

**Business Taxes in Kansas and Nearby States
Volume 2: Results from a Tax Simulation Model**

Final Report of the Kansas Inc. Business Tax Study

prepared for
Kansas Inc.

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August, 1990

Report No. 179c

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Acknowledgements

This research is part of a two volume study of business taxes in Kansas and nearby states funded by Kansas Inc. Charles Warren, President of Kansas Inc., and Jerry Lonergan, Vice President for Research, provided a framework for the study, and provided useful insights throughout its implementation.

Dr. Mohamed El-Hodiri provided the primary direction of the project. Dr. Anthony Redwood and Dr. David Burress contributed many valuable suggestions. Dr. Larry Hoyle, IPPBR Director of Computer Services, wrote the prototype computer program for producing Kansas county maps. Kshama Gargesh, Scott Muyskens, and Alyn Pennington provided able assistance with data collection, computer programming, and graphics throughout the project.

Introduction

Business taxation continues to be a major concern of legislators, policy makers, and other community leaders. Kansas must offer a sufficiently attractive business climate in order to maintain jobs, income, and a high standard of living in the 1990s. The business climate in a state depends on the productivity of its labor, the proximity of the state to major markets, the strength of its educational system, the quality of life in its communities, and a multitude of factors in addition to taxation. But taxes remain a focus of attention because, unlike quality of life factors, they fall under the direct control of state decision makers.

Kansas Inc. has recently funded a two-part study of business taxation and business costs in Kansas and five nearby states: Colorado, Iowa, Missouri, Nebraska, and Oklahoma. The first part of the study, presented in Volume 1 of the Final Report, describes state and local taxation in the region. The report presents a historical overview and then turns to a detailed comparison of specific taxes on income, labor, sales, and property. The study considers the basic tax rate structures of the states and identifies the numerous tax incentives available to new and expanding businesses.

The second part of the study, presented in Volume 2 of the Final Report, takes a quantitative approach to interstate tax comparisons. The Institute for Public Policy and Business Research developed a tax and cost simulation model to analyze the impact of business taxes on typical firms in each of several important industries. The estimates of taxes and costs provided by the simulation model provide insights into whether taxes place Kansas at a competitive disadvantage.

How do State and Local Taxes Affect Businesses?

Throughout the 1980s, state and local governments played an increasingly active role in trying to attract and retain jobs. Their efforts were particularly intense in areas which experienced declines in traditional manufacturing and extractive industries due to changes in global competitive conditions. Tax policy was a major focus of the attempt to stimulate a healthy economy both nationally and in the states. At the national level, reforms during the mid-1980s lowered marginal tax rates for corporations. Several states followed with their own rate reductions, including Colorado, which lowered the corporate tax rate for upper income brackets. However, much of the push for state tax reform during the 1980s was directed toward the use of special tax credits and abatements. Tax incentives, along with other inducements such as industrial revenue bond financing, dominated much of the state and local involvement in efforts to encourage business growth.

State and local governments have spent considerable time and money developing and implementing both general tax reforms and specific tax incentive programs. Ironically, there is considerable debate about whether the general level of state and local taxation, or any of the specific abatement programs, influence job and investment growth. The issue has been examined numerous times and in numerous ways.¹ Studies examining the impact a state's general tax structure have arrived at mixed and often contradictory conclusions. Recently a consensus seems to be emerging that increases in overall state tax effort negatively affect state income growth.² However, the question of whether business taxes or personal taxes most affect growth is still unsettled.

Like studies examining general taxes, studies of the effect of specific incentives also have failed to resolve the question of whether the programs stimulate growth. For example, Steinnes³ finds no

¹ Two good surveys of the literature are Joseph L. Bast, John H. Beck, Robert J. Genetski, Richard C. Rue, and John W. Skorborg, *Coming Out of the Ice: A Plan to Make the 1990s Illinois' Decade* (Chicago: Heartland Institute, 1989); and Roger Wilson, *State Business Incentives and Economic Growth: Are They Effective? A Review of the Literature, Economic Development in the States*, vol. 1 (Lexington, Kentucky: Council of State Governments, 1989).

² Bast, *Coming Out of the Ice*, p. 20.

³ Donald Steinnes, "Business Climate, Tax Incentives, and Regional Economic Development," *Growth and Change*, 15, no.2 (1984), 38-47.

evidence that industrial bond finance incentives increase the number of jobs in manufacturing or services; in contrast, Papke⁴ discovers that subsidized bond financing positively affects the number of new firms locating in a state. Papke also finds that tax incentives influence firm location through their effect on the after-tax rate of return of a new investment.

In summary, the academic literature has offered policy makers little clear guidance about the proper role of taxation in state economic development strategies. If, as Papke argues, both corporate tax rates and incentives influence firm locations, then state and local governments must be extremely concerned that they create a competitive tax environment; alternatively, if personal taxes are more responsible for economic growth than corporate taxes or incentives, the emphasis on incentive packages may be ineffective, and, in fact, wasteful. Blair and Premus suggest that choosing a location for a new establishment is really a two stage process, with the firm choosing a general region for investment in the first stage and a specific site in the second stage.⁵ Taxes and incentives may become important at the second stage for firms which have already decided to locate in a particular region.

⁴ Leslie E. Papke, *The Influence of Interstate Tax Differentials on the Birth of New Firms: Estimates of a Poisson Process*, Center for Tax Policy Studies Paper no. 9 (West Lafayette, Indiana: Purdue University, November 1986).

⁵ John P. Blair and Robert Premus, "Major Factors in Industrial Location: A Review," *Economic Development Quarterly*, 1, No.1 (1987), 72-85.

Simulation Model Goals, Assumptions, and Data

Overview of Tax Simulation Model

The IPPBR Tax Simulation model provides a flexible method for comparing taxes and costs across states. Although the model cannot answer the question of how strongly taxes influence firm location decisions, it does develop a framework in which the question can be posed. The model produces estimates of key variables affecting a firm's location decision: the amount of the firm's federal, state, and local taxes, the cost of the firm's inputs, and the costs of assets such as land and buildings.

The model was developed with several goals in mind:

1. to estimate the business costs and taxes of a typical firm in each of 15 important industries.
2. to differentiate taxes and costs on the basis of city size--urban areas, medium sized cities (under 50,000 population), and small cities (under 15,000 population).
3. to rank the states in the region on the basis of taxes and other business costs.
4. to provide a quantitative measures of the value of business tax incentives to new firms.
5. to compare the magnitude of interstate tax differences with interstate differences in basic costs such as land and labor.
6. to analyze the impact of selected tax changes on selected Kansas industries.

Industries Examined by the Simulation Model

Kansas Inc. selected 15 industries as a representative sample of economic activity. The list in Table 1 includes agricultural based industries such as meat products, traditional heavy industry such as construction machinery manufacturing, high technology manufacturing such as pharmaceutical products, and service industries such as telephone communications and data processing.

Cost and Asset Profiles

A key step in developing the Tax Simulation Model involved the construction of cost and asset profiles for typical firms. Table 2 shows an example of a profile for a firm with 50 employees. Costs are in annual terms, and both costs and assets are adjusted to 1987 base year prices. The costs in the sample profile reflect U.S. average prices for labor, land, and other purchases. However, the actual simulation

model incorporates local cost adjustment factors for each city type (small, medium, and urban area) in each state.

Table 1
Industries Selected for the Study

Manufacturing Industries	SIC Code	Non-manufacturing Industries	SIC Code
Meat Products	201	Telephone Communications	481
Grain Mill Products	204	Wholesale Trade: Durable Goods	508
Misc. Converted Paper Products	267	Computer and Data Processing Services	737
Commercial Printing	275	Research, Development, and Testing	873
Pharmaceutical and Biological Products	283	Corporate Headquarters Facilities	---
Misc. Plastic Products	307		
Fabricated Structural Metal Products	344		
Construction and Related Machinery Mfg.	353		
Electronic Components and Accessories	367		
Motor Vehicles and Equipment Mfg.	371		

The value of buildings and machinery per employee, the last line of the profile, indicates the capital intensity of the industry. The greater the industry's capital intensity, the greater will be the impact of property taxation.

Many data sources were used to construct the cost and asset profiles. As a starting point, important ratios such as sales per employee, payroll per employee, cost of materials per employee, inventories per employee, and energy use per employee were derived from the U.S. Department of Commerce *Annual Survey of Manufactures, 1986* and the *Census of Service Industries, 1987*. Supplementary information was drawn from the U.S. Treasury Department *Source Book of Statistics of Income*. For headquarters and administrative establishments, an original survey done in 1988 by the Institute for Public Policy and Business Research provided needed data.

Data on investment per employee and square footage per employee were compiled from a listing of new corporate investments by industry published in *Industrial Development and Site Selection*. Building

costs were estimated by multiplying square footage times square foot costs, the latter derived from *Means Square Foot Costs: Residential, Commercial, Industrial, Institutional, 1989*.

In order to make adjustments for local cost conditions, the study relied on a combination of published and survey data. Questionnaires covering major business cost items were sent to Chambers of Commerce in all of the major urban areas in the region, and in a sample of small and medium sized communities. Survey responses were particularly important for the small and medium sized cities, for which published data are rare. The final set of survey respondents contained at least four small and four medium sized cities for each state, and for many states the set of respondents was much larger. A complete discussion of data sources is found in Appendices A, B, and C of this report.

Table 2
Example of a Typical Firm Profile
SIC 201: Meat Products

Number of Employees	50
Annual Sales	\$10,918,584
Annual Costs	\$10,015,622
Payroll	661,856
Production	498,835
Other	163,021
Employer's Soc. Sec. Payments	50,632
Cost of Employee Benefits	184,568
Cost of Materials	8,768,013
Electricity	77,362
Gas	34,781
Water	21,300
Depreciation (annual average)	240,141
Repair and Rental Payments	19,778
Interest Payments	158,172
Other Costs or Revenue	(67,538)
Asset Costs (excluding sales taxes)	
Land	\$ 15,127
Buildings	623,000
Machinery	2,644,700
Inventory	319,625
Building and Machinery/Employee	65,354

Source: IPPBR Tax Simulation Model

Business Taxes

The Tax Simulation Model uses information from the cost and asset profiles to calculate the taxes that would be paid by typical firms in each state. The model relies on a database of state and local tax rates, and a complete description of the base to which each tax applies. In essence, the model fills out federal, state, and local tax forms for each typical firm, and calculates the firm's liability for each type of business tax. The model is careful to account for the feedback effects among taxes. For example, the model incorporates the "federal offset "which occurs when state and local taxes are deducted from federal taxable income. All calculations are carried out for a fifteen year period, and then converted to annualized averages.

The Tax Simulation Model was designed to allow the user to make alternative assumptions about the situations of the representative firms. Major assumptions are of three types, concerning:

1. the degree to which the firm receives tax credits and abatements.
2. the apportionment of income for multi-state firms.
3. the importance of costs other than taxes on location decisions.

Whether a firm receives tax incentives can make a large difference in its bottom line tax bill. The results presented in this report contrast two alternative sets of assumptions. In one scenario, firms are assumed to qualify for all incentives allowed for new firms in their respective industries. The firm is assumed to locate in an enterprise zone in the states where enterprise zone credits exist. In states which allow 100 percent property tax abatements, the firm is assumed to receive the full tax break. The first scenario approximate the situation of a "footloose" firm which can shop for the best incentive package available in the region. The alternative scenario offers the firm no special tax credits or abatements. This scenario is intended to represent the situation of a mature, long established firm which is currently neither expanding nor changing locations. The mature firm pays taxes in line with the basic tax structure of the state in which it is located. A mature firm may be discouraged from making additional investments in a state by a high business tax level.

Another key assumption in the Tax Simulation Model is whether the firm is a multi-state business. In general, a firm is considered a multi-state enterprise if some percentage of its property, payroll, or sales is located in more than one state. Multi-state firms create complex problems for state taxation, since the

income of the firm must be divided among two or more locations for tax purposes. As indicated in Volume 1 of this report, the federal government cannot compel the states to follow any national guidelines for income allocation methods. For the purposes of this study, manufacturing firms and most of the service firms are assumed to locate all of their property and payroll within a single state. In contrast, they are assumed to sell only 10 percent of their output in-state; that is, the firms are export oriented. Slightly different assumptions are used for the telephone communications firm and the headquarters facility. For these two industries, a new facility is assumed to increase the percentages of payroll and property within the state, while sales are assumed to be unaffected by the location of the new facility.

The final set of assumptions concern the extent to which differences in non-tax costs are built into the model. The appropriate set of assumptions depends on the type of question the user is trying to address. If the user is interested distinguishing differences in state tax structures, a model which holds all other costs constant across locations is suitable. On the other hand, if the user is interested in broader issues of cost competitiveness, an extended model which builds in local cost adjustment factors for labor, land, utilities, and other key inputs, is a more fitting. Results from both approaches are presented in this report. It should be noted that the second approach reflects feedback effects between costs and taxes. For example, suppose that a firm locates in an area where land is expensive in comparison with other states. Then the full version of the model will indicate high property taxes for the firm. The property tax level reflects not only the tax rate, but also the land value. Similarly, income taxes in the full model reflect the impact of costs on the taxable income base.

Summary of Tax Simulation Results Partial Model with Variations in Taxes Only

The model was first run under the assumption that non-tax costs, with exception of some minor variations in interest payments, are constant throughout the region. Although the assumption runs contrary to fact, it serves to isolate the impact of taxes alone.

New Firms

From the point of view of a new firm which receives all available tax credits and abatements, tax burdens in Kansas locations are moderate compared with burdens in other states. For each industry, the model calculates a rank comparing Kansas taxes with taxes in other locations. Table 3 shows the average rank for manufacturing industries and for non-manufacturing businesses. Taxes in Kansas urban areas rank between third lowest and eighth lowest out of 11 large cities in the region. In general, Kansas ranks better for manufacturing than for non-manufacturing; property tax abatements are not available to many service type industries in Kansas. Johnson County ranks most favorable among the Kansas urban areas investigated; Johnson County rank 3.6 out of 11 for manufacturing firms, and 6.2 out of 11 for non-manufacturing firms. Kansas medium and small sized cities rank in the mid-range for the region, with average ranks between 2.9 and 4.4 out of six states.

Mature Firms

A mature firm faces a less favorable situation in Kansas than does a new firm. Table 4 compares the situations of firms receiving no tax credits or abatements. Taxes for firms in Kansas locations are generally the highest in the region. Taxes in Wyandotte County locations exceed those in all other urban areas in the region. On average, taxes in Kansas medium and small sized cities are also the highest among the six states. Taxes exceed the regional average by a significant percentage for both manufacturing and non-manufacturing industries, but the difference is more pronounced for manufacturing. The capital intensity of the manufacturing firms makes them particularly vulnerable to the high level of Kansas property taxes.

Table 3
Summary Table: New Firms Receiving Tax Credits and Abatements
Partial Model: Variation in Taxes Only

	<i>Manufacturing</i> Kansas as % of Region	<i>Other</i> Kansas as % of Region	<i>Manufacturing</i> Kansas Rank	<i>Other</i> Kansas Rank
<i>Kansas Urban Areas</i>				
Johnson Co., Kansas			(11 = highest taxes or costs)	
Costs: Non-tax	99.9%	99.8%	1.5	2.4
Taxes	97.4%	98.8%	3.6	6.2
Tax and Non-Tax Costs	99.7%	99.6%	2.6	5.4
Wyandotte Co., Kansas				
Costs: Non-tax	100.1%	99.8%	8.6	3.8
Taxes	98.0%	100.8%	5.6	8.6
Tax and Non-Tax Costs	99.9%	99.9%	7.0	8.2
Wichita, Kansas				
Costs: Non-tax	99.9%	99.8%	2.6	3.2
Taxes	97.6%	99.2%	4.7	6.8
Tax and Non-Tax Costs	99.7%	99.7%	3.6	6.6
<i>Kansas Medium Sized City</i>				
Costs: Non-tax	99.9%	99.8%	(6 = highest taxes or costs)	
Taxes	98.2%	100.2%	1.1	1.6
Tax and Non-tax Costs	99.7%	99.8%	2.9	4.4
			2.4	4.2
<i>Kansas Small Sized City</i>				
Costs: Non-tax	99.9%	99.8%	(6 = highest taxes or costs)	
Taxes	98.3%	100.9%	1.0	1.8
Tax and Non-tax Costs	99.8%	99.9%	3.1	4.4
			2.8	4.4

Note: small variations in non-tax costs are due to interest differences due to financing the sales tax on plant and equipment.

Table 4
Summary Table: Mature Firms Receiving No Tax Credits or Abatements
Partial Model: Variation in Taxes Only

	<i>Manufacturing</i> Kansas as % of Region	<i>Other</i> Kansas as % of Region	<i>Manufacturing</i> Kansas Rank	<i>Other</i> Kansas Rank
<i>Kansas Urban Areas</i>				
Johnson Co., Kansas			(11 = highest costs or taxes)	
Costs: Non-tax	100.0%	100.0%	4.0	4.4
Taxes	105.2%	102.8%	8.4	8.6
Tax and Non-Tax Costs	100.5%	100.5%	8.3	8.6
Wyandotte Co., Kansas				
Costs: Non-tax	100.0%	100.0%	6.0	6.2
Taxes	111.7%	106.9%	10.9	11.0
Tax and Non-Tax Costs	101.1%	101.2%	10.9	11.0
Wichita, Kansas				
Costs: Non-tax	99.9%	100.0%	3.0	2.6
Taxes	106.9%	103.7%	9.6	9.6
Tax and Non-Tax Costs	100.6%	100.6%	9.5	9.6
<i>Kansas Medium Sized Cities</i>				
			(6 = highest costs or taxes)	
Costs: Non-tax	99.9%	100.0%	3.0	3.4
Taxes	109.2%	105.6%	5.9	6.0
Tax and Non-Tax Costs	101.0%	101.1%	5.9	6.0
<i>Kansas Small Sized Cities</i>				
			(6 = highest costs or taxes)	
Costs: Non-tax	99.9%	100.0%	3.0	3.4
Taxes	110.9%	107.0%	5.8	6.0
Tax and Non-Tax Costs	101.3%	101.5%	5.8	6.0

Note: small variations in non-tax costs are due to interest differences due to financing the sales tax on plant and equipment.

Value of Incentives

The difference between the tax burden of a new firm and that of a mature firm provides a measure of the value of tax incentive packages. On a per employee basis, Table 5 shows that a new manufacturing firm in a Kansas medium sized city pays \$11,230 in annual federal, state, and local taxes. A mature firm in the same location would pay \$13,355. In other words, tax incentives save the manufacturing firm about \$2,225 per employee, or about 20 percent of total taxes.

Total Taxes per Employee	
New Firm	\$11,230
Mature Firm	\$13,455
Tax Saving	\$ 2,225

Source: IPPBR Tax Simulation Model

Breakdown of Taxes

Table 6 distinguishes the particular taxes responsible for the high overall level of taxation for mature Kansas firms. Kansas property taxes exceed the regional average by 52 percent for manufacturing and by 56 percent for non-manufacturing. State income taxes exceed the regional average by even greater percentages. The high income tax estimates can be traced directly to the assumption that the firms are export oriented. In Kansas, a firm is liable for income tax based on in-state percentages of three factors, payroll, property, and sales. In contrast, several other states in the region base their income tax allocations on sales only, or on a combination of sales and property. For firms with most of their sales out-of-state, the single and two factor formulas generally result in a lower state tax liability.

Table 6
Taxes per Employee: Kansas and Regional Average
Results for Medium Sized Cities

Sales, Costs, Taxes	<i>Manufacturing</i>			<i>Other</i>		
	Kansas	Regional Average	Kansas % Region	Kansas	Regional Average	Kansas % Region
Annual Sales	\$166,848	\$166,848	100.0%	\$120,440	\$120,440	100.0%
Annual Costs	\$139,222	\$139,276	100.0%	\$99,966	\$99,968	100.0%
Annual State and Local Taxes						
State Income Tax	\$1,081	\$572	188.9%	\$732	\$351	208.7%
Unemploy. and Workers' Comp.	\$737	\$890	82.8%	\$563	\$731	77.0%
Property	\$3,281	\$2,161	151.8%	\$2,296	\$1,466	156.6%
Franchise	\$59	\$40	146.5%	\$39	\$27	143.7%
Sales Tax	\$441	\$685	64.4%	\$775	\$782	99.0%
On Initial Investment	\$224	\$359	62.3%	\$379	\$385	98.5%

Source: IPPBR Tax Simulation Model

Summary of Tax Simulation Results Full Model with Variations in Taxes and Costs

The full version of the simulation model supplements information on taxes with information on interstate differences in production costs. Costs and taxes interact in the model, giving a truer picture of the competitiveness of various potential business locations.

New Firms

For new firms which receive all available tax credits and abatements, Kansas locations appear extremely attractive. As shown in Table 7, Kansas production costs are moderate in medium sized and small sized cities, and in Johnson County and Wichita, while business taxes fall in the average range. The combined rank based on tax and non-tax costs shows Kansas to be a favorable location for both new manufacturing firms and new service firms.

Mature Firms

The ranks of Kansas locations for mature firms are uniformly worse than the corresponding ranks for new firms. Table 8 shows Kansas taxes to be among the highest in the region. However, the moderate level of basic business costs in part counteracts the effect of high business taxes. The ranks for Kansas locations based on tax and non-tax costs are generally better than those based on taxes alone.

Conclusions

Business taxes and tax incentives have been tied, correctly or incorrectly, to state efforts for economic development and growth throughout the region. State development strategies exhibit two broad roles for business taxes. Taxes may be used in a pro-active sense, targeting investment through large incentives. Alternatively, the strategy may be to neutralize the tax issue by removing or reducing those taxes found to impede growth. This approach is spelled out in the Redwood-Krider report on Kansas economic development, which recommends bringing Kansas taxes into line with competing states.⁶

⁶ Anthony Redwood and Charles Krider, *Executive Report, Kansas Economic Development Study: Findings, Strategy, and Recommendations*, Report No. 108, (Lawrence, Kansas: Institute for Public Policy and Business Research, June, 1986).

The goal of neutrality is achieved for new firms locating in Kansas. As Tables 3 and 7 indicate, the level of taxes and the level of combined tax and non-tax costs are close to the regional average. However, new firms which prosper ultimately find themselves in the position of mature firms. The tax situation facing mature firms is far from neutral, as shown in Tables 4 and 8. This may cause problems for business retention within the state.

Table 7
Summary Table: New Firms Receiving Tax Credits and Abatements
Full Model: Variations in Taxes and Costs

	<i>Manufacturing</i> Kansas as % of Region	<i>Other</i> Kansas as % of Region	<i>Manufacturing</i> Kansas Rank 11 = highest	<i>Other</i> Kansas Rank 11 = highest
<i>Kansas Urban Areas</i>				
Johnson Co., Kansas			(11 = highest costs or taxes)	
Costs: Non-tax	99.8%	99.2%	4.8	4.0
Taxes	97.3%	100.9%	5.9	6.6
Tax and Non-tax Costs	99.6%	99.4%	4.8	4.6
Wyandotte Co., Kansas				
Costs: Non-tax	100.7%	100.6%	8.3	7.8
Taxes	95.5%	98.2%	3.7	5.8
Tax and Non-tax Costs	100.2%	100.3%	8.3	8.0
Wichita, Kansas				
Costs: Non-tax	100.3%	99.9%	6.4	5.0
Taxes	95.5%	98.7%	3.6	5.2
Tax and Non-tax Costs	99.9%	99.7%	6.8	6.2
<i>Kansas Medium Sized Cities</i>				
Costs: Non-tax	99.0%	98.6%	(6 = highest costs or taxes)	
Taxes	103.0%	102.7%	2.1	3.0
Tax and Non-tax Costs	99.2%	99.2%	4.0	4.6
			2.1	2.4
<i>Kansas Small Sized Cities</i>				
Costs: Non-tax	99.5%	100.1%	(6 = highest costs or taxes)	
Taxes	97.3%	100.4%	4.0	5.0
Tax and Non-tax Costs	99.3%	100.1%	2.4	4.2
			3.4	4.2

Note: small variations in non-tax costs are due to interest differences due to financing the sales tax on plant and equipment. Source: IPPBR Tax Simulation Model.

Table 8
Summary Table: Mature Firms Receiving No Tax Credits or Abatements
Full Model: Variations in Taxes and Costs

	<i>Manufacturing</i> Kansas as % of Region	<i>Other</i> Kansas as % of Region	<i>Manufacturing</i> Kansas Rank 11 = highest	<i>Other</i> Kansas Rank 11 = highest
<i>Kansas Urban Areas</i>				
Johnson Co., Kansas			(11 = highest costs or taxes)	
Costs: Non-tax	100.1%	99.7%	6.0	5.4
Taxes	104.9%	103.9%	8.4	8.2
Tax and Non-tax Costs	100.6%	100.4%	6.3	6.6
Wyandotte Co., Kansas				
Costs: Non-tax	100.9%	101.2%	8.0	9.0
Taxes	108.5%	103.5%	10.3	8.8
Tax and Non-tax Costs	101.7%	101.8%	9.9	9.6
Wichita, Kansas				
Costs: Non-tax	100.5%	100.4%	7.0	7.0
Taxes	104.3%	102.1%	7.6	7.0
Tax and Non-tax Costs	100.9%	100.8%	8.0	8.2
<i>Kansas Medium Sized Cities</i>				
Costs: Non-tax	99.0%	98.8%	(6 = highest costs or taxes)	
Taxes	113.9%	108.1%	6.0	6.0
Tax and Non-tax Costs	100.4%	100.5%	4.5	3.6
<i>Kansas Small Sized Cities</i>				
Costs: Non-tax	99.5%	100.3%	(6 = highest costs or taxes)	
Taxes	109.3%	106.3%	5.8	5.8
Tax and Non-tax Costs	100.7%	101.6%	4.6	5.2

Note: small variations in non-tax costs are due to interest differences due to financing the sales tax on plant and equipment. Source: IPPBR Tax Simulation Model.

Industry Reports

Description, Trends, and Model Results

The detailed results of the simulation model are presented in a series of industry reports which follows. All of the reports have the same basic structure, which is outlined below.

Each report begins with an overview of a particular industry. The reports describe the products which the industry produces, and how the industry is specialized in Kansas. The reports continue with a cost and asset profile of a typical firm in the industry, shown as Table 1-SIC. The concentration of the industry in Kansas is illustrated by means of a shaded map, denoted as Figure 1-SIC. The overview concludes with a discussion of industry trends, shown in Table 2-SIC and Figure 2-SIC.

The individual industry reports then present the results of the Tax Simulation Model. Table 3A-SIC is based on the partial model, while Tables 3B-SIC, 4-SIC, and 5-SIC rely on the full model incorporating interstate differences in production costs. Figure 3-SIC summarizes the tax model results, showing Kansas costs and taxes as percentages of the regional average for all three city types.

**Costs and Taxes for the
Meat Products Industry
SIC 201**

The food products industry (SIC 20) produces processed foods and beverages for human consumption and prepared animal feeds. Within this category, meat products (SIC 201) and grain mill products (SIC 204) are major Kansas industries, drawing upon the productive agricultural base of the state for raw materials. The meat products industry is dominated by meat packing, particularly beef. Sausages and other prepared meats also provide substantial Kansas employment. According to the *Directory of Kansas Manufacturers and Products, 1988 Edition*, only a few Kansas meat producers export overseas. Many of the exporters specialize in by-products such as hides. The same directory lists several Kansas poultry and egg producers. However, employment in the poultry industry remains small.

**Table 1-201
SIC 201: Meat Products**

Number of Employees	50
Annual Sales	\$10,918,584
Annual Costs	\$10,015,622
Payroll	661,856
Production	498,835
Other	163,021
Employer's Soc. Sec. Payments	50,632
Cost of Employee Benefits	184,568
Cost of Materials	8,768,013
Electricity	77,362
Gas	34,781
Water	21,300
Depreciation (annual average)	240,141
Repair and Rental Payments	19,778
Interest Payments	158,172
Other Costs or Revenue	(67,538)
Asset Costs (excluding sales taxes)	
Land	\$ 15,127
Buildings	623,000
Machinery	2,644,700
Inventory	319,625
Building and Machinery/Employee	65,354
Source: IPPBR Tax Simulation Model	

Cost and Asset Profile

Table 1 shows costs and assets for a typical meat processor in the region. Payroll per employee is estimated at a little over \$13,000 per year, the lowest of any of the manufacturing industries included in the Kansas Inc. study. Capital investment in a new meat processing plant averages about \$65,000 per employee, in the mid-range of the 15 industries in the study. Most of the investment is in equipment. Inventories average about \$6,400 per employee. The impact of an increase in property tax rates will not be as great for this industry as for a more capital intensive business.

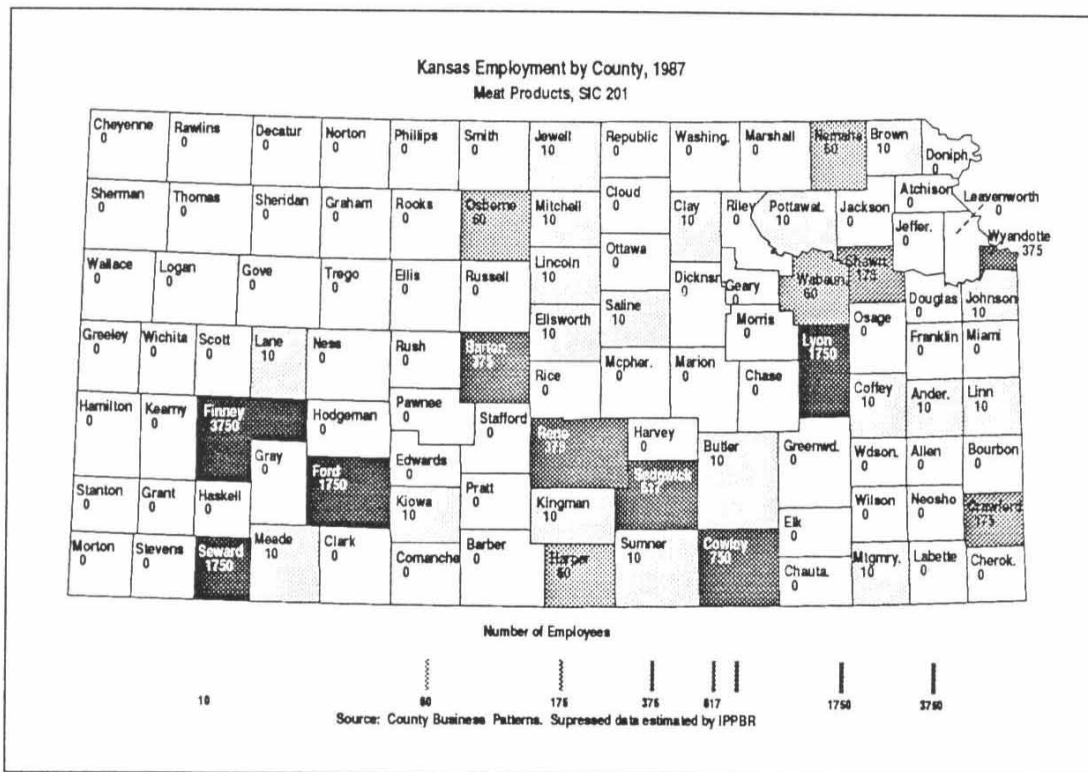


Figure 1-201

Meat Products in Kansas

Kansas employment in the meat products industry swelled during the 1980s, reaching approximately 12,500 workers by 1987. Meat products are produced at 201 locations within Kansas, with an average

employment of 201 workers per establishment. Among the states in the region, Kansas employment is second highest, following Iowa, and slightly exceeding Nebraska.

The beef packing industry has propelled growth in several Western Kansas counties: Finney, Ford, and Seward. Other clusters of the meat processing industry are found in the area surrounding Wichita, and in Lyon County in the Flint Hills.

Table 2-201
Employment and Establishments
SIC 201: Meat Products

	1980	1987	Average Annual Growth
SIC 201			
United States			
SIC 201 employment	321,810	337,806	0.70%
SIC 201 establishments	3,287	3,305	0.08%
SIC 201 Employ./Estab.	98	102	
Region			
SIC 201 employment	61,822	63,529	0.39%
Data Suppression Error	0	0	
SIC 201 establishments	487	490	0.09%
SIC 201 Employ./Estab.	127	130	
Kansas			
SIC 201 employment	8,936	12,448	4.85%
Data Suppression Error	0	0	
SIC 201 establishments	69	62	-1.52%
SIC 201 Employ./Estab.	130	201	
Kansas as % of Region			
SIC 201 employment	14.45%	19.59%	
SIC 201 establishments	14.17%	12.65%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 201

Nationwide, the meat processing industry has experienced an average annual growth of under 1 percent. Growth in the number of establishments has been insignificant. The region has mirrored U.S. performance, with slow employment growth and even slower establishment growth. In contrast with the nation and the region, the Kansas meat processing industry has produced a remarkable employment success story, at least when measured by new jobs and income. Growth in employment has averaged about 5.6 percent annually during the decade; over 3,500 new jobs were created between 1980 and 1989. The industry has become concentrated in larger facilities during the decade. 1980 data show no substantial difference between employees per establishment in Kansas and in the region. In contrast Kansas firm sizes exceeded the regional average by over 50 percent in 1987.

