

***Economic Trends Along the
Kansas-Oklahoma Border, 1969-2003***

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Key Findings

- Thirty years ago Oklahoma's border region had a population about 15 percent greater than Kansas'. Today, it has a population about 26 percent greater. Most of the difference resulted from net population growth in the 1990s. From 1993 to 2003, Oklahoma's border region experienced an average annual population growth of 0.25 percent compared to Kansas' -0.18 percent.
- Kansas' border region experienced a better 30-year average annual wage and salary employment growth rate than Oklahoma (0.69 versus 0.44 percent). However, Oklahoma outperformed Kansas during the past decade (0.49 versus 0.32 percent).
- Kansas' border region experienced better growth in aggregate wage and salary compensation than Oklahoma's over the past 30 years and over the past decade.
- Although Kansas' border region has outperformed Oklahoma's over the past 30 years in aggregate growth of wage compensation, Oklahoma has outperformed Kansas in both the level and growth of per-worker wage compensation. Slower productivity growth on the Kansas side of the border helps explain this outcome. However, the gap closed over the past decade as Kansas improved its relative productivity growth.
- Oklahoma has experienced a faster average annual growth rate in the number of non-farm proprietorships over the past 30 years and over the past decade. Relative to alternative employment opportunities, people on the Oklahoma side of the border are more than twice as likely to start a business, with proprietorship-to-employment ratios of 4.5-to-1 for Oklahoma and 1.8-to-1 for Kansas. Non-farm proprietors on the Oklahoma side of the border are also more likely to outperform their counterparts on the Kansas side.

Report Overview

This report documents and analyzes select economic trends along the Kansas-Oklahoma border. It is one of a set of seven companion reports that look at long-term economic trends in Kansas from different perspectives.¹ The focus here aggregates into “regions” the counties along the Kansas-Oklahoma border and compares population, proprietorship, and income growth in each state, as illustrated in the charts and tables that comprise the report. The evaluation of border regions helps provide insight into a state’s relative attractiveness as a place to live, work, and invest, because it helps isolate the policy environment from other important choice-influencing economic factors associated with geography.

One organizing principle for each of the companion reports is to create metrics that will help evaluate productivity growth in Kansas. The Center for Applied Economics at the University of Kansas School of Business published a report in November 2004 titled “The Kansas Productivity Puzzle.”² The report found that Kansas has systematically lagged behind the nation and the Plains region in terms of productivity growth from 1977 to 2001, the years of availability for the necessary data. Furthermore, the productivity lag exists in all industry sectors (except durable goods manufacturing).

Productivity is defined as output per worker over a specific unit of time. Productivity was measured in “The Kansas Productivity Puzzle” by dividing Kansas gross state product (the state equivalent of gross domestic product) by the number of workers in Kansas. This metric effectively defines the market value of Kansas’ annual output of goods and services on a per-worker basis. However, no sub-state equivalent to gross state product exists. Fortunately, wage data may offer a suitable approximation to worker productivity.

Economists have long noted a close relationship between labor productivity and wages, both in theory and in economic data. Firms cannot pay workers more than the value of what they produce, and so compensation levels should closely track increases in average output per worker. Indeed, for the state of Kansas, over the period 1977-2001, the relationship between output per worker and compensation per worker is nearly exact, having a statistical correlation of 98 percent. (See footnote 2.)

¹ The companion reports are: “Long-Term Economic Trends in the Regions of Kansas, 1969-2003,” “Long-Term Industry Trends in the Regions of Kansas, 1969-2000: Part I—An Industry Focus,” “Long-Term Industry Trends in the Regions of Kansas, 1969-2000: Part II—A Regional Focus,” “Economic Trends Along the Kansas-Nebraska Border, 1969-2003,” “Economic Trends Along the Kansas-Colorado Border, 1969-2003,” “Economic Trends Along the Kansas-Missouri Border, 1969-2003.”

² This report is available on-line at: <http://www.cae.business.ku.edu>. For a more academic treatment of the same topic, see: Peter F. Orazem, “Slow Growth and the Kansas Productivity Puzzle,” *Kansas Policy Review*, Vol. 26, No. 2 (Fall 2004), published by the Policy Research Institute of the University of Kansas, and available on-line at: <http://www.ku.edu/pri/publicat/kpr/archive.shtml>.

Data and Methods

This report relies on the close correlation in Kansas between per-worker compensation and productivity in order to use the trends in per-worker compensation as a proxy for relative productivity trends among the border regions of Kansas and Oklahoma. The focus on the border region requires the use of county-level data.

The primary data for all of the tables and charts contained in this report come from the U.S. Bureau of Economic Analysis (BEA), Regional Economic Accounts, Local Area Annual Estimates (<http://www.bea.gov/bea/regional/data.htm>). The authors aggregated county-level data reported by the BEA into a border region for each state. The sample period ends in 2003 because that is the latest year of data published by BEA.

The most appropriate BEA data to use for measuring productivity is gross state product (GSP), because that metric strives to allocate corporate profits, and other measures of value-added, to their proper geographic location. The BEA currently does not have a similar procedure for allocating corporate profits to counties. Instead it measures county-level income by wages and salary disbursements and proprietors' income. For purposes of measuring productivity, using wage and salary disbursements offers the next best metric to GSP. Proprietors' income should be used only when it is unavoidable. Wage and salary disbursements (including employer-paid benefits and social insurance taxes) are reported separately in this report.

Proprietors' income is not a stable proxy for productivity. First, BEA relies on Internal Revenue Service taxpayer data to estimate proprietorships and proprietor income. This method makes proprietor data more linked to a proprietors' residence than place of business operation. Second, proprietor income is related to the many intricacies associated with income tax law, and may therefore not reflect good measures of value-added per proprietor input.

A Snapshot of the Kansas-Oklahoma Border

Figure 1 illustrates the approximate alignment of the counties along the Kansas-Oklahoma border. It reports for each county the 2003 population and average wage compensation level, along with each measure's 1993-2003 and 1973-2003 average annual growth rate. The wage and salary data relate to people's place of work not to their place of residence.

Urban areas tend to generate higher productivity than rural areas. As a result, it is common to see wage gradients emanating out of urban areas, with higher wages in the urban center declining as one moves to more distant rural areas around the urban center. One can discern such patterns along the Kansas-Oklahoma border, although they are weakly defined because of the relatively rural nature of the border counties. Furthermore, economic research shows that counties have complementary growth patterns.³ These complimentary patterns can encompass a two-county radius, so the wage gradients and population patterns along the Kansas-Oklahoma border likely reflect such economic influences.

Good examples of wage gradients on the Kansas side of the border are: Seward County, which holds the city of Liberal (with a population of about 20,000); Cowley County, which holds Arkansas City (12,000) and Winfield (12,000); and Montgomery County, which holds Coffeyville (10,500) and Independence (9,400). Note, too, that Harper, Sumner, and Cowley Counties are in relatively close proximity to the Wichita metro area.

