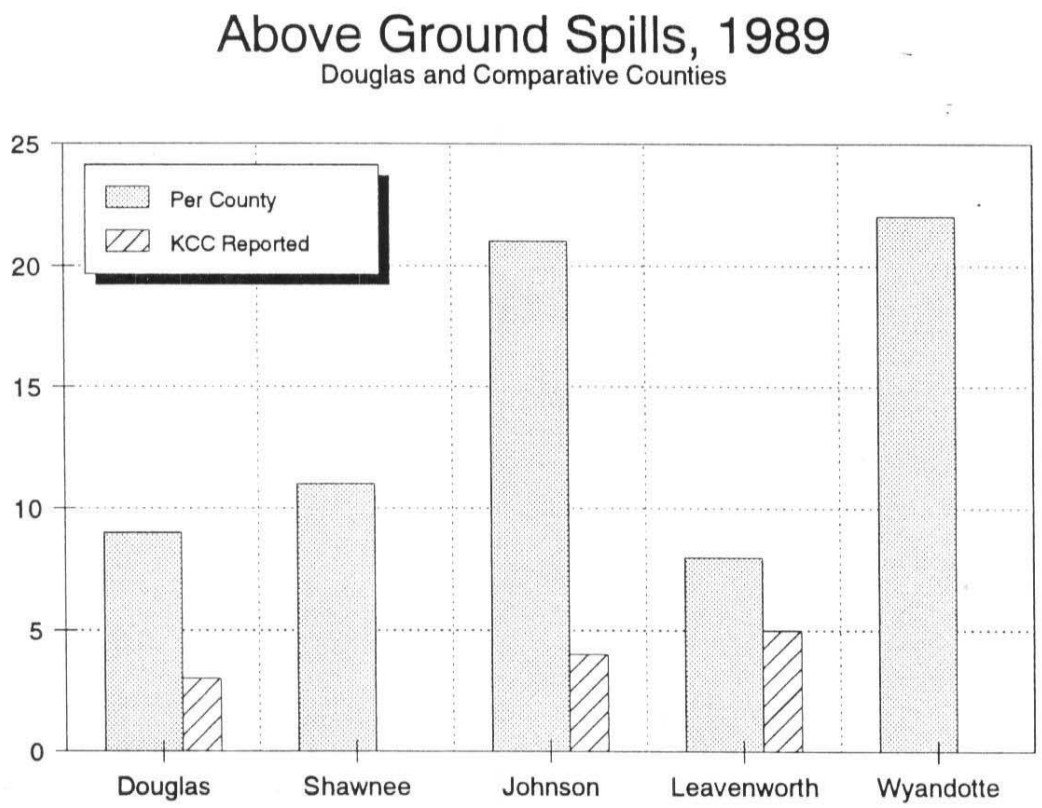
- When computed on a per 1,000 population basis, Douglas County had the second lowest number of food stamp recipients in 1989, 29.5. Only one county, Johnson, was lower.

Table 10.7
Number of Persons Receiving Food Stamps, 1980 and 1989
Douglas, Comparative Counties, and Kansas

	Persons Receiving		Per 1,000 Population		Percent Change
	1980[1]	1989[2]	1980	1989	1980-1989
Douglas	1,849	2,414	27.3	29.5	30.6%
Johnson	2,473	3,375	9.2	9.5	36.5
Shawnee	9,190	10,384	59.3	64.5	13.0
Sedgwick[3]	17,412	25,228	47.4	62.5	44.9
Butler	1,357	2,210	30.3	43.7	62.9
Harvey	596	1,151	19.5	37.1	91.1
Leavenworth	1,992	2,717	36.6	42.2	36.4
Wyandotte	19,585	15,657	113.6	96.7	-20.1
Kansas	98,410	127,734	41.6	51.6	29.8

[1]1980 food stamp data based on figures from July 1980.
[2]1989 data is an average from semiannual reports for January and July 1989.
[3]Sedgwick County data is for "Wichita Area District".
Source: KCCED County Database, from USDA *Food Statistical Summary of Operations Report*, U.S. Bureau of the Census, *County City Databook, 1988.*

Figure 10.5



Source: *Summary of Bureau of Environmental Remediation Sites in Kansas for 1991*, Topeka, Kansas: Kansas Department of Health and Environment, March 1992

- Douglas County had far fewer contaminated water/soil sites than most of the other Kansas counties. In 1991, Douglas had three sites, with the most common contaminant being inorganic material. Only one county, Miami, had fewer.