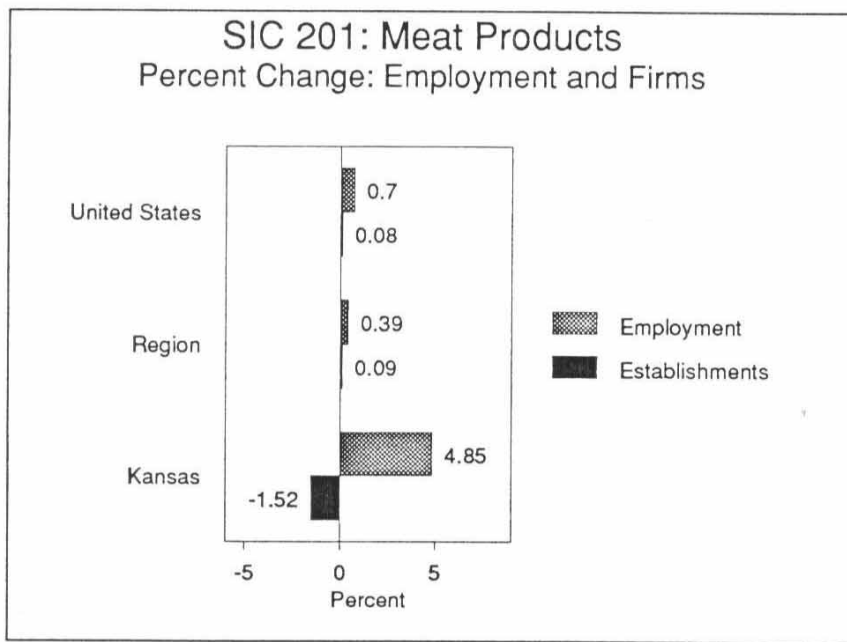


Figure 2-201

Results from the Tax Simulation Model

The results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-201
Summary of Taxes and Costs
SIC 201: Meat Products
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Costs	\$10,061,343	\$10,062,939	100.0%	\$10,063,990	\$10,065,669	100.0%
Annual Taxes	\$371,265	\$357,353	103.9%	\$436,688	\$390,711	111.8%
Federal Income Tax	\$261,140	\$259,248	100.7%	\$231,574	\$242,025	95.7%
State Income Tax	\$20,942	\$6,727	311.3%	\$31,619	\$17,086	185.1%
Unemploy. and Workers' Comp.	\$62,722	\$46,926	133.7%	\$62,722	\$46,926	133.7%
Property	\$18,458	\$31,500	58.6%	\$96,062	\$63,357	151.6%
Franchise	\$1,723	\$1,219	141.4%	\$1,753	\$1,229	142.7%
Sales	\$6,278	\$11,733	53.5%	\$12,958	\$20,089	64.5%
On Initial Investment	\$0	\$4,342	0.0%	\$6,679	\$10,917	61.2%
Combined Tax, Non-tax Costs	\$10,432,607	\$10,420,292	100.1%	\$10,500,678	\$10,456,380	100.4%
Savings due to Tax Incentives	\$68,070	\$36,089	188.6%			

Source: IPPBR Tax Simulation Model

Table 3B-201
Summary of Taxes and Costs
SIC 201: Meat Products
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Costs	\$10,012,952	\$10,065,441	99.5%	\$10,015,622	\$10,068,052	99.5%
Annual Taxes	\$387,736	\$354,935	109.2%	\$454,319	\$388,505	116.9%
Federal Income Tax	\$278,316	\$256,132	108.7%	\$248,629	\$238,931	104.1%
State Income Tax	\$22,364	\$6,456	346.4%	\$33,990	\$16,701	203.5%
Unemploy. and Workers' Comp.	\$60,785	\$47,235	128.7%	\$60,785	\$47,235	128.7%
Property	\$18,524	\$32,013	57.9%	\$96,401	\$64,158	150.3%
Franchise	\$1,728	\$1,223	141.2%	\$1,757	\$1,234	142.5%
Sales	\$6,019	\$11,876	50.7%	\$12,756	\$20,245	63.0%
On Initial Investment	\$0	\$4,401	0.0%	\$6,737	\$10,991	61.3%
Combined Tax, Non-tax Costs	\$10,400,687	\$10,420,376	99.8%	\$10,469,941	\$10,456,557	100.1%
Savings due to Tax Incentives	\$69,253	\$36,181	191.4%			

Source: IPPBR Tax Simulation Model

Table 4-201
Kansas Costs and Taxes According to Rank Within the Region
SIC 201: Meat Products

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	5	9	6
Wyandotte County	8	8	9
Wichita	7	7	8
Medium Size Cities (6 states)	2	6	3
Small Size Cities (6 states)	4	4	4
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	9	7
Wyandotte County	8	11	10
Wichita	7	8	9
Medium Size Cities (6 states)	2	6	4
Small Size Cities (6 states)	4	6	4

Source: IPPBR Tax Simulation Model

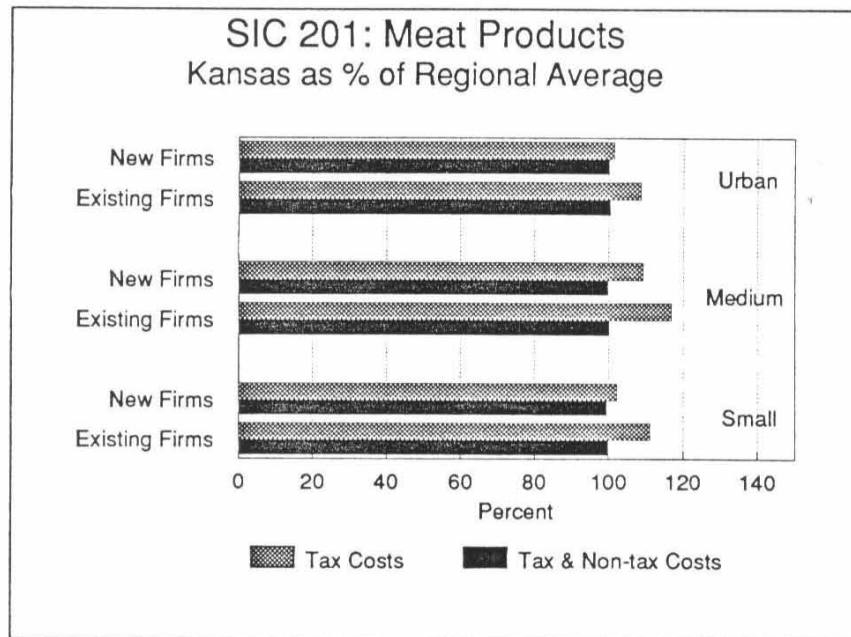


Figure 3-201

Table 5-201
Taxes and Costs in Kansas Locations
SIC 201: Meat Products
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Non-tax Costs	\$10,156,927	\$10,162,297	99.9%	\$10,159,654	\$10,156,802	100.0%
Annual Taxes	\$340,084	\$331,884	102.5%	\$398,401	\$370,009	107.7%
Combined Tax, Non-tax Costs	\$10,497,010	\$10,494,180	100.0%	\$10,558,055	\$10,526,811	100.3%
Savings due to Tax Incentives	\$58,317	\$38,125	153.0%			
Wichita-Sedgwick County, KS						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Non-tax Costs	\$10,176,683	\$10,162,297	100.1%	\$10,179,116	\$10,156,802	100.2%
Annual Taxes	\$334,422	\$331,884	100.8%	\$396,139	\$370,009	107.1%
Combined Tax, Non-tax Costs	\$10,511,105	\$10,494,180	100.2%	\$10,575,255	\$10,526,811	100.5%
Savings due to Tax Incentives	\$61,717	\$38,125	161.9%			
Wyandotte County, KS						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Non-tax Costs	\$10,187,414	\$10,162,297	100.2%	\$10,190,379	\$10,156,802	100.3%
Annual Taxes	\$335,024	\$331,884	100.9%	\$410,536	\$370,009	111.0%
Combined Tax, Non-tax Costs	\$10,522,438	\$10,494,180	100.3%	\$10,600,914	\$10,526,811	100.7%
Savings due to Tax Incentives	\$75,512	\$38,125	198.1%			
Average Medium Sized City						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Non-tax Costs	\$10,012,952	\$10,065,441	99.5%	\$10,015,622	\$10,068,052	99.5%
Annual Taxes	\$387,736	\$354,935	109.2%	\$454,319	\$388,505	116.9%
Combined Tax, Non-tax Costs	\$10,400,687	\$10,420,376	99.8%	\$10,469,941	\$10,456,557	100.1%
Savings due to Tax Incentives	\$66,583	\$33,569	198.3%			
Average Small Rural City						
Annual Sales	\$10,918,584	\$10,918,584	100.0%	\$10,918,584	\$10,918,584	100.0%
Annual Non-tax Costs	\$9,984,697	\$10,047,582	99.4%	\$9,987,355	\$10,050,126	99.4%
Annual Taxes	\$397,682	\$389,166	102.2%	\$473,381	\$425,754	111.2%
Combined Tax, Non-tax Costs	\$10,382,379	\$10,436,748	99.5%	\$10,460,736	\$10,475,880	99.9%
Savings due to Tax Incentives	\$75,698	\$36,587	206.9%			

Source: IPPBR Tax Simulation Model

Conclusions

The growth of the meat products industry has been an unusual phenomenon in Kansas. Employment opportunities have attracted new workers to Kansas. Both social and environmental problems have been attributed to the meat packing industry. But at the same time, it has dramatically boosted income in southwestern Kansas. Low basic production costs give Kansas an edge in this industry.

**Costs and Taxes for the
Grain Mill Products Industry
SIC 204**

The food products industry (SIC 20) produces processed foods and beverages for human consumption, and prepared animal feeds. Within this category, meat products (SIC 201) and grain mill products (SIC 204) are major Kansas industries, drawing upon the productive agricultural base of the state for raw materials. Within Kansas, employment in the grain mill products industry is divided about evenly among flour milling, pet food preparation, and livestock feeds. According to the *Directory of Kansas Manufacturers and Products, 1988 Edition*, a majority of firms in the industry export to foreign countries, particularly firms in the flour milling business.

**Table 1-204
SIC 204: Grain Mill Products**

Number of Employees	50
Annual Sales	\$17,418,698
Annual Costs	\$16,382,589
Payroll	1,044,183
Production	679,659
Other	364,524
Employer's Soc. Sec. Payments	79,880
Cost of Employee Benefits	295,403
Cost of Materials	10,248,313
Electricity	262,275
Gas	142,904
Water	53,850
Depreciation (annual average)	158,278
Repair and Rental Payments	27,491
Interest Payments	149,890
Other Costs or Revenue	4,379,151
Asset Costs (excluding sales taxes)	
Land	\$ 21,026
Buildings	865,952
Machinery	2,224,070
Inventory	1,096,488
Buildings and Machinery/Employee	61,800

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets for a typical grain mill products firm in a medium sized city in the region. Payroll per employee is estimated in the middle range for manufacturing industries, about \$20,883 per worker. Based on nationwide data, the capital investment per new employee stands at \$61,800, modest in comparison with many other manufacturing industries. The industry maintains a fairly high level of inventories, about \$21,930 per worker.

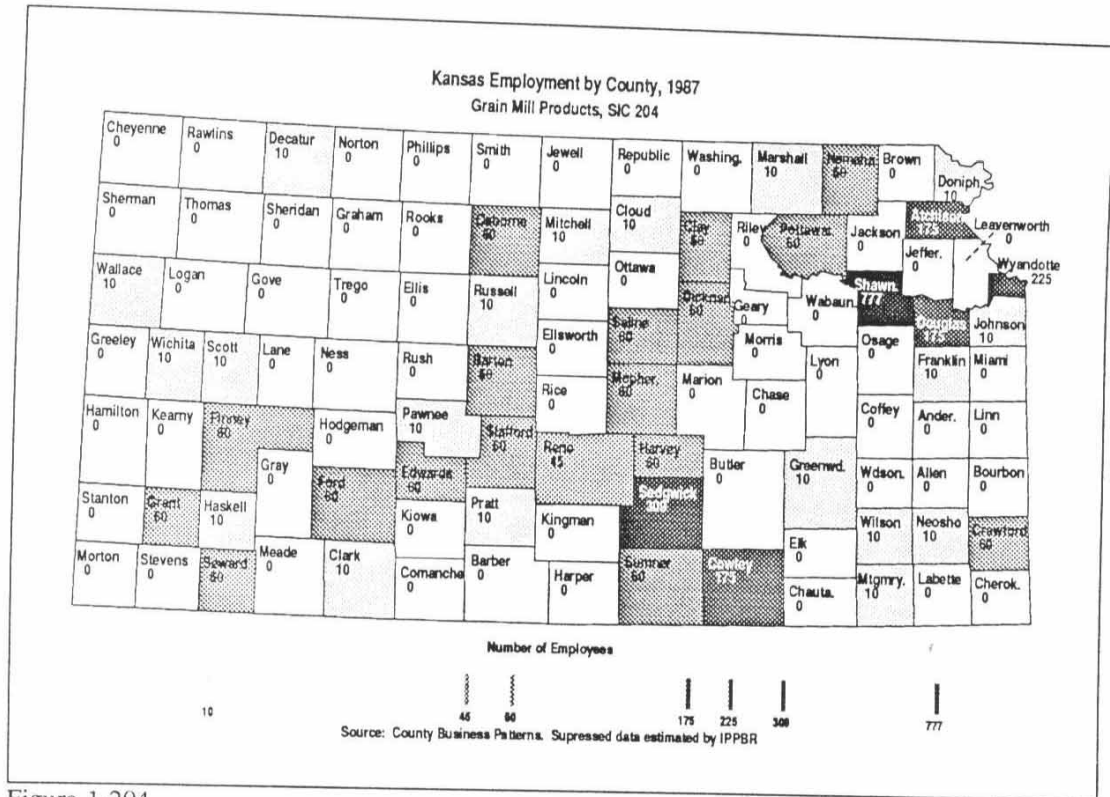


Figure 1-204

Grain Mill Products in Kansas

Despite the strength of Kansas in production of basic grains, grain milling remains a fairly small Kansas industry. In 1987, Kansas firms employed 2,768 workers with an average of 33 employees per

location. In contrast, 7,900 workers were employed in the industry in Iowa, the dominant state in the region.

The grain mill products industry is centered around Shawnee and Sedgewick counties. However, small producers are scattered throughout the state. The industry appears to be viable in both urban and rural locations.

Table 2-204
Employment and Establishments
SIC 204: Grain Mill Products

	1980	1987	Average Annual Growth
SIC 204			
United States			
SIC 204 employment	119,375	101,337	-2.31%
SIC 204 establishments	2,733	2,614	-0.63%
SIC 204 Employ./Estab.	44	39	
Region			
SIC 204 employment	35,679	20,102	-7.87%
Data Suppression Error	22,497	0	
SIC 204 establishments	598	520	-1.98%
SIC 204 Employ./Estab.	60	39	
Kansas			
SIC 204 employment	3,598	2,768	-3.68%
Data Suppression Error	0	0	
SIC 204 establishments	103	85	-2.71%
SIC 204 Employ./Estab.	35	33	
Kansas as % of Region			
SIC 204 employment	10.08%	13.77%	
SIC 204 establishments	17.22%	16.35%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 204

Nationwide, the 1980s saw employment decline in the grain mill products industry at a rate of about 2.3 percent per year. The number of establishments also fell, but at a much slower pace. In the six states surrounding Kansas, the number of establishments fell substantially. Unfortunately, data suppression errors prevent accurate comparisons of employment growth. The grain mill products industry declined rapidly in Kansas, with a loss of 830 jobs between 1980 and 1987.

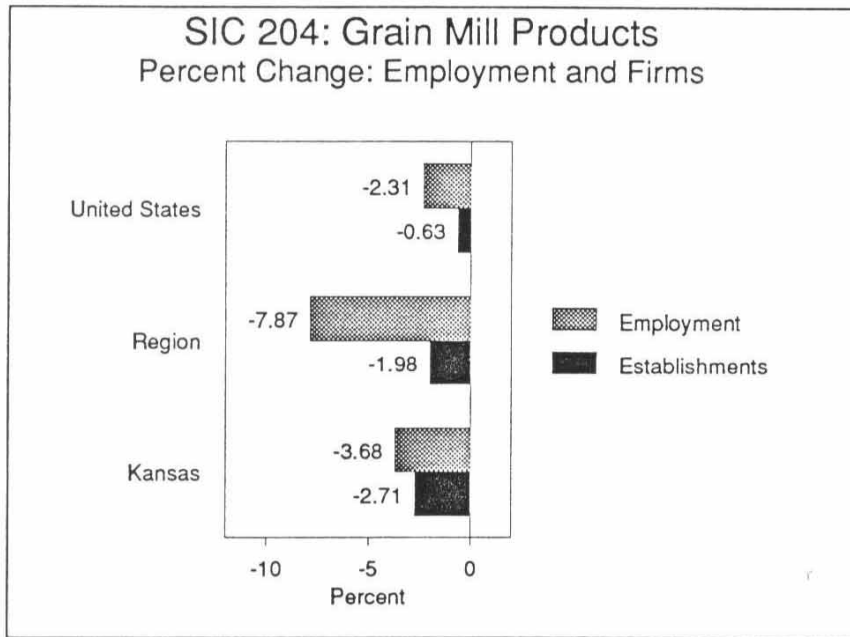


Figure 2-204

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-204
Summary of Taxes and Costs
SIC 204: Grain Mill Products
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Costs	\$16,533,051	\$16,534,249	100.0%	\$16,535,544	\$16,536,950	100.0%
Annual Taxes	\$374,529	\$386,584	96.9%	\$439,833	\$417,788	105.3%
Federal Income Tax	\$274,673	\$262,548	104.6%	\$245,676	\$246,499	99.7%
State Income Tax	\$22,069	\$7,162	308.1%	\$33,579	\$17,539	191.5%
Unemploy. and Workers' Comp.	\$47,822	\$67,608	70.7%	\$47,822	\$67,608	70.7%
Property	\$18,189	\$32,705	55.6%	\$94,662	\$62,764	150.8%
Franchise	\$1,631	\$1,160	140.6%	\$1,659	\$1,169	141.9%
Sales	\$10,144	\$15,401	65.9%	\$16,434	\$22,210	74.0%
On Initial Investment	\$0	\$4,089	0.0%	\$6,291	\$9,838	63.9%
Combined Tax, Non-tax Costs	\$16,907,580	\$16,920,833	99.9%	\$16,975,377	\$16,954,738	100.1%
Savings due to Tax Incentives	\$67,797	\$33,904	200.0%			

Source: IPPBR Tax Simulation Model

Table 3B-204
Summary of Taxes and Costs
SIC 204: Grain Mill Products
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Costs	\$16,380,064	\$16,537,842	99.0%	\$16,382,589	\$16,540,129	99.0%
Annual Taxes	\$429,160	\$376,044	114.1%	\$497,707	\$407,217	122.2%
Federal Income Tax	\$327,598	\$251,756	130.1%	\$298,434	\$235,918	126.5%
State Income Tax	\$26,452	\$6,342	417.1%	\$40,911	\$16,058	254.8%
Unemploy. and Workers' Comp.	\$46,346	\$67,638	68.5%	\$46,346	\$67,638	68.5%
Property	\$18,280	\$33,418	54.7%	\$95,134	\$63,879	148.9%
Franchise	\$1,637	\$1,167	140.3%	\$1,665	\$1,176	141.7%
Sales	\$8,847	\$15,724	56.3%	\$15,217	\$22,549	67.5%
On Initial Investment	\$0	\$4,172	0.0%	\$6,371	\$9,941	64.1%
Combined Tax, Non-tax Costs	\$16,809,224	\$16,913,886	99.4%	\$16,880,296	\$16,947,346	99.6%
Savings due to Tax Incentives	\$71,072	\$33,460	212.4%			

Source: IPPBR Tax Simulation Model

Table 4-204
Kansas Taxes and Costs According to Rank Within the Region
SIC 204: Grain Mill Products

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	6	6
Wyandotte County	8	4	8
Wichita	7	3	7
Medium Size Cities (6 states)	2	5	2
Small Size Cities (6 states)	4	1	4
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	7	6
Wyandotte County	8	8	9
Wichita	7	5	7
Medium Size Cities (6 states)	2	6	3
Small Size Cities (6 states)	4	4	4

Source: IPPBR Tax Simulation Model

SIC 204: Grain Mill Products
Kansas as % of Regional Average

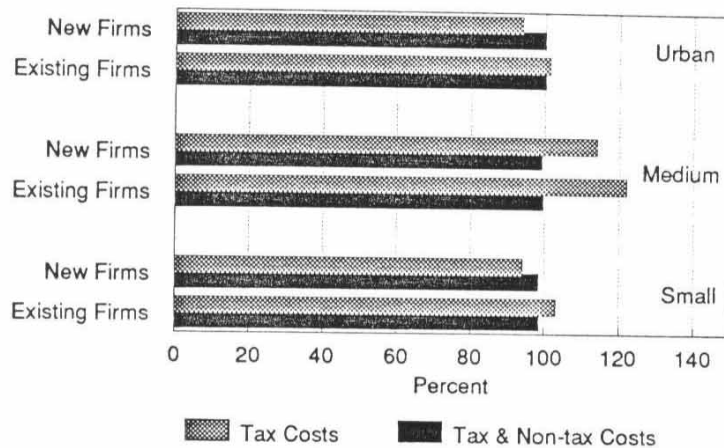


Figure 3-204

Table 5-204
Taxes and Costs in Kansas Locations
SIC 204: Grain Mill Products
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Non-tax Costs	\$16,618,812	\$16,616,552	100.0%	\$16,621,417	\$16,606,204	100.1%
Annual Taxes	\$345,739	\$359,013	96.3%	\$406,068	\$398,580	101.9%
Combined Tax, Non-tax Costs	\$16,964,551	\$16,975,565	99.9%	\$17,027,485	\$17,004,784	100.1%
Savings due to Tax Incentives	\$60,329	\$39,567	152.5%			
Wichita-Sedgwick County, KS						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Non-tax Costs	\$16,660,339	\$16,616,552	100.3%	\$16,662,637	\$16,606,204	100.3%
Annual Taxes	\$331,647	\$359,013	92.4%	\$394,775	\$398,580	99.0%
Combined Tax, Non-tax Costs	\$16,991,986	\$16,975,565	100.1%	\$17,057,412	\$17,004,784	100.3%
Savings due to Tax Incentives	\$63,128	\$39,567	159.5%			
Wyandotte County, KS						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Non-tax Costs	\$16,666,911	\$16,616,552	100.3%	\$16,669,742	\$16,606,204	100.4%
Annual Taxes	\$334,091	\$359,013	93.1%	\$411,756	\$398,580	103.3%
Combined Tax, Non-tax Costs	\$17,001,002	\$16,975,565	100.1%	\$17,081,498	\$17,004,784	100.5%
Savings due to Tax Incentives	\$77,665	\$39,567	196.3%			
Average Medium Sized City						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Non-tax Costs	\$16,380,064	\$16,537,842	99.0%	\$16,382,589	\$16,540,129	99.0%
Annual Taxes	\$429,160	\$376,044	114.1%	\$497,707	\$407,217	122.2%
Combined Tax, Non-tax Costs	\$16,809,224	\$16,913,886	99.4%	\$16,880,296	\$16,947,346	99.6%
Savings due to Tax Incentives	\$68,547	\$31,173	219.9%			
Average Small Rural City						
Annual Sales	\$17,418,698	\$17,418,698	100.0%	\$17,418,698	\$17,418,698	100.0%
Annual Non-tax Costs	\$16,375,494	\$16,609,058	98.6%	\$16,378,003	\$16,611,286	98.6%
Annual Taxes	\$431,308	\$457,355	94.3%	\$508,187	\$492,831	103.1%
Combined Tax, Non-tax Costs	\$16,806,802	\$17,006,413	98.5%	\$16,886,190	\$17,104,118	98.7%
Savings due to Tax Incentives	\$76,879	\$35,476	216.7%			

Source: IPPBR Tax Simulation Model

Conclusions

Employment in the grain mill products industry declined both nationally and in Kansas during the 1980s. Kansas lost market share throughout the last decade. However, competitive cost conditions in the state as well as proximity to raw material suppliers provide the potential for better performance during the 1990s.

**Costs and Taxes for the
Miscellaneous Converted Paper Products Industry
SIC 267**

The paper and allied products group (SIC 26) includes pulp, paper mills, paperboard mills, paperboard containers and boxes, and converted paper products. The converted paper products industry (SIC 267) includes a variety of products: coated or laminated materials made of combinations of paper, plastic film, metal foil, and similar materials for packaging purposes; bags and sacks; die-cut paper; sanitary products; envelopes; and stationery. Envelopes and stationery, and other items associated with the with the greeting cards industry, are Kansas specialties.

**Table 1-267
SIC 267: Miscellaneous Converted Paper Products**

Number of Employees	50
Annual Sales	\$7,824,640
Annual Costs	\$6,791,447
Payroll	948,457
Production	633,704
Other	314,753
Employer's Soc. Sec. Payments	72,557
Cost of Employee Benefits	256,851
Cost of Materials	4,077,210
Electricity	99,073
Gas	26,400
Water	19,337
Depreciation (annual average)	204,592
Repair and Rental Payments	59,745
Interest Payments	162,685
Other Costs or Revenue	1,009,351
Asset Costs (excluding sales taxes)	
Land	\$ 45,695
Buildings	1,881,958
Machinery	1,449,340
Inventory	896,052
Building and machinery/Employee	66,625

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical converted paper products firm in a medium sized city in the region. Payroll per worker averages about \$19,000, which is in the mid-range for manufacturing industries. This industry carries \$18,000 of inventory per employee which is very high. The industry is moderately capital intensive, with new firms investing nearly \$67,000 worth of capital assets per employee.

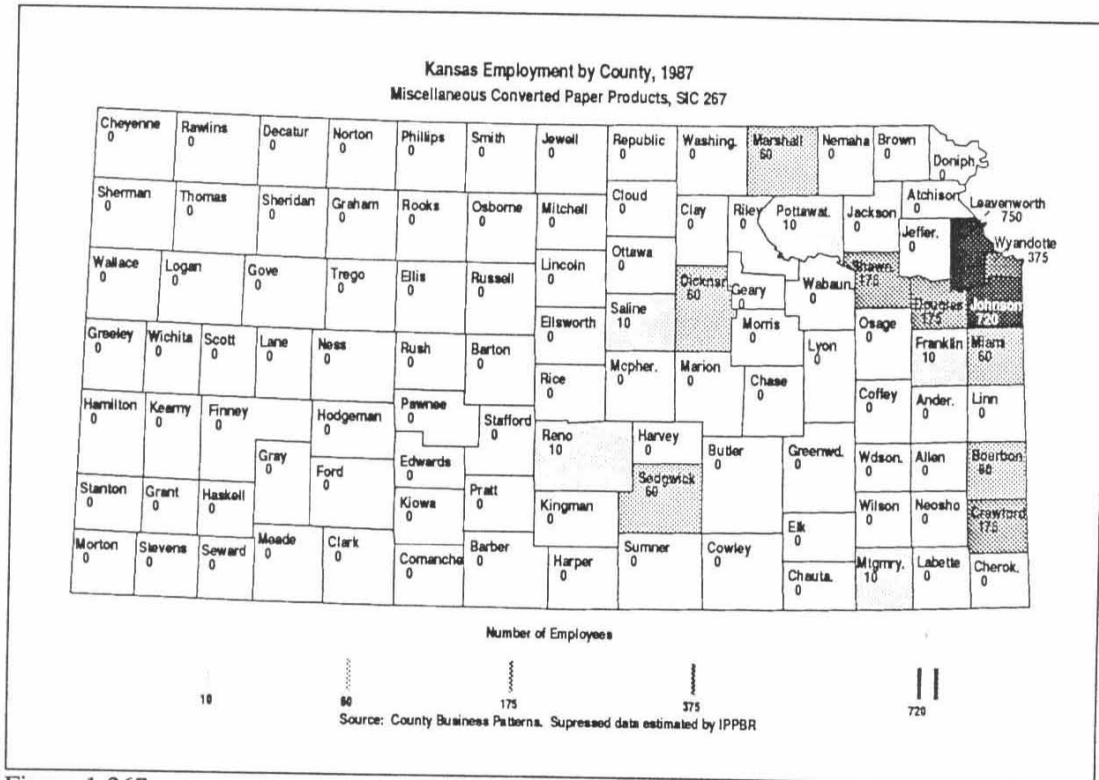


Figure 1-267

Miscellaneous Converted Paper Products in Kansas

Although Kansas is located far from sources of raw materials for paper production, the paper products industry employs a moderate number of laborers in the state. In 1987, 4,950 people were

employed in the larger paper products industry (SIC 26), while 2,753 people were employed in converted paper products. Of these 2,753 employees, 1,845 were employed in one of three counties. Johnson County firms employed 720 laborers, while Leavenworth and Wyandotte county firms were estimated to employ 750 and 375 workers respectively.

Table 2-267
Employment and Establishments
SIC 26: Paper and Allied Products

	1980	1987	Average Annual Growth
SIC 26			
United States			
SIC 26 employment	607,985	626,865	0.44%
SIC 26 establishments	6,160	6,433	0.62%
SIC 26 Employ./Estab.	99	97	
Region			
SIC 26 employment	29,229	29,161	-0.03%
Data Suppression Error	0	1,499	
SIC 26 establishments	350	356	0.24%
SIC 26 Employ./Estab.	84	82	
Kansas			
SIC 26 employment	4,462	4,950	1.49%
Data Suppression Error	0	0	
SIC 26 establishments	46	54	2.32%
SIC 26 Employ./Estab.	97	92	
Kansas as % of Region			
SIC 26 employment	15.27%	16.98%	
SIC 26 establishments	13.14%	15.17%	

Source: *County Business Patterns*
 Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 267

Nationwide, the miscellaneous converted paper products industry has experienced employment declines at an average rate of about 2 percent per year. The individual firms have become smaller in size, so establishment growth has been a moderate 1.5 percent annually. Employment in Kansas has fared much better than the national average, rising at an average rate of 2.98 percent per year. Establishment growth has followed a similar pattern, exceeding that of both the nation and the region. Although employment in this industry remains small, Kansas has been gaining an increasingly larger market share.

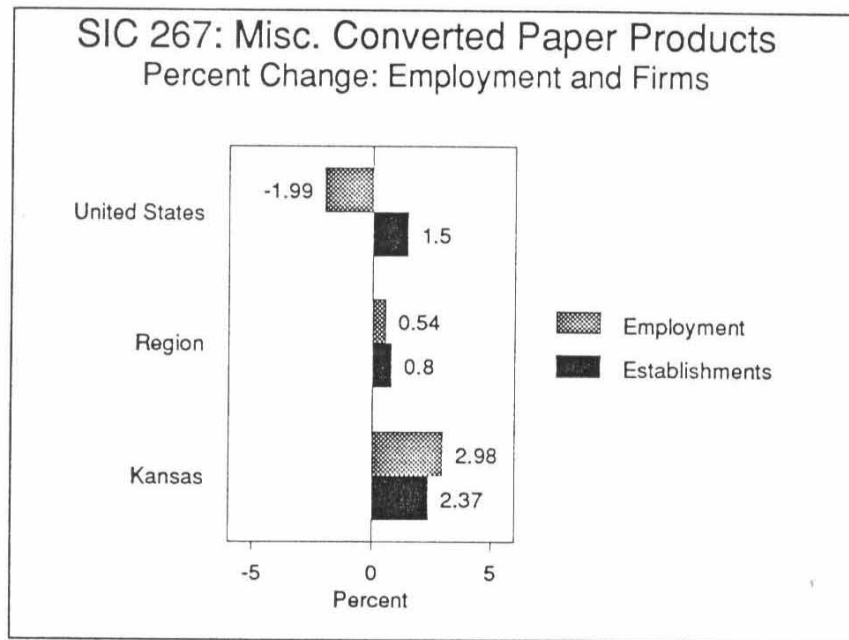


Figure 2-267

Results of the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-267
Summary of Taxes and Costs
SIC 267: Miscellaneous Converted Paper Products
Partial Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Costs	\$6,831,804	\$6,833,369	100.0%	\$6,834,457	\$6,835,347	100.0%
Annual Taxes	\$400,105	\$409,239	97.8%	\$478,277	\$437,267	109.4%
Federal Income Tax	\$318,549	\$302,094	105.4%	\$283,732	\$288,224	98.4%
State Income Tax	\$25,629	\$9,486	270.2%	\$38,868	\$20,525	189.4%
Unemploy. and Workers' Comp.	\$24,724	\$35,659	69.3%	\$24,724	\$35,659	69.3%
Property	\$22,127	\$48,347	45.8%	\$115,153	\$73,436	156.8%
Franchise	\$1,764	\$1,247	141.5%	\$1,793	\$1,255	143.0%
Sales	\$7,314	\$12,406	59.0%	\$14,008	\$18,169	77.1%
On Initial Investment	\$0	\$4,351	0.0%	\$6,694	\$8,944	74.8%
Combined Tax, Non-tax Costs	\$7,231,909	\$7,242,608	99.9%	\$7,312,734	\$7,272,615	100.6%
Savings due to Tax Incentives	\$80,825	\$30,007	269.4%			

Source: IPPBR Tax Simulation Model

Table 3B-267
Summary of Taxes and Costs
SIC 267: Miscellaneous Converted Paper Products
Complete Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Costs	\$6,788,725	\$6,841,541	99.2%	\$6,791,447	\$6,843,378	99.2%
Annual Taxes	\$415,605	\$405,503	102.5%	\$495,201	\$434,333	114.0%
Federal Income Tax	\$333,388	\$296,763	112.3%	\$298,206	\$282,623	105.5%
State Income Tax	\$26,854	\$8,829	304.2%	\$40,879	\$20,024	204.1%
Unemploy. and Workers' Comp.	\$23,960	\$35,970	66.6%	\$23,960	\$35,970	66.6%
Property	\$22,324	\$49,897	44.7%	\$116,178	\$75,858	153.2%
Franchise	\$1,777	\$1,262	140.9%	\$1,808	\$1,269	142.4%
Sales	\$7,302	\$12,783	57.1%	\$14,170	\$18,588	76.2%
On Initial Investment	\$0	\$4,531	0.0%	\$6,868	\$9,167	74.9%
Combined Tax, Non-tax Costs	\$7,204,330	\$7,247,044	99.4%	\$7,286,649	\$7,277,711	100.1%
Savings due to Tax Incentives	\$82,319	\$30,667	268.4%			

Source: IPPBR Tax Simulation Model

Table 4-267
Kansas Taxes and Costs According to Rank Within the Region
SIC 267: Miscellaneous Converted Paper Products

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	5	5
Wyandotte County	8	3	9
Wichita	7	4	7
Medium Size Cities (6 states)	2	4	2
Small Size Cities (6 states)	4	3	4
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	8	7
Wyandotte County	8	10	10
Wichita	7	7	8
Medium Size Cities (6 states)	2	6	4
Small Size Cities (6 states)	4	6	4

Source: IPPBR Tax Simulation Model

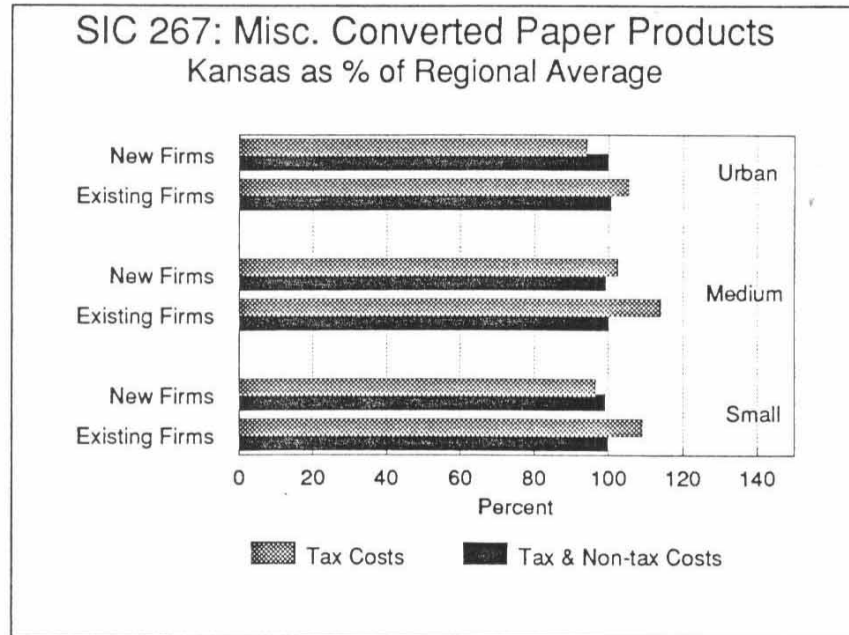


Figure 3-267

Table 5-267
Taxes and Costs in Kansas Locations
SIC 267: Miscellaneous Converted Paper Products
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Non-tax Costs	\$7,012,686	\$7,011,474	100.0%	\$7,015,580	\$7,001,934	100.2%
Annual Taxes	\$336,548	\$351,358	95.8%	\$413,238	\$395,704	104.4%
Combined Tax, Non-tax Costs	\$7,349,233	\$7,362,831	99.8%	\$7,428,818	\$7,397,637	100.4%
Savings due to Tax Incentives	\$76,690	\$44,346	172.9%			
Wichita-Sedgwick County, KS						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Non-tax Costs	\$7,032,830	\$7,011,474	100.3%	\$7,035,300	\$7,001,934	100.5%
Annual Taxes	\$329,911	\$351,358	93.9%	\$410,136	\$395,704	103.6%
Combined Tax, Non-tax Costs	\$7,362,742	\$7,362,831	100.0%	\$7,445,435	\$7,397,637	100.6%
Savings due to Tax Incentives	\$80,224	\$44,346	180.9%			
Wyandotte County, KS						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Non-tax Costs	\$7,056,375	\$7,011,474	100.6%	\$7,059,522	\$7,001,934	100.8%
Annual Taxes	\$327,337	\$351,358	93.2%	\$427,832	\$395,704	108.1%
Combined Tax, Non-tax Costs	\$7,383,712	\$7,362,831	100.3%	\$7,487,354	\$7,397,637	101.2%
Savings due to Tax Incentives	\$100,495	\$44,346	226.6%			
Average Medium Sized City						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Non-tax Costs	\$6,788,725	\$6,841,541	99.2%	\$6,791,447	\$6,843,378	99.2%
Annual Taxes	\$415,605	\$405,503	102.5%	\$495,201	\$434,333	114.0%
Combined Tax, Non-tax Costs	\$7,204,330	\$7,247,044	99.4%	\$7,286,649	\$7,277,711	100.1%
Savings due to Tax Incentives	\$79,597	\$28,830	276.1%			
Average Small Rural City						
Annual Sales	\$7,824,640	\$7,824,640	100.0%	\$7,824,640	\$7,824,640	100.0%
Annual Non-tax Costs	\$6,736,704	\$6,778,181	99.4%	\$6,739,392	\$6,779,977	99.4%
Annual Taxes	\$436,058	\$451,514	96.6%	\$526,066	\$482,779	109.0%
Combined Tax, Non-tax Costs	\$7,172,762	\$7,229,695	99.2%	\$7,265,457	\$7,262,755	100.0%
Savings due to Tax Incentives	\$90,008	\$31,265	287.9%			

Source: IPPBR Tax Simulation Model

Conclusion

At the national level, the paper and allied products industry (SIC 26) has demonstrated meager growth, while the converted paper products industry (SIC 267) has actually declined in employment.