Good examples of wage gradients on the Oklahoma side of the border are Kay, Washington, and Texas Counties. Kay County holds Ponca City (26,000). Washington County holds Bartlesville (35,000). And Texas County holds Guymon (10,500). Note that the city of Woodward, Oklahoma probably exerts an influence on Harper and Woods Counties and the city of Enid, Oklahoma probably exerts an influence on Alfalfa and Grant Counties.

If one views growth rates in population and wage compensation in the Kansas-Oklahoma border counties as an economics competition, the results have a general geographic pattern. Kansas' counties west of Barber County have performed well relative to their contiguous Oklahoma counties (particularly in the past decade), although Texas County Oklahoma has had strong population and wage growth. Oklahoma's counties east of Kay County have performed well relative to their contiguous Kansas counties. (Note that Cherokee County, Kansas has close proximity to the city of Joplin, Missouri.) The "west central" counties of Oklahoma, Alfalfa and Grant (those with close proximity to Enid, Oklahoma), have performed well relative to their Kansas neighbors. The "east central" counties of Kansas, Sumner and Cowley (those with close proximity to Wichita, Kansas), have performed well relative to their Oklahoma neighbors.

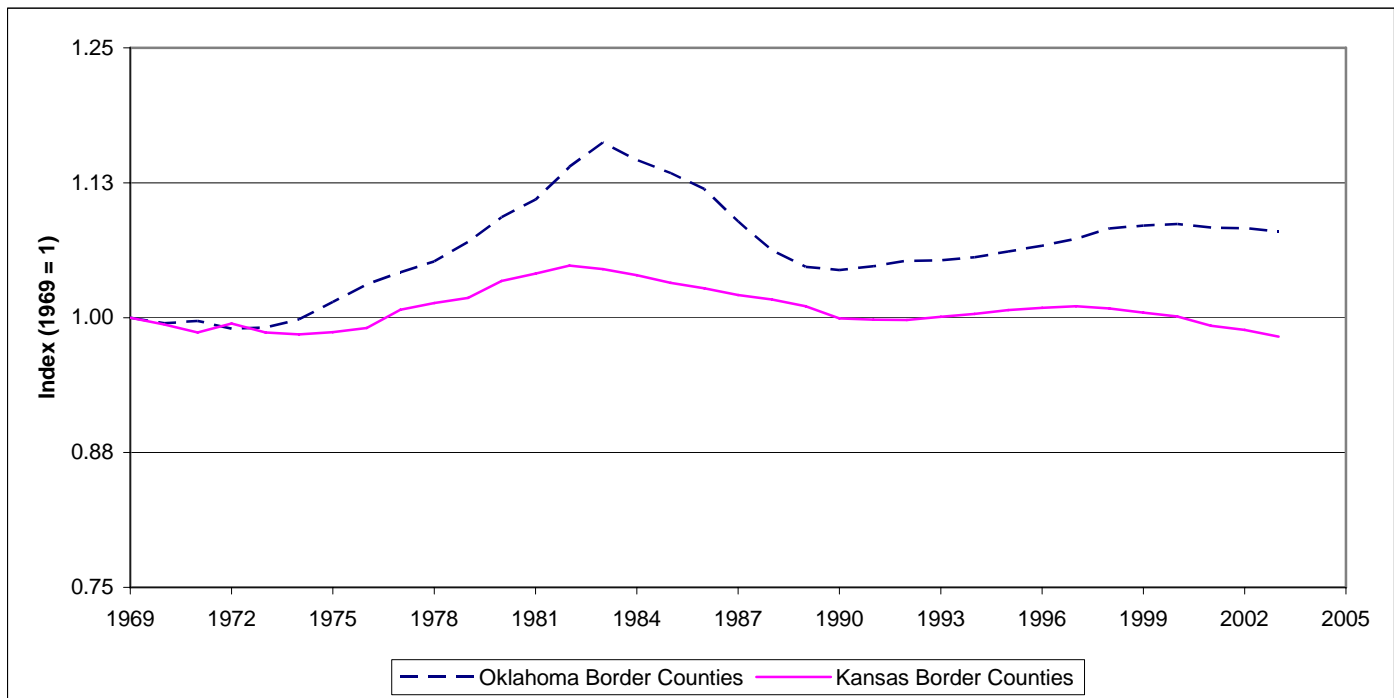
³ See, for example, Peter F. Orazem, "The Growth of Cities and Rural Economic Development," Center for Applied Economics, University of Kansas School of Business, Technical Brief 04-1119, November, 2004. Available on-line at <http://www.cae.business.ku.edu>.

Figure 1: A Snapshot of the Kansas-Oklahoma Border Counties: 2003 Population and Real Wages and Salaries Per Worker Figures, and 1993-2003 and 1973-2003 Average Annual Growth Rates.

(Notes: Top to bottom equals West to East, W&S includes employer-paid benefits and social insurance taxes.)