- The number of contaminated sites resolved in Douglas in 1991 exceeded that in the other eight Kansas metropolitan counties and the state.

Table 10.8
Contaminated Water/Soil Sites
Douglas, Kansas Comparatives and Kansas, 1991

	Number of Sites[1]	Most Common Contaminants	Most Common Source	Number of Resolved Sites[2]
Douglas	3	Inorganic[3]	Lagoon[4]	5
Johnson	10	Volatile Organic	Lndfl/Tank[4]	5
Shawnee	11	Volatile Organic	Spill/Lndfl/Dmping[4]	0
Sedgwick	52	Volatile Organic	Facil.Operation	6
Butler	13	Volatile Organic[3]	Spill[4]	2
Harvey	9	Inorganic	Spill/Oil Prod[4]	1
Leavenworth	7	Other/Vol.Organic[3]	Dmping/Lndfl/Aban[4]	0
Miami	1	Pesticide	Agriculture	1
Wyandotte	22	Volatile Organic	Spill[4]	10
Kansas	387	Volatile Organic/Inorg	Salt/Oil Prod	88

[1]Sites being investigated, cleaned up, or monitored during year.
[2]Sites which have been: a) cleaned-up and inspected; b) monitored for post-clean up; or c) no remedial action necessary.
[3]Sole material and/or combined with other materials.
[4]Sole source and/or combined with other sources.
Source: *Summary of Bureau of Environmental Remediation Sites in Kansas for 1991*, Topeka, Kansas: Kansas Department of Health and Environment, March 1992

- The number of active/registered underground storage tanks in Douglas County stood at 304 in 1991. Butler, Leavenworth, Harvey, and Miami Counties had fewer. Fifty-eight underground storage tanks were removed in Douglas during 1991.

- Only nine above ground spills were reported in Douglas during 1991, with three of those taking place on active oil leases. Only Leavenworth had fewer spills overall (eight), but none of its spills were on oil leases.

Table 10.9
Underground Storage Tanks and Above Ground Spill Sites, 1991
Douglas, Comparative Counties, and Kansas

	Underground Tanks		Spills	
	Active/ Registered	Number Removed	Per County	KCC Reported[1]
Douglas	304	58	9	3
Johnson	1,088	142	21	4
Shawnee	924	137	11	0
Sedgwick	1,997	386	86	9
Butler	273	22	29	20
Harvey	198	46	12	9
Leavenworth	245	65	8	5
Miami	101	26	16	15
Wyandotte	873	130	22	0
Kansas	14,828[2]	2,656[3]	1,031	567

[1]Includes spills which occur on active oil leases.
[2]Of those storage tanks, 12,656 are permitted, 764 are out of service, and 1,408 are of unknown status.
[3]Approximate.
Source: *Summary of Bureau of Environmental Remediation Sites in Kansas for 1991*, Topeka, Kansas: Kansas Department of Health and Environment, March 1992.

Section XI: Summary of Strengths, Weaknesses Opportunities and Threats

Understanding the economic, social and demographic trends which have been occurring and are likely to occur is an important first step in developing a strategic plan for the future. Throughout this report, Douglas County's performance has been related to that of similar areas in order to provide a context for evaluating whether Douglas' performance has been relatively good or relatively poor. This section provides a brief summary of these comparisons, organized into strengths and weaknesses. This will help identify where action can or should be taken to either address a problem or to build upon an area of strength within the community. If present trends continue, changes in the world around Douglas County will present conditions which will either be favorable (opportunities) or unfavorable (threats) for Douglas County's well-being. It is from this context that priorities can be determined, and specific action proposals can be developed.

The following list of strengths, weaknesses, opportunities and threats is not intended to be exhaustive. It is intended merely as a beginning point, drawing upon some of the conclusions of this report, and should be supplemented with the conclusions of other reports, discussions, public meetings, surveys, and importantly, local common knowledge about community conditions.