During the 1980s, the industry in Kansas has far out-performed the national average with a 2.37 percent average annual increase in establishments and a 2.98 percent growth in employment. Slow growth at the national level limits the Kansas potential for future growth. However, the central location of the Kansas City area, with good highway access to both raw material and markets, should make locations in eastern Kansas highly competitive to serve regional markets.

**Costs and Taxes for the
Commercial Printing Industry
SIC 275**

The printing and publishing industry (SIC 27) produces a variety of goods, including newspapers, periodicals, books, commercial printing, business forms, and greeting cards. The commercial printing subgroup, the subject of this report, includes several printing processes, among them lithography and gravure. The industry now makes use of sophisticated technological innovations. The *Directory of Kansas Manufacturers and Products, 1988 Edition*, lists several Kansas commercial printers as exporters.

**Table 1-275
SIC 275: Commercial Printing**

Number of Employees	50
Annual Sales	\$3,843,352
Annual Costs	\$2,506,664
Payroll	882,141
Production	574,260
Other	307,880
Employer's Soc. Sec. Payments	67,484
Cost of Employee Benefits	180,966
Cost of Materials	1,674,970
Electricity	39,180
Gas	11,820
Water	0
Depreciation (annual average)	395,667
Repair and Rental Payments	43,759
Interest Payments	254,564
Other Costs or Revenue	(992,885)
Asset Costs (excluding sales taxes)	
Land	\$ 33,468
Buildings	1,378,396
Machinery	3,871,690
Inventory	298,131
Building and Machinery/Employee	105,001

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical commercial printer in a medium sized city in the region. Payroll per worker is estimated in the moderate range: \$17,643 annually. The industry is capital intensive, with investment per employee of \$105,000 in modern plants. Inventory levels are approximately \$6,000 per worker.

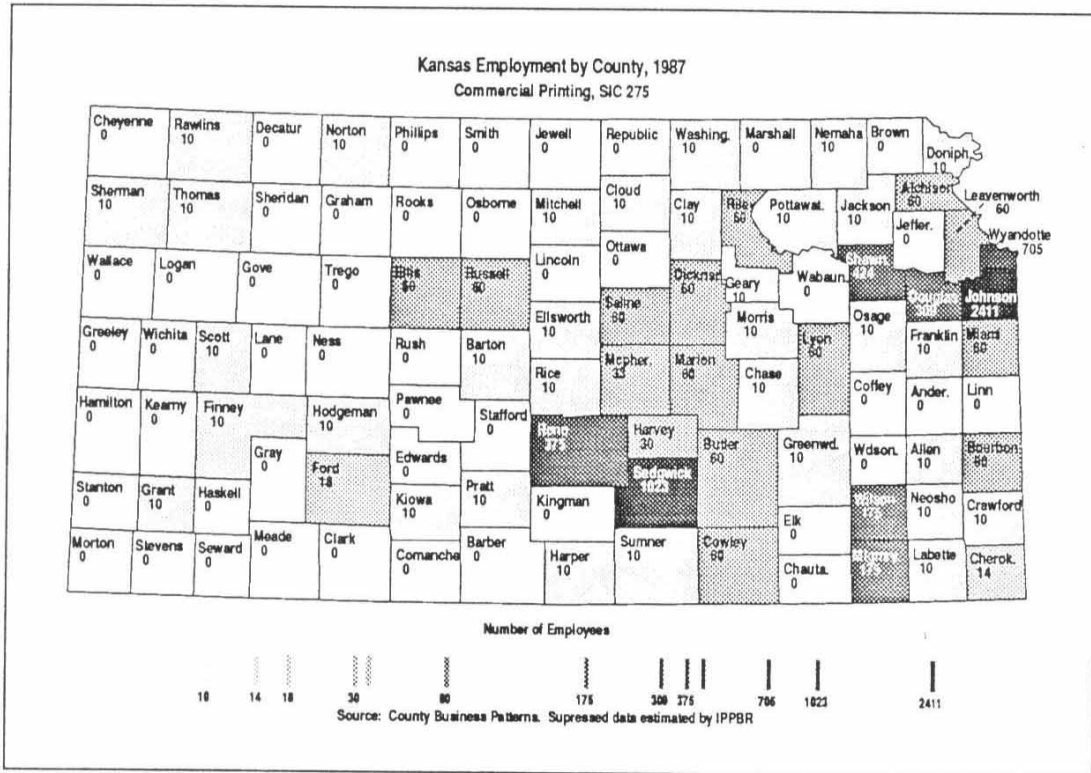


Figure 1-275

Commercial Printing in Kansas

The printing and publishing industry employs over 19,000 Kansans, of whom 6,400 are engaged in commercial printing. The printing and publishing industry is clearly essential to the state's employment

base. Kansas is well represented in book publishing, greeting cards, and business forms as well as in commercial printing.

The commercial printing industry is concentrated in urban areas. Most jobs are located in the Eastern Kansas corridor between Kansas City and Topeka, and in the areas surrounding Wichita. Southeastern Kansas is also home to many jobs in this industry.

Table 2-275
Employment and Establishments
SIC 275: Commercial Printing

	1980	1987	Average Annual Growth
SIC 275			
United States			
SIC 275 employment	415,538	557,821	4.30%
SIC 275 establishments	22,306	35,865	7.02%
SIC 275 Employ./Estab.	19	16	
Region			
SIC 275 employment	28,566	38,937	4.52%
Data Suppression Error	0	0	
SIC 275 establishments	1,751	2,833	7.12%
SIC 275 Employ./Estab.	16	14	
Kansas			
SIC 275 employment	4,221	6,410	6.15%
Data Suppression Error	0	0	
SIC 275 establishments	214	341	6.88%
SIC 275 Employ./Estab.	20	19	
Kansas as % of Region			
SIC 275 employment	14.78%	16.46%	
SIC 275 establishments	12.22%	12.04%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 275

At the national level, both the number of employees and the number of establishments have boomed in recent years. Kansas employment growth has outperformed the nation, with 6.15 percent annual job growth. In recent years, printing and publishing has been one of the bright spots in Kansas manufacturing.

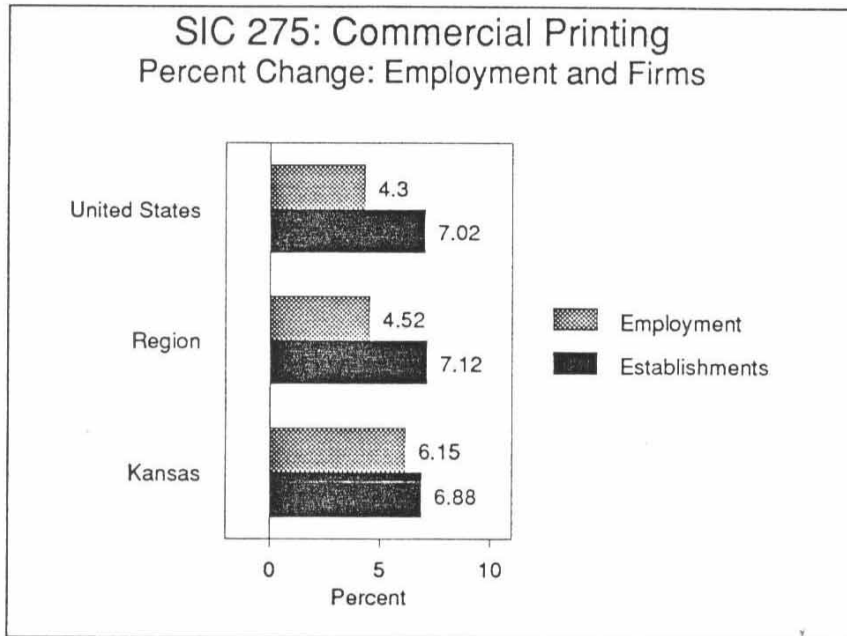


Figure 2-275

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-275
Summary of Taxes and Costs
SIC 275: Commercial Printing
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Costs	\$2,536,962	\$2,539,655	99.9%	\$2,541,202	\$2,543,651	99.9%
Annual Taxes	\$521,866	\$529,225	98.6%	\$629,818	\$569,012	110.7%
Federal Income Tax	\$421,667	\$402,581	104.7%	\$372,749	\$382,159	97.5%
State Income Tax	\$34,006	\$12,052	282.2%	\$51,239	\$27,330	187.5%
Unemploy. and Workers' Comp.	\$24,346	\$24,235	100.5%	\$24,346	\$24,235	100.5%
Property	\$30,658	\$71,806	42.7%	\$159,552	\$103,954	153.5%
Franchise	\$2,771	\$1,911	145.0%	\$2,818	\$1,926	146.3%
Sales	\$8,418	\$16,640	50.6%	\$19,115	\$29,407	65.0%
On Initial Investment	\$0	\$6,953	0.0%	\$10,697	\$16,879	63.4%
Combined Tax, Non-tax Costs	\$3,058,829	\$3,068,879	99.7%	\$3,171,020	\$3,112,662	101.9%
Savings due to Tax Incentives	\$112,192	\$43,783	256.2%			

Source: IPPBR Tax Simulation Model

Table 3B-275
Summary of Taxes and Costs
SIC 275: Commercial Printing
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Costs	\$2,502,374	\$2,545,486	98.3%	\$2,506,664	\$2,549,432	98.3%
Annual Taxes	\$534,239	\$527,055	101.4%	\$643,296	\$567,326	113.4%
Federal Income Tax	\$433,619	\$399,172	108.6%	\$384,434	\$378,577	101.5%
State Income Tax	\$34,993	\$11,791	296.8%	\$52,863	\$27,056	195.4%
Unemploy. and Workers' Comp.	\$23,595	\$24,297	97.1%	\$23,595	\$24,297	97.1%
Property	\$30,802	\$72,941	42.2%	\$160,303	\$105,728	151.6%
Franchise	\$2,781	\$1,922	144.7%	\$2,828	\$1,937	146.0%
Sales	\$8,448	\$16,933	49.9%	\$19,273	\$29,731	64.8%
On Initial Investment	\$0	\$7,084	0.0%	\$10,824	\$17,042	63.5%
Combined Tax, Non-tax Costs	\$3,036,614	\$3,072,541	98.8%	\$3,149,960	\$3,116,758	101.1%
Savings due to Tax Incentives	\$113,346	\$44,217	256.3%			

Source: IPPBR Tax Simulation Model

Table 4-275
Kansas Taxes and Costs According to Rank Within the Region
SIC 275: Commercial Printing

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	7	5
Wyandotte County	9	4	8
Wichita	6	5	7
Medium Size Cities (6 states)	2	4	2
Small Size Cities (6 states)	4	3	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	8	7
Wyandotte County	8	11	10
Wichita	7	9	8
Medium Size Cities (6 states)	2	6	6
Small Size Cities (6 states)	4	6	6

Source: IPPBR Tax Simulation Model

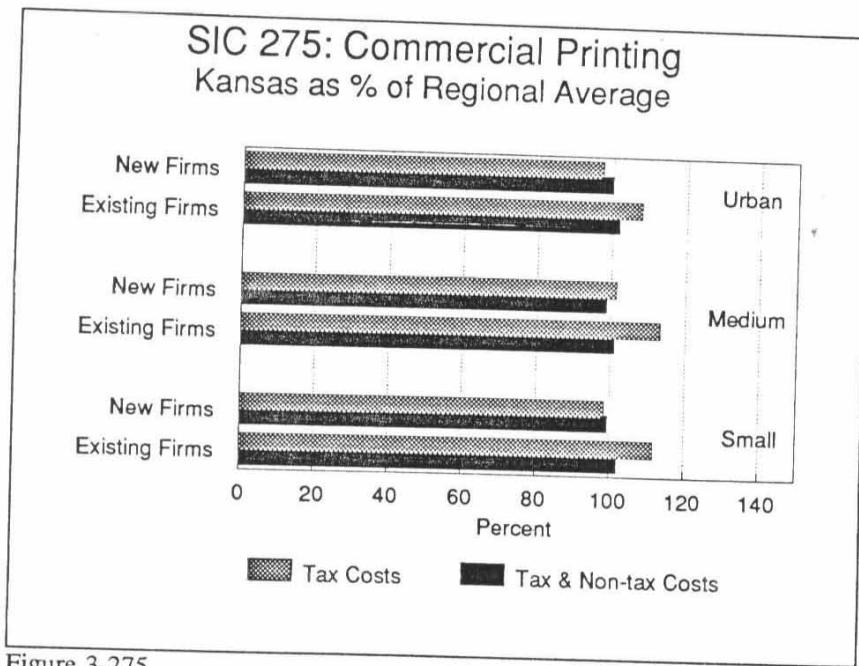


Figure 3-275

Table 5-275
Taxes and Costs in Kansas Locations
SIC 275: Commercial Printing
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Non-tax Costs	\$2,694,280	\$2,704,839	99.6%	\$2,698,696	\$2,697,978	100.0%
Annual Taxes	\$464,877	\$473,746	98.1%	\$563,724	\$529,228	106.5%
Combined Tax, Non-tax Costs	\$3,159,157	\$3,178,584	99.4%	\$3,262,420	\$3,227,207	101.1%
Savings due to Tax Incentives	\$98,847	\$55,483	178.2%			
Wichita-Sedgwick County, KS						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Non-tax Costs	\$2,712,204	\$2,704,839	100.3%	\$2,716,109	\$2,697,978	100.7%
Annual Taxes	\$459,599	\$473,746	97.0%	\$564,223	\$529,228	106.6%
Combined Tax, Non-tax Costs	\$3,171,802	\$3,178,584	99.8%	\$3,280,332	\$3,227,207	101.6%
Savings due to Tax Incentives	\$104,625	\$55,483	188.6%			
Wyandotte County, KS						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Non-tax Costs	\$2,734,915	\$2,704,839	101.1%	\$2,739,715	\$2,697,978	101.5%
Annual Taxes	\$458,212	\$473,746	96.7%	\$586,871	\$529,228	110.9%
Combined Tax, Non-tax Costs	\$3,193,126	\$3,178,584	100.5%	\$3,326,586	\$3,227,207	103.1%
Savings due to Tax Incentives	\$128,660	\$55,483	231.9%			
Average Medium Sized City						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Non-tax Costs	\$2,502,374	\$2,545,486	98.3%	\$2,506,664	\$2,549,432	98.3%
Annual Taxes	\$534,239	\$527,055	101.4%	\$643,296	\$567,326	113.4%
Combined Tax, Non-tax Costs	\$3,036,614	\$3,072,541	98.8%	\$3,149,960	\$3,116,758	101.1%
Savings due to Tax Incentives	\$109,057	\$40,271	270.8%			
Average Small Rural City						
Annual Sales	\$3,843,352	\$3,843,352	100.0%	\$3,843,352	\$3,843,352	100.0%
Annual Non-tax Costs	\$2,441,495	\$2,447,938	99.7%	\$2,445,759	\$2,451,784	99.8%
Annual Taxes	\$558,945	\$567,277	98.5%	\$683,071	\$610,896	111.8%
Combined Tax, Non-tax Costs	\$3,000,439	\$3,015,214	99.5%	\$3,128,830	\$3,062,680	102.2%
Savings due to Tax Incentives	\$124,126	\$43,620	284.6%			

Source: IPPBR Tax Simulation Model

Conclusions

Commercial printing has flourished in Kansas during the 1980s, with growth exceeding the national average. Moderate basic production costs, as well as a excellent national highway access, make the urban

areas of Eastern Kansas particularly attractive. A nationally recognized printing technology program at Pittsburg State University in Southeast Kansas insures that a professional labor force trained in the most up to date printing techniques will be readily available as the industry expands.

**Costs and Taxes for the
Pharmaceutical and Biological Products Industry
SIC 283**

The human and veterinary drugs industry (SIC 283) includes establishments manufacturing medicinal chemicals, botanical products including vaccines, and pharmaceutical products. The drug industry maintains a high level of expenditures on research, development, and testing. According to the *1989 U.S. Industrial Outlook*, biological products and pharmaceuticals show strong prospects for growth. Home testing kits, over-the-counter drugs, and new drug delivery systems are expected to be leading growth areas.

Table 1-283
SIC 283: Drugs

Number of Employees	50
Annual Sales	\$10,373,086
Annual Costs	\$8,454,046
Payroll	1,223,089
Production	445,479
Other	777,610
Employer's Soc. Sec. Payments	93,566
Cost of Employee Benefits	321,187
Cost of Materials	3,012,540
Electricity	94,896
Gas	36,125
Water	39,870
Depreciation (annual average)	750,684
Repair and Rental Payments	30,891
Interest Payments	377,522
Other Costs or Revenue	2,644,566
Asset Costs (excluding sales taxes)	
Land	\$ 23,627
Buildings	973,073
Machinery	6,838,460
Inventory	1,379,596
Building and Machinery/Employee	156,231

Source: IPPBR Tax Simulation Model

The *Directory of Kansas Manufacturers and Products, 1988 Edition*, lists several Kansas pharmaceutical firms. As would be expected given the strong Kansas livestock industry, many of the firms produce veterinary drugs and vaccines. Several Kansas firms are exporters.

Cost and Asset Profile

Table 1 shows the costs and assets of a typical pharmaceutical manufacturer in a medium sized city in the region. The average level of wages in the industry is high, about \$24,460 per worker. This figure reflects management and research personnel as well as production workers. The industry is extremely capital intensive. Throughout the U.S., new facilities constructed in 1988 averaged an investment of \$156,230 per worker. Inventory levels are also high, on average over \$27,000 per worker.

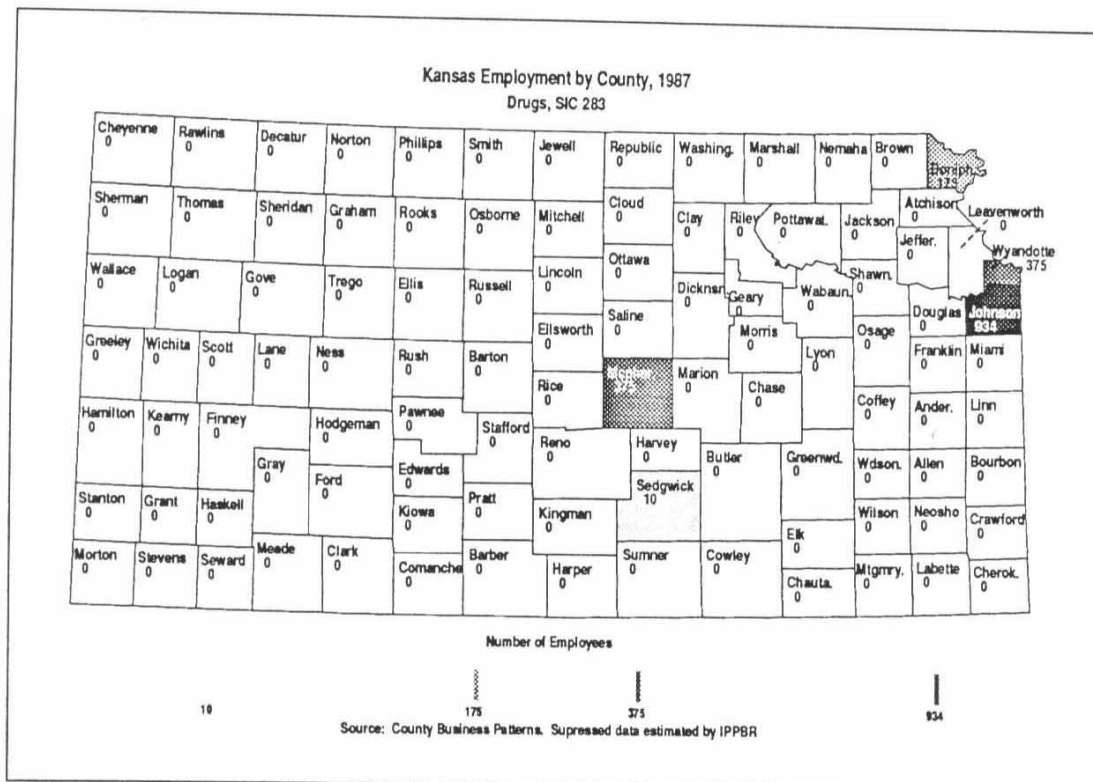


Figure 1-283

Pharmaceutical and Biological Products in Kansas

Kansas employment in the pharmaceutical and biological products industries remains fairly small, less than 2,000 workers. Fifteen locations in the state manufacture the products, with employment per location averaging 120 workers. Although the average firm size has fallen since 1980, it is still larger than for most manufacturing industries. Larger establishments benefit from economies of scale in this industry.

The bulk of employment in the industry is concentrated in Johnson and Wyandotte counties. However, production facilities are also viable in more rural areas of the state. For example, a plant in McPherson County employs an estimated 375 workers.

Table 2-283
Employment and Establishments
SIC 283: Drugs

	1980	1987	Average Annual Growth
SIC 283			
United States			
SIC 283 employment	168,506	174,747	0.52%
SIC 283 establishments	1,102	1,355	3.00%
SIC 283 Employ./Estab.	153	129	
Region			
SIC 283 employment	10,692	10,731	0.05%
Data Suppression Error	249	0	
SIC 283 establishments	96	122	3.48%
SIC 283 Employ./Estab.	111	88	
Kansas			
SIC 283 employment	1,704	1,807	0.84%
Data Suppression Error	0	0	
SIC 283 establishments	11	15	4.53%
SIC 283 Employ./Estab.	155	120	
Kansas as % of Region			
SIC 283 employment	15.94%	16.84%	
SIC 283 establishments	11.46%	12.30%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 283

Although growth in the Kansas pharmaceutical industry has been modest during the 1980s, it has nevertheless outpaced the nation and region. Employment grew at about .8 percent per year in Kansas, but at only .5 percent nationwide. The industry has seen a trend toward smaller establishment sizes. However, smaller establishment size does not imply smaller firm size. The *U.S. Industrial Outlook* predicts that smaller companies will consolidate in order to generate the R&D funds necessary to stay competitive in the industry.

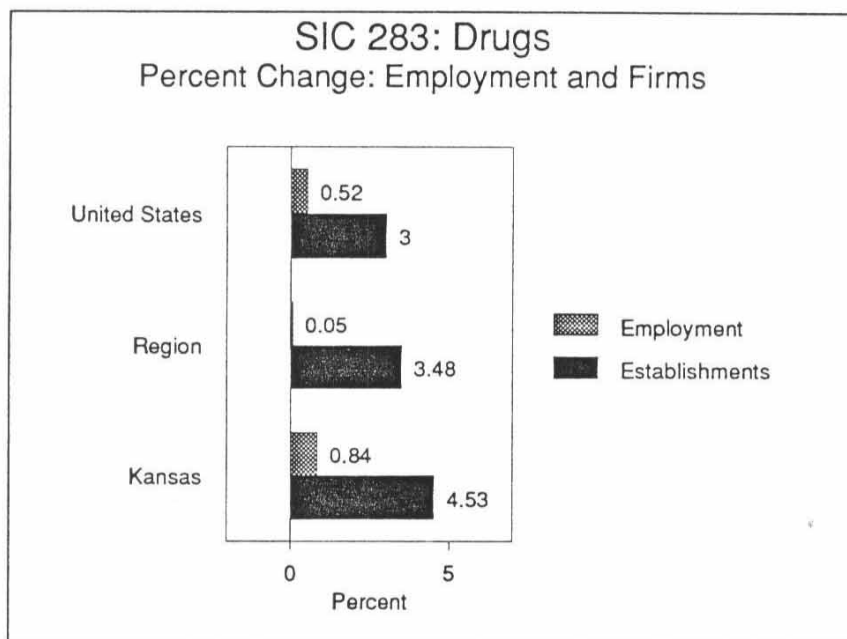


Figure 2-283

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-283
Summary of Taxes and Costs
SIC 283: Drugs
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Costs	\$8,447,663	\$8,521,249	99.1%	\$8,454,046	\$8,527,834	99.1%
Annual Taxes	\$758,975	\$750,158	101.2%	\$912,617	\$806,971	113.1%
Federal Income Tax	\$627,059	\$569,375	110.1%	\$558,127	\$539,831	103.4%
State Income Tax	\$50,784	\$18,127	280.2%	\$77,001	\$38,768	198.6%
Unemploy. and Workers' Comp.	\$19,477	\$24,159	80.6%	\$19,477	\$24,159	80.6%
Property	\$42,857	\$106,913	40.1%	\$223,038	\$150,179	148.5%
Franchise	\$4,124	\$2,809	146.8%	\$4,195	\$2,834	148.0%
Sales	\$14,675	\$28,775	51.0%	\$30,780	\$51,200	60.1%
On Initial Investment	\$0	\$10,503	0.0%	\$16,105	\$27,119	59.4%
Combined Tax, Non-tax Costs	\$9,206,638	\$9,271,407	99.3%	\$9,366,664	\$9,334,806	100.3%
Savings due to Tax Incentives	\$160,026	\$63,398	252.4%			

Source: IPPBR Tax Simulation Model

Table 3B-283
Summary of Taxes and Costs
SIC 283: Drugs
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Costs	\$8,447,663	\$8,521,249	99.1%	\$8,454,046	\$8,527,834	99.1%
Annual Taxes	\$758,975	\$750,158	101.2%	\$912,617	\$806,971	113.1%
Federal Income Tax	\$627,059	\$569,375	110.1%	\$558,127	\$539,831	103.4%
State Income Tax	\$50,784	\$18,127	280.2%	\$77,001	\$38,768	198.6%
Unemploy. and Workers' Comp.	\$19,477	\$24,159	80.6%	\$19,477	\$24,159	80.6%
Property	\$42,857	\$106,913	40.1%	\$223,038	\$150,179	148.5%
Franchise	\$4,124	\$2,809	146.8%	\$4,195	\$2,834	148.0%
Sales	\$14,675	\$28,775	51.0%	\$30,780	\$51,200	60.1%
On Initial Investment	\$0	\$10,503	0.0%	\$16,105	\$27,119	59.4%
Combined Tax, Non-tax Costs	\$9,206,638	\$9,271,407	99.3%	\$9,366,664	\$9,334,806	100.3%
Savings due to Tax Incentives	\$160,026	\$63,398	252.4%			

Source: IPPBR Tax Simulation Model

Table 4-283
Kansas Taxes and Costs According to Rank Within the Region
SIC 283: Drugs

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	6	4
Wyandotte County	8	3	8
Wichita	6	2	7
Medium Size Cities (6 states)	3	3	2
Small Size Cities (6 states)	4	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	9	6
Wyandotte County	8	10	10
Wichita	7	8	8
Medium Size Cities (6 states)	2	6	5
Small Size Cities (6 states)	4	6	4

Source: IPPBR Tax Simulation Model

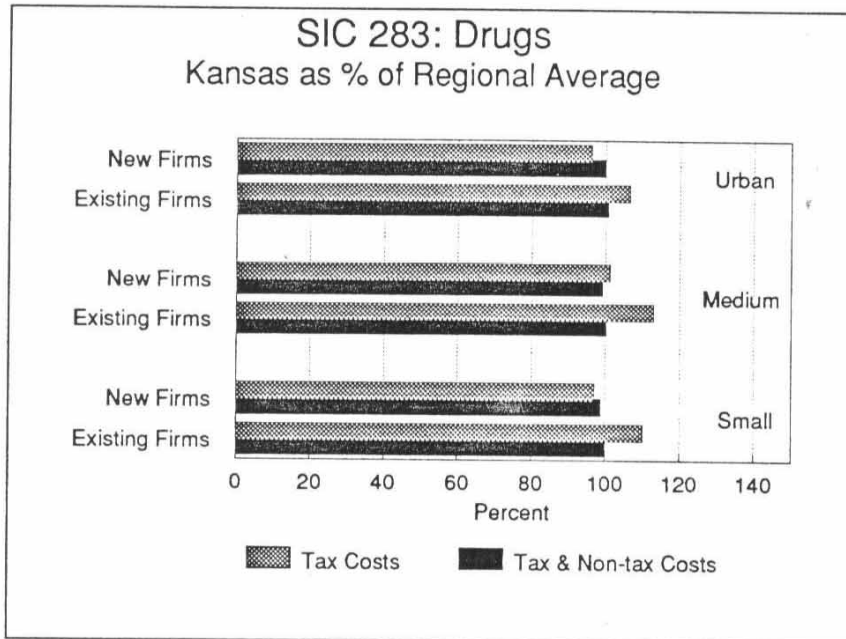


Figure 3-283

Table 5-283
Taxes and Costs in Kansas Locations
SIC 283: Drugs
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Non-tax Costs	\$8,707,434	\$8,722,913	99.8%	\$8,713,906	\$8,714,348	100.0%
Annual Taxes	\$662,049	\$680,973	97.2%	\$795,098	\$755,030	105.3%
Combined Tax, Non-tax Costs	\$9,369,483	\$9,403,885	99.6%	\$9,509,004	\$9,469,379	100.4%
Savings due to Tax Incentives	\$133,049	\$74,058	179.7%			
Wichita-Sedgwick County, KS						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Non-tax Costs	\$8,742,019	\$8,722,913	100.2%	\$8,747,838	\$8,714,348	100.4%
Annual Taxes	\$651,047	\$680,973	95.6%	\$792,512	\$755,030	105.0%
Combined Tax, Non-tax Costs	\$9,393,066	\$9,403,885	99.9%	\$9,540,351	\$9,469,379	100.7%
Savings due to Tax Incentives	\$141,465	\$74,058	191.0%			
Wyandotte County, KS						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Non-tax Costs	\$8,763,774	\$8,722,913	100.5%	\$8,770,809	\$8,714,348	100.6%
Annual Taxes	\$652,008	\$680,973	95.7%	\$823,895	\$755,030	109.1%
Combined Tax, Non-tax Costs	\$9,415,782	\$9,403,885	100.1%	\$9,594,704	\$9,469,379	101.3%
Savings due to Tax Incentives	\$171,887	\$74,058	232.1%			
Average Medium Sized City						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Non-tax Costs	\$8,447,663	\$8,521,249	99.1%	\$8,454,046	\$8,527,834	99.1%
Annual Taxes	\$758,975	\$750,158	101.2%	\$912,617	\$806,971	113.1%
Combined Tax, Non-tax Costs	\$9,206,638	\$9,271,407	99.3%	\$9,366,664	\$9,334,806	100.3%
Savings due to Tax Incentives	\$153,643	\$56,813	270.4%			
Average Small Rural City						
Annual Sales	\$10,373,086	\$10,373,086	100.0%	\$10,373,086	\$10,373,086	100.0%
Annual Non-tax Costs	\$8,384,644	\$8,468,441	99.0%	\$8,391,009	\$8,474,853	99.0%
Annual Taxes	\$787,136	\$810,836	97.1%	\$961,167	\$872,069	110.2%
Combined Tax, Non-tax Costs	\$9,171,780	\$9,279,278	98.8%	\$9,352,176	\$9,346,922	100.1%
Savings due to Tax Incentives	\$174,031	\$61,232	284.2%			

Source: IPPBR Tax Simulation Model

Conclusions

On the basis of costs, Kansas should provide a competitive location for the pharmaceutical and biological preparations industry, despite the high level of Kansas taxes. Locations in eastern Kansas

provide easy access to national markets along the interstate highway system. Research facilities at the University of Kansas and Kansas State University specialize in drug delivery methods and in veterinary medicine. This creates opportunities for university-business linkages.

**Costs and Taxes for the
Miscellaneous Plastics Products Industry
SIC 307**

The rubber and plastic products industry (SIC 30) includes firms producing tires and other products like natural and synthetic rubber, and firms producing plastic products from plastic resins. The plastic products subgroup (SIC 307, recently changed to 308) is the focus of this report. The subgroup manufactures a diverse list of goods including plastic film and sheeting, tubs and rods, laminated plastics, plastic pipe and plumbing fixtures, bottles, and foam products. The *Directory of Kansas Manufacturers and Products, 1988 Directory* records Kansas firms producing all of the above products. Several Kansas firms export to international markets.

Table 1-307 SIC 307: Miscellaneous Plastic Products	
Number of Employees	50
Annual Sales	\$4,771,931
Annual Costs	\$3,914,586
Payroll	787,084
Production	512,789
Other	274,295
Employer's Soc. Sec. Payments	60,212
Cost of Employee Benefits	205,179
Cost of Materials	2,368,476
Electricity	136,699
Gas	19,989
Water	0
Depreciation (annual average)	164,717
Repair and Rental Payments	46,518
Interest Payments	134,978
Other Costs or Revenue	147,421
Asset Costs (excluding sales taxes)	
Land	\$ 35,579
Buildings	1,465,314
Machinery	1,300,930
Inventory	532,737
Building and Machinery/Employee	55,324
Source: IPPBR Tax Simulation Model	

Cost and Asset Profile

Table 1 shows costs and assets for a typical plastics producer in a medium sized city in the region. Payroll per employee is estimated at about \$15,700, average for manufacturing firms. A new firm is estimated to spend \$55,300 per employee on plant and equipment; capital intensity is in the mid-range for manufacturing industries. Inventories average \$10,655 per employee. The impact of an increase in property tax rates will not be as great for this industry as for a more capital intensive line of business.