Oklahoma			Kansas		
Texas	<i>Population</i>	<i>W&S</i>	Morton	<i>Population</i>	<i>W&S</i>
2003 Level	19,926	\$ 32,133	2003 Level	3,346	\$ 34,812
93-03 Growth (%)	1.95	2.02	93-03 Growth (%)	-0.22	1.89
73-03 Growth (%)	0.49	1.23	73-03 Growth (%)	-0.03	1.35
<hr/>			<hr/>		
Beaver	<i>Population</i>	<i>W&S</i>	Stevens	<i>Population</i>	<i>W&S</i>
2003 Level	5,531	\$ 29,407	2003 Level	5,338	\$ 32,282
93-03 Growth (%)	-0.57	0.12	93-03 Growth (%)	0.20	1.45
73-03 Growth (%)	-0.21	0.64	73-03 Growth (%)	0.75	0.77
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Harper	<i>Population</i>	<i>W&S</i>	Seward	<i>Population</i>	<i>W&S</i>
2003 Level	3,385	\$ 28,330	2003 Level	23,146	\$ 33,387
93-03 Growth (%)	-1.32	0.74	93-03 Growth (%)	1.55	1.02
73-03 Growth (%)	-1.10	1.10	73-03 Growth (%)	1.20	0.51
<hr/>			<hr/>		
Woods	<i>Population</i>	<i>W&S</i>	Meade	<i>Population</i>	<i>W&S</i>
2003 Level	8,662	\$ 25,152	2003 Level	4,625	\$ 27,626
93-03 Growth (%)	-0.40	0.79	93-03 Growth (%)	0.62	1.38
73-03 Growth (%)	-0.79	1.06	73-03 Growth (%)	-0.13	1.10
<hr/>			<hr/>		
Alfalfa	<i>Population</i>	<i>W&S</i>	Clark	<i>Population</i>	<i>W&S</i>
2003 Level	5,883	\$ 27,040	2003 Level	2,340	\$ 30,688
93-03 Growth (%)	-0.70	2.32	93-03 Growth (%)	-0.25	2.26
73-03 Growth (%)	-0.59	1.15	73-03 Growth (%)	-0.52	1.33
<hr/>			<hr/>		
Grant	<i>Population</i>	<i>W&S</i>	Comanche	<i>Population</i>	<i>W&S</i>
2003 Level	4,980	\$ 30,723	2003 Level	1,914	\$ 22,866
93-03 Growth (%)	-1.08	1.05	93-03 Growth (%)	-1.30	1.99
73-03 Growth (%)	-1.07	1.59	73-03 Growth (%)	-1.08	0.87
<hr/>			<hr/>		
Kay	<i>Population</i>	<i>W&S</i>	Barber	<i>Population</i>	<i>W&S</i>
2003 Level	47,254	\$ 36,014	2003 Level	5,049	\$ 27,761
93-03 Growth (%)	-0.36	-0.03	93-03 Growth (%)	-1.12	1.85
73-03 Growth (%)	-0.08	0.72	73-03 Growth (%)	-1.04	0.77
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Osage	<i>Population</i>	<i>W&S</i>	Harper	<i>Population</i>	<i>W&S</i>
2003 Level	45,206	\$ 30,558	2003 Level	6,294	\$ 27,652
93-03 Growth (%)	0.49	0.79	93-03 Growth (%)	-0.77	1.46
73-03 Growth (%)	1.41	1.28	73-03 Growth (%)	-0.69	0.52
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Washington	<i>Population</i>	<i>W&S</i>	Sumner	<i>Population</i>	<i>W&S</i>
2003 Level	49,097	\$ 42,680	2003 Level	25,293	\$ 30,263
93-03 Growth (%)	0.21	0.42	93-03 Growth (%)	-0.26	1.32
73-03 Growth (%)	0.56	0.80	73-03 Growth (%)	0.28	0.85
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Nowata	<i>Population</i>	<i>W&S</i>	Cowley	<i>Population</i>	<i>W&S</i>
2003 Level	10,873	\$ 26,540	2003 Level	35,812	\$ 33,032
93-03 Growth (%)	0.86	1.51	93-03 Growth (%)	-0.32	1.64
73-03 Growth (%)	0.19	1.21	73-03 Growth (%)	0.18	0.86
<hr/>			<hr/>		
Craig	<i>Population</i>	<i>W&S</i>	Chautauqua	<i>Population</i>	<i>W&S</i>
2003 Level	14,856	\$ 33,033	2003 Level	4,201	\$ 22,822
93-03 Growth (%)	0.43	2.15	93-03 Growth (%)	-0.40	1.40
73-03 Growth (%)	0.01	1.35	73-03 Growth (%)	-0.45	0.93
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Ottawa	<i>Population</i>	<i>W&S</i>	Montgomery	<i>Population</i>	<i>W&S</i>
2003 Level	32,760	\$ 28,397	2003 Level	35,053	\$ 30,760
93-03 Growth (%)	0.56	1.55	93-03 Growth (%)	-0.75	0.87
73-03 Growth (%)	0.23	0.53	73-03 Growth (%)	-0.43	0.73
<hr/>			<hr/>		
			Labette	<i>Population</i>	<i>W&S</i>
			2003 Level	22,337	\$ 28,205
			93-03 Growth (%)	-0.47	0.17
			73-03 Growth (%)	-0.37	0.42
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			Cherokee	<i>Population</i>	<i>W&S</i>
			2003 Level	21,911	\$ 32,048
			93-03 Growth (%)	0.00	1.68
			73-03 Growth (%)	0.00	0.77

Chart 1: Trends in Population—Kansas and Oklahoma Border Counties, 1969-2003



Comments on Charts 1, 2, and 3:

- The oil and gas extraction industry and, secondarily, the supporting wholesale trade industry drove the 1973-1983 surge in Oklahoma population, employment, and aggregate wages. The steep drop in population in 1983 corresponded to a steep drop in wage and salary employment in the oil and gas extraction industry. The same forces influenced Kansas to a lesser extent. Both states also experienced a surge in farm-related wage and salary employment during this time period, which had a relatively greater influence on the trends in Kansas.
- Viewing Table 1 and Chart 1 together shows that Oklahoma’s border region started the time period under study with a population about 15 percent greater than Kansas’ and ended the period with a population about 26 percent greater. Given the steep population decline in Oklahoma during the 1980s, most of the difference derived from net population growth in the 1990s. From 1993 to 2003, Oklahoma’s border region experienced an average annual population growth of 0.25 percent compared to Kansas’ –0.18 percent.
- Kansas’ border region experienced a better 30-year average annual wage and salary employment growth rate than Oklahoma’s (0.69 versus 0.44 percent). However, Oklahoma outperformed Kansas during the past decade (0.49 versus 0.32 percent).
- Kansas’ border region experienced better growth in aggregate wage and salary compensation than Oklahoma over the past 30 years and over the past decade. As discussed in the Overview, aggregate wage and salary data acts as our proxy for the aggregate output measure needed to determine how much of the economic growth in the border regions is due to productivity growth as opposed to employment growth. See the comments related to Chart 4.

Chart 2: Trends in the Number of Wage and Salary Workers—Kansas and Oklahoma Border Counties, 1969-2003