STRENGTHS

- Large proportion of population of working age
- High degree of ethnic diversity
- Housing prices below national median
- Highly educated adult population
- Stable university and college enrollment
- Broad base of post-secondary institutions
- Increasing per-pupil public school expenditures
- Pupil-teacher ratio comparable to that of similar areas
- Comparatively low high school dropout rate
- Relatively low rates of the adult population with less than basic (elementary) education
- Recent high rates of net job creation
- High rates of part-time and seasonal employment indicate high degrees of flexibility in the workforce
- Proximity to Johnson County Kansas, one of the fastest growing areas in the nation
- Proximity to land transportation routes linking key markets in metro areas
- Diverse economic base -- sizable firms in nearly all sectors
- Persistently low unemployment rates

Strengths - continued

- High rates of growth in total employment
- High rate of growth in services sector
- Strong growth performance in retail sector
- Major growth in finance, insurance, and real estate sector
- Stability in number of manufacturing jobs
- Steady, high retail sales growth
- High measures of relative banking strength
- Aggressive lending by commercial banks
- University of Kansas faculty, graduates, and research projects provide locally accessible technological resources
- Two of the Centers for Excellence located at KU
- Violent crime rate lower than state average
- Low poverty rates for all "non-student" age categories and low numbers of persons requiring food stamp assistance
- Family-household incomes higher than the state average

WEAKNESSES

- High proportions of the population are students or are in 'dependent' age categories
- Low rates of homeowner occupancy; greater emphasis on rental units than that of similar areas - suggests possibilities for less neighborhood commitment or stability
- Low long-term vacancy rate may indicate tight housing market
- Low housing unit to household ratio, indicating tight market
- High degree of part-time and seasonal workers suggest high rates of employee turnover, and potential for higher training/job vacancy costs for employers
- Low average earnings per job
- Despite high rates of job creation during the 1980s, average earnings per job declined in relative terms, indicating more of the growth was in lower paying jobs
- Comparatively low per capita income
- Nonresidential construction lags behind that of similar areas
- Relatively poor access to vocational-technical education due to absence of a public community college or vo-tech center
- Development of finance, insurance, and real estate sector lags behind that of similar areas
- Lower total bank assets per capita than in comparable areas
- Inefficiency in banking operations indicated by high overhead expenses
- Property crime rate much higher than state average
- Relatively low per capita health care resources (hospital beds, physicians, etc.)
- High ratio of children per child care facility
- Considerable divergence in relative income levels between family and non-family households
- High proportions of non-family households earning less than $15,000 per year

OPPORTUNITIES

- Continued population growth forecast for Douglas County
- Population growth rates considerably higher than most comparable areas
- Douglas County seen as a desirable place to live; Sustained high rates of net in-migration
- Large growth in civilian labor force
- Continued growth of Johnson County, combined with increased utilization of Highway K-10 provides increased opportunities for associated growth and development
- Increasing importance of proprietorships and investments as sources of income in Douglas County indicate possibilities for continuing growth in entrepreneurship
- Significant growth in number of business firms
- Higher growth in return on banks' financial assets than that of comparable areas in Kansas
- Venture capital and development resources and investments located in Douglas County
- Kansas policy initiatives for technology-related development are highly favorable to this type of development; KU presence a complementary resource
- Close proximity to Mid-America Manufacturing Technology Center in Overland Park
- Relatively low tax rates and relatively low rates of local government debt provide flexibility for future public investment opportunities
- Finance, insurance and real estate industry remain relatively underdeveloped and potential may exist for expansion of this sector at the local level

THREATS

- Housing unit construction lags behind household formation
- Continuation or acceleration of higher than average rent increases/property value increases in Douglas County will present affordability problems
- Continued rapid growth of labor force could generate higher rates of unemployment if job creation rates are not sustained
- Gap between Douglas County and similar areas in levels of earnings
- Levels and growth rates of per capita income lag behind those of similar areas
- High rates of part-time and seasonal employment make Douglas County more vulnerable to short term economic adjustments
- Relatively high proportion of residents employed outside of the county
- Very large increase in commercial and passenger highway traffic may create demands for investments in highway infrastructure
- Strong community impact of KU makes Douglas County vulnerable to state decisions regarding college enrollment and tuition policies
- Kansas has performed poorly with respect to innovation and technology
- Relatively limited medical infrastructure may need expansion and improvement as population ages