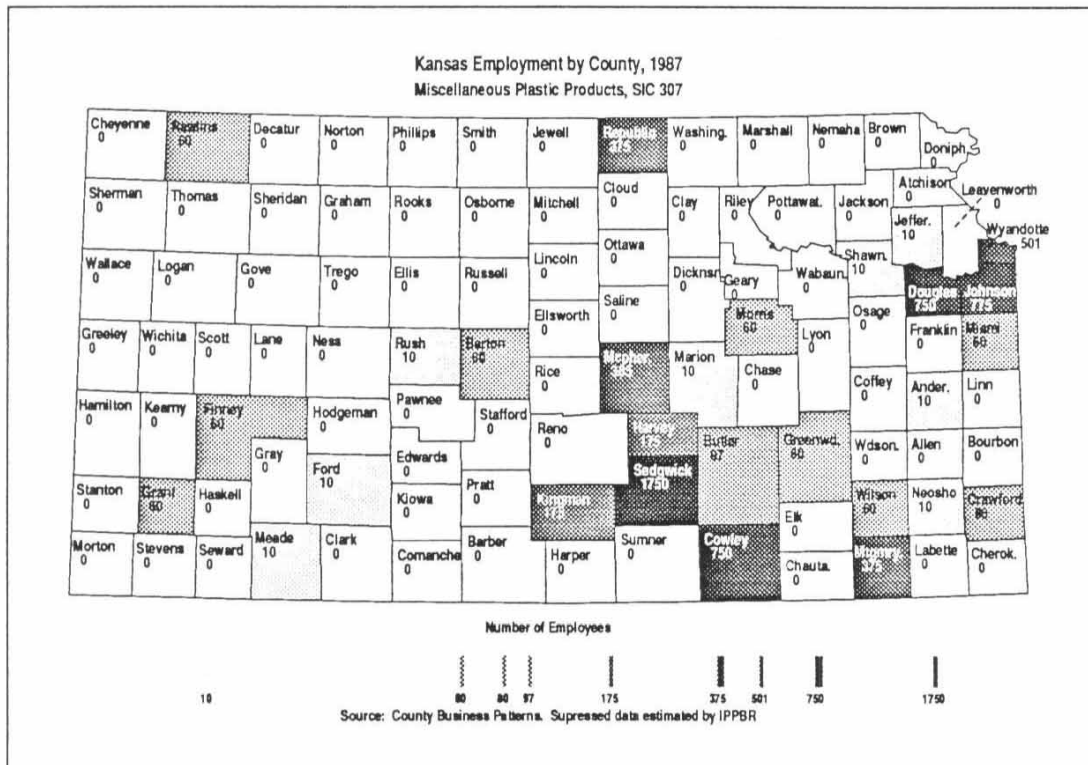


Figure 1-307

Plastic Products in Kansas

Employment in the plastic products industry has held steady in the region during the 1980s. Plastic products are produced at 108 business locations in the state, with an average of 50 workers per location.

Among the states in the region, Missouri dominates in employment in this industry, followed by Iowa and then Kansas.

The plastic products industry is concentrated in the eastern half of Kansas. The industry provides substantial employment in Johnson, Wyandotte, and Douglas counties in or near the Kansas City area, and in Sedgwick County and other counties near the Wichita area. *County Business Patterns* lists a firm in Republic County in the northern part of the state with between 250 and 500 employees.

Table 2-307
Employment and Establishments:
SIC 307: Miscellaneous Plastic Products

	1980	1987	Average Annual Growth
SIC 307			
United States			
SIC 307 employment	515,562	588,481	1.91%
SIC 307 establishments	10,132	11,848	2.26%
SIC 307 Employ./Estab.	51	50	
Region			
SIC 307 employment	30,983	31,599	0.28%
Data Suppression Error	4,998	2,499	
SIC 307 establishments	653	716	1.32%
SIC 307 Employ./Estab.	47	44	
Kansas			
SIC 307 employment	5,310	5,347	0.10%
Data Suppression Error	0	0	
SIC 307 establishments	116	108	-1.02%
SIC 307 Employ./Estab.	46	50	
Kansas as % of Region			
SIC 307 employment	17.14%	16.92%	
SIC 307 establishments	17.76%	15.08%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 307

During the 1980s, nationwide employment in the plastic products industry grew at a rate of 1.91 percent per year, almost keeping pace with the growth of real GNP. But the six state region surrounding Kansas has experienced a large decline in market share. Employment has lagged behind U.S. growth at only .28 percent per year. Kansas growth has stagnated; the state added only 37 new employees in the industry in an eight year period. During the same period, the state experienced a net loss of eight firms.

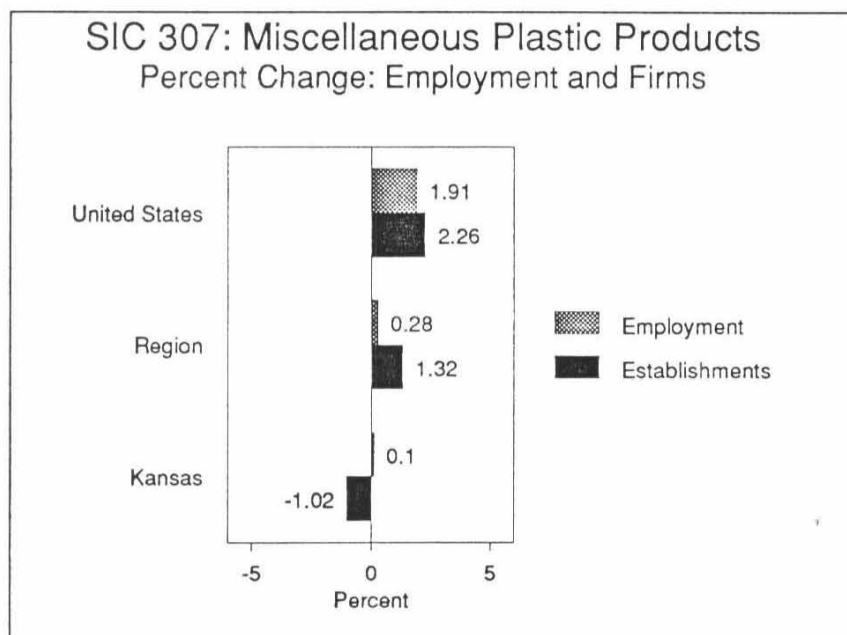


Figure 2-307

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-307
Summary of Taxes and Costs
SIC 307: Miscellaneous Plastic Products
Partial Model: Variation in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Costs	\$3,912,325	\$3,945,539	99.2%	\$3,914,586	\$3,947,129	99.2%
Annual Taxes	\$352,826	\$343,472	102.7%	\$417,933	\$367,290	113.8%
Federal Income Tax	\$272,337	\$246,112	110.7%	\$243,507	\$234,389	103.9%
State Income Tax	\$21,874	\$7,043	310.6%	\$33,278	\$16,551	201.1%
Unemploy. and Workers' Comp.	\$32,599	\$37,922	86.0%	\$32,599	\$37,922	86.0%
Property	\$18,268	\$40,893	44.7%	\$95,073	\$61,952	153.5%
Franchise	\$1,475	\$1,059	139.2%	\$1,500	\$1,066	140.7%
Sales	\$6,273	\$10,443	60.1%	\$11,976	\$15,410	77.7%
On Initial Investment	\$0	\$3,759	0.0%	\$5,703	\$7,771	73.4%
Combined Tax, Non-tax Costs	\$4,265,152	\$4,289,011	99.4%	\$4,332,519	\$4,314,419	100.4%
Savings due to Tax Incentives	\$67,367	\$25,408	265.1%			

Source: IPPBR Tax Simulation Model

Table 3B-307
Summary of Taxes and Costs
SIC 307: Miscellaneous Plastic Products
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Costs	\$3,937,863	\$3,939,077	100.0%	\$3,940,069	\$3,940,873	100.0%
Annual Taxes	\$343,916	\$347,474	99.0%	\$408,059	\$370,742	110.1%
Federal Income Tax	\$263,391	\$251,430	104.8%	\$234,845	\$239,848	97.9%
State Income Tax	\$21,136	\$7,465	283.1%	\$32,074	\$16,994	188.7%
Unemploy. and Workers' Comp.	\$33,638	\$37,709	89.2%	\$33,638	\$37,709	89.2%
Property	\$18,115	\$39,687	45.6%	\$94,275	\$60,067	157.0%
Franchise	\$1,464	\$1,047	139.8%	\$1,489	\$1,054	141.2%
Sales	\$6,171	\$10,135	60.9%	\$11,738	\$15,070	77.9%
On Initial Investment	\$0	\$3,619	0.0%	\$5,568	\$7,598	73.3%
Combined Tax, Non-tax Costs	\$4,281,778	\$4,286,551	99.9%	\$4,348,129	\$4,311,615	100.8%
Savings due to Tax Incentives	\$66,350	\$25,065	264.7%			

Source: IPPBR Tax Simulation Model

Table 4-307
Kansas Taxes and Costs According to Rank Within the Region
SIC 307: Miscellaneous Plastic Products

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	6	6
Wyandotte County	8	4	9
Wichita	7	5	7
Medium Size Cities (6 states)	2	5	2
Small Size Cities (6 states)	4	2	4
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	8	6
Wyandotte County	8	11	10
Wichita	7	6	8
Medium Size Cities (6 states)	2	6	4
Small Size Cities (6 states)	4	6	5

Source: IPPBR Tax Simulation Model

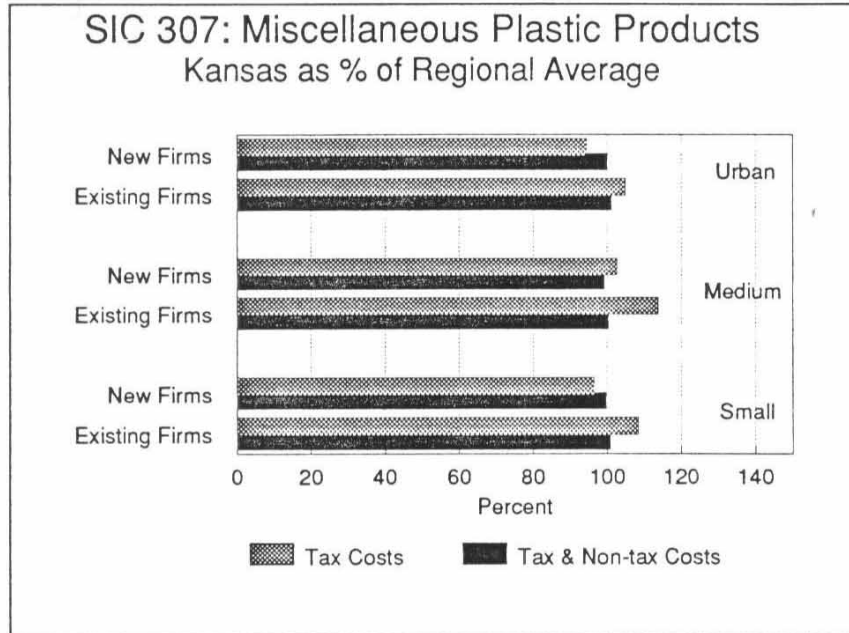


Figure 3-307

Table 5-307
Taxes and Costs in Kansas Locations
SIC 307: Miscellaneous Plastic Products
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Non-tax Costs	\$4,089,424	\$4,082,577	100.2%	\$4,091,819	\$4,074,713	100.4%
Annual Taxes	\$291,582	\$303,310	96.1%	\$353,869	\$339,463	104.2%
Combined Tax, Non-tax Costs	\$4,381,006	\$4,385,888	99.9%	\$4,445,687	\$4,414,176	100.7%
Savings due to Tax Incentives	\$62,287	\$36,153	172.3%			
Wichita-Sedgwick County, KS						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Non-tax Costs	\$4,110,546	\$4,082,577	100.7%	\$4,112,597	\$4,074,713	100.9%
Annual Taxes	\$284,699	\$303,310	93.9%	\$349,826	\$339,463	103.1%
Combined Tax, Non-tax Costs	\$4,395,245	\$4,385,888	100.2%	\$4,462,423	\$4,414,176	101.1%
Savings due to Tax Incentives	\$65,127	\$36,153	180.1%			
Wyandotte County, KS						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Non-tax Costs	\$4,125,680	\$4,082,577	101.1%	\$4,128,283	\$4,074,713	101.3%
Annual Taxes	\$284,171	\$303,310	93.7%	\$365,708	\$339,463	107.7%
Combined Tax, Non-tax Costs	\$4,409,851	\$4,385,888	100.5%	\$4,493,991	\$4,414,176	101.8%
Savings due to Tax Incentives	\$81,537	\$36,153	225.5%			
Average Medium Sized City						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Non-tax Costs	\$3,912,325	\$3,945,539	99.2%	\$3,914,586	\$3,947,129	99.2%
Annual Taxes	\$352,826	\$343,472	102.7%	\$417,933	\$367,290	113.8%
Combined Tax, Non-tax Costs	\$4,265,152	\$4,289,011	99.4%	\$4,332,519	\$4,314,419	100.4%
Savings due to Tax Incentives	\$65,107	\$23,818	273.3%			
Average Small Rural City						
Annual Sales	\$4,771,931	\$4,771,931	100.0%	\$4,771,931	\$4,771,931	100.0%
Annual Non-tax Costs	\$3,870,559	\$3,864,424	100.2%	\$3,872,793	\$3,865,977	100.2%
Annual Taxes	\$368,735	\$382,292	96.5%	\$442,419	\$408,195	108.4%
Combined Tax, Non-tax Costs	\$4,239,294	\$4,246,716	99.8%	\$4,315,212	\$4,274,172	101.0%
Savings due to Tax Incentives	\$73,684	\$25,903	284.5%			

Source: IPPBR Tax Simulation Model

Conclusions

The plastic products industry produces a diverse group of products in Kansas. While the industry concentrates near large cities, manufacturing plants in smaller communities are not uncommon. Nationally,

the industry has experienced healthy growth during the 1980s. However, the six state region, and especially Kansas, have stagnated in employment growth. Although Kansas taxes are high, modest overall costs make Kansas a competitive location within the region.

**Costs and Taxes for the
Fabricated Structural Metal Products Industry
SIC 344**

The metal products industry (SIC 34) produces a diverse group of goods including metal cans, nuts and bolts, cutlery, hand tools, structural steel, forged metal, and munitions. This report looks at a subgroup of the industry, fabricated structural metal products. The major items classified as structural metal include steel for highways, bridges, and buildings, plate work such as pressurized tanks and vats, and sheet metal work. Plate work provides about 1,300 jobs in Kansas, while structural steel, sheet metal, and metal doors and trims each employ over 600 workers. Descriptions of firms in the *1988 Directory of Kansas Manufacturers and Products* indicate that several Kansas employers export to other countries.

**Table 1-344
SIC 344: Fabricated Structural Metal Products**

Number of Employees	50
Annual Sales	\$4,821,850
Annual Costs	\$3,417,985
Payroll	885,412
Production	543,774
Other	341,638
Employer's Soc. Sec. Payments	67,734
Cost of Employee Benefits	229,910
Cost of Materials	2,662,849
Electricity	39,769
Gas	16,781
Water	1,211
Depreciation (annual average)	406,046
Repair and Rental Payments	29,884
Interest Payments	263,974
Other Costs or Revenue	(1,127,824)
Asset Costs (excluding sales taxes)	
Land	\$ 22,856
Buildings	941,335
Machinery	4,514,470
Inventory	720,963
Building and Machinery/Employee	109,116

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the cost and asset structure for a typical fabricated metals producer in a medium sized city in the region. Three features of the profile stand out. First, average payroll per employee stands at about \$17,700, toward the low end for manufacturing industries. Second, the industry is very capital intensive, with average investment per new employee estimated at over \$109,000. Third, the industry maintains a high level of inventories per employee, over \$14,000. The capital intensity of the industry intensifies the impact of an increase in property taxation. The high level of inventories means that any reintroduction of the Kansas inventory tax will hit this industry hard.

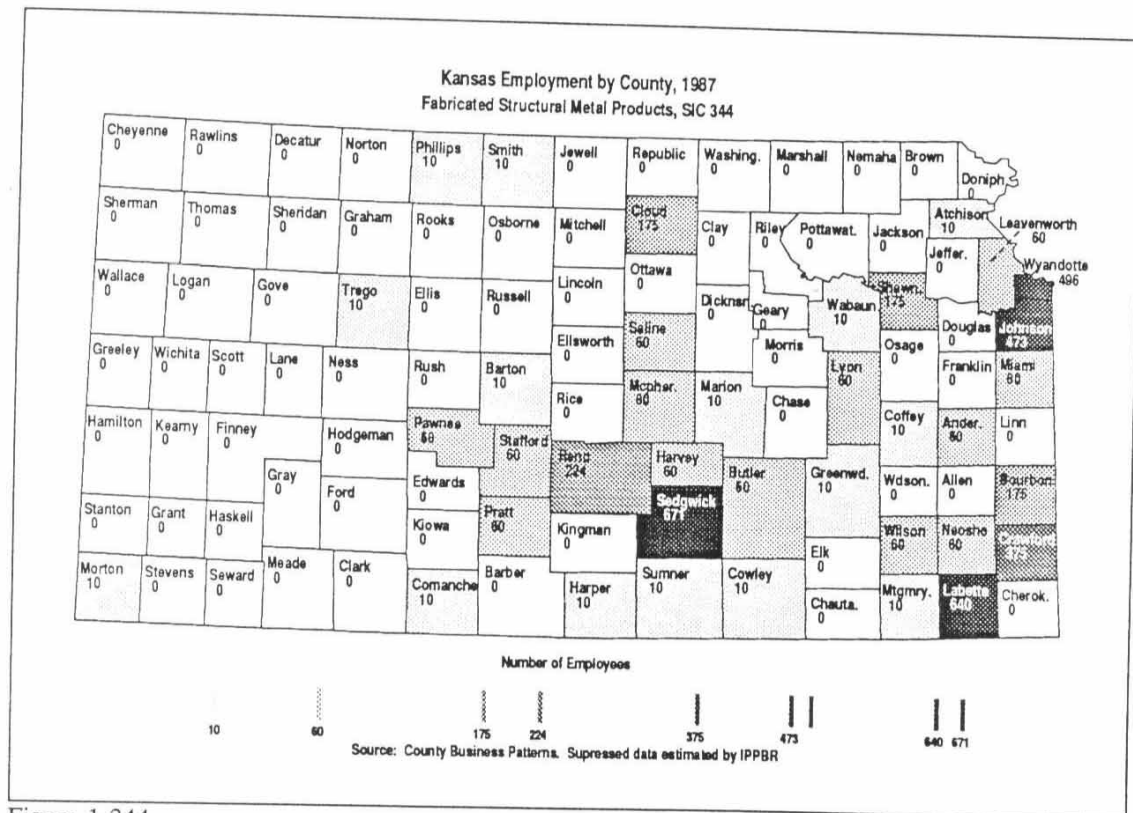


Figure 1-344

Fabricated Structural Metal Products in Kansas

Fabricated structural metals comprise an important industry in Kansas, with 1987 employment exceeding 4,000. Fabricated metals are produced at 134 location in Kansas, with an average employment of 30 workers per establishment.

Not surprisingly, the bulk of the industry is concentrated in two urban areas, Kansas City and Wichita. The counties directly to the north and west of Wichita maintain substantial employment in the industry, as do several counties along Interstate 35. A cluster of firms in the southeast corner of the state, particularly in Labette and Crawford counties, provide over 1,000 jobs. Plate work and metal trims provide the bulk of jobs in these counties.

Table 2-344
Employment and Establishments
SIC 344: Fabricated Structural Metal Products

	1980	1987	Average Annual Growth
SIC 344			
United States			
SIC 344 employment	465,904	388,945	-2.55%
SIC 344 establishments	11,018	12,217	1.49%
SIC 344 Employ./Estab.	42	32	
Region			
SIC 344 employment	45,813	30,275	-5.75%
Data Suppression Error	0	0	
SIC 344 establishments	888	921	0.52%
SIC 344 Employ./Estab.	52	33	
Kansas			
SIC 344 employment	6,630	4,070	-6.73%
Data Suppression Error	0	0	
SIC 344 establishments	143	134	-0.92%
SIC 344 Employ./Estab.	46	30	
Kansas as % of Region			
SIC 344 employment	14.47%	13.44%	
SIC 344 establishments	16.10%	14.55%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 344

As with many heavy manufacturing industries, fabricated metal products have experienced a decline in employment during the 1980s. Nationwide, employment has fallen over 2.5 percent per year since 1980. Employment has declined even more dramatically in the region surrounding Kansas, by an average 5.75 percent per year since 1980. During the periods 1980 - 1986, the region lost over 15,000 jobs in fabricated structural metals. In Kansas, the jobs story was even more disheartening. Jobs fell an average 6.73 percent per year. In 1987, employment stood at less than two-thirds of its 1980 level. One bit of encouraging news is that the number of establishments has fallen much less rapidly than the number of jobs. It is likely that increases in productivity have reduced demand for labor in the industry.

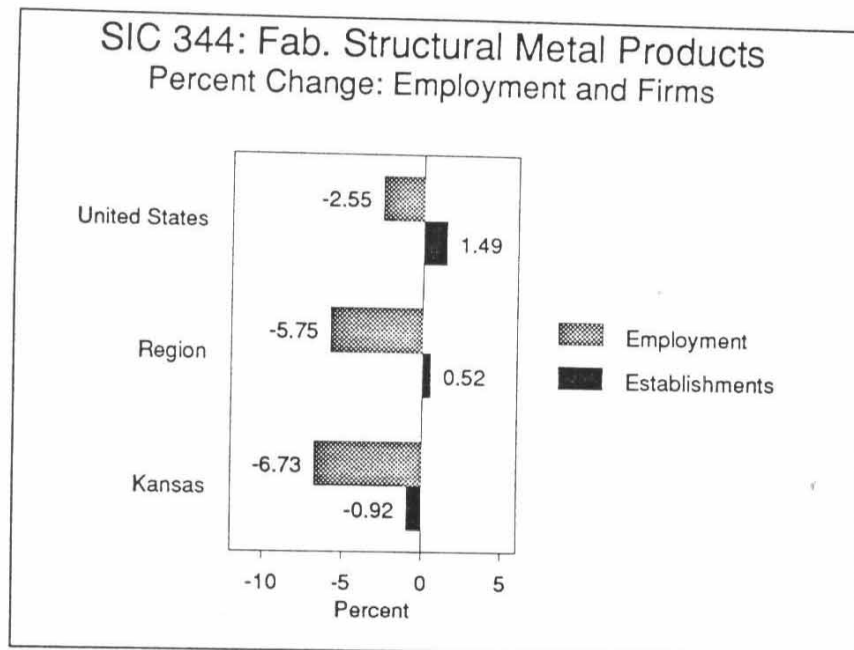


Figure 2-344

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-344
Summary of Taxes and Costs
SIC 344: Fabricated Structural Metal Products
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Costs	\$3,454,535	\$3,457,346	99.9%	\$3,458,958	\$3,461,827	99.9%
Annual Taxes	\$560,027	\$578,196	96.9%	\$668,617	\$618,269	108.1%
Federal Income Tax	\$433,918	\$409,050	106.1%	\$384,924	\$388,296	99.1%
State Income Tax	\$35,022	\$12,211	286.8%	\$52,931	\$27,717	191.0%
Unemploy. and Workers' Comp.	\$49,490	\$63,870	77.5%	\$49,490	\$63,870	77.5%
Property	\$30,556	\$74,268	41.1%	\$159,021	\$105,389	150.9%
Franchise	\$2,877	\$1,982	145.2%	\$2,926	\$1,999	146.4%
Sales	\$8,164	\$16,815	48.6%	\$19,325	\$30,998	62.3%
On Initial Investment	\$0	\$7,255	0.0%	\$11,161	\$18,401	60.7%
Combined Tax, Non-tax Costs	\$4,014,562	\$4,035,542	99.5%	\$4,127,575	\$4,080,096	101.2%
Savings due to Tax Incentives	\$113,014	\$44,554	253.7%			

Source: IPPBR Tax Simulation Model

Table 3B-344
Summary of Taxes and Costs
SIC 344: Fabricated Structural Metal Products
Complete Model: Variations in Costs and Taxes

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Costs	\$3,413,527	\$3,461,149	98.6%	\$3,417,985	\$3,465,575	98.6%
Annual Taxes	\$574,181	\$576,348	99.6%	\$683,878	\$616,782	110.9%
Federal Income Tax	\$448,367	\$406,232	110.4%	\$399,191	\$385,383	103.6%
State Income Tax	\$36,217	\$11,948	303.1%	\$54,913	\$27,453	200.0%
Unemploy. and Workers' Comp.	\$47,962	\$64,107	74.8%	\$47,962	\$64,107	74.8%
Property	\$30,654	\$75,043	40.8%	\$159,534	\$106,601	149.7%
Franchise	\$2,884	\$1,989	145.0%	\$2,933	\$2,006	146.2%
Sales	\$8,096	\$17,028	47.5%	\$19,345	\$31,233	61.9%
On Initial Investment	\$0	\$7,345	0.0%	\$11,248	\$18,513	60.8%
Combined Tax, Non-tax Costs	\$3,987,708	\$4,037,497	98.8%	\$4,101,863	\$4,082,357	100.5%
Savings due to Tax Incentives	\$114,155	\$44,860	254.5%			

Source: IPPBR Tax Simulation Model

Table 4-344
Kansas Taxes and Costs According to Rank Within the Region
SIC 344: Fabricated Structural Metal Products

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	5	4
Wyandotte County	8	2	8
Wichita	6	3	6
Medium Size Cities (6 states)	2	3	2
Small Size Cities (6 states)	4	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	9	6
Wyandotte County	8	11	10
Wichita	7	8	8
Medium Size Cities (6 states)	2	6	4
Small Size Cities (6 states)	4	6	4

Source: IPPBR Tax Simulation Model

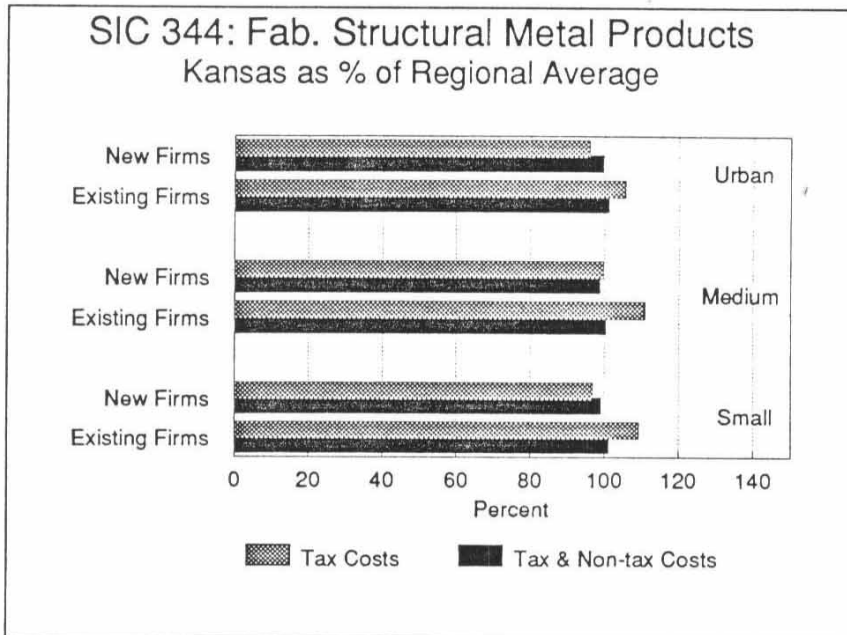


Figure 3-344

Table 5-344
Taxes and Costs in Kansas Locations
SIC 344: Fabricated Structural Metal Products
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Non-tax Costs	\$3,596,395	\$3,611,075	99.6%	\$3,600,939	\$3,604,582	99.9%
Annual Taxes	\$509,900	\$526,795	96.8%	\$606,522	\$580,513	104.5%
Combined Tax, Non-tax Costs	\$4,106,295	\$4,137,870	99.2%	\$4,207,461	\$4,185,095	100.5%
Savings due to Tax Incentives	\$96,622	\$53,719	179.9%			
Wichita-Sedgwick County, KS						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Non-tax Costs	\$3,617,709	\$3,611,075	100.2%	\$3,621,772	\$3,604,582	100.5%
Annual Taxes	\$503,925	\$526,795	95.7%	\$606,468	\$580,513	104.5%
Combined Tax, Non-tax Costs	\$4,121,634	\$4,137,870	99.6%	\$4,228,240	\$4,185,095	101.0%
Savings due to Tax Incentives	\$102,543	\$53,719	190.9%			
Wyandotte County, KS						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Non-tax Costs	\$3,637,180	\$3,611,075	100.7%	\$3,642,120	\$3,604,582	101.0%
Annual Taxes	\$503,489	\$526,795	95.6%	\$628,547	\$580,513	108.3%
Combined Tax, Non-tax Costs	\$4,140,669	\$4,137,870	100.1%	\$4,270,666	\$4,185,095	102.0%
Savings due to Tax Incentives	\$125,057	\$53,719	232.8%			
Average Medium Sized City						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Non-tax Costs	\$3,413,527	\$3,461,149	98.6%	\$3,417,985	\$3,465,575	98.6%
Annual Taxes	\$574,181	\$576,348	99.6%	\$683,878	\$616,782	110.9%
Combined Tax, Non-tax Costs	\$3,987,708	\$4,037,497	98.8%	\$4,101,863	\$4,082,357	100.5%
Savings due to Tax Incentives	\$109,697	\$40,434	271.3%			
Average Small Rural City						
Annual Sales	\$4,821,850	\$4,821,850	100.0%	\$4,821,850	\$4,821,850	100.0%
Annual Non-tax Costs	\$3,354,830	\$3,369,639	99.6%	\$3,359,271	\$3,373,950	99.6%
Annual Taxes	\$597,120	\$616,100	96.9%	\$722,135	\$659,875	109.4%
Combined Tax, Non-tax Costs	\$3,951,950	\$3,985,739	99.2%	\$4,081,406	\$4,033,825	101.2%
Savings due to Tax Incentives	\$125,015	\$43,775	285.6%			

Source: IPPBR Tax Simulation Model

Conclusions

Employment in fabricated structural metal products is likely to continue in the downslide that it has experienced during the 1980s. A major upturn in the oil business might give the industry a boost in

Kansas because of the associated demand for storage tanks and other equipment. However, this scenario is unlikely. Short of this, communities will be hard pressed to maintain their current level of employment in the industry.

For mature firms, Kansas taxes, particularly property taxes, exceed the regional average, not just for this industry but for most manufacturing. This may put Kansas at a disadvantage in retaining firms in a declining industry.

**Costs and Taxes for the
Construction and Related Machinery Industry
SIC 353**

The construction and related machinery industry (SIC 353) produces a variety of capital goods used in the mining, manufacturing, and construction industries. Cranes, concrete mixers, and power shovels are included in the construction machinery subgroup. The mining machinery and equipment subgroup includes drills and rock crushers. Other products classified in this industry include manufacturing equipment such as elevators, conveyors, and overhead industrial cranes, and oil and gas equipment. The *Directory of Kansas Manufacturers and Products, 1988 Edition* lists Kansas manufacturers in almost all categories. At least half of the firms appear to be exporters.

**Table 1-353
SIC 353: Construction and Related Machinery**

Number of Employees	50
Annual Sales	\$6,195,700
Annual Costs	\$4,830,030
Payroll	1,081,611
Production	575,938
Other	505,673
Employer's Soc. Sec. Payments	82,743
Cost of Employee Benefits	330,650
Cost of Materials	3,198,437
Electricity	61,591
Gas	19,053
Water	2,554
Depreciation (annual average)	574,126
Repair and Rental Payments	56,703
Interest Payments	237,739
Other Costs or Revenue	(731,980)
Asset Costs (excluding sales taxes)	
Land	\$ 43,369
Buildings	1,786,159
Machinery	3,105,030
Inventory	1,630,889
Building and Machinery/Employee	97,824

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical construction and related machinery manufacturer in a medium sized city in the region. Payroll per employee is high for manufacturing industries, about \$21,600 per year. The industry is capital intensive, with close to \$98,000 investment in each employee. Inventory levels of \$32,618 per employee are unusually high among manufacturing industries. The recent Kansas exemption of inventories from the property tax should provide a substantial cost saving for this industry. However, property taxes continue to be a large part of the industry's tax bill because of the large capital investment of the firms.

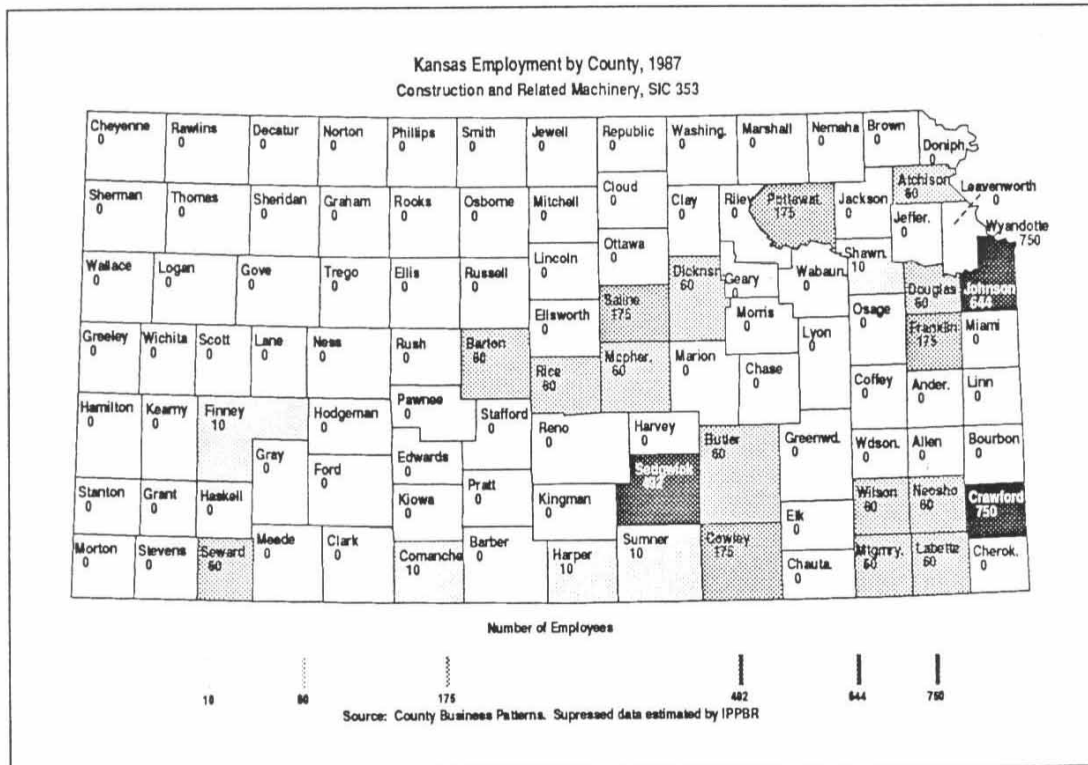


Figure 1-353

Construction and Related Machinery in Kansas

In 1987, the construction and related machinery industry provided 3,856 jobs in Kansas, spread out over 70 establishments. In terms of total employment in the industry, Kansas placed third in the region after Iowa and Oklahoma.

The industry clusters in four areas of the state: an area near Kansas City, one near Wichita, an area in the southeast corner of the state centered around Crawford County, and an area in the center of the state centered in Saline County. The major product in Johnson County is construction machinery, while Wyandotte, Crawford, and Saline counties specialize in conveyors. Several firms in the Wichita area produce goods related to the aircraft industry.

Table 2-353
Employment and Establishments
SIC 353: Construction and Related Machinery

	1980	1987	Average Annual Growth
SIC 353			
United States			
SIC 353 employment	386,717	197,855	-9.13%
SIC 353 establishments	3,205	3,501	1.27%
SIC 353 Employ./Estab.	121	57	
Region			
SIC 353 employment	55,848	28,865	-9.00%
Data Suppression Error	0	1,499	
SIC 353 establishments	371	380	0.34%
SIC 353 Employ./Estab.	151	76	
Kansas			
SIC 353 employment	6,198	3,856	-6.56%
Data Suppression Error	0	0	
SIC 353 establishments	60	55	-1.24%
SIC 353 Employ./Estab.	103	70	
Kansas as % of Region			
SIC 353 employment	11.10%	13.36%	
SIC 353 establishments	16.17%	14.47%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 353

Employment in construction and related machinery industry declined nationally, regionally, and within Kansas during the 1980s. The nation and the region each declined an average of about 9.13 percent per year during the 1980s, while Kansas limited the decline in employment to 6.56 percent per year. Although Kansas performed better than the national average, over 2,000 jobs were lost between 1980 and 1987.