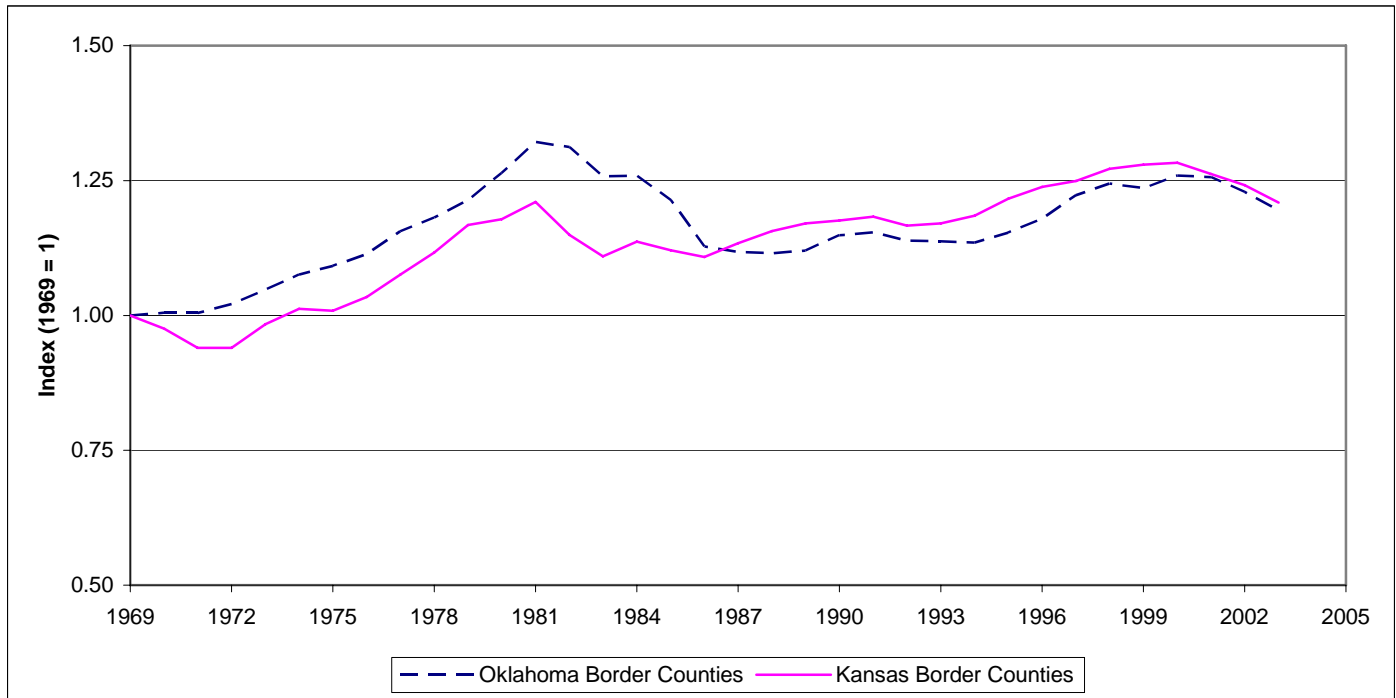


Chart 3: Trends in Inflation-Adjusted Aggregate Wage and Salary Disbursements (including Employer-Paid Benefits and Social Insurance Taxes)—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars

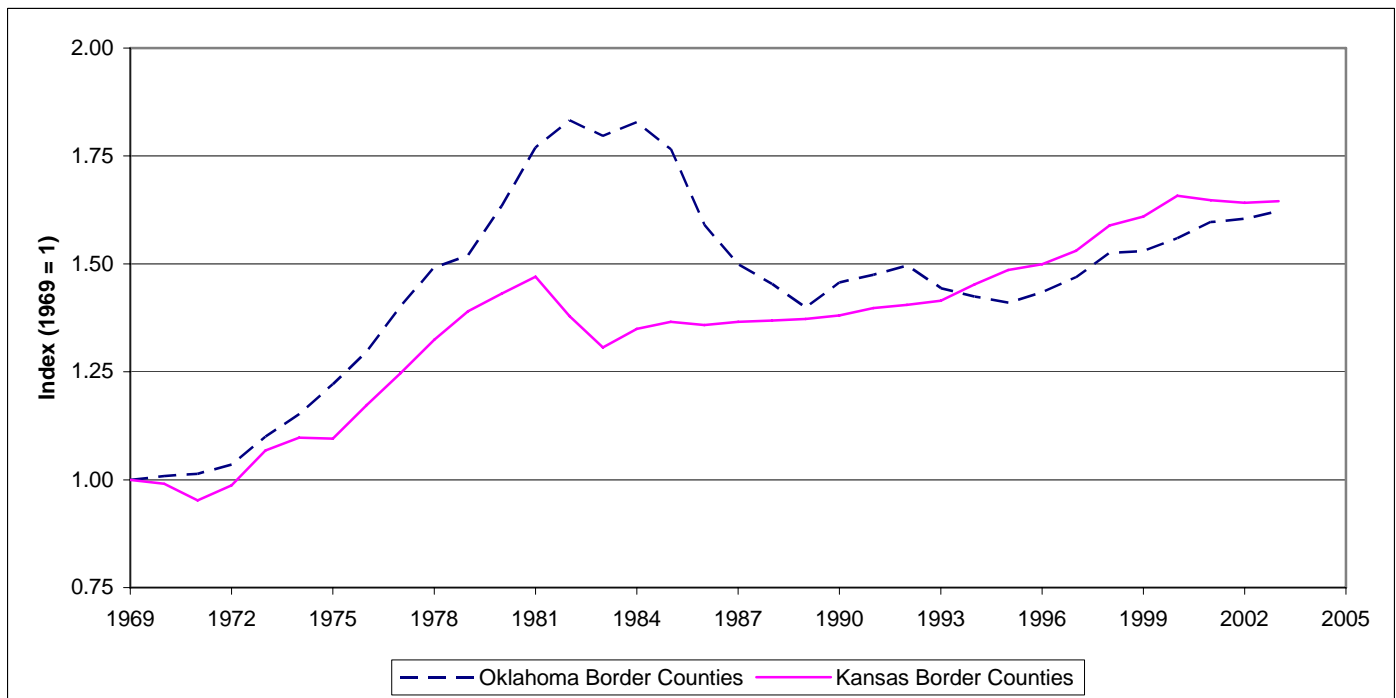
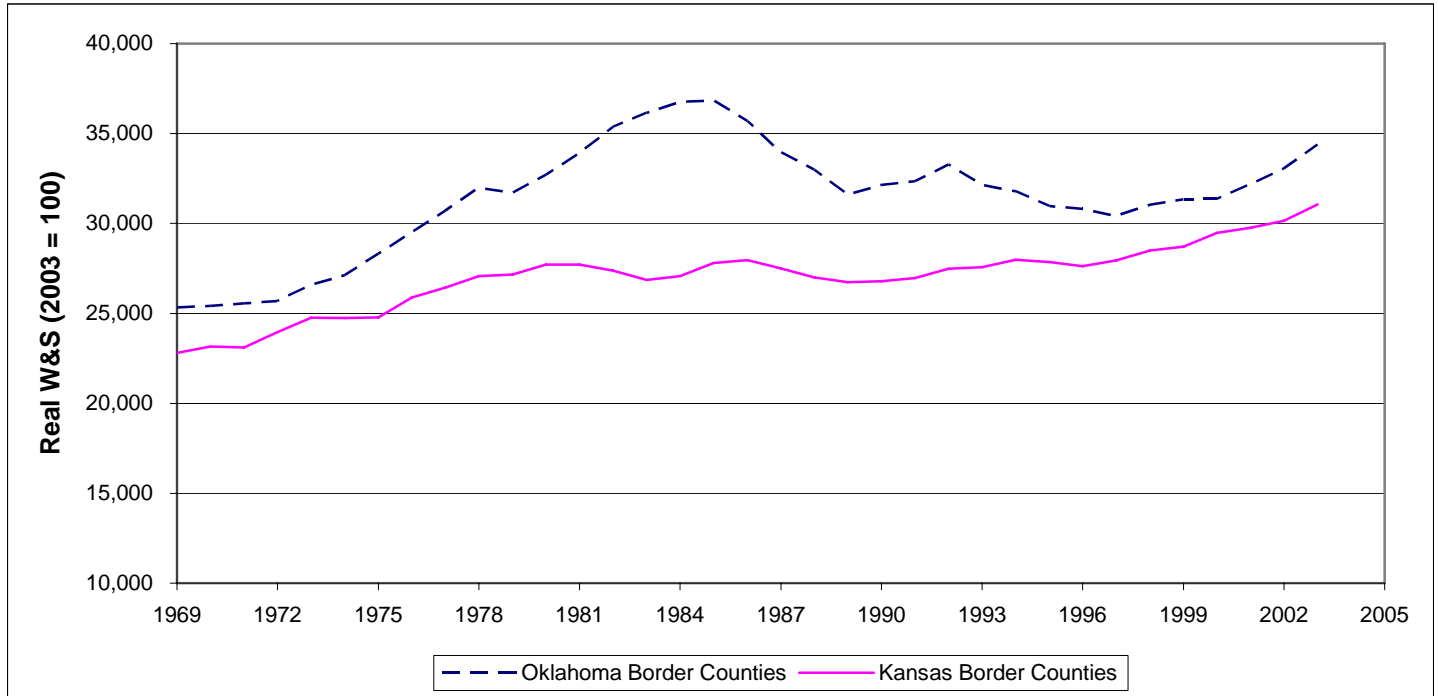


Chart 4: Inflation-Adjusted Wage and Salary Disbursements Per Wage and Salary Worker (including Employer-Paid Benefits and Social Insurance Taxes)—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars



Comments on Chart 4:

- A business cannot sustain an operation if it pays a worker more than the market value of what the worker produces, so the relative level of wage compensation per worker provides insight into the efficiency with which a worker produces goods and services and the relative market-value of those goods and services. The growth rate of wages per worker provides insight into the speed at which workers’ efficiency is improving, given the market-value of the goods and services being produced.
- Although Kansas’ border region has outperformed Oklahoma’s over the past 30 years in aggregate growth of wage compensation, Oklahoma has outperformed Kansas in both the level and growth of per-worker wage compensation. Table 2 shows that the 1973-2003 average annual per-worker growth of wage compensation was 0.86 percent in Oklahoma and 0.76 percent in Kansas. Exhibit A supports the argument that this outcome resulted from slower productivity growth in Kansas. Productivity growth accounted for 62.9 percent of Oklahoma’s aggregate growth (as proxied by aggregate wage compensation) and 61.5 percent of Kansas’. However, Kansas demonstrated superior productivity growth over the past decade, as illustrated in Exhibit B. From 1993 to 2003, Kansas increased to 81 percent its share of growth related to productivity; Oklahoma’s share declined to 58 percent. These shifts help explain the more rapid 1993-2003 per-worker average annual growth rate of wage compensation in Kansas (1.2 versus 0.68 percent).

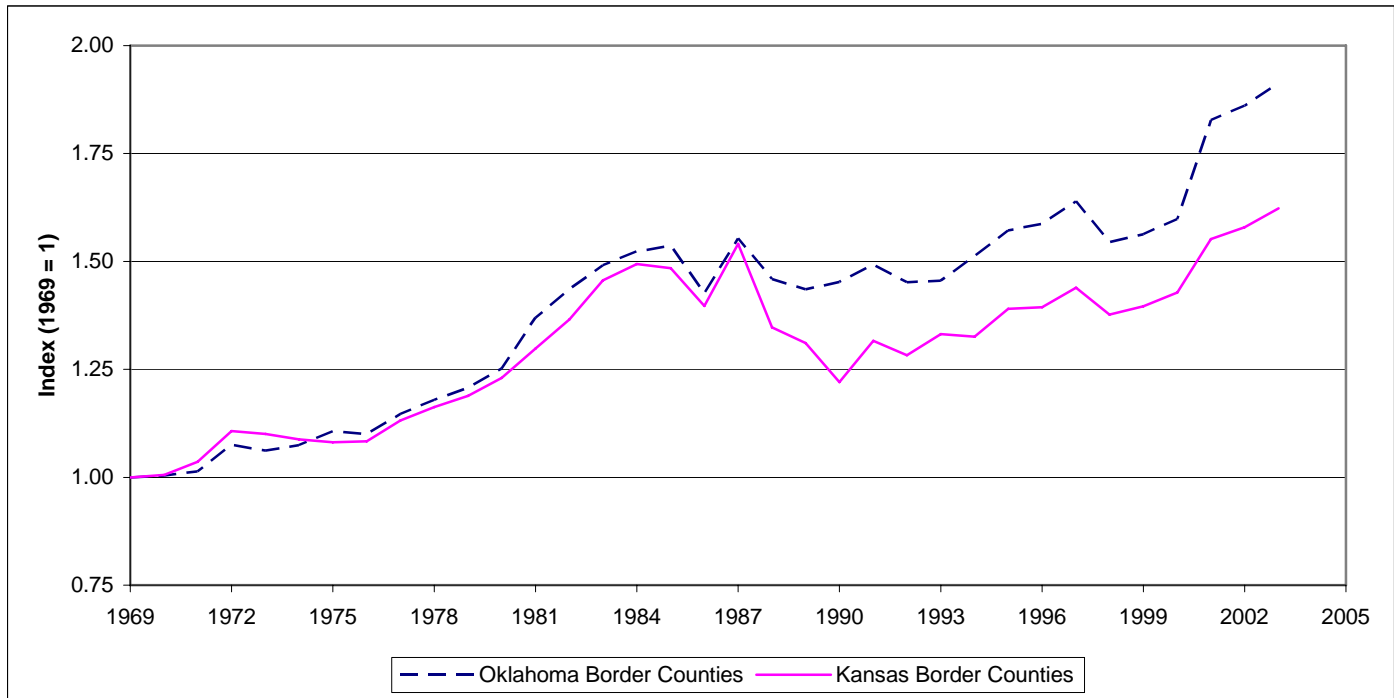
Exhibit A: Components of Regional Growth, 1969-2003

Region	Production Growth (%)	Employment Growth (%)	Productivity Growth (%)
Oklahoma Border	62	23	39
Kansas Border	65	25	40

Exhibit B: Components of Regional Growth, 1993-2003

Region	Production Growth (%)	Employment Growth (%)	Productivity Growth (%)
Oklahoma Border	12	5	7
Kansas Border	16	3	13

Chart 5: Trends in the Number of Non-Farm Proprietors—Kansas and Oklahoma Border Counties, 1969-2003



Comments on Chart 5, 6, and 7:

- Non-Farm Proprietorships offers a good regional proxy for what is popularly referred to as “entrepreneurial activity.” The federal Tax Reform Act of 1986 offers the most likely explanation for the spikes in 1986 and 1987.
- As Chart 5 suggests, Oklahoma has experienced a faster average annual growth rate in the number of non-farm proprietorships over the past 30 years and over the past decade. To help place the 30-year growth rates in perspective, one method for evaluating relative “entrepreneurial activity” is to measure the relative growth of non-farm proprietorships against the growth of population and alternative employment opportunities. The exhibit below compares the 1973-2003 average annual growth rates (%) by region.