Throughout the 1980s the industry experienced a persistent reduction in employees per establishment. Given the capital intensity of the industry, it is likely that capital has substituted for labor. Increased use of capital has decreased labor demand.

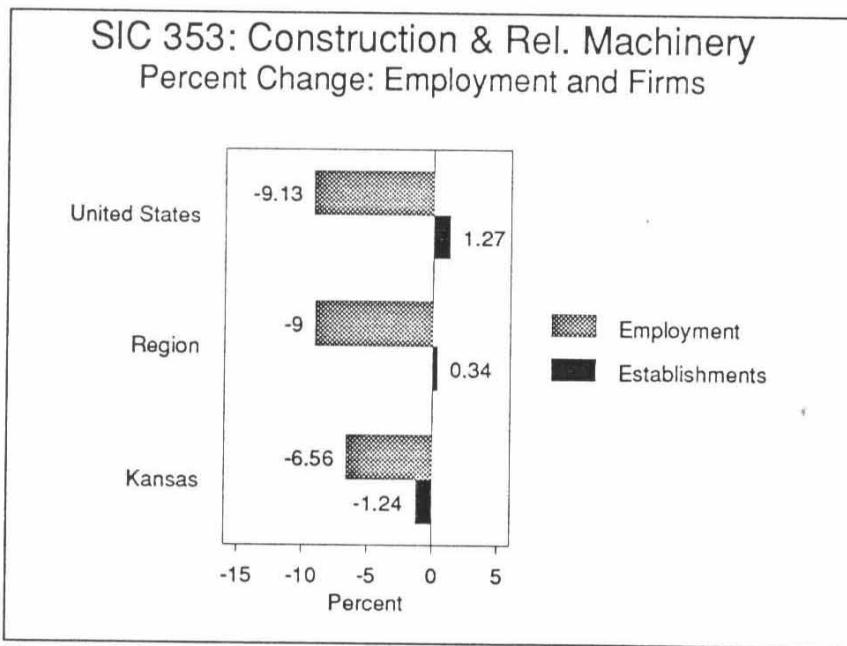


Figure 2-353

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-353
Summary of Taxes and Costs
SIC 353: Construction and Related Machinery
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Costs	\$4,871,268	\$4,873,724	99.9%	\$4,875,199	\$4,877,150	100.0%
Annual Taxes	\$535,768	\$550,776	97.3%	\$641,506	\$590,686	108.6%
Federal Income Tax	\$423,902	\$400,971	105.7%	\$376,445	\$380,800	98.9%
State Income Tax	\$34,204	\$12,077	283.2%	\$51,752	\$27,280	189.7%
Unemploy. and Workers' Comp.	\$33,116	\$45,893	72.2%	\$33,116	\$45,893	72.2%
Property	\$29,895	\$69,617	42.9%	\$155,579	\$101,905	152.7%
Franchise	\$2,584	\$1,791	144.3%	\$2,628	\$1,804	145.7%
Sales	\$12,067	\$20,428	59.1%	\$21,986	\$33,004	66.6%
On Initial Investment	\$0	\$6,447	0.0%	\$9,919	\$14,845	66.8%
Combined Tax, Non-tax Costs	\$5,407,036	\$5,424,500	99.7%	\$5,516,705	\$5,467,835	100.9%
Savings due to Tax Incentives	\$109,670	\$43,335	253.1%			

Source: IPPBR Tax Simulation Model

Table 3B-353
Summary of Taxes and Costs
SIC 353: Construction and Related Machinery
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Costs	\$4,826,034	\$4,881,335	98.9%	\$4,830,030	\$4,884,679	98.9%
Annual Taxes	\$551,904	\$547,884	100.7%	\$659,083	\$588,397	112.0%
Federal Income Tax	\$439,558	\$396,187	110.9%	\$391,755	\$375,811	104.2%
State Income Tax	\$35,497	\$11,729	302.6%	\$53,880	\$26,873	200.5%
Unemploy. and Workers' Comp.	\$32,093	\$46,267	69.4%	\$32,093	\$46,267	69.4%
Property	\$30,081	\$71,088	42.3%	\$156,551	\$104,203	150.2%
Franchise	\$2,597	\$1,805	143.9%	\$2,642	\$1,818	145.3%
Sales	\$12,077	\$20,809	58.0%	\$22,162	\$33,424	66.3%
On Initial Investment	\$0	\$6,618	0.0%	\$10,084	\$15,056	67.0%
Combined Tax, Non-tax Costs	\$5,377,938	\$5,429,219	99.1%	\$5,489,114	\$5,473,076	100.3%
Savings due to Tax Incentives	\$111,175	\$43,857	253.5%			

Source: IPPBR Tax Simulation Model

Table 4-353
Kansas Taxes and Costs According to Rank Within the Region
Industry 353: Construction and Related Machinery

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	5	5	4
Wyandotte County	9	2	8
Wichita	6	3	6
Medium Size Cities (6 states)	2	4	2
Small Size Cities (6 states)	4	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	9	6
Wyandotte County	8	10	10
Wichita	7	8	8
Medium Size Cities (6 states)	2	6	4
Small Size Cities (6 states)	4	6	4

Source: IPPBR Tax Simulation Model

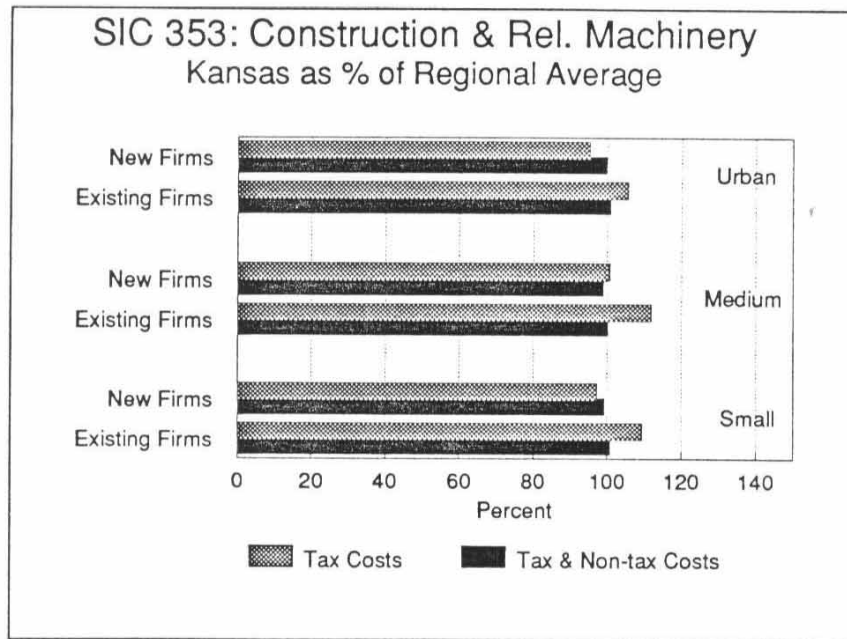


Figure 3-353

Table 5-353
Taxes and Costs in Kansas Locations
SIC 353: Construction and Related Machinery
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Non-tax Costs	\$5,064,907	\$5,074,694	99.8%	\$5,069,068	\$5,064,927	100.1%
Annual Taxes	\$467,019	\$484,766	96.3%	\$566,274	\$541,798	104.5%
Combined Tax, Non-tax Costs	\$5,531,927	\$5,559,460	99.5%	\$5,635,342	\$5,606,725	100.5%
Savings due to Tax Incentives	\$99,255	\$57,032	174.0%			
Wichita-Sedgwick County, KS						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Non-tax Costs	\$5,087,085	\$5,074,694	100.2%	\$5,090,720	\$5,064,927	100.5%
Annual Taxes	\$459,970	\$484,766	94.9%	\$564,523	\$541,798	104.2%
Combined Tax, Non-tax Costs	\$5,547,055	\$5,559,460	99.8%	\$5,655,243	\$5,606,725	100.9%
Savings due to Tax Incentives	\$104,553	\$57,032	183.3%			
Wyandotte County, KS						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Non-tax Costs	\$5,114,731	\$5,074,694	100.8%	\$5,119,253	\$5,064,927	101.1%
Annual Taxes	\$457,535	\$484,766	94.4%	\$586,933	\$541,798	108.3%
Combined Tax, Non-tax Costs	\$5,572,266	\$5,559,460	100.2%	\$5,706,186	\$5,606,725	101.8%
Savings due to Tax Incentives	\$129,398	\$57,032	226.9%			
Average Medium Sized City						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Non-tax Costs	\$4,826,034	\$4,881,335	98.9%	\$4,830,030	\$4,884,679	98.9%
Annual Taxes	\$551,904	\$547,884	100.7%	\$659,083	\$588,397	112.0%
Combined Tax, Non-tax Costs	\$5,377,938	\$5,429,219	99.1%	\$5,489,114	\$5,473,076	100.3%
Savings due to Tax Incentives	\$107,179	\$40,513	264.6%			
Average Small Rural City						
Annual Sales	\$6,195,700	\$6,195,700	100.0%	\$6,195,700	\$6,195,700	100.0%
Annual Non-tax Costs	\$4,754,319	\$4,769,194	99.7%	\$4,758,283	\$4,772,455	99.7%
Annual Taxes	\$580,098	\$596,599	97.2%	\$701,906	\$640,755	109.5%
Combined Tax, Non-tax Costs	\$5,334,418	\$5,365,793	99.4%	\$5,460,190	\$5,413,210	100.9%
Savings due to Tax Incentives	\$121,808	\$44,156	275.9%			

Source: IPPBR Tax Simulation Model

Conclusions

Construction and related machinery is clearly a declining industry. Kansas firms will have difficulty maintaining their current employment levels. However the number of Kansas firms is unlikely to fall as

severely as employment. Increased capital intensity in the industry decreases labor demand, but at the same time makes the remaining labor more productive. Substantial links exist between the construction and related machinery industry and other major Kansas employers such as the aircraft and automotive industries. In part, the future of the construction and related machinery industry in Kansas will depend on the health of these basic industries.

**Costs and Taxes for the
Electronic Components and Accessories Industry
SIC 367**

The electronic components and accessories industry (SIC 367) produces electron tubes, circuit boards, semiconductors, capacitors, resistors, transformers, electronic connectors, and other electronic parts. Much of the output of this industry is used as component parts in the manufacture of computers and other electronic equipment. According to the *Directory of Kansas Manufacturers and Products, 1988 Edition*, several Kansas firms produce circuit boards and a few firms produce semiconductors, transformers, and connectors. Kansas firms also produce quartz crystals and switches. About one third of Kansas firms export to foreign markets.

**Table 1-367
Electronic Components and Accessories**

Number of Employees	50
Annual Sales	\$4,062,036
Annual Costs	\$2,424,196
Payroll	973,844
Production	438,377
Other	535,467
Employer's Soc. Sec. Payments	74,499
Cost of Employee Benefits	252,322
Cost of Materials	1,526,812
Electricity	67,191
Gas	8,818
Water	3,340
Depreciation (annual average)	1,024,765
Repair and Rental Payments	26,735
Interest Payments	330,103
Other Costs or Revenue	(1,784,883)
Asset Costs (excluding sales taxes)	
Land	\$ 20,448
Buildings	842,154
Machinery	5,988,410
Inventory	699,187
Building and Machinery/Employee	136,611

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical electronic components firm in a medium sized city in the region. Payroll per worker averages about \$19,500, in the mid-range for manufacturing industries. The industry is highly capital intensive, with the investment per new employee reaching \$136,600. Inventories of materials and finished goods are also high, about \$14,000 per worker. The capital intensity of the industry makes it particularly vulnerable to increases in property taxation.

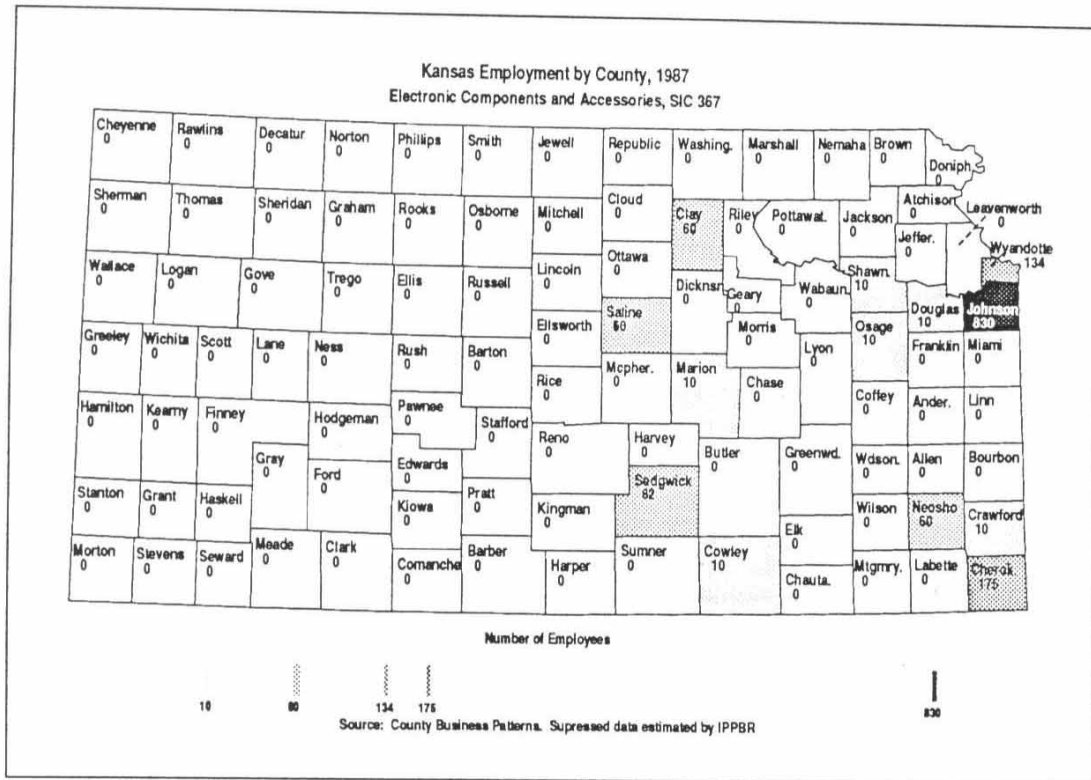


Figure 1-367

Electronic Components and Accessories in Kansas

Kansas employs relatively few people in the electronic components industry, 1,348 in 1987. Employment in every other state in the region exceeds that in Kansas. The industry provides 6,765 jobs

in Missouri, the dominant state. Kansas employment constitutes only about .2 percent of the national total; the share has fallen throughout the 1980s. Electronic components are produced at 43 locations in the state, with an average of 31 workers per location.

Over 60 percent of Kansas employment in industry 367 centers in Johnson County. Wyandotte County employment stands at 134. Sedgwick and Saline counties each show employment of about 60. *County Business Patterns* indicates a firm in Cherokee County with between 100 and 250 workers.

Table 2-367
Employment and Establishments
SIC 367: Electronic Components and Accessories

	1980	1987	Average Annual Growth
SIC 367			
United States			
SIC 367 employment	510,706	567,143	1.51%
SIC 367 establishments	4,283	6,187	5.39%
SIC 367 Employ./Estab.	119	92	
Region			
SIC 367 employment	21,303	18,295	-2.15%
Data Suppression Error	3,998	0	
SIC 367 establishments	193	260	4.35%
SIC 367 Employ./Estab.	110	70	
Kansas			
SIC 367 employment	1,335	1,348	0.14%
Data Suppression Error	0	0	
SIC 367 establishments	29	43	5.79%
SIC 367 Employ./Estab.	46	31	
Kansas as % of Region			
SIC 367 employment	6.27%	7.37%	
SIC 367 establishments	15.03%	16.54%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 367

Nationwide, growth in this industry has averaged a modest 1.76 percent during the 1980s. In contrast, employment in the region appears to have fallen. Kansas employment has stagnated at around 1,300 workers. Both Kansas and the region have followed the nationwide trend toward smaller firms in this industry. The number of firms in Kansas has grown by 14 during the 1980s, while the number of workers per firm has fallen from 46 to 31.

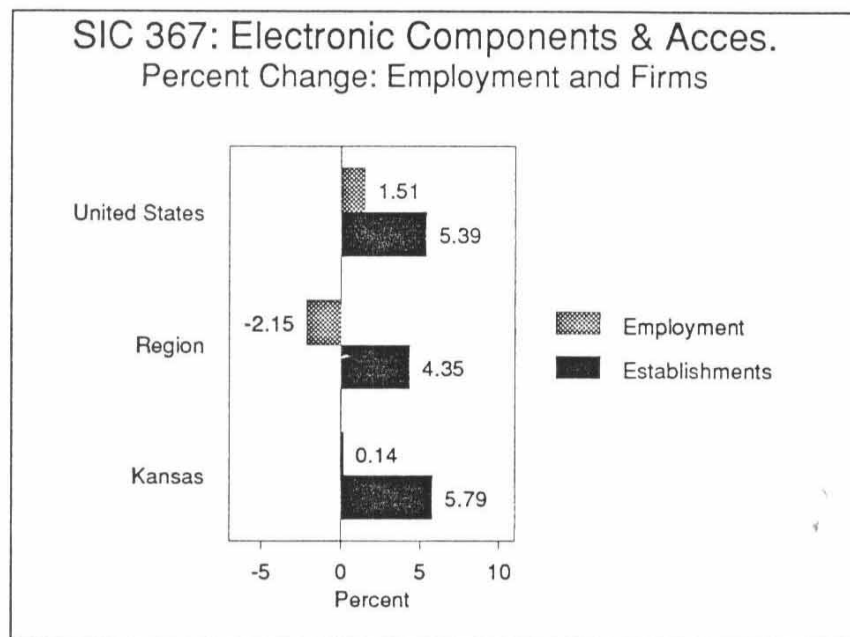


Figure 2-367

Results of the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-367
Summary of Taxes and Costs
SIC 367: Electronic Components and Accessories
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Costs	\$2,449,956	\$2,453,456	99.9%	\$2,455,507	\$2,459,320	99.8%
Annual Taxes	\$641,241	\$657,547	97.5%	\$773,752	\$708,792	109.2%
Federal Income Tax	\$521,853	\$493,651	105.7%	\$461,776	\$466,838	98.9%
State Income Tax	\$42,171	\$15,548	271.2%	\$63,611	\$33,607	189.3%
Unemploy. and Workers' Comp.	\$18,718	\$23,349	80.2%	\$18,718	\$23,349	80.2%
Property	\$37,363	\$92,096	40.6%	\$194,445	\$129,493	150.2%
Franchise	\$3,600	\$2,459	146.4%	\$3,661	\$2,481	147.6%
Sales	\$17,536	\$30,443	57.6%	\$31,541	\$53,024	59.5%
On Initial Investment	\$0	\$9,103	0.0%	\$14,005	\$23,628	59.3%
Combined Tax, Non-tax Costs	\$3,091,197	\$3,111,003	99.4%	\$3,229,258	\$3,168,112	101.9%
Savings due to Tax Incentives	\$138,061	\$57,109	241.8%			

Source: IPPBR Tax Simulation Model

Table 3B-367
Summary of Taxes and Costs
SIC 367: Electronic Components and Accessories
Complete Model: Variations in Costs and Taxes

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Costs	\$2,418,615	\$2,456,778	98.4%	\$2,424,196	\$2,462,542	98.4%
Annual Taxes	\$652,518	\$655,778	99.5%	\$785,900	\$707,400	111.1%
Federal Income Tax	\$532,649	\$491,078	108.5%	\$472,408	\$464,172	101.8%
State Income Tax	\$43,064	\$15,299	281.5%	\$65,088	\$33,419	194.8%
Unemploy. and Workers' Comp.	\$18,140	\$23,535	77.1%	\$18,140	\$23,535	77.1%
Property	\$37,451	\$92,789	40.4%	\$194,904	\$130,576	149.3%
Franchise	\$3,606	\$2,466	146.2%	\$3,668	\$2,488	147.4%
Sales	\$17,609	\$30,611	57.5%	\$31,692	\$53,210	59.6%
On Initial Investment	\$0	\$9,184	0.0%	\$14,083	\$23,727	59.4%
Combined Tax, Non-tax Costs	\$3,071,133	\$3,112,557	98.7%	\$3,210,096	\$3,169,942	101.3%
Savings due to Tax Incentives	\$138,963	\$57,385	242.2%			

Source: IPPBR Tax Simulation Model

Table 4-367
Kansas Taxes and Costs According to Rank Within the Region
SIC 367: Electronic Components and Accessories

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	5	4
Wyandotte County	9	3	8
Wichita	6	2	6
Medium Size Cities (6 states)	2	3	2
Small Size Cities (6 states)	4	3	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	9	6
Wyandotte County	8	10	10
Wichita	7	8	8
Medium Size Cities (6 states)	2	6	6
Small Size Cities (6 states)	4	6	6

Source: IPPBR Tax Simulation Model

SIC 367: Electronic Components & Acces.
Kansas as % of Regional Average

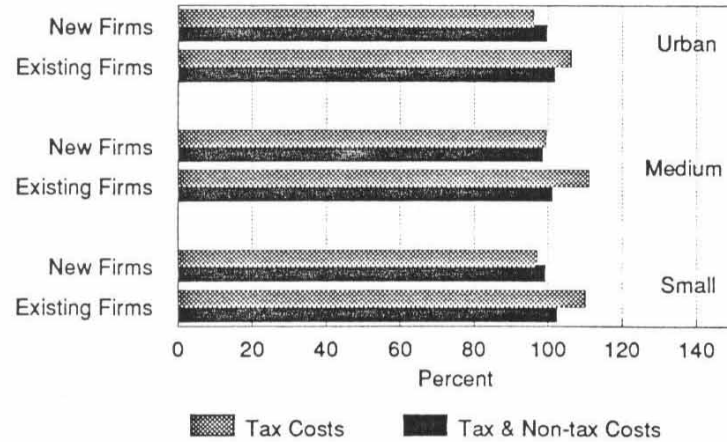


Figure 3-367

Table 5-367
Taxes and Costs in Kansas Locations
SIC 367: Electronic Components and Accessories
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Non-tax Costs	\$2,614,850	\$2,628,167	99.5%	\$2,620,508	\$2,621,828	99.9%
Annual Taxes	\$579,150	\$596,836	97.0%	\$695,065	\$662,172	105.0%
Combined Tax, Non-tax Costs	\$3,194,000	\$3,225,003	99.0%	\$3,315,573	\$3,283,999	101.0%
Savings due to Tax Incentives	\$115,915	\$65,336	177.4%			
Wichita-Sedgwick County, KS						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Non-tax Costs	\$2,641,319	\$2,628,167	100.5%	\$2,646,408	\$2,621,828	100.9%
Annual Taxes	\$570,678	\$596,836	95.6%	\$694,031	\$662,172	104.8%
Combined Tax, Non-tax Costs	\$3,211,997	\$3,225,003	99.6%	\$3,340,439	\$3,283,999	101.7%
Savings due to Tax Incentives	\$123,353	\$65,336	188.8%			
Wyandotte County, KS						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Non-tax Costs	\$2,659,709	\$2,628,167	101.2%	\$2,665,859	\$2,621,828	101.7%
Annual Taxes	\$572,265	\$596,836	95.9%	\$722,171	\$662,172	109.1%
Combined Tax, Non-tax Costs	\$3,231,973	\$3,225,003	100.2%	\$3,388,031	\$3,283,999	103.2%
Savings due to Tax Incentives	\$149,906	\$65,336	229.4%			
Average Medium Sized City						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Non-tax Costs	\$2,418,615	\$2,456,778	98.4%	\$2,424,196	\$2,462,542	98.4%
Annual Taxes	\$652,518	\$655,778	99.5%	\$785,900	\$707,400	111.1%
Combined Tax, Non-tax Costs	\$3,071,133	\$3,112,557	98.7%	\$3,210,096	\$3,169,942	101.3%
Savings due to Tax Incentives	\$133,382	\$51,621	258.4%			
Average Small Rural City						
Annual Sales	\$4,062,036	\$4,062,036	100.0%	\$4,062,036	\$4,062,036	100.0%
Annual Non-tax Costs	\$2,355,455	\$2,352,246	100.1%	\$2,361,021	\$2,357,858	100.1%
Annual Taxes	\$679,201	\$699,668	97.1%	\$831,313	\$755,061	110.1%
Combined Tax, Non-tax Costs	\$3,034,656	\$3,051,914	99.4%	\$3,192,334	\$3,112,920	102.6%
Savings due to Tax Incentives	\$152,112	\$55,393	274.6%			

Source: IPPBR Tax Simulation Model

Conclusions

At the national level, the electronic components industry appears moderately healthy, growing at 1.51 percent throughout the 1980s. Unfortunately, Kansas has been unable to maintain its share of employment. Within the state, Johnson County has dominated and will probably have the best prospects for new growth.

**Costs and Taxes for the
Motor Vehicles and Equipment Industry
SIC 371**

The transportation equipment industry (SIC 37) is the largest manufacturing group in Kansas. Major subgroups of the industry include aircraft, motor vehicles, trucks, and railroad equipment. The motor vehicles and equipment subgroup (SIC 371) is the subject of this report. The subgroup includes passenger cars, trucks, component parts, accessories, and motor homes. Vehicles and car bodies comprise the major Kansas production line, followed by parts and truck bodies. Although automobile manufacturing is the almost the exclusive realm of General Motors in Kansas, numerous firms produce parts and truck bodies. The *Directory of Kansas Manufacturers and Products, 1988 Edition*, indicates that many firms are exporters.

**Table 1-371
SIC 371: Motor Vehicles and Equipment**

Number of Employees	50
Annual Sales	\$13,194,056
Annual Costs	\$10,328,030
Payroll	1,308,969
Production	1,014,042
Other	294,927
Employer's Soc. Sec. Payments	100,136
Cost of Employee Benefits	476,071
Cost of Materials	9,098,404
Electricity	87,733
Gas	27,255
Water	7,874
Depreciation (annual average)	919,900
Repair and Rental Payments	56,056
Interest Payments	586,659
Other Costs or Revenue	(2,218,164)
Asset Costs (excluding sales taxes)	
Land	\$ 42,874
Buildings	1,765,760
Machinery	10,367,100
Inventory	764,541
Building and Machinery/Employee	242,657

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets for a typical motor vehicles and equipment manufacturer in a medium sized city in the region. Payroll per employee is estimated at \$26,180, the highest of any manufacturing industry. It is likely that wages are higher in automobile manufacturing, and lower in parts and accessories firms. Based on national averages, capital expenditures per new worker top \$242,000. Again, the data reflect a mixture of highly automated car manufacturing and less automated parts manufacturing. Inventories of about \$15,300 per worker are typical for the industry. Because of the capital intensity of the industry, property taxes present a major cost.

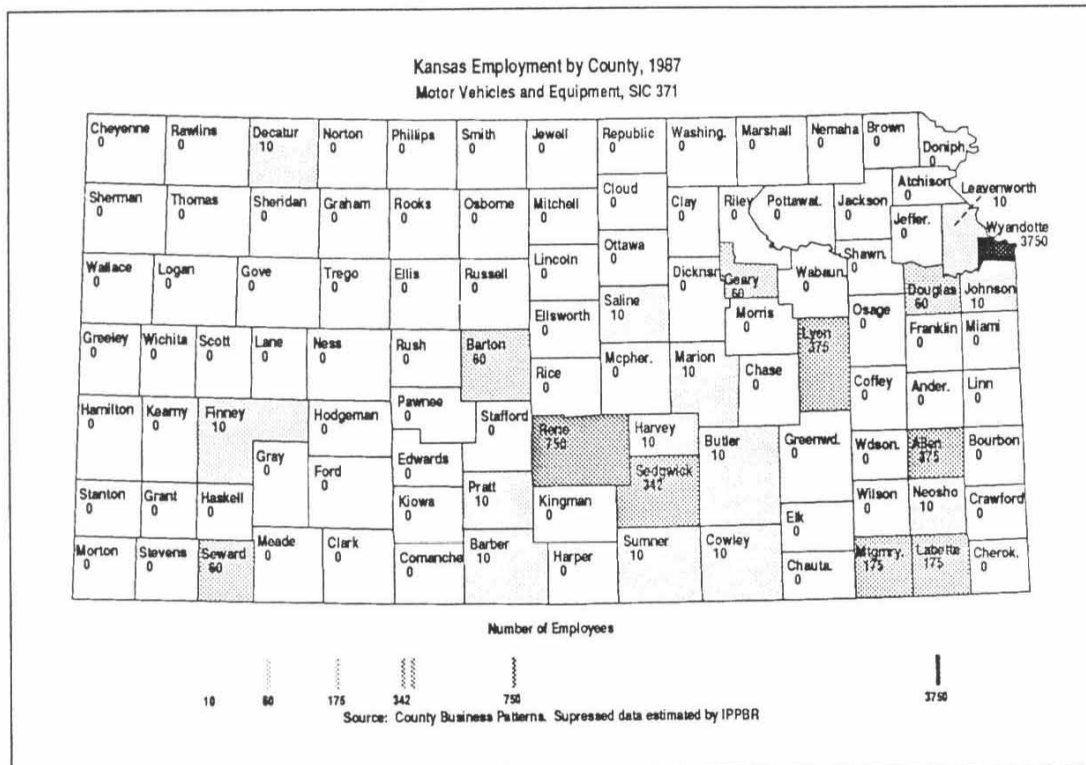


Figure 1-371

Motor Vehicles and Equipment in Kansas

With employment of 6,450 in 1987, motor vehicles and equipment classify as a major Kansas industry. Goods are produced at 47 locations in the state, with an average employment of 137 workers per location. One large plant in the state employs over 2,500 workers, while the remainder of the employment is spread out over much smaller firms.

Wyandotte County, home of a large GM plant, leads the state in employment. However, the truck body and parts industries are scattered throughout the eastern half of the state. Reno County hosts an ambulance and a bus manufacturer. Allen County produces air brakes and electrical parts.

Table 2-371
Employment and Establishments
SIC 371: Motor Vehicles and Equipment

	1980	1987	Average Annual Growth
SIC 371			
United States			
SIC 371 employment	778,449	740,610	-0.71%
SIC 371 establishments	3,524	4,270	2.78
SIC 371 Employ./Estab.	221	173	
Region			
SIC 371 employment	60,945	57,436	-0.84%
Data Suppression Error	1,499	1,499	
SIC 371 establishments	335	380	1.82%
SIC 371 Employ./Estab.	182	151	
Kansas			
SIC 371 employment	8,336	6,450	-3.60%
Data Suppression Error	0	0	
SIC 371 establishments	44	47	0.95%
SIC 371 Employ./Estab.	189	137	
Kansas as % of Region			
SIC 371 employment	13.68%	11.23%	
SIC 371 establishments	13.13%	12.37%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 371

Nationally, employment in industry 371 has declined at a rate of about .8 percent per year throughout the 1980s, due primarily to foreign competition. The decline in employment has been somewhat worse in the region, and has been dramatically worse in Kansas, where almost 2,000 jobs were lost between 1980 and 1987. Although data for this industry are sketchy due to confidentiality problems, it is likely that most of the employment decline has been in auto manufacturing rather than in the parts/equipment industry.