Region	Non-Farm Proprietors	Population	Wage & Salary Employment
Oklahoma Border	1.98	0.29	0.44
Kansas Border	1.30	-0.01	0.69

- Relative to alternative employment opportunities, people on the Oklahoma side of the border are more than twice as likely to start a business, with proprietorship-to-employment ratios of 4.5-to-1 for Oklahoma and 1.8-to-1 for Kansas. Relative to population, the start rate of non-farm proprietorships in Kansas is mathematically undefined because of the negative population growth rate. Qualitatively, however, one can see that Kansas has relatively more starts.
- Non-farm proprietors on the Oklahoma side of the border are also more likely to outperform their counterparts on the Kansas side, based on the trends in Charts 6 and 7 and the data in Table 2. The pre-1982 trends shown in Chart 7 are consistent with national trends—with oil and gas interests benefiting from market conditions in the early 1970s, and the high-inflation of the late 1970s uniformly depressing real incomes. The dips in per-proprietor income in 1991 and 2001 resulted from economic recession in the U.S. However, Kansas’ declining per-proprietor incomes in the late 1990s has no ready explanation.

Chart 6: Trends in Inflation-Adjusted Aggregate Non-Farm Proprietors' Income—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars

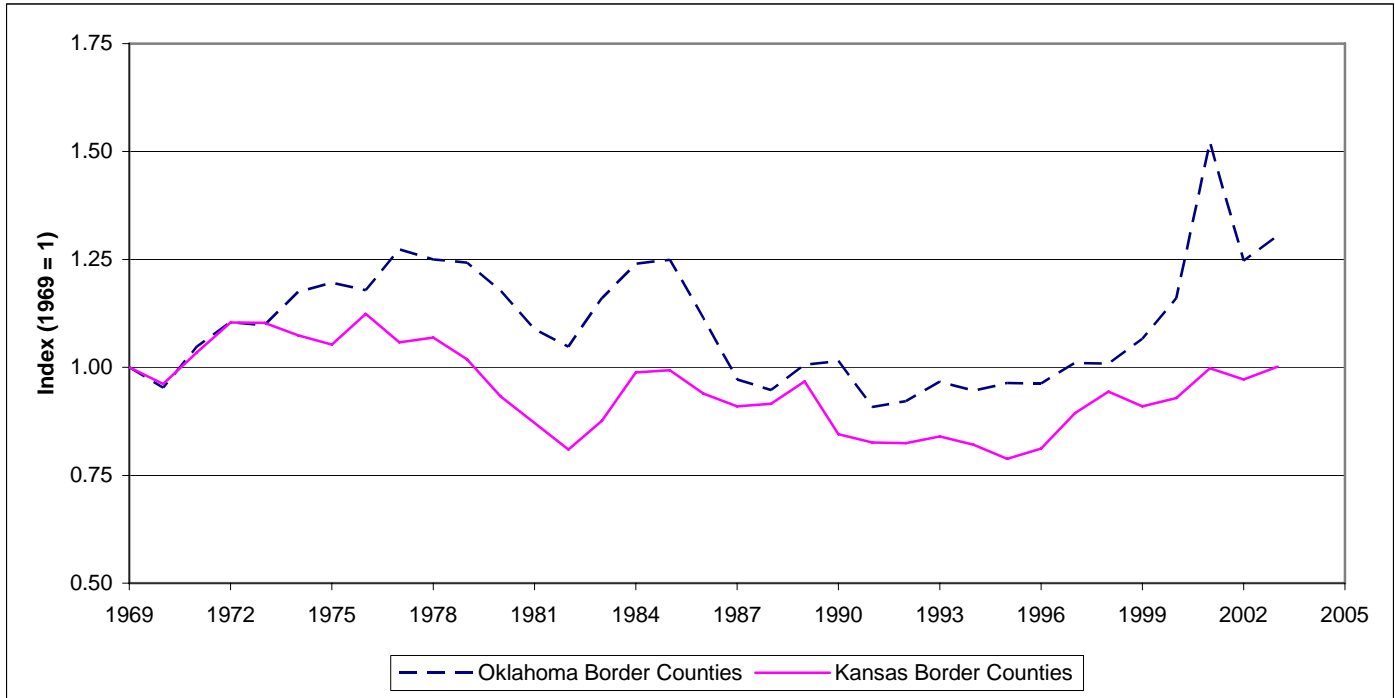


Chart 7: Inflation-Adjusted Non-Farm Proprietors' Income Per Non-Farm Proprietor—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars

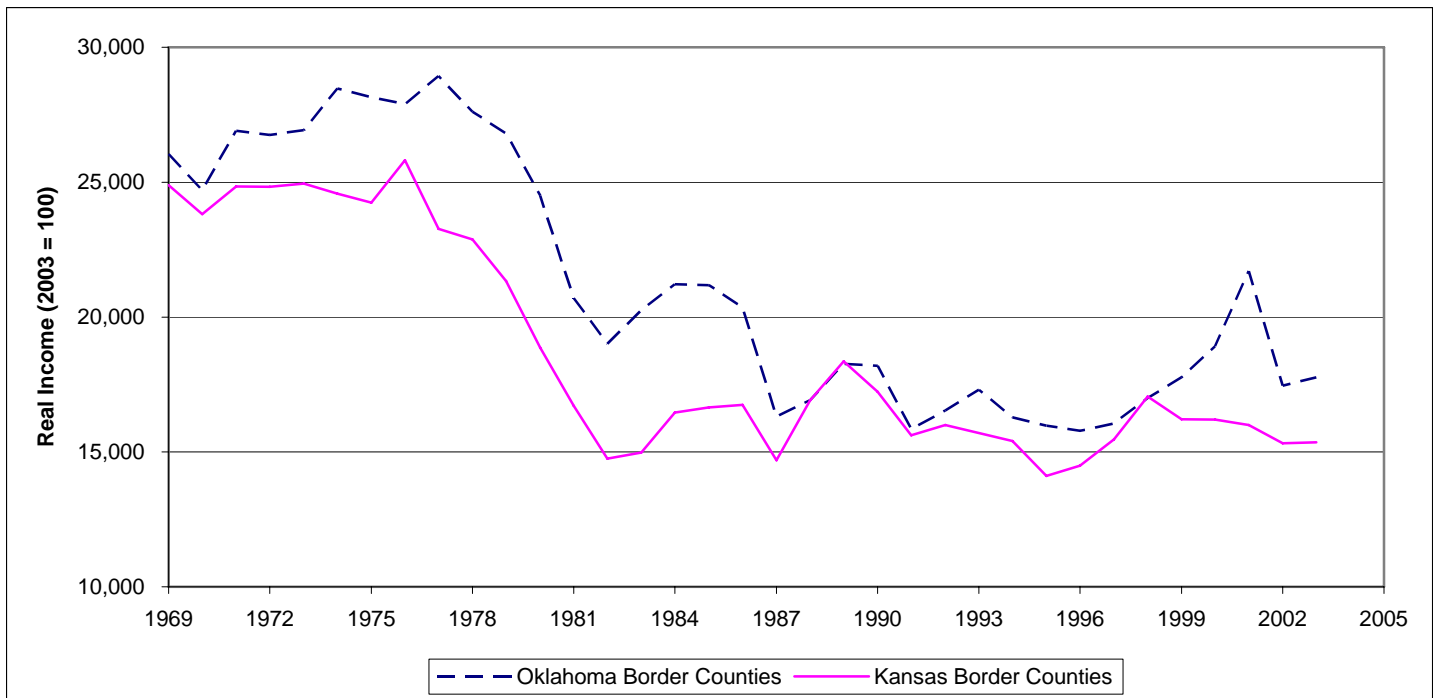
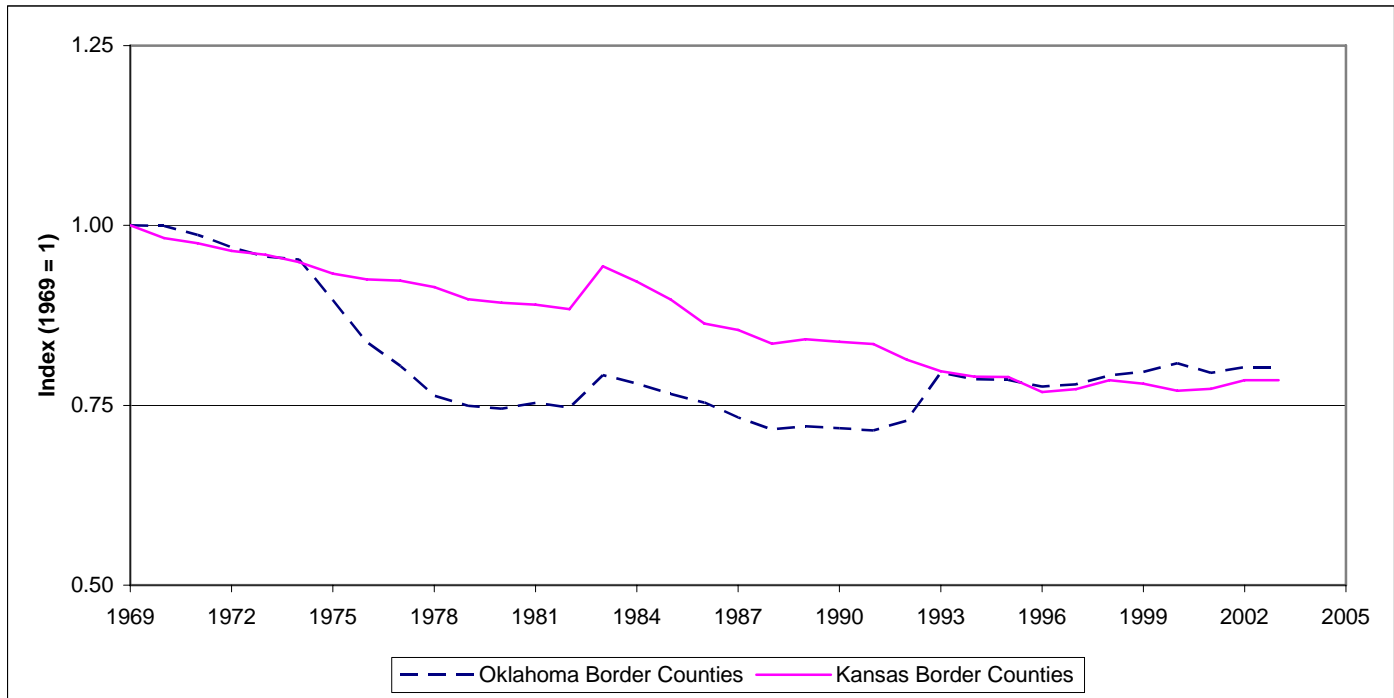


Chart 8: Trends in the Number of Farm Proprietors—Kansas and Oklahoma Border Counties, 1969-2003



Comments on Charts 8, 9, and 10:

- Consistent with national and regional trends, the number of far proprietorships has steadily declined along both side of Kansas’ Oklahoma border. However, Oklahoma has demonstrated an upward trend in the past decade. Further research is required to determine if this is a reaction to specific policies or a favorable outlook with regard to entrepreneurial opportunity.
- The volatility of farm-proprietorship income makes it difficult to make meaningful statements about the trends shown in Chart 9. However, despite the volatility, Chart 10 shows that on per-proprietor basis farmers on the Oklahoma side of the border tend to perform as well or better than those on the Kansas side. This finding suggests superior productivity on the Colorado side of the border. An important qualification to this finding concerns the distinction between Southeastern and Southwestern Kansas. On a per-proprietor basis, farmers in southwest Kansas have performed significantly better over the past 30 years than those in Southeastern Kansas, so the relatively poorer performance in Southeastern Kansas may drive the results of the aggregated border region.
- The 1973 spike in farm income, especially in Kansas, is related to unique market factors associated with a surge in wheat sales to Russia.

Chart 9: Trends in Inflation-Adjusted Aggregate Farm Proprietors' Income—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars