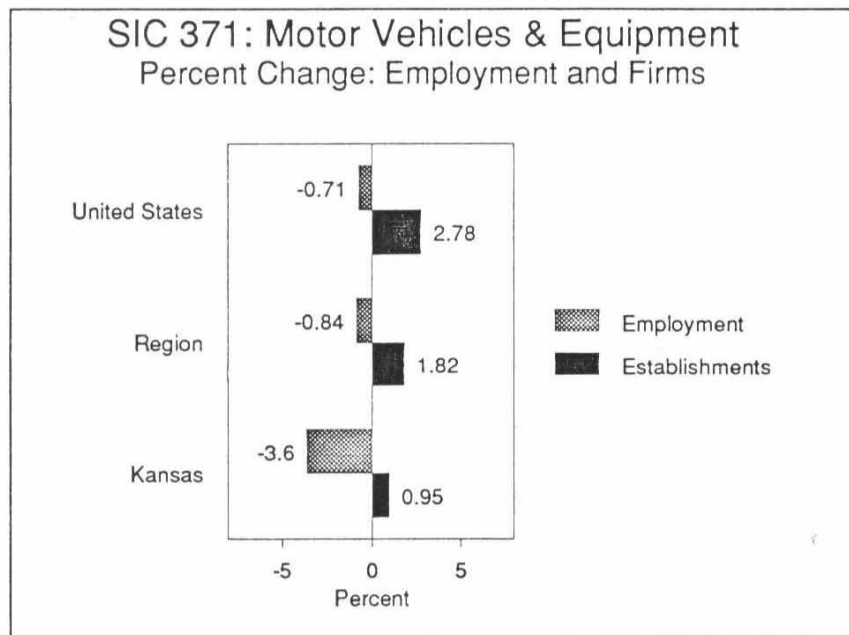


Figure 2-371

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-371
Summary of Taxes and Costs
SIC 371: Motor Vehicles and Equipment
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Costs	\$10,376,369	\$10,382,630	99.9%	\$10,386,218	\$10,392,814	99.9%
Annual Taxes	\$1,131,271	\$1,166,031	97.0%	\$1,363,785	\$1,250,461	109.1%
Federal Income Tax	\$908,683	\$855,742	106.2%	\$800,957	\$811,103	98.7%
State Income Tax	\$77,499	\$29,692	261.0%	\$110,747	\$58,724	188.6%
Unemploy. and Workers' Comp.	\$53,802	\$75,577	71.2%	\$53,802	\$75,577	71.2%
Property	\$67,082	\$163,445	41.0%	\$349,113	\$231,128	151.0%
Franchise	\$6,396	\$4,302	148.7%	\$6,505	\$4,341	149.9%
Sales	\$17,808	\$37,272	47.8%	\$42,660	\$69,588	61.3%
On Initial Investment	\$0	\$16,153	0.0%	\$24,851	\$41,496	59.9%
Combined Tax, Non-tax Costs	\$11,507,641	\$11,548,660	99.6%	\$11,750,003	\$11,643,275	100.9%
Savings due to Tax Incentives	\$242,362	\$94,614	256.2%			

Source: IPPBR Tax Simulation Model

Table 3B-371
Summary of Taxes and Costs
SIC 371: Motor Vehicles and Equipment
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Costs	\$10,318,116	\$10,390,018	99.3%	\$10,328,030	\$10,400,078	99.3%
Annual Taxes	\$1,152,677	\$1,162,920	99.1%	\$1,385,967	\$1,247,832	111.1%
Federal Income Tax	\$929,004	\$850,393	109.2%	\$820,936	\$805,576	101.9%
State Income Tax	\$80,099	\$29,398	272.5%	\$113,524	\$58,231	195.0%
Unemploy. and Workers' Comp.	\$52,141	\$76,264	68.4%	\$52,141	\$76,264	68.4%
Property	\$67,267	\$164,899	40.8%	\$350,074	\$233,400	150.0%
Franchise	\$6,408	\$4,316	148.5%	\$6,518	\$4,355	149.7%
Sales	\$17,758	\$37,651	47.2%	\$42,773	\$70,006	61.1%
On Initial Investment	\$0	\$16,322	0.0%	\$25,015	\$41,705	60.0%
Combined Tax, Non-tax Costs	\$11,470,794	\$11,552,939	99.3%	\$11,713,997	\$11,647,911	100.6%
Savings due to Tax Incentives	\$243,203	\$94,972	256.1%			

Source: IPPBR Tax Simulation Model

Table 4-371
Kansas Taxes and Costs According to Rank Within the Region
SIC 371: Motor Vehicles and Equipment

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	5	4
Wyandotte County	9	3	8
Wichita	6	2	6
Medium Size Cities (6 states)	2	3	2
Small Size Cities (6 states)	4	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	8	6
Wyandotte County	8	11	10
Wichita	7	9	8
Medium Size Cities (6 states)	2	6	5
Small Size Cities (6 states)	4	6	5

Source: IPPBR Tax Simulation Model

SIC 371: Motor Vehicles and Equipment
Kansas as % of Regional Average

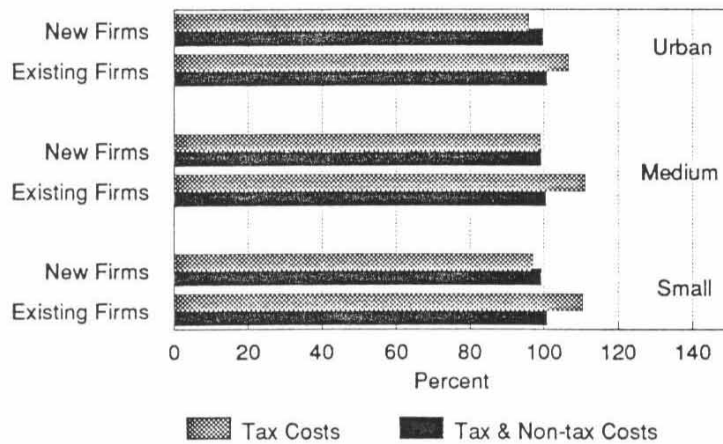


Figure 3-371

Table 5-371
Taxes and Costs in Kansas Locations
SIC 371: Motor Vehicles and Equipment
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Non-tax Costs	\$10,599,745	\$10,616,191	99.8%	\$10,609,821	\$10,609,822	100.0%
Annual Taxes	\$1,044,758	\$1,083,259	96.4%	\$1,254,494	\$1,195,734	104.9%
Combined Tax, Non-tax Costs	\$11,644,504	\$11,699,451	99.5%	\$11,864,315	\$11,805,556	100.5%
Savings due to Tax Incentives	\$209,736	\$112,475	186.5%			
Wichita-Sedgwick County, KS						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Non-tax Costs	\$10,630,427	\$10,616,191	100.1%	\$10,639,464	\$10,609,822	100.3%
Annual Taxes	\$1,036,753	\$1,083,259	95.7%	\$1,259,992	\$1,195,734	105.4%
Combined Tax, Non-tax Costs	\$11,667,180	\$11,699,451	99.7%	\$11,899,456	\$11,805,556	100.8%
Savings due to Tax Incentives	\$223,238	\$112,475	198.5%			
Wyandotte County, KS						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Non-tax Costs	\$10,660,042	\$10,616,191	100.4%	\$10,670,994	\$10,609,822	100.6%
Annual Taxes	\$1,039,799	\$1,083,259	96.0%	\$1,311,692	\$1,195,734	109.7%
Combined Tax, Non-tax Costs	\$11,699,841	\$11,699,451	100.0%	\$11,982,686	\$11,805,556	101.5%
Savings due to Tax Incentives	\$271,893	\$112,475	241.7%			
Average Medium Sized City						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Non-tax Costs	\$10,318,116	\$10,390,018	99.3%	\$10,328,030	\$10,400,078	99.3%
Annual Taxes	\$1,152,677	\$1,162,920	99.1%	\$1,385,967	\$1,247,832	111.1%
Combined Tax, Non-tax Costs	\$11,470,794	\$11,552,939	99.3%	\$11,713,997	\$11,647,911	100.6%
Savings due to Tax Incentives	\$233,289	\$84,912	274.7%			
Average Small Rural City						
Annual Sales	\$13,194,056	\$13,194,056	100.0%	\$13,194,056	\$13,194,056	100.0%
Annual Non-tax Costs	\$10,235,813	\$10,265,866	99.7%	\$10,245,694	\$10,275,662	99.7%
Annual Taxes	\$1,189,988	\$1,225,475	97.1%	\$1,454,411	\$1,316,529	110.5%
Combined Tax, Non-tax Costs	\$11,425,801	\$11,491,341	99.4%	\$11,700,105	\$11,592,192	100.9%
Savings due to Tax Incentives	\$264,423	\$91,054	290.4%			

Source: IPPBR Tax Simulation Model

Conclusions

Employment in industry 371 has declined much faster in Kansas than in the region or nation. Kansas firms will need to struggle to maintain their current market share. Although GM dominates Kansas manufacturing in this industry, a number of smaller firms have found niches in the truck bodies and parts industries. For these smaller firms, Kansas basic costs are moderate, but taxes are high.

**Costs and Taxes for the
Telephone Communications Industry
SIC 481**

The telephone communications industry consists of two subgroups: radiotelephone communications and telephone communications. The second subgroup, consisting of local, long distance, and data communications services, is by far the most important. Firms in the industry range from small local telephone companies to large national corporations.

**Table 1-481
SIC 481: Telephone Communications
(Office Facility)**

Number of Employees	50
Annual Sales	\$7,938,650
Annual Costs	\$6,919,899
Payroll	1,332,670
Production	1,332,670
Other	0
Employer's Soc. Sec. Payments	101,949
Cost of Employee Benefits	314,400
Cost of Materials	1,022,550
Electricity	0
Gas	0
Water	0
Depreciation (annual average)	295,712
Repair and Rental Payments	15,144
Interest Payments	157,061
Other Costs or Revenue	3,680,414
Asset Costs (excluding sales taxes)	
Land	\$ 11,583
Buildings	477,040
Machinery	2,665,600
Inventory	39,693
Building and Machinery/Employee	62,853

Source: IPPBR Tax Simulation Model

Profile of Costs and Assets

This study looks at a corporate office facility which is part of a larger multi-state telephone communications firm. The office facility provides services such as planning, billing, sales, and data processing. Basic telephone communications equipment such as wires or cables is not included in the firm profile below. Costs and assets are shown under the assumption that the office facility operates in a medium sized city in the region. If it were to operate in a larger city, both land and labor costs would be higher.

The telephone communications facility payroll is estimated at \$26,653 per worker, at least equal to wages in the highest paid manufacturing industries. Capital per worker stands at \$62,870, in the moderate range. Inventories are extremely low.

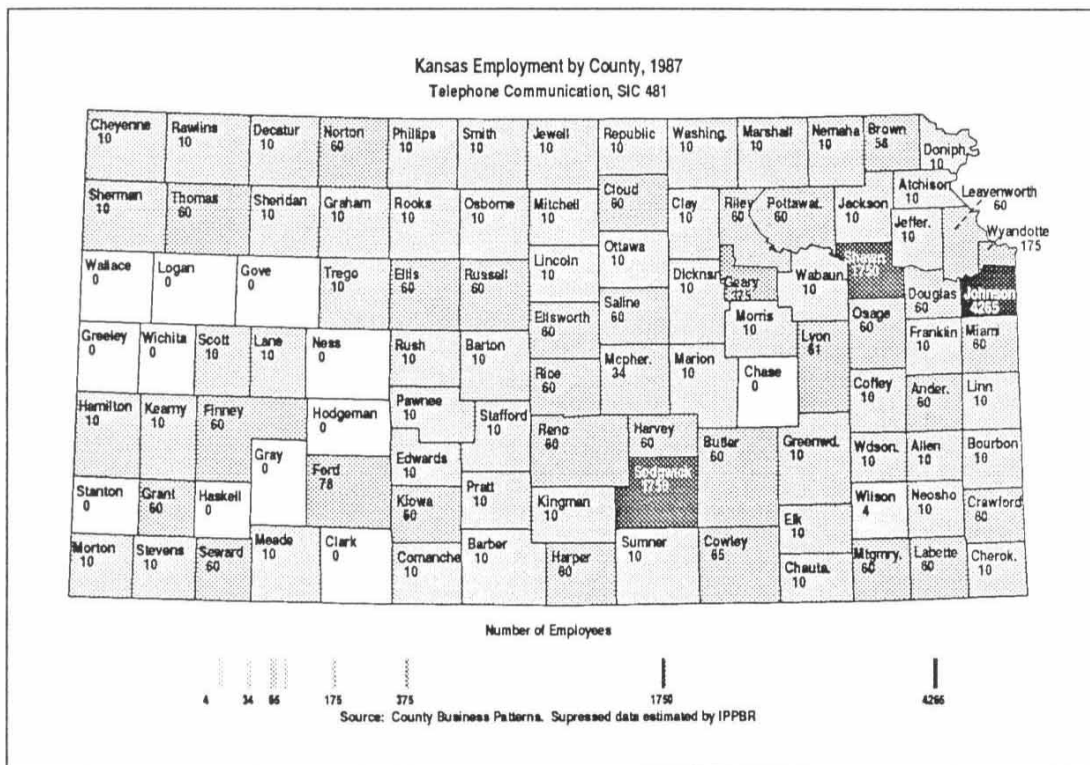


Figure 1-481

Telephone Communications in Kansas

The telephone communications industry is a major Kansas industry, employing over 9,800 people in 1987. Employees are scattered over 329 establishments throughout the state. Most of the establishments in the state are small local offices; in fact, 209 of the establishments have fewer than 10 employees. But Kansas is also home to some large telephone communications facilities. Eight establishments employ over 250 workers each. The telephone communications industry is concentrated in urban areas: Johnson, Shawnee, and Sedgwick counties. Local offices are spread throughout the state. The single major employment center outside a metropolitan area is located in Geary County, home to a subsidiary of United Telecommunications.

Table 2-481
Employment and Establishments
SIC 481: Telephone Communication

	1980	1987	Average Annual Growth
SIC 481			
United States			
SIC 481 employment	1,051,108	811,361	-3.63%
SIC 481 establishments	13,383	17,790	4.15%
SIC 481 Employ./Estab.	79	46	
Region			
SIC 481 employment	101,018	74,446	-4.27%
Data Suppression Error	59,996	14,999	
SIC 481 establishments	1,623	2,242	4.72%
SIC 481 Employ./Estab.	62	33	
Kansas			
SIC 481 employment	17,500	9,824	-7.92%
Data Suppression Error	14,999	0	
SIC 481 establishments	300	329	1.33%
SIC 481 Employ./Estab.	58	30	
Kansas as % of Region			
SIC 481 employment	17.32%	13.20%	
SIC 481 establishments	18.48%	14.67%	

Source: *County Business Patterns*
Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 481

During the 1980s, employment in the telephone communications industry has fallen over 3.6 percent per year nationwide. Because most regional data were suppressed in 1980, the calculated rates of decline for the region and for Kansas are not very meaningful. After the break-up of the Bell system in the early 1980s, the number of telephone communications establishments grew rapidly in the nation and the region, and at a more modest rate in Kansas.

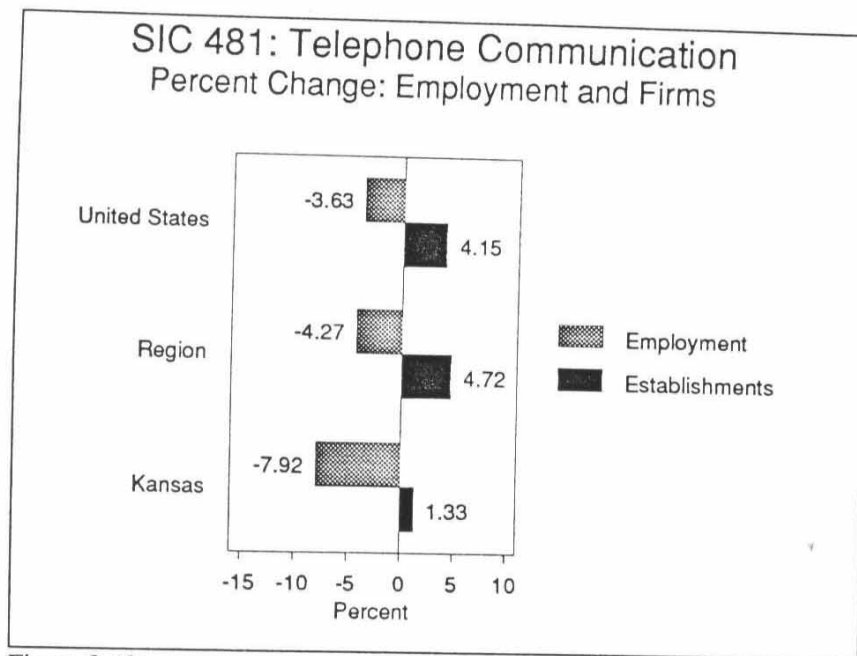


Figure 2-481

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-481
Summary of Taxes and Costs
SIC 481: Telephone Communication
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Costs	\$6,920,809	\$6,964,634	99.4%	\$6,919,899	\$6,965,700	99.3%
Annual Taxes	\$10,379,868	\$10,309,033	100.7%	\$10,378,661	\$10,313,041	100.6%
Federal Income Tax	\$10,136,942	\$10,134,185	100.0%	\$10,138,035	\$10,131,660	100.1%
State Income Tax	\$39,620	\$12,090	327.7%	\$39,624	\$13,669	289.9%
Unemploy. and Workers' Comp.	\$38,248	\$57,869	66.1%	\$38,248	\$57,869	66.1%
Property	\$126,629	\$75,036	168.8%	\$126,629	\$75,036	168.8%
Franchise	\$1,755	\$1,226	143.2%	\$1,745	\$1,224	142.5%
Sales	\$36,674	\$28,626	128.1%	\$34,379	\$33,582	102.4%
On Initial Investment	\$21,598	\$16,163	133.6%	\$19,303	\$18,855	102.4%
Combined Tax, Non-tax Costs	\$17,300,677	\$17,273,667	100.2%	\$17,298,560	\$17,278,741	100.1%
Savings due to Tax Incentives	(\$2,117)	\$5,075	-41.7%			

Source: IPPBR Tax Simulation Model

Table 3B-481
Summary of Taxes and Costs
SIC 481: Telephone Communication
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Costs	\$6,965,471	\$6,963,348	100.0%	\$6,964,602	\$6,964,419	100.0%
Annual Taxes	\$10,365,129	\$10,308,881	100.5%	\$10,363,976	\$10,312,896	100.5%
Federal Income Tax	\$10,121,496	\$10,134,922	99.9%	\$10,122,539	\$10,132,391	99.9%
State Income Tax	\$39,559	\$12,095	327.1%	\$39,563	\$13,674	289.3%
Unemploy. and Workers' Comp.	\$39,466	\$57,641	68.5%	\$39,466	\$57,641	68.5%
Property	\$126,370	\$74,494	169.6%	\$126,370	\$74,494	169.6%
Franchise	\$1,751	\$1,222	143.3%	\$1,742	\$1,220	142.7%
Sales	\$36,488	\$28,506	128.0%	\$34,296	\$33,476	102.4%
On Initial Investment	\$21,450	\$16,093	133.3%	\$19,259	\$18,798	102.4%
Combined Tax, Non-tax Costs	\$17,330,600	\$17,272,228	100.3%	\$17,328,578	\$17,277,315	100.3%
Savings due to Tax Incentives	(\$2,022)	\$5,087	-39.8%			

Source: IPPBR Tax Simulation Model

Table 4-481
Kansas Taxes and Costs According to Rank Within the Region
SIC 481: Telephone Communication

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	9	7
Wyandotte County	8	11	10
Wichita	5	8	8
Medium Size Cities (6 states)	3	6	3
Small Size Cities (6 states)	5	6	5
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	5	8	6
Wyandotte County	9	10	10
Wichita	7	7	7
Medium Size Cities (6 states)	3	5	2
Small Size Cities (6 states)	5	5	4

Source: IPPBR Tax Simulation Model

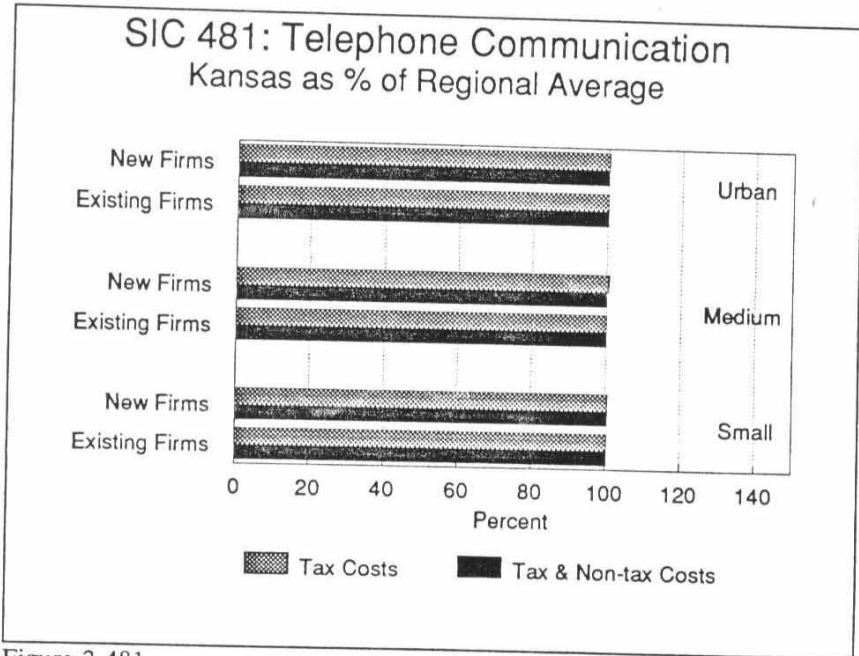


Figure 3-481

Table 5-481
Taxes and Costs in Kansas Locations
SIC 481: Telephone Communication
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Non-tax Costs	\$7,171,063	\$7,200,396	99.6%	\$7,170,052	\$7,184,850	99.8%
Annual Taxes	\$10,286,492	\$10,245,321	100.4%	\$10,285,148	\$10,252,369	100.3%
Combined Tax, Non-tax Costs	\$17,457,555	\$17,445,717	100.1%	\$17,455,200	\$17,437,219	100.1%
Savings due to Tax Incentives	(\$1,343)	\$7,048	-19.1%			
Wichita-Sedgwick County, KS						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Non-tax Costs	\$7,205,193	\$7,200,396	100.1%	\$7,204,371	\$7,184,850	100.3%
Annual Taxes	\$10,280,535	\$10,245,321	100.3%	\$10,279,444	\$10,252,369	100.3%
Combined Tax, Non-tax Costs	\$17,485,727	\$17,445,717	100.2%	\$17,483,816	\$17,437,219	100.3%
Savings due to Tax Incentives	(\$1,090)	\$7,048	-15.5%			
Wyandotte County, KS						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Non-tax Costs	\$7,233,208	\$7,200,396	100.5%	\$7,232,109	\$7,184,850	100.7%
Annual Taxes	\$10,297,891	\$10,245,321	100.5%	\$10,296,431	\$10,252,369	100.4%
Combined Tax, Non-tax Costs	\$17,531,099	\$17,445,717	100.5%	\$17,528,539	\$17,437,219	100.5%
Savings due to Tax Incentives	(\$1,460)	\$7,048	-20.7%			
Average Medium Sized City						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Non-tax Costs	\$6,920,809	\$6,964,634	99.4%	\$6,919,899	\$6,965,700	99.3%
Annual Taxes	\$10,379,868	\$10,309,033	100.7%	\$10,378,661	\$10,313,041	100.6%
Combined Tax, Non-tax Costs	\$17,300,677	\$17,273,667	100.2%	\$17,298,560	\$17,278,741	100.1%
Savings due to Tax Incentives	(\$1,208)	\$4,008	-30.1%			
Average Small Rural City						
Annual Sales	\$7,938,650	\$7,938,650	100.0%	\$7,938,650	\$7,938,650	100.0%
Annual Non-tax Costs	\$6,822,024	\$6,806,646	100.2%	\$6,821,135	\$6,807,716	100.2%
Annual Taxes	\$10,427,021	\$10,361,782	100.6%	\$10,425,840	\$10,365,796	100.6%
Combined Tax, Non-tax Costs	\$17,249,044	\$17,168,428	100.5%	\$17,246,975	\$17,173,512	100.4%
Savings due to Tax Incentives	(\$1,181)	\$4,015	-29.4%			

Source: IPPBR Tax Simulation Model

Conclusions

A telephone communications firm in Kansas will face moderate labor, land and building costs, but unusually high taxes. Since Kansas law excludes public utilities such as telephone communications from many tax incentives, new firms experience the tax environment as mature firms. If telephone

communications were extended the same tax incentives as manufacturing, job creation in the industry might be stimulated.

**Costs and Taxes for the
Wholesale Trade in Durable Goods:
Machinery, Equipment and Supplies Industry
SIC 508**

The wholesale trade industry is broken into two main divisions: durable goods and non-durable goods. Within the wholesale trade-durables division are firms specializing in distribution of automobiles and parts, furniture, construction materials, commercial equipment, minerals, electrical goods, hardware, and machinery. This report concentrates on wholesale trade in machinery, equipment, and supplies, but much of the discussion could apply to other durable goods wholesale categories.

**Table 1-508
SIC 508: Wholesale Machinery, Equipment and Supplies**

Number of Employees	50
Annual Sales	\$9,067,050
Annual Costs	\$8,058,980
Payroll	925,581
Production	925,581
Other	0
Employer's Soc. Sec. Payments	70,807
Cost of Employee Benefits	88,500
Cost of Materials	8,111,150
Electricity	0
Gas	0
Water	0
Depreciation (annual average)	179,020
Repair and Rental Payments	68,036
Interest Payments	153,906
Other Costs or Revenue	(1,538,019)
Asset Costs (excluding sales taxes)	
Land	\$ 52,037
Buildings	2,143,120
Machinery	999,750
Inventory	1,668,337
Building and Machinery/Employee	62,857

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets for a typical machinery wholesaler in a medium sized city in the region. Payroll per employee is estimated at \$18,500 per year, less than in many manufacturing industries. The industry is moderately capital intensive, with the investment per new employee estimated at \$62,857. Not surprisingly, the bulk of investment is in buildings rather than equipment. Due to the nature of wholesaling, the industry holds an average inventory stock of about \$33,700 per employee. Clearly, any tax on inventories will have a large impact on the wholesaling industry.

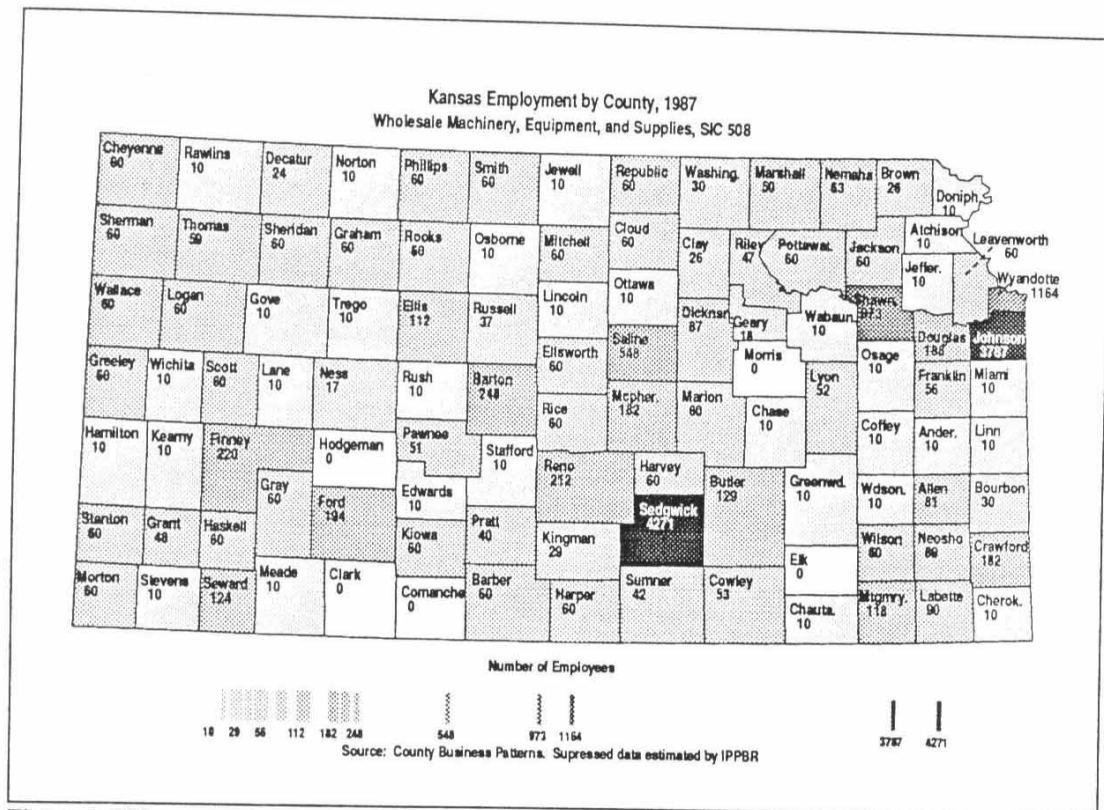


Figure 1-508

Wholesale Trade--Machinery, Equipment and Supplies in Kansas

The wholesaling and distribution of machinery, equipment, and supplies employs over 15,000 Kansans at about 1,500 locations. Most establishments in the state are small, averaging 10 workers per location. However, 36 locations employ over 50 workers each, and one location employs over 1,000. Some facilities clearly exist to serve the needs of local businesses. But larger establishments may serve regional or even national markets.

Table 2-508
Employment and Establishments
SIC 508: Wholesale Machinery, Equipment and Supplies

	1980	1987	Average Annual Growth
SIC 508			
United States			
SIC 508 employment	1,188,019	1,321,727	1.54%
SIC 508 establishments	87,630	110,785	3.41%
SIC 508 Employ./Estab.	14	12	
Region			
SIC 508 employment	116,818	106,747	-1.28%
Data Suppression Error	0	0	
SIC 508 establishments	9,211	10,165	1.42%
SIC 508 Employ./Estab.	13	11	
Kansas			
SIC 508 employment	15,856	15,137	-0.66%
Data Suppression Error	0	0	
SIC 508 establishments	1,360	1,484	1.25%
SIC 508 Employ./Estab.	12	10	
Kansas as % of Region			
SIC 508 employment	13.57%	14.18%	
SIC 508 establishments	14.76%	14.60%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Johnson and Sedgwick counties together provide over half of Kansas employment in Industry 508. Locations along the interstate highway system in these counties allow goods to be distributed efficiently both locally and regionally. Shawnee and Saline counties also register high employment levels. Not surprisingly, major branches of the interstate highway system intersect in these communities.

Trends in Industry 508

Throughout the 1980s, U.S. employment in the wholesale trade--durables industry (SIC 50) has grown at about 1.26 percent per year. The machinery and equipment subcategory (SIC 508) has grown somewhat more rapidly, 1.54 percent per year. Kansas has under-performed both the nation and the region. Employment in wholesale trade--durable goods has stagnated, while employment in wholesaling of machinery and equipment has fallen by over 700 workers.

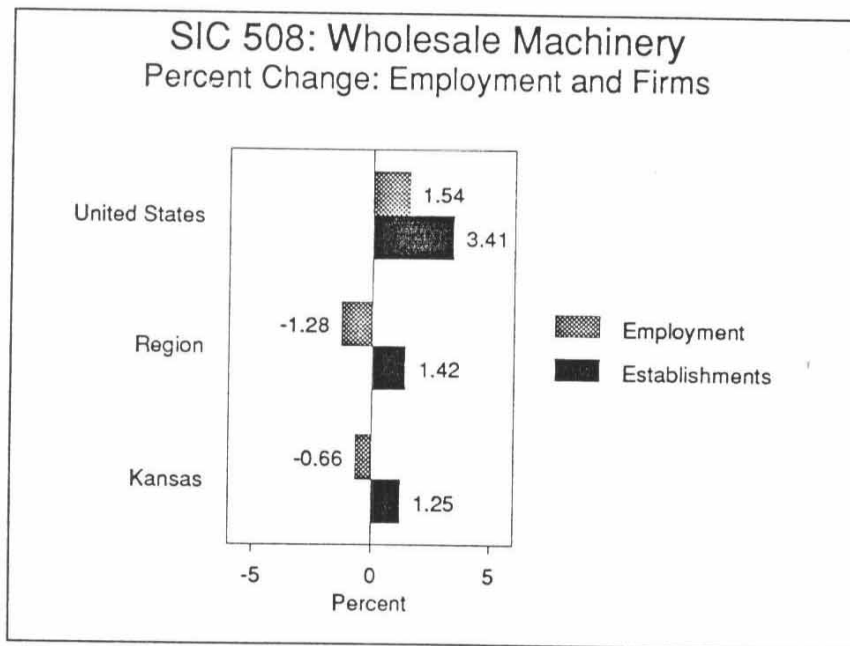


Figure 2-508

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-508
Summary of Taxes and Costs
SIC 508: Wholesale Machinery, Equipment and Supplies
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Costs	\$8,083,723	\$8,086,580	100.0%	\$8,086,212	\$8,087,694	100.0%
Annual Taxes	\$405,326	\$421,891	96.1%	\$482,146	\$445,545	108.2%
Federal Income Tax	\$310,626	\$290,399	107.0%	\$276,400	\$279,071	99.0%
State Income Tax	\$24,978	\$11,483	217.5%	\$37,849	\$19,838	190.8%
Unemploy. and Workers' Comp.	\$40,782	\$54,168	75.3%	\$40,782	\$54,168	75.3%
Property	\$21,851	\$49,851	43.8%	\$113,717	\$72,762	156.3%
Franchise	\$1,666	\$1,196	139.3%	\$1,694	\$1,201	141.0%
Sales	\$5,423	\$14,793	36.7%	\$11,705	\$18,504	63.3%
On Initial Investment	\$0	\$7,209	0.0%	\$6,281	\$10,024	62.7%
Combined Tax, Non-tax Costs	\$8,489,048	\$8,508,471	99.8%	\$8,568,358	\$8,533,239	100.4%
Savings due to Tax Incentives	\$79,310	\$24,768	320.2%			

Source: IPPBR Tax Simulation Model

Table 3B-508
Summary of Taxes and Costs
SIC 508: Wholesale Machinery, Equipment and Supplies
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Costs	\$8,056,412	\$8,095,856	99.5%	\$8,058,980	\$8,096,991	99.5%
Annual Taxes	\$414,843	\$420,121	98.7%	\$492,874	\$444,630	110.9%
Federal Income Tax	\$320,198	\$286,563	111.7%	\$285,557	\$274,834	103.9%
State Income Tax	\$25,767	\$10,996	234.3%	\$39,122	\$19,581	199.8%
Unemploy. and Workers' Comp.	\$39,522	\$54,495	72.5%	\$39,522	\$54,495	72.5%
Property	\$22,075	\$51,632	42.8%	\$114,884	\$75,520	152.1%
Franchise	\$1,682	\$1,213	138.6%	\$1,710	\$1,218	140.4%
Sales	\$5,599	\$15,222	36.8%	\$12,079	\$18,982	63.6%
On Initial Investment	\$0	\$7,414	0.0%	\$6,480	\$10,278	63.0%
Combined Tax, Non-tax Costs	\$8,471,255	\$8,515,977	99.5%	\$8,551,854	\$8,541,621	100.1%
Savings due to Tax Incentives	\$80,599	\$25,644	314.3%			

Source: IPPBR Tax Simulation Model

Table 4-508
Kansas Taxes and Costs According to Rank Within the Region
SIC 508: Wholesale Machinery, Equipment and Supplies

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	5	4
Wyandotte County	9	3	7
Wichita	5	4	5
Medium Size Cities (6 states)	3	3	2
Small Size Cities (6 states)	5	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	7	7
Wyandotte County	9	11	10
Wichita	7	8	8
Medium Size Cities (6 states)	3	6	3
Small Size Cities (6 states)	5	6	5

Source: IPPBR Tax Simulation Model

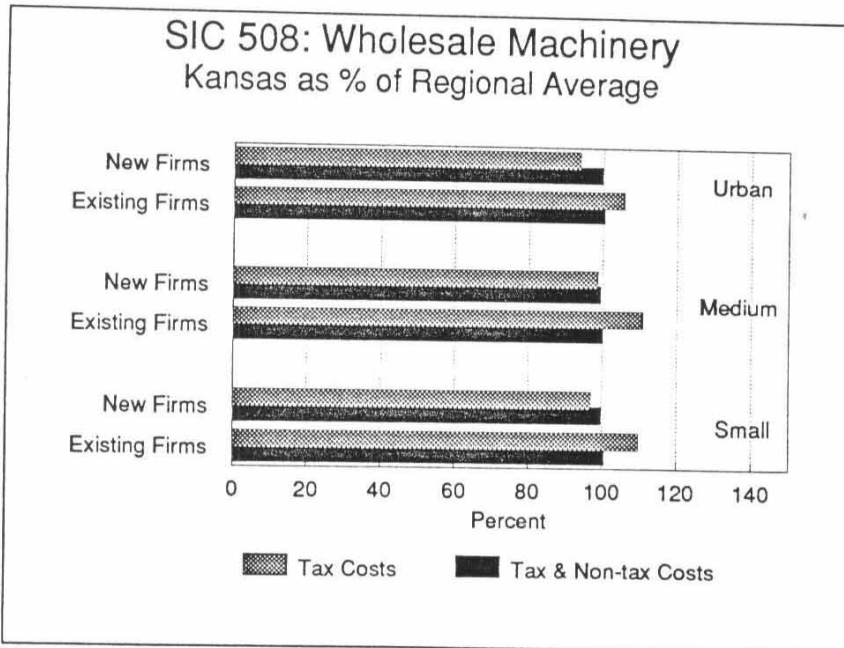


Figure 3-508

Table 5-508
Taxes and Costs in Kansas Locations
SIC 508: Wholesale Machinery, Equipment and Supplies
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Non-tax Costs	\$8,273,673	\$8,283,482	99.9%	\$8,276,438	\$8,273,534	100.0%
Annual Taxes	\$340,351	\$359,219	94.7%	\$417,501	\$400,124	104.3%
Combined Tax, Non-tax Costs	\$8,614,024	\$8,642,701	99.7%	\$8,693,939	\$8,673,659	100.2%
Savings due to Tax Incentives	\$77,150	\$40,906	188.6%			
Wichita-Sedgwick County, KS						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Non-tax Costs	\$8,284,508	\$8,283,482	100.0%	\$8,286,834	\$8,273,534	100.2%
Annual Taxes	\$337,372	\$359,219	93.9%	\$418,016	\$400,124	104.5%
Combined Tax, Non-tax Costs	\$8,621,879	\$8,642,701	99.8%	\$8,704,850	\$8,673,659	100.4%
Savings due to Tax Incentives	\$80,644	\$40,906	197.1%			
Wyandotte County, KS						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Non-tax Costs	\$8,316,309	\$8,283,482	100.4%	\$8,319,315	\$8,273,534	100.6%
Annual Taxes	\$331,979	\$359,219	92.4%	\$433,461	\$400,124	108.3%
Combined Tax, Non-tax Costs	\$8,648,288	\$8,642,701	100.1%	\$8,752,776	\$8,673,659	100.9%
Savings due to Tax Incentives	\$101,482	\$40,906	248.1%			
Average Medium Sized City						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Non-tax Costs	\$8,056,412	\$8,095,856	99.5%	\$8,058,980	\$8,096,991	99.5%
Annual Taxes	\$414,843	\$420,121	98.7%	\$492,874	\$444,630	110.9%
Combined Tax, Non-tax Costs	\$8,471,255	\$8,515,977	99.5%	\$8,551,854	\$8,541,621	100.1%
Savings due to Tax Incentives	\$78,031	\$24,509	318.4%			
Average Small Rural City						
Annual Sales	\$9,067,050	\$9,067,050	100.0%	\$9,067,050	\$9,067,050	100.0%
Annual Non-tax Costs	\$7,983,860	\$7,983,429	100.0%	\$7,986,389	\$7,984,558	100.0%
Annual Taxes	\$441,944	\$455,451	97.0%	\$530,486	\$482,560	109.9%
Combined Tax, Non-tax Costs	\$8,425,804	\$8,438,880	99.8%	\$8,516,875	\$8,467,118	100.6%
Savings due to Tax Incentives	\$88,542	\$27,109	326.6%			

Source: IPPBR Tax Simulation Model

Conclusions

The Kansas market share of machinery and equipment wholesaling eroded throughout the 1980s. This can in part be explained by weaknesses in other basic Kansas industries. For example, the decline

in the Kansas oil and gas industry has reduced the demand for drilling equipment, and consequently the demand for equipment wholesalers. Despite the lackluster performance of machinery and equipment wholesaling during in the 1980s, the potential for improved growth in Kansas remains. Basic costs for land and labor are modest. Perhaps more importantly, the strategic location of Johnson, Wyandotte, Shawnee, and Sedgwick counties provide easy access to the intersection of major east-west and north-south routes, essential for any regional or national distributor.

**Costs and Taxes for the
Computer and Data Processing Services
SIC 737**

The computer and data processing services industry (SIC 737) is comprised of firms which provide computer integrated system design services, programming services, packaged software, computer rental and leasing, computer maintenance and repair, computer processing, data processing and preparation, computer facility management, and information retrieval services. Data processing services are the major subgroup within Kansas. The majority of the Kansas employees in this industry work for firms located in Johnson County.

Table I-737
SIC 737: Computer and Data Processing Services

Number of Employees	50
Annual Sales	\$3,463,200
Annual Costs	\$3,003,569
Payroll	1,018,703
Production	1,018,703
Other	0
Employer's Soc. Sec. Payments	77,931
Cost of Employee Benefits	93,400
Cost of Materials	113,500
Electricity	0
Gas	0
Water	0
Depreciation (annual average)	82,528
Repair and Rental Payments	13,731
Interest Payments	42,023
Other Costs or Revenue	1,561,753
Asset Costs (excluding sales taxes)	
Land	\$ 10,502
Buildings	432,540
Machinery	412,900
Inventory	0
Machinery and Equipment/Employee	16,908

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical computer and data processing firm in a medium sized city in the region. Payroll per worker averages a little less than \$20,500. The average investment per new employee in the industry is estimated at \$16,900. Hence the industry is labor rather than capital intensive. The industry makes use of a mixture of skilled and semi-skilled labor. Programming and software development require the skills of competent and highly educated professionals, while data entry work requires workers with vocational training. The availability of an appropriately educated labor supply is critical for the success of firms in this industry.

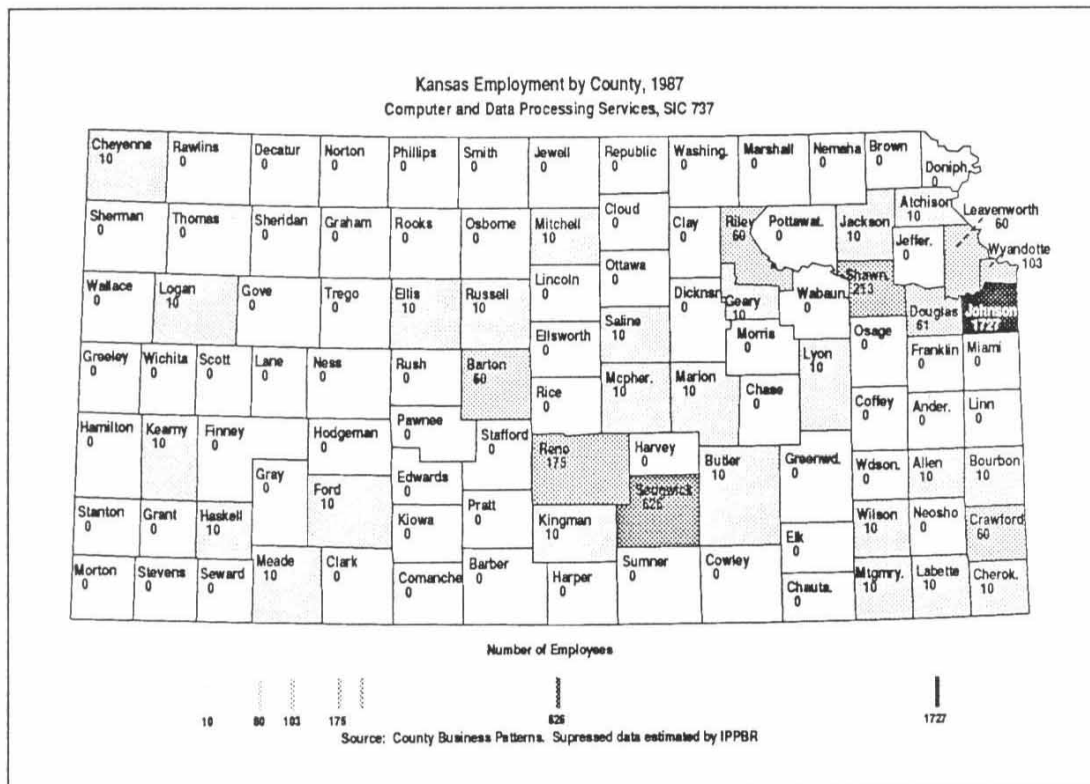


Figure 1-737

Computer and Data Processing Services in Kansas

The computer and data processing services industries employ about 3,100 people in Kansas. Average employment per establishment is small, about 12 workers per location. In fact, the majority of the firms that perform these types of services employ 1 to 4 workers. Five operations in the state operate at a much larger scale, each employing 100 to 249 employees. Two of these larger firms are located in Johnson County, two in Sedgwick, and one in Reno. The industry is concentrated in or near metropolitan areas, with only a small number of firms choosing locations in rural counties.

Table 2-737
Employment and Establishments
SIC 737: Computer and Data Processing Services

	1980	1987	Average Annual Growth
SIC 737			
United States			
SIC 737 employment	303,317	618,607	10.72%
SIC 737 establishments	13,610	35,896	14.86%
SIC 737 Employ./Estab.	22	17	
Region			
SIC 737 employment	19,913	41,867	11.20%
Data Suppression Error	0	0	
SIC 737 establishments	969	2,317	13.26%
SIC 737 Employ./Estab.	21	18	
Kansas			
SIC 737 employment	2,804	3,095	1.42%
Data Suppression Error	0	0	
SIC 737 establishments	123	249	10.60%
SIC 737 Employ./Estab.	23	12	
Kansas as % of Region			
SIC 737 employment	14.08%	7.39%	
SIC 737 establishments	12.69%	10.75%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 737

Computer and data processing services have shown strong growth throughout the nation, and more modest growth within the state. Employment in the nation grew at a very healthy 10.72 percent, while the state experienced 1.42 percent annual employment growth. Growth in the number of establishments has soared nationally, regionally, and within Kansas. Unfortunately, the number of individuals employed in Kansas has failed to keep pace with establishment growth.

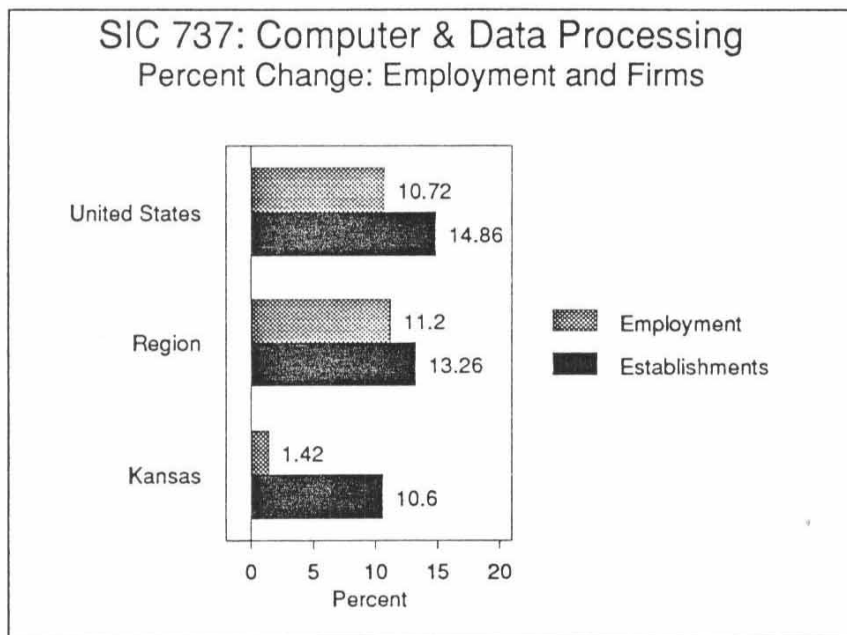


Figure 2-737

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-737
 Summary of Taxes and Costs
 SIC 737: Computer and Data Processing Services
 Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Costs	\$3,036,135	\$3,036,995	100.0%	\$3,037,598	\$3,037,471	100.0%
Annual Taxes	\$190,145	\$178,820	106.3%	\$198,771	\$184,754	107.6%
Federal Income Tax	\$127,308	\$128,514	99.1%	\$125,551	\$125,956	99.7%
State Income Tax	\$10,208	\$4,399	232.1%	\$16,885	\$8,822	191.4%
Unemploy. and Workers' Comp.	\$19,341	\$24,334	79.5%	\$19,341	\$24,334	79.5%
Property	\$28,602	\$15,736	181.8%	\$28,602	\$18,042	158.5%
Franchise	\$447	\$371	120.8%	\$464	\$375	123.8%
Sales	\$4,238	\$5,466	77.5%	\$7,927	\$7,225	109.7%
On Initial Investment	\$0	\$2,168	0.0%	\$3,689	\$3,371	109.4%
Combined Tax, Non-tax Costs	\$3,226,281	\$3,215,814	100.3%	\$3,236,368	\$3,222,225	100.4%
Savings due to Tax Incentives	\$10,088	\$6,411	157.4%			

Source: IPPBR Tax Simulation Model

Table 3B-737
 Summary of Taxes and Costs
 SIC 737: Computer and Data Processing Services
 Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Costs	\$3,002,091	\$3,038,285	98.8%	\$3,003,569	\$3,038,765	98.8%
Annual Taxes	\$202,475	\$178,267	113.6%	\$211,775	\$184,515	114.8%
Federal Income Tax	\$138,993	\$127,614	108.9%	\$137,217	\$124,893	109.9%
State Income Tax	\$11,176	\$4,109	272.0%	\$18,507	\$8,830	209.6%
Unemploy. and Workers' Comp.	\$18,744	\$24,493	76.5%	\$18,744	\$24,493	76.5%
Property	\$28,837	\$16,124	178.9%	\$28,837	\$18,599	155.0%
Franchise	\$450	\$374	120.4%	\$467	\$378	123.4%
Sales	\$4,274	\$5,553	77.0%	\$8,003	\$7,321	109.3%
On Initial Investment	\$0	\$2,209	0.0%	\$3,729	\$3,422	109.0%
Combined Tax, Non-tax Costs	\$3,204,566	\$3,216,551	99.6%	\$3,215,344	\$3,223,280	99.8%
Savings due to Tax Incentives	\$10,778	\$6,729	160.2%			

Source: IPPBR Tax Simulation Model

Table 4-737
Kansas Taxes and Costs According to Rank Within the Region
SIC 737: Computer and Data Processing Services

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	8	4
Wyandotte County	8	6	8
Wichita	5	7	6
Medium Size Cities (6 states)	3	6	3
Small Size Cities (6 states)	5	5	5
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	5	7	6
Wyandotte County	9	4	9
Wichita	7	5	8
Medium Size Cities (6 states)	3	6	3
Small Size Cities (6 states)	5	5	5

Source: IPPBR Tax Simulation Model

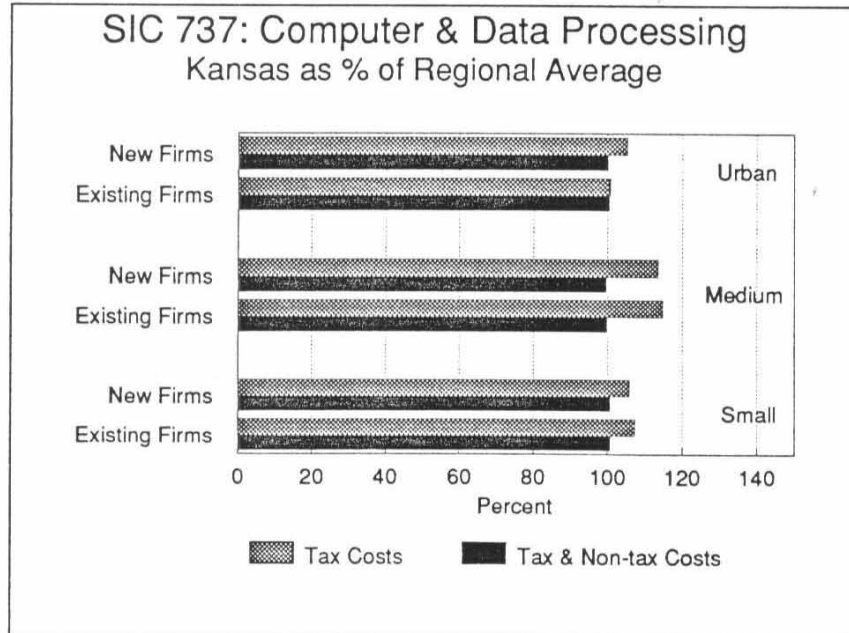


Figure 3-737

Table 5-737
Taxes and Costs for Kansas Locations
SIC 737: Computer and Data Processing Services
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Non-tax Costs	\$3,194,908	\$3,218,752	99.3%	\$3,196,426	\$3,207,103	99.7%
Annual Taxes	\$127,548	\$114,325	111.6%	\$132,880	\$124,190	107.0%
Combined Tax, Non-tax Costs	\$3,322,456	\$3,333,077	99.7%	\$3,329,306	\$3,331,293	99.9%
Savings due to Tax Incentives	\$5,332	\$9,865	54.0%			
Wichita-Sedgwick County, KS						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Non-tax Costs	\$3,221,182	\$3,218,752	100.1%	\$3,222,528	\$3,207,103	100.5%
Annual Taxes	\$117,879	\$114,325	103.1%	\$122,496	\$124,190	98.6%
Combined Tax, Non-tax Costs	\$3,339,061	\$3,333,077	100.2%	\$3,345,024	\$3,331,293	100.4%
Savings due to Tax Incentives	\$4,617	\$9,865	46.8%			
Wyandotte County, KS						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Non-tax Costs	\$3,241,834	\$3,218,752	100.7%	\$3,243,483	\$3,207,103	101.1%
Annual Taxes	\$115,609	\$114,325	101.1%	\$119,925	\$124,190	96.6%
Combined Tax, Non-tax Costs	\$3,357,443	\$3,333,077	100.7%	\$3,363,408	\$3,331,293	101.0%
Savings due to Tax Incentives	\$4,315	\$9,865	43.7%			
Average Medium Sized City						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Non-tax Costs	\$3,002,091	\$3,038,285	98.8%	\$3,003,569	\$3,038,765	98.8%
Annual Taxes	\$202,475	\$178,267	113.6%	\$211,775	\$184,515	114.8%
Combined Tax, Non-tax Costs	\$3,204,566	\$3,216,551	99.6%	\$3,215,344	\$3,223,280	99.8%
Savings due to Tax Incentives	\$9,300	\$6,248	148.8%			
Average Small Rural City						
Annual Sales	\$3,463,200	\$3,463,200	100.0%	\$3,463,200	\$3,463,200	100.0%
Annual Non-tax Costs	\$2,926,453	\$2,917,477	100.3%	\$2,927,923	\$2,917,956	100.3%
Annual Taxes	\$232,520	\$219,500	105.9%	\$243,188	\$226,582	107.3%
Combined Tax, Non-tax Costs	\$3,158,973	\$3,136,977	100.7%	\$3,171,111	\$3,144,538	100.8%
Savings due to Tax Incentives	\$10,668	\$7,081	150.7%			

Source: IPPBR Tax Simulation Model

Conclusions

Employment in the Kansas data processing and computer services industry has failed to keep pace with the region or the nation. Although taxes may be a factor steering firms away from Kansas, it is also

likely that many regions of the state lack the labor skills essential to this industry. Within the state, Johnson County offers prospects of employment growth. Moderate labor costs, abundant office facilities, and desirable living conditions together should provide an attractive business location.

**Costs and Taxes for the
Research, Development, and Testing Services Industry
SIC 873**

The research, development, and testing services industry (SIC 873) comprises an important part of the larger accounting, research, and management services industry (SIC 87). Biological, chemical, and engineering research are included in SIC 8731, economic and educational research in 8732, noncommercial research organizations in 8733, and testing laboratories in 8734. *County Business Patterns, 1987* lists 30 commercial testing labs in Kansas, and 25 research and development laboratories. Only one firm employs more than 100 workers. Statistics for research and development laboratories include only independent facilities. Of course, research and development may be also be conducted "in house" as one of the activities of manufacturing firms.

Table 1-873	
SIC 873: Research, Development, and Testing Services	
Number of Employees	50
Annual Sales	\$3,491,200
Annual Costs	\$1,494,004
Payroll	1,130,802
Production	1,130,802
Other	0
Employer's Soc. Sec. Payments	86,506
Cost of Employee Benefits	103,700
Cost of Materials	1,101,500
Electricity	0
Gas	0
Water	0
Depreciation (annual average)	1,289,552
Repair and Rental Payments	31,305
Interest Payments	426,834
Other Costs or Revenue	(2,676,195)
Asset Costs (excluding sales taxes)	
Land	\$ 323,944
Buildings	986,120
Machinery	7,549,750
Inventory	0
Building and Machinery/Employee	170,717

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the cost and asset profile of a typical research or testing lab in a medium sized city in the region. National data show the industry to be highly capital intensive. A recent survey done by Conway Data shows that new facilities spend over \$170,000 per employee. Many research operations require the use of sophisticated and expensive equipment. Labor costs are estimated at \$22,600 per worker. Data for inventories or utility use were unavailable--they are listed as zero in the table.

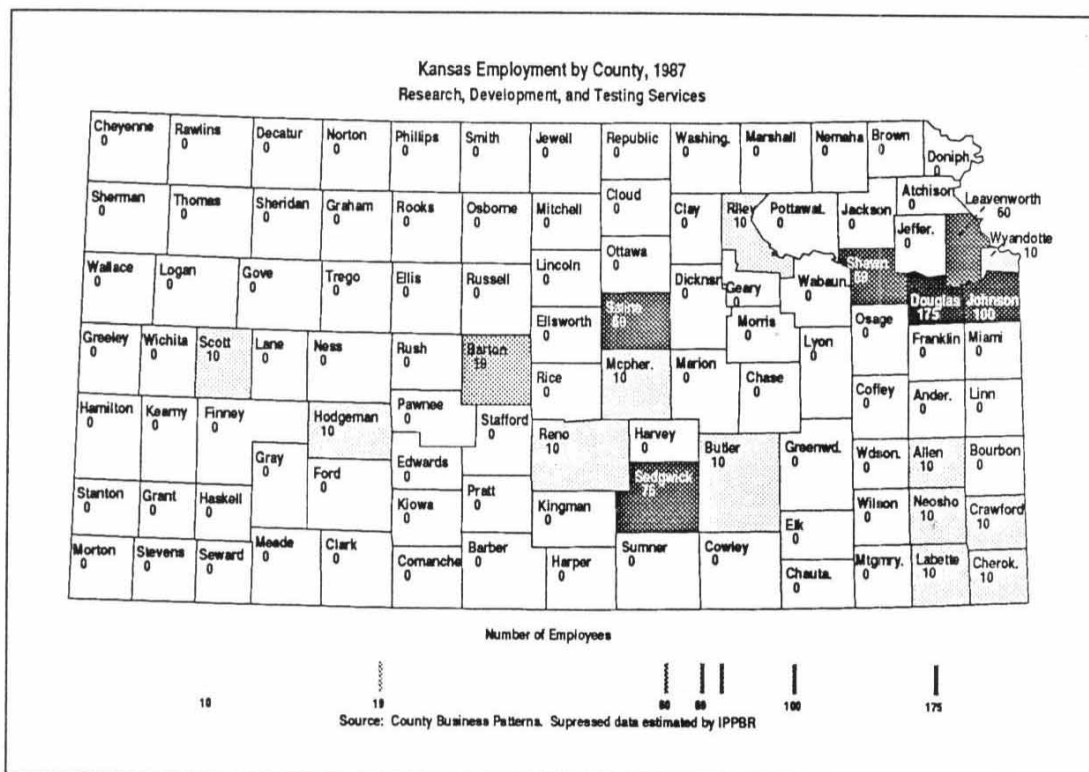


Figure 1-873

Research, Development, and Testing Services in Kansas

The research and testing industry employs a little over 500 people in Kansas. Although Kansas employment has increased during the 1980s, it has not kept pace with national growth. Average firm size in the state is small, about 9 workers per location.

The industry is concentrated in Douglas, Johnson, and Sedgwick counties. Proximity to a major university seems to be an important location criterion for these firms.

Table 2-873
Employment and Establishments
SIC 873: Research, Development, and Testing Services

	1980	1987	Average Annual Growth
SIC 873			
United States			
SIC 873 employment	134,550	193,521	5.33%
SIC 873 establishments	4,471	7,491	7.65%
SIC 873 Employ./Estab.	30	26	
Region			
SIC 873 employment	5,443	7,681	5.04%
Data Suppression Error	328	1,146	
SIC 873 establishments	311	464	5.88%
SIC 873 Employ./Estab.	18	17	
Kansas			
SIC 873 employment	477	518	1.18%
Data Suppression Error	0	0	
SIC 873 establishments	41	55	4.29%
SIC 873 Employ./Estab.	12	9	
Kansas as % of Region			
SIC 873 employment	8.76%	6.74%	
SIC 873 establishments	16.67%	16.67%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

Trends in Industry 873

Nationwide, employment in the research, development, and testing industry has grown at healthy 5.3 percent during the 1980s. About three-fourths of national employment is the research and development category, and this subgroup has also experienced the greatest growth. Kansas has lagged behind both the nation and the region in attracting new jobs.

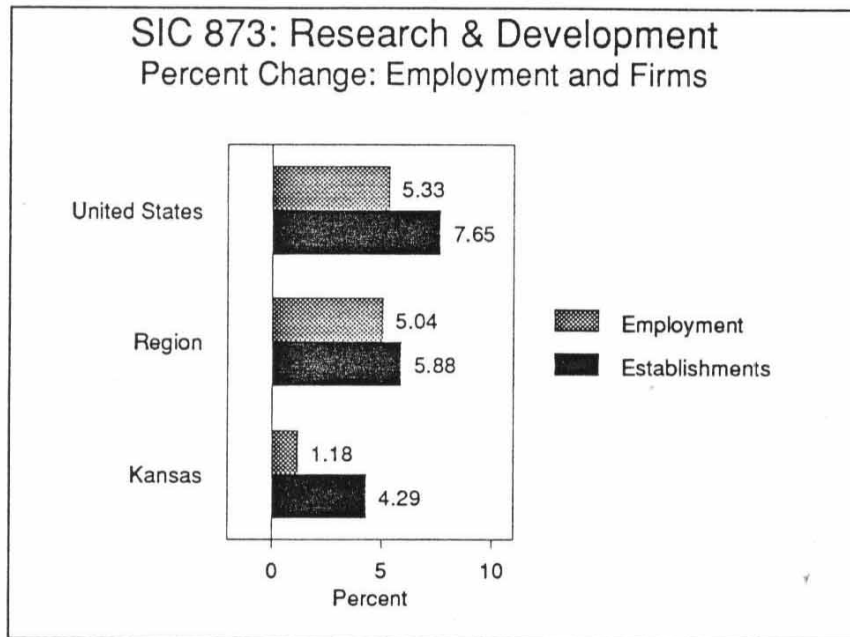


Figure 2-873

Results from the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-873
Summary of Taxes and Costs
SIC 873: Research, Development, and Testing Services
Complete Model: Variations in Taxes

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Costs	\$1,509,379	\$1,523,245	99.1%	\$1,530,711	\$1,530,201	100.0%
Annual Taxes	\$815,582	\$841,418	96.9%	\$996,167	\$900,143	110.7%
Federal Income Tax	\$626,892	\$585,706	107.0%	\$534,766	\$554,516	96.4%
State Income Tax	\$50,667	\$23,855	212.4%	\$73,754	\$39,641	186.1%
Unemploy. and Workers' Comp.	\$21,586	\$26,176	82.5%	\$21,586	\$26,176	82.5%
Property	\$46,515	\$113,847	40.9%	\$242,075	\$160,229	151.1%
Franchise	\$4,498	\$3,143	143.1%	\$4,735	\$3,182	148.8%
Sales	\$65,423	\$88,691	73.8%	\$119,251	\$116,399	102.4%
On Initial Investment	\$0	\$34,988	0.0%	\$53,827	\$52,540	102.4%
Combined Tax, Non-tax Costs	\$2,324,960	\$2,364,663	98.3%	\$2,526,879	\$2,430,343	104.0%
Savings due to Tax Incentives	\$201,918	\$65,681	307.4%			

Source: IPPBR Tax Simulation Model

Table 3B-873
Summary of Taxes and Costs
SIC 873: Research, Development, and Testing Services
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Costs	\$1,472,635	\$1,527,020	96.4%	\$1,494,004	\$1,533,985	97.4%
Annual Taxes	\$828,807	\$840,707	98.6%	\$1,010,413	\$900,030	112.3%
Federal Income Tax	\$639,546	\$584,181	109.5%	\$547,230	\$552,750	99.0%
State Income Tax	\$51,714	\$23,435	220.7%	\$75,486	\$39,562	190.8%
Unemploy. and Workers' Comp.	\$20,920	\$26,411	79.2%	\$20,920	\$26,411	79.2%
Property	\$46,618	\$114,641	40.7%	\$242,612	\$161,498	150.2%
Franchise	\$4,505	\$3,150	143.0%	\$4,743	\$3,190	148.7%
Sales	\$65,504	\$88,888	73.7%	\$119,423	\$116,619	102.4%
On Initial Investment	\$0	\$35,082	0.0%	\$53,919	\$52,657	102.4%
Combined Tax, Non-tax Costs	\$2,301,442	\$2,367,727	97.2%	\$2,504,417	\$2,434,016	102.9%
Savings due to Tax Incentives	\$202,975	\$66,288	306.2%			

Source: IPPBR Tax Simulation Model

Table 4-873
Kansas Taxes and Costs According to Rank within the Region
SIC 873: Research, Development, and Testing Services

City Size	Costs: Non-Tax	Taxes	Tax & Non- Tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	3	4
Wyandotte County	6	2	6
Wichita	5	1	5
Medium Size Cities (6 states)	3	2	1
Small Size Cities (6 states)	5	2	3
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	6	10	7
Wyandotte County	9	11	10
Wichita	7	8	9
Medium Size Cities (6 states)	3	6	6
Small Size Cities (6 states)	5	6	6

Source: IPPBR Tax Simulation Model

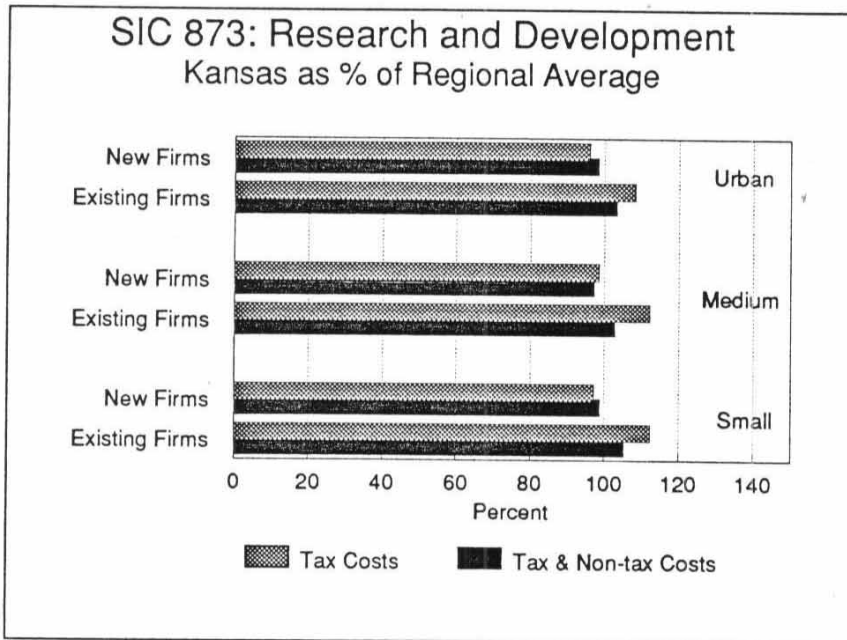


Figure 3-873

Table 5-873
Taxes and Costs in Kansas Location
SIC 873: Research, Development, and Testing Services
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Non-tax Costs	\$1,698,833	\$1,733,959	98.0%	\$1,720,292	\$1,728,133	99.5%
Annual Taxes	\$743,826	\$769,439	96.7%	\$903,608	\$846,730	106.7%
Combined Tax, Non-tax Costs	\$2,442,659	\$2,503,398	97.6%	\$2,623,901	\$2,574,863	101.9%
Savings due to Tax Incentives	\$159,782	\$77,291	206.7%			
Wichita-Sedgwick County, KS						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Non-tax Costs	\$1,724,228	\$1,733,959	99.4%	\$1,743,731	\$1,728,133	100.9%
Annual Taxes	\$733,622	\$769,439	95.3%	\$901,456	\$846,730	106.5%
Combined Tax, Non-tax Costs	\$2,457,850	\$2,503,398	98.2%	\$2,645,187	\$2,574,863	102.7%
Savings due to Tax Incentives	\$167,835	\$77,291	217.1%			
Wyandotte County, KS						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Non-tax Costs	\$1,750,922	\$1,733,959	101.0%	\$1,774,248	\$1,728,133	102.7%
Annual Taxes	\$738,939	\$769,439	96.0%	\$942,321	\$846,730	111.3%
Combined Tax, Non-tax Costs	\$2,489,861	\$2,503,398	99.5%	\$2,716,568	\$2,574,863	105.5%
Savings due to Tax Incentives	\$203,382	\$77,291	263.1%			
Average Medium Sized City						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Non-tax Costs	\$1,472,635	\$1,527,020	96.4%	\$1,494,004	\$1,533,985	97.4%
Annual Taxes	\$828,807	\$840,707	98.6%	\$1,010,413	\$900,030	112.3%
Combined Tax, Non-tax Costs	\$2,301,442	\$2,367,727	97.2%	\$2,504,417	\$2,434,016	102.9%
Savings due to Tax Incentives	\$181,606	\$59,323	306.1%			
Average Small Rural City						
Annual Sales	\$3,491,200	\$3,491,200	100.0%	\$3,491,200	\$3,491,200	100.0%
Annual Non-tax Costs	\$1,387,567	\$1,391,903	99.7%	\$1,408,918	\$1,398,865	100.7%
Annual Taxes	\$864,569	\$888,238	97.3%	\$1,069,480	\$951,802	112.4%
Combined Tax, Non-tax Costs	\$2,252,136	\$2,280,141	98.8%	\$2,478,398	\$2,350,667	105.4%
Savings due to Tax Incentives	\$204,911	\$63,564	322.4%			

Source: IPPBR Tax Simulation Model

Conclusions

Research, development, and testing services would be a desirable industry for Kansas to attract, since it exhibits rapid growth nationally and since wages in the industry are high. Kansas urban areas and university communities show the greatest potential for the industry. Relatively high property taxes on equipment could act as a deterrent to growth.

**Costs and Taxes for
Headquarters and Other Administrative Offices**

Any business must devote some of its resources to administrative type functions: planning, accounting, and budgeting to name a few. In large corporations, administrative functions are generally performed at regional or national headquarter facilities. Similarly, special facilities may be devoted to marketing, record keeping, or order-taking. Administrative units bring a mixture of professional and clerical jobs to a community. They add to a community's employment base without some of the problems, such as noise and pollution, that are sometimes associated with manufacturing.

**Table 1-HQ
HQ: Headquarters**

Number of Employees	50
Annual Sales	\$6,150,000
Annual Costs	\$5,319,765
Payroll	1,565,946
Production	1,565,946
Other	0
Employer's Soc. Sec. Payments	119,795
Cost of Employee Benefits	200,000
Cost of Materials	200,000
Electricity	0
Gas	0
Water	0
Depreciation (annual average)	171,928
Repair and Rental Payments	16,952
Interest Payments	103,988
Other Costs or Revenue	2,941,155
Asset Costs (excluding sales taxes)	
Land	\$ 12,966
Buildings	534,000
Machinery	1,550,000
Inventory	30,750
Buildings and Machinery/Employee	41,680

Source: IPPBR Tax Simulation Model

Cost and Asset Profile

Table 1 shows the costs and assets of a typical administrate office in a medium sized city in the region. Both land and labor costs would be higher in an urban area. Capital investment per new employee averages about \$41,680, moderate in comparison with manufacturing industries. Payroll per employee averages \$31,319, higher than for manufacturing industries. The payroll figure is boosted by the large number of professional and managerial workers employed at headquarters establishments.

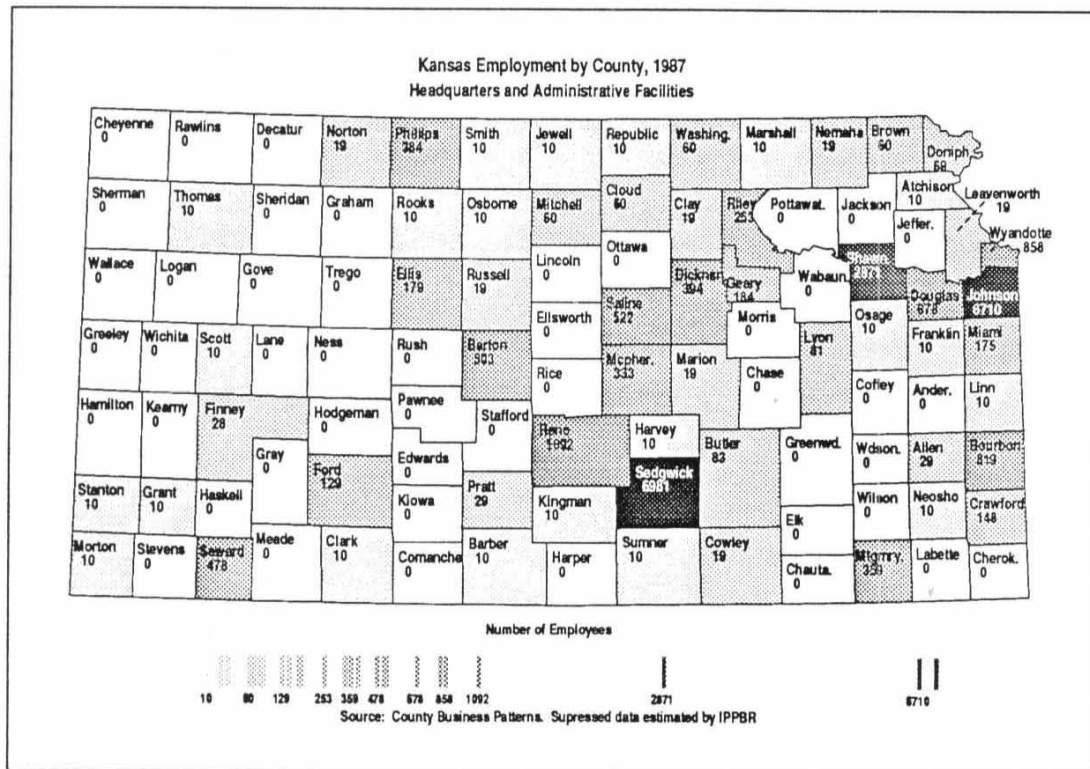


Figure 1-HQ

Headquarters and Administrative Facilities in Kansas

Good data on employment at headquarters and administrative establishments are not readily accessible. However, *County Business Patterns* supplies a related statistic, "administrative and auxiliary

establishments." *County Business Patterns* includes a number of additional facility types: warehouse and storage units, research laboratories, and maintenance locations. Figure 1 and Table 2 are based on the *County Business Patterns* data.

Headquarters and administration is a major industry in Kansas, employing some 23,000 people. The average employment per location stands 44 workers, with relatively small administrative and auxiliary units scattered throughout the state. However, the industry is concentrated around urban areas, where

**Table 2-HQ
Employment and Establishments
HQ: Headquarters**

	1980	1987	Average Annual Growth
HQ			
United States			
HQ employment	2,767,606	3,187,354	2.04%
HQ establishments	33,748	43,538	3.71%
HQ Employ./Estab.	82	73	
Region			
HQ employment	200,183	210,763	0.74%
Data Suppression Error	7,300	21,940	
HQ establishments	3,296	3,618	1.34%
HQ Employ./Estab.	61	58	
Kansas			
HQ employment	21,764	23,572	1.15%
Data Suppression Error	19	0	
HQ establishments	474	539	1.85%
HQ Employ./Estab.	46	44	
Kansas as % of Region			
HQ employment	10.87%	11.18%	
HQ establishments	14.38%	14.90%	

Source: *County Business Patterns*

Data Suppression Error: For some industries, data were suppressed to preserve confidentiality. In these cases, IPPBR estimated employment data. The listed error is the maximum error due to this procedure.

relatively large facilities perform administrative functions for regional and national corporations. Johnson County hosts 6 administrative establishments with over 250 workers, while Sedgwick County lists an establishment with over 500 employees. In rural Kansas, Seward County in the southwest part of the state lists an administrative or auxiliary unit related to wholesale trade and one related to transportation and public utilities.

Trends in Headquarters in Administrative Facilities

U.S. employment at administrative units has grown at a healthy pace throughout the 1980s, increasing over 2 percent per year. Although Kansas has failed to keep pace with the nation, it has outperformed the region with an annual growth rate of 1.15 percent.

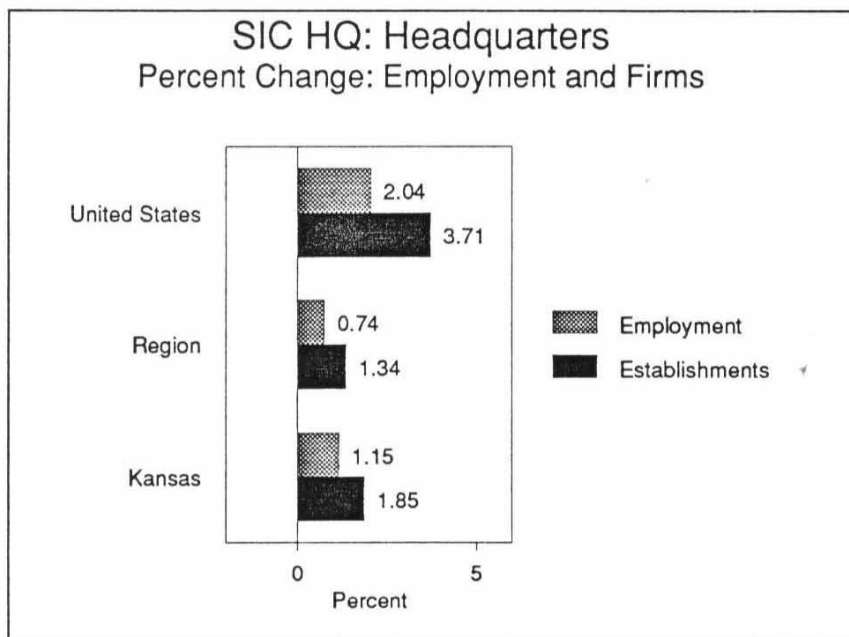


Figure 2-HQ

Results of the Tax Simulation Model

Results from the IPPBR Tax Simulation Model are shown in the figure and tables below.

Table 3A-HQ
Summary of Taxes and Costs
HQ: Headquarters
Partial Model: Variations in Taxes Only

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Costs	\$5,367,710	\$5,370,725	99.9%	\$5,372,349	\$5,372,237	100.0%
Annual Taxes	\$2,118,978	\$2,098,294	101.0%	\$2,131,172	\$2,105,353	101.2%
Federal Income Tax	\$2,017,461	\$2,021,090	99.8%	\$2,011,887	\$2,017,306	99.7%
State Income Tax	\$8,936	\$2,535	352.6%	\$14,948	\$5,712	261.7%
Unemploy. and Workers' Comp.	\$19,552	\$20,440	95.7%	\$19,552	\$20,440	95.7%
Property	\$63,152	\$38,480	164.1%	\$63,152	\$41,070	153.8%
Franchise	\$1,100	\$824	133.5%	\$1,151	\$832	138.4%
Sales	\$8,778	\$14,925	58.8%	\$20,482	\$19,992	102.4%
On Initial Investment	\$0	\$7,608	0.0%	\$11,704	\$11,424	102.4%
Combined Tax, Non-tax Costs	\$7,486,688	\$7,469,019	100.2%	\$7,503,521	\$7,477,590	100.3%
Savings due to Tax Incentives	\$16,833	\$8,571	196.4%			

Source: IPPBR Tax Simulation Model

Table 3B-HQ
Summary of Taxes and Costs
HQ: Headquarters
Complete Model: Variations in Taxes and Costs

	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Medium Sized City						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Costs	\$5,315,107	\$5,372,102	98.9%	\$5,319,765	\$5,373,620	99.0%
Annual Taxes	\$2,136,771	\$2,098,344	101.8%	\$2,149,047	\$2,105,547	102.1%
Federal Income Tax	\$2,035,436	\$2,020,360	100.7%	\$2,029,839	\$2,016,504	100.7%
State Income Tax	\$9,018	\$2,512	359.1%	\$15,087	\$5,699	264.7%
Unemploy. and Workers' Comp.	\$18,948	\$20,640	91.8%	\$18,948	\$20,640	91.8%
Property	\$63,443	\$38,973	162.8%	\$63,443	\$41,757	151.9%
Franchise	\$1,104	\$828	133.3%	\$1,155	\$836	138.1%
Sales	\$8,822	\$15,032	58.7%	\$20,575	\$20,111	102.3%
On Initial Investment	\$0	\$7,659	0.0%	\$11,753	\$11,487	102.3%
Combined Tax, Non-tax Costs	\$7,451,877	\$7,470,446	99.8%	\$7,468,811	\$7,479,167	99.9%
Savings due to Tax Incentives	\$16,934	\$8,721	194.2%			

Source: IPPBR Tax Simulation Model

Table 4-HQ
Kansas Taxes and Costs According to Rank Within the Region
HQ: Headquarters

City Size	Costs: Non-tax	Taxes	Tax & Non- tax Costs
<i>Firms Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	4	8	4
Wyandotte County	8	7	9
Wichita	5	6	7
Medium Size Cities (6 states)	3	6	3
Small Size Cities (6 states)	5	6	5
<i>Firms Not Receiving Tax Incentives</i>			
Urban Areas: (11 urban areas)			
Johnson County	5	8	6
Wyandotte County	9	7	9
Wichita	7	6	8
Medium Size Cities (6 states)	3	5	2
Small Size Cities (6 states)	5	5	5

Source: IPPBR Tax Simulation Model

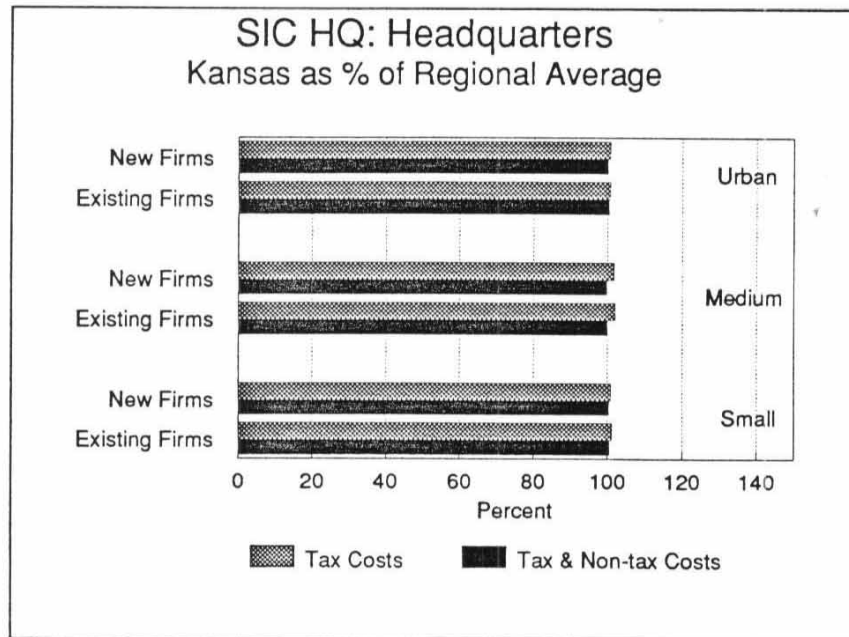


Figure 3-HQ

Table 5-HQ
Taxes and Costs in Kansas Locations
HQ: Headquarters
Comparison with Region

Description	NEW FIRM--TAX INCENTIVES			ESTABLISHED FIRM--NO TAX INCENTIVES		
	Kansas	Regional Average	Kansas as % of Region	Kansas	Regional Average	Kansas as % of Region
Johnson County, KS						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Non-tax Costs	\$5,608,357	\$5,647,730	99.3%	\$5,613,064	\$5,630,678	99.7%
Annual Taxes	\$2,035,251	\$2,011,772	101.2%	\$2,047,284	\$2,025,629	101.1%
Combined Tax, Non-tax Costs	\$7,643,608	\$7,659,502	99.8%	\$7,660,348	\$7,656,307	100.1%
Savings due to Tax Incentives	\$12,033	\$13,856	86.8%			
Wichita-Sedgwick County, KS						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Non-tax Costs	\$5,649,720	\$5,647,730	100.0%	\$5,653,969	\$5,630,678	100.4%
Annual Taxes	\$2,024,400	\$2,011,772	100.6%	\$2,035,777	\$2,025,629	100.5%
Combined Tax, Non-tax Costs	\$7,674,120	\$7,659,502	100.2%	\$7,689,746	\$7,656,307	100.4%
Savings due to Tax Incentives	\$11,377	\$13,856	82.1%			
Wyandotte County, KS						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Non-tax Costs	\$5,680,491	\$5,647,730	100.6%	\$5,685,607	\$5,630,678	101.0%
Annual Taxes	\$2,027,499	\$2,011,772	100.8%	\$2,039,970	\$2,025,629	100.7%
Combined Tax, Non-tax Costs	\$7,707,990	\$7,659,502	100.6%	\$7,725,577	\$7,656,307	100.9%
Savings due to Tax Incentives	\$12,471	\$13,856	90.0%			
Average Medium Sized City						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Non-tax Costs	\$5,315,107	\$5,372,102	98.9%	\$5,319,765	\$5,373,620	99.0%
Annual Taxes	\$2,136,771	\$2,098,344	101.8%	\$2,149,047	\$2,105,547	102.1%
Combined Tax, Non-tax Costs	\$7,451,877	\$7,470,446	99.8%	\$7,468,811	\$7,479,167	99.9%
Savings due to Tax Incentives	\$12,276	\$7,203	170.4%			
Average Small Rural City						
Annual Sales	\$6,150,000	\$6,150,000	100.0%	\$6,150,000	\$6,150,000	100.0%
Annual Non-tax Costs	\$5,199,123	\$5,186,561	100.2%	\$5,203,771	\$5,188,077	100.3%
Annual Taxes	\$2,182,849	\$2,161,171	101.0%	\$2,195,224	\$2,168,511	101.2%
Combined Tax, Non-tax Costs	\$7,381,971	\$7,347,733	100.5%	\$7,398,995	\$7,356,588	100.6%
Savings due to Tax Incentives	\$12,375	\$7,339	168.6%			

Source: IPPBR Tax Simulation Model

Conclusions

Kansas growth in administrative employment has been strong compared with the region, but slow compared with the U.S. Urban locations in the state are in a strong position to compete for regional headquarters facilities, due to moderate labor costs and a central location.

Appendix A
Example of the Tax Simulation Model Data Base

A data base similar to the one shown below was constructed for each city type (small, medium, and urban area) in each state in the study region. Each data base contains 15 industries. Complete bibliography references for the data sources are found in Appendix B.

A. IDENTIFIERS	
A.1 State	Colorado
A.2 Industry Name	Meat Prod.
A.3 SIC Code	201
A.4 Location	Medium City
A.5 Code #	0
A.6 Credits and Abatements? (1 = yes)	0 User option
A.7 Large Firm? (1 = yes)	1 User option
A.8 Location Type	3 User option
A.9 Enterprize Zone Credits? (1 = yes)	0 User option
A.10 Property Tax Abatements?	0 User option
B. U.S. CONSTANTS	
B.1 Social Security Rate: Employer	0.0765 Statistical Abstract
B.2 Interest Rate	0.1 User option
B.3 Present Value Discount Rate	0.1 User option
B.4 Producer Price Indexes	Citibase
1982	100.00
1983	101.18
1984	103.55
1985	103.70
1986	100.64
1987	103.33
1988	107.14
1989	112.28
B.5 Average U.S. Land Cost	\$50,000 IPPBR estimate
C. INDUSTRY SPECIFIC DATA	
C.1 Number of Employees	50 User option
Fraction production	0.83 (assumed 1 for service industries)
C.2 Payroll/employee :U.S.	\$14,661 An. Surv. Manf., Census Service 1, Census Service 2
Payroll/Production Employee	\$23,722 An. Surv. Manf., IRS Sourcebook, USTA, HQ Survey.
Payroll/Nonproduction Employee	0.0079 Census Wholesale, IRS Sourcebook, USTA, HQ Survey.
C.4 Unemployment Insurance Rate	Unemployment Insurance
C.5 Worker Compensation Tax Rate	0.1007 National Council
Production	0.0046 National Council
Other	

C.6	Average Benefits per Employee		\$3,691	An. Surv. Manf., Survey Current Business
C.7	Cost of Materials, inc. Purchased Services Per employee		\$175,788	An. Surv. Manf., Survey Current Business
C.8	Sales per employee		\$218,372	An. Surv. Manf., Census Service 1, Census Service 2 Census Wholesale, IRS Sourcebook, USTA, BEA I/O, HQ Survey
C.9	Inventory/sales ratio		0.0293	An. Surv. Manf., Census Service 1, Census Service 2 Census Wholesale, IRS Sourcebook, USTA, HQ Survey
C.10	Investment SFT / Employee		350	Geo-Corp Index
	Investment per employee		\$66,894	Geo-Corp Index
C.11	Building Costs/SFT: U.S. Average		\$40	Means Sq Foot
C.12	Building: Rent or Own? (1 = own)		1	User option
C.13	Debt/Equity Ratio		0.9000	User option
C.14	Depreciation: Actual		0.0317	IRS Depreciation
	Deprec. % for Buildings		0.0833	IRS Depreciation
C.15	Years of Life for Building		31.5	IRS Depreciation
C.16	Utility Use			
	Electrical use / employee		24923	An. Surv. Manf. Assumed zero for services.
	Gas use / employee		\$923	An. Surv. Manf. Assumed zero for services.
	Water use / employee		291785	Census Manf. Assumed zero for services.
C.17	Utility Prices: U.S.			
	U.S. average price: elect.		\$0.0638	Energy Report
	U.S. average price: gas		\$0.0039	Energy Report
	U.S. average price: water		\$0.0020	This is a regional average from IPPBR Cost Survey data.
C.18	Heavy Industry? (1 = yes)		0	User option
C.19	Scheduled Depreciation: Buildings		0.0317	IRS Depreciation
C.20	Years to Depreciate Machinery		7	IRS Depreciation
C.21	Scheduled Depreciation, Machinery % per year			
	1		0.25	IRS Depreciation
	2		0.2143	IRS Depreciation
	3		0.1531	IRS Depreciation
	4		0.1093	IRS Depreciation
	5		0.0875	IRS Depreciation
	6		0.0874	IRS Depreciation
	7		0.0875	IRS Depreciation
	8		0.0109	IRS Depreciation
	9		0	IRS Depreciation
	10		0	IRS Depreciation
	11		0	IRS Depreciation
	12		0	IRS Depreciation
	13		0	IRS Depreciation
	14		0	IRS Depreciation
	15		0	IRS Depreciation
C.22	Land/Building Area Ratio			User option
C.23	Public Utility? (1 = yes)		7	User option
C.24	Profit Adj. Factors: Additional Costs or Income		0	User option
	Average Before Tax Rate of Return		10.20%	User option
	Av. U.S. Non-Income Taxes: % Property		1.50%	IRS Sourcebook
	Av. U.S. State and Local Income Taxes		5.00%	ACIR
C.25	Fraction of Inventories Tax Exempt		1	State Agencies

C.26 Average U.S. Worker Comp Rate
 Production
 Nonproduction
 C.27 Average U.S. U.I. Rate
 C.28 Other Taxable Income

0.0775 National Council
 0.0031 National Council
 0.0103 Unemployment Insurance
 0 User option. This is income earned in other states.

D. STATE SPECIFIC DATA

	0.03	State Agencies
D.1 Sales Tax Rate: State	0.03	State Agencies
D.2 Sales Taxes on Utilities		
% electricity subject to sales tax	20.0%	Estimate based on rules for tax exemption
% gas subject to sales tax	20.0%	Estimate based on rules for tax exemption
% water subject to sales tax	100.0%	Estimate based on rules for tax exemption
D.3 % of Repairs Subject to Sales Tax	100.0%	Estimate based on rules for tax exemption
D.4 Adjustment for Sales Tax on Construction		
% Subject to Sales Tax: E.Z.	30.0%	Estimate based on rules for tax exemption
% Subject to Sales Tax: Outside E.Z.	30.0%	Estimate based on rules for tax exemption
D.5 Adjustment for Sales Tax on Machinery		
% Subject to Sales Tax: E.Z.	30.0%	Estimate based on rules for tax exemption
% Subject to Sales Tax: Outside E.Z.	30.0%	Estimate based on rules for tax exemption
D.6 Fraction of inventories tax exempt	1	State Agencies
D.7 Franchise Tax		
Tax Rate	0	State Agencies
Maximum Tax	\$2,500	State Agencies
D.7 Property Tax: Statutory Assessment Ratios		
Machinery	0.29	State Agencies
Commercial Real Estate	0.29	State Agencies
Inventories	0	State Agencies
Public Utility Property	0.29	State Agencies
D.8 Income Tax Apportionment Calculation:		
Fraction of sales in state	0.1	User option. Depends on degree of firm's export orientation.
Fraction of property in state	1	User option. Depends on degree of firm's export orientation.
Fraction of payroll in state	1	User option. Depends on degree of firm's export orientation.
Factor weight for sales	0.500	State Agencies
Factor weight for property	0.500	State Agencies
Factor weight for payroll	0.000	State Agencies
D.9 Property Tax Exemption: Machinery		
(1 = taxed) year	0.8	State Agencies
2	0.8	State Agencies
3	0.8	(depends on whether firm qualifies for tax abatements)
4	0.8	
5	0.8	
6	0.8	
7	0.8	
8	0.8	
9	0.8	
10	0.8	
11	1	
12	1	
13	1	
14	1	
15	1	

D.10 Property Tax Exemption: Commercial Structures
(1 = taxed) year

1	0.8	State Agencies
2	0.8	(depends on whether firm qualifies for tax abatements)
3	0.8	
4	0.8	
5	0.8	
6	0.8	
7	0.8	
8	0.8	
9	0.8	
10	0.8	
11	1	
12	1	
13	1	
14	1	
15	1	

D.11 Property Tax Exemption: Commercial Land
(1 = taxed) year

1	1	State Agencies
2	1	(depends on whether firm qualifies for tax abatements)
3	1	
4	1	
5	1	
6	1	
7	1	
8	1	
9	1	
10	1	
11	1	
12	1	
13	1	
14	1	
15	1	

D.12 Property Tax Exemption: Inventories
(1 = taxed) year

1	0	State Agencies
2	0	
3	0	
4	0	
5	0	
6	0	
7	0	
8	0	
9	0	
10	0	
11	0	
12	0	
13	0	
14	0	
15	0	

D.13 Property Tax Exemption: Public Utilities
(1 = taxed) year

1 State Agencies
2 (depends on whether firm qualifies for tax abatements)
3
4
5
6
7
8
9
10
11
12
13
14
15

D.14 Corporate Income Tax Rate

Marginal Rate 1 0.05
Bracket 1 State Agencies
Marginal Rate 1990 \$50,000 State Agencies
Marginal Rate 1991 0.003 State Agencies
Marginal Rate 1992 0.002 State Agencies
Marginal Rate 1993 0.001 State Agencies
0 State Agencies

D.15 * Replace. Invst. Subject to Sales Tax

Inside Enterprise Zone 0.3 State Agencies
Outside Enterprise Zone 0.3 State Agencies
D.16 Job and Investment Tax Credits
Jobs: Inside E.Z. \$500 State Agencies
Jobs: Outside E.Z. \$150 State Agencies
Investment: Inside E.Z. 0.0300 State Agencies
Investment: Outside E.Z. 0.0100 State Agencies
D.17 Limit for Tax Credit (% of Tax) 50.00% State Agencies
D.18 Old Allocation: Multi-state firms
Fraction of sales in state 0 User option. Relevant only for multi-state firms with production facilities out of state.
Fraction of property in state 0 User option. Relevant only for multi-state firms with production facilities out of state.
Fraction of payroll in state 0 User option. Relevant only for multi-state firms with production facilities out of state.

E. LOCATION SPECIFIC DATA

E.1 Payroll Adjustment Index for Location

Production 0.844 BEA Income, BEA Employment
Nonproduction 0.844 BEA Income, BEA Employment
E.2 Building Rent / SQFT 6.9 Realtors
E.3 Other Utility Taxes

Other Taxes on Electricity \$0.0000 State Agencies. Data on local utility taxes not collected.
Other Taxes on Gas \$0.0000 State Agencies. Data on local utility taxes not collected.
Other Taxes on Water \$0.0000 State Agencies. Data on local utility taxes not collected.

E.4	Adjustment for Building Construction Costs		
E.5	Local Sales Tax Rate	0.85	Means Sq. Foot
E.6	Land Price/Acre: heavy industrial	0.02	State Agencies.
E.7	Land Price/Acre: light industrial	\$12,331	Realtors, Cost Survey.
E.8	Property Tax Mill Rate	\$12,331	Realtors, Cost Survey.
E.9	Property Tax Sales/Assessed Valuation Ratios	66.21	State Agencies, Oklahoma Research, Taxpayers Research.
	Machinery		
	Commercial Real Estate	0.29	State Agencies, Oklahoma Research, Taxpayers Research.
	Inventories	0.345	State Agencies, Oklahoma Research, Taxpayers Research.
	Public Utility Property	0	State Agencies, Oklahoma Research, Taxpayers Research.
E.10	Local Price for Utilities	0.29	State Agencies, Oklahoma Research, Taxpayers Research.
	Electricity		
	Gas	\$0.05276	Energy Report, Omaha Utilities, Cost Survey, City and County.
	Water	\$0.00619	Energy Report, Omaha Utilities, Cost Survey, City and County.
		\$0.00147	Cost Survey

**Appendix B
Data Sources
Bibliography References**

Abbreviation	Bibliography Reference
ACIR	Advisory Commission on Intergovernmental Relations [1989]. <i>Significant Features of Fiscal Federalism, 1989</i> . Washington, D.C.: Advisory Commission on Intergovernmental Relations.
An. Surv. Manf.	U.S. Department of Commerce, Bureau of the Census [1988]. <i>Annual Survey of Manufactures, Statistics for Industry Groups and Industries, 1986</i> .
BEA Employment	U.S. Department of Commerce, Bureau of Economic Analysis [1989]. <i>Full-time and Part-time Employment by Major Industry (1969-1987)</i> . Table CA25.
BEA I/O	U.S. Department of Commerce, Bureau of Economic Analysis [1984]. 537 <i>Industry Input-Output Tables for the U.S. 1977</i> . computer tape.
BEA Income	U.S. Department of Commerce, Bureau of Economic Analysis [1989]. <i>Personal Income by Major Source and Earnings by Major Industry (1969-1987)</i> . Table CA5.
Census Manf.	U.S. Department of Commerce, Bureau of the Census [1986]. <i>Census of Manufactures, Subject Series, Water Use in Manufacturing, 1982</i> .
Census Service	U.S. Department of Commerce, Bureau of the Census [1989]. <i>Census of Service Industries, Geographic Area Series, United States, 1987</i> .
Census Service 2	U.S. Department of Commerce, Bureau of the Census [1985]. <i>Census of Service Industries, Industry Series, Capital Expenditures, Depreciable Assets, and Operating Expenses, 1982</i> .
Census Wholesale	U.S. Department of Commerce, Bureau of the Census [1989]. <i>Census of Wholesale Trade, Geographic Area Series, United States, 1987</i> .
Citibase	<i>Citibase</i> (data on diskette). New York: Citicorp Database Services. Dec. 89.
City and County Data Book	U.S. Department of Commerce, Bureau of the Census [1988]. <i>City and County Data Book</i> . May.
Cost Survey	Institute for Public Policy and Business Research, University of Kansas. Survey of Costs in Small, Medium, and Large Cities. See Appendix C.

Abbreviation	Bibliography Reference
Current Business	U.S. Department of Commerce, Bureau of Economic Analysis [1989]. Tables 6.4B, 6.5B, 6.6B, 6.7B. <i>Survey of Current Business</i> , Vol. 69, No. 7, July.
Energy Report	U.S. Department of Energy, Energy Information Administration [1989]. <i>State Energy Price and Expenditure Report 1987</i> . Sept.
Geo-Corp Index	"The Geo-Corporate Index." <i>Site Selection and Industrial Development</i> , Vol. 34, No. 1, February, 1989, pp. 50-55, 130-257.
HQ Survey	Sanborn, Gina et. al. [1988]. <i>The Nature and Significance of the Overland Park/Johnson County Economy</i> . Lawrence, Kansas: Institute for Public Policy and Business Research, University of Kansas. July.
IRS Depreciation	U.S. Department of the Treasury, Internal Revenue Service [1988]. <i>Depreciation</i> . Publication No. 534. Nov.
IRS Sourcebook	U.S. Department of the Treasury, Internal Revenue Service [1985]. <i>Source Book of Statistics of Income, Active Corporation Income Tax Returns, July 1984-June 1985</i> .
Means Sq. Foot	<i>Means Square Foot Costs: Residential, Commercial, Industrial, Institutional. 1989 10th Annual Edition</i> . [1988]. Kingston, Massachusetts: R.S. Means Company, Inc.
National Council	National Council on Compensation Insurance [1986-89]. <i>Workers Compensation and Employers Liability</i> . New York: National Council on Compensation Insurance.
Oklahoma Research	Oklahoma Research. <i>1989 Ad Valorem Report</i> [1989]. Oklahoma City, OK: Oklahoma Research.
Omaha Utilities	<i>Omaha Utilities</i> . Omaha, Nebraska: Greater Omaha Chamber of Commerce, pp. u1-u34.
Realtors	Society of Industrial and Office Realtors of the National Association of Realtors [1988]. <i>1988 Guide to industrial and Office Real Estate Markets</i> . Washington, D.C.: National Association of Realtors. ASI microfiche.

Abbreviation	Bibliography Reference
State Agencies	Colorado Department of Local Affairs, Division of Property Taxation Colorado Department of Revenue Iowa Department of Revenue and Finance Kansas Department of Revenue Missouri Department of Revenue Nebraska Department of Revenue Oklahoma Tax Commission
Statistical Abstract	U.S. Department of Commerce, Bureau of the Census [1988]. <i>Statistical Abstract of the United States 1988</i> .
Taxpayers Research	Taxpayers Research Institute of Missouri. <i>Property Tax Rates of Missouri Local Governments, 26th Annual Edition</i> [1989]. Jefferson City, Missouri: Taxpayers Research Institute of Missouri, February.
Unemployment Insurance	U.S. Department of Labor, Employment and Training Administration. <i>Unemployment Insurance Financial Data for Calendar Year 1987</i> . ASI microfiche 6406-6.29.
USTA	United States Telephone Association [1987]. <i>Statistics of the Telephone Industry</i> . Washington, D.C.: United States Telephone Association.

Note: A complete bibliography of all references used for this study is found at the end of Volume 1.

Appendix C
Survey of Costs in Small, Medium, and Large Cities

Survey forms were mailed to Chambers of Commerce in selected cities in the six state study region in October, 1989. A follow-up letter was sent approximately one month later to cities which had not responded. Several of the communities responded on a county-wide basis, and a few of the cities preferred not to have their names listed in this study. The author thanks those who participated in the survey of costs.

Kansas

Finney County
Satanta
Dodge City
Barton County
Hutchinson
McPherson
Parsons
Coffeyville
Hillsboro
Arkansas City
Pittsburg
Iola
Paola
Junction City
Lawrence
Olathe
two additional cities

Oskaloosa
Waterloo
Sioux City
Cedar Rapids
Davenport
three additional cities

Missouri

Clinton
Marshall
Randolph
Cole County
Chaffee
Joplin
St. Louis
five additional cities

Colorado

Glenwood Springs
Las Animas
Monte Vista
Colorado Springs
Woodland Park
Three additional cities

Nebraska

Box Butte Co.
North Platte
Superior
Wahoo
Fremont
Blair
Omaha
five additional cities

Iowa

Washington City
Marshalltown
Fort Dodge
Mason City
New Hampton
Pella
Decorah
Marion

Oklahoma

Woodward
Miami
Okmulgee
McAlester
Bartlesville
Tulsa
Oklahoma City
three additional cities

QUESTIONNAIRE FOR THE IPPBR BUSINESS COST PROJECT

(this form was sent to Chambers of Commerce in small and medium cities)

<u>Questions</u>	<u>Responses</u>			
1. This survey can be answered on a county-wide or city-wide basis. How are you answering this survey? If county-wide, what is the name of your county? If city-wide, what is the name of your city?	County-wide	City-wide		

2. What is the population of your community?	_____			
3. What is the average wage rate (\$/hour) for manufacturing employees in your community? If over 12, please specify:	3-5	6-8	9-11	12+
	_____ \$/hour			
4. What is the property tax rate for commercial property?	_____			
5. What is the commercial utility rate for: Electricity? Natural gas? Water?	_____ \$/kWhour			
	_____ \$/cu. ft.			
	_____ \$/gallon			
6. What is the name of the utility company that supplies: Electricity? Natural gas? Water?	_____			

7. What is the distance in miles from your community to the nearest: Interstate highway? If over 30, please specify: Railroad station? If over 30, please specify: Commercial airport? If over 30, please specify:	5-10	10-20	20-30	30+
	_____ miles			
	5-10	10-20	20-30	30+
	_____ miles			
	5-10	10-20	20-30	30+
	_____ miles			
8. What is the average purchase price per acre for an industrial site?	_____ \$/acre			

<u>Questions</u>	<u>Responses</u>		
9. What is the average cost per square foot for construction of new industrial facilities?	_____ \$/square foot		
10. What is the average rental rate per square foot for good quality office space?	_____ \$/square foot		
11. How many four-year or community colleges are there within a 30 mile radius of your community?	_____		
12. Are there one or more office parks in your community? If yes, name and address of contact person:	Yes	No	Don't know
13. Are there one or more industrial parks in your community? If yes, name and address of contact person:	Yes	No	Don't know
14. Is your community in a state-designated enterprise zone?	Yes	No	Don't know
15. Do you prefer that we keep the name of your organization confidential and not list it in this survey?	Yes	No	
16. Would you like to receive a summary of our findings?	Yes	No	
17. Please use this space for any additional comments.			

Thank you for participating in our survey.
 IPPBR University of Kansas 607 Blake Hall Lawrence, KS 66045

Business Cost Survey
Institute for Public Policy and Business Research
(this form was sent to Chambers of Commerce in urban areas.)

Community Characteristics

1. What is the name of your community? _____
2. What is the population of your community? _____
3. Is your community primarily suburban or central city? _____
4. Is your community part of a larger metropolitan area? If yes, what is the name of the metro area? _____
5. Is there a state designated enterprize zone within your community? _____

Sales and Lease Prices for Prime Industrial Buildings

A prime industrial building is one in the top 25% of overall existing facilities. Industrial buildings are those suitable for manufacturing, warehousing, and research. Please give your best estimate of dollar amounts.

6. What is the selling price per sq. ft. for prime industrial buildings in your community?
Buildings under 10,000 sq. ft. _____
Between 10,000 and 30,000 sq. ft. _____
Over 30,000 sq. ft. _____
7. What is the annual lease price per sq. ft. for prime industrial buildings in your area?
Buildings under 10,000 sq. ft. _____
Between 10,000 and 30,000 sq. ft. _____
Over 30,000 sq. ft. _____

Site Prices of Prime Industrial Land

Improved sites are sites which are in the top 25% of available sites, and which are in "ready to build" condition. Improved sites are graded and have streets and utilities installed. Unimproved sites are those in the top 25% of available zoned industrial sites which do not have streets and utilities installed. Please give your best estimate of dollar amounts.

8. What is the selling price per acre for improved business sites?

- Sites less than 5 acres
- Sites between 5 and 10 acres
- Sites larger than 10 acres

9. What is the selling price per acre for unimproved business sites?

- Sites less than 5 acres
- Sites between 5 and 10 acres
- Sites larger than 10 acres.

Utility Costs

10. What is the commercial utility rate for:

- Electricity? (\$/kWhour)
- Natural gas? (\$/cu. ft.)
- Water? (\$/gallon)

11. What is the name of the utility company

- that supplies:
- Electricity?
 - Natural gas?
 - Water?

Office Space

12. What is the price range for high quality, professionally managed office space in a prime location within your community?
Please give your best estimate.

_____	\$9.00 - \$11.99
_____	\$12.00 - \$14.99
_____	\$15.00 - \$17.99
_____	\$18.00 - \$20.99
_____	\$21.00 - \$23.99
_____	(other)

Wages

13. What is the average wage for manufacturing workers in your community?

_____ skilled
_____ unskilled

14. What is the average wage for clerical workers in your community?

_____ skilled
_____ unskilled

Taxes

15. What is the property tax rate (combined mill levy) for industrial or commercial property in your community?

16. What is the sales tax rate (combined state, county, city) in your community?

17. Do you prefer that we keep the name of your organization confidential?

18. Would you like to receive a summary of our findings?

19. Please use the space below for any additional comments.

Thank you for participating in our survey.

Institute for Public Policy
and Business Research
University of Kansas
607 Blake Hall
Lawrence, KS 66045-2960

(913) 864-3701