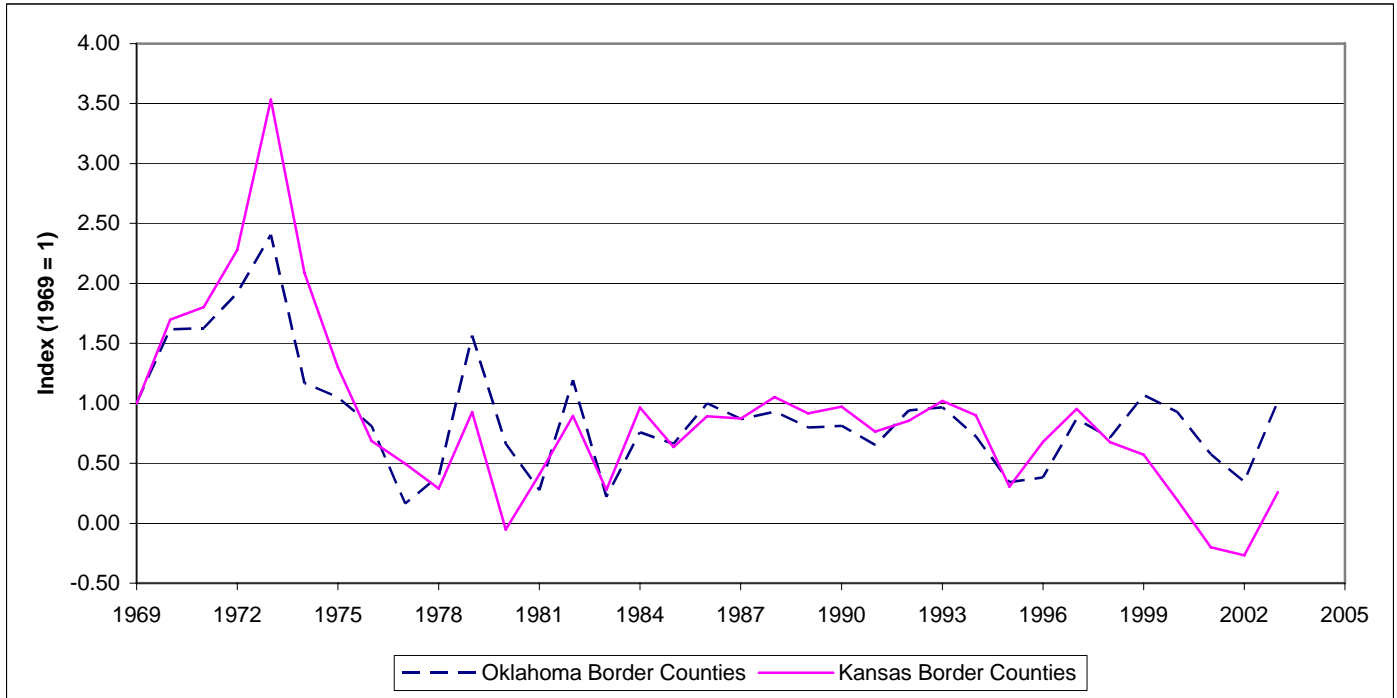


Chart 10: Inflation-Adjusted Farm Proprietors' Income Per Farm Proprietor—Kansas and Oklahoma Border Counties, 1969-2003, Constant 2003 Dollars

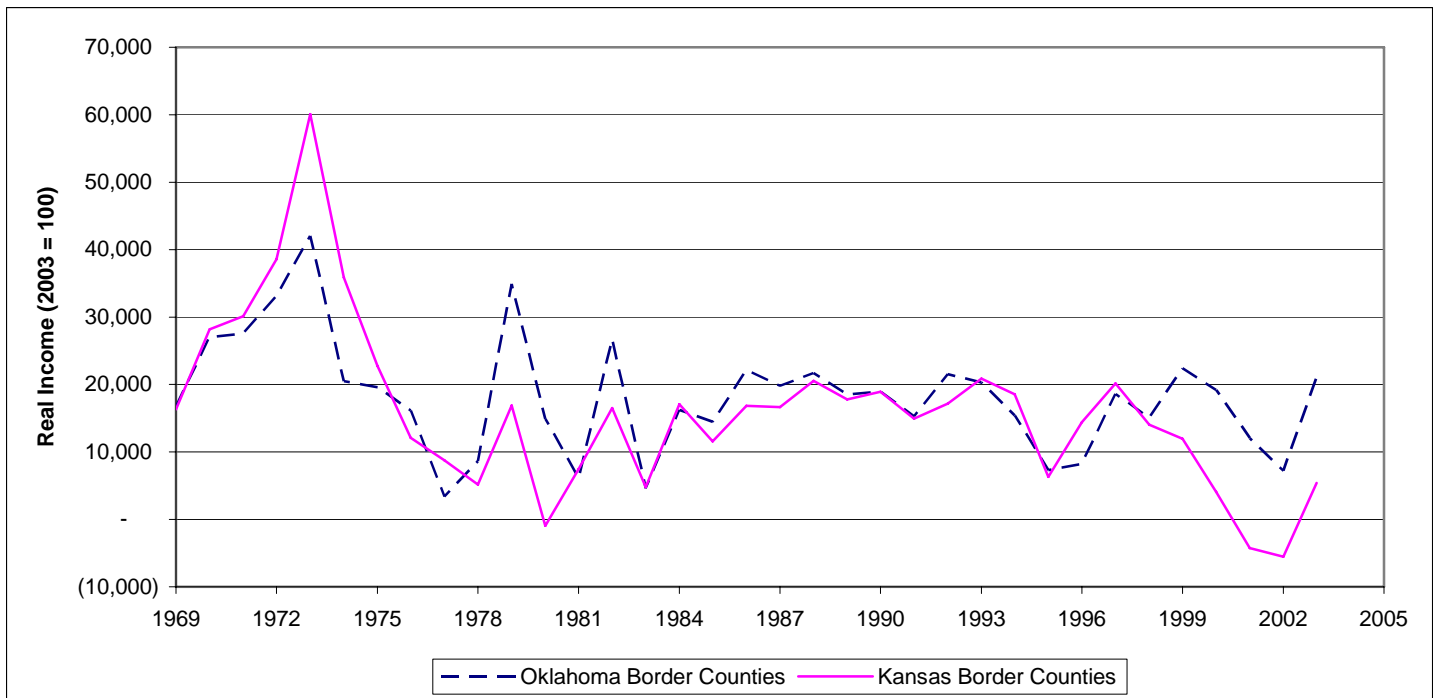


Table 1: Population, Number of Proprietors, and Number of Workers Figures and Growth Rates, Selected Years

Oklahoma's Kansas Border Counties	1973	1983	1993	2003	Average Annual Growth Rate (%)				
					1973	1983	1993	2003	1973-2003
Population	228,043	267,502	242,373	248,413	*	1.61	-0.98	0.25	0.29
Full & Part-Time Employment*	103,740	122,804	113,801	124,894	*	1.70	-0.76	0.93	0.62
Farm Proprietors	13,617	11,276	11,319	11,430	*	-1.87	0.04	0.10	-0.58
Non-Farm Proprietors	16,122	22,634	22,087	29,044	*	3.45	-0.24	2.78	1.98
Wage & Salary Workers	74,001	88,894	80,395	84,420	*	1.85	-1.00	0.49	0.44
Kansas' Oklahoma Border Counties	1973	1983	1993	2003	1973	1983	1993	2003	1973-2003
Population	197,430	209,176	200,320	196,659	*	0.58	-0.43	-0.18	-0.01
Full & Part-Time Employment*	92,083	105,433	106,247	112,827	*	1.36	0.08	0.60	0.68
Farm Proprietors	10,158	9,986	8,442	8,311	*	-0.17	-1.67	-0.16	-0.67
Non-Farm Proprietors	15,614	20,665	18,896	23,023	*	2.84	-0.89	2.00	1.30
Wage & Salary Workers	66,311	74,782	78,909	81,493	*	1.21	0.54	0.32	0.69

* Includes wage and salary employees and proprietorships

Table 2: Aggregate and Per-Worker Income and Earnings Figures and Growth Rates, Selected Years

	Actual Dollars				Inflation-Adjusted Dollars (2003 = 100)				Real Average Annual Growth Rate (%)				
	1973	1983	1993	2003	1973	1983	1993	2003	1973	1983	1993	2003	1973-2003
Oklahoma's Kansas Border Counties													
Earnings by Place of Work (\$000s)*	893,813	2,291,869	2,665,229	3,660,635	2,974,737	3,725,574	3,196,490	3,660,635	*	2.28	-1.52	1.37	0.69
Farm Proprietors' Income (\$000s)	171,939	32,036	191,673	240,913	572,237	52,076	229,879	240,913	*	-21.31	16.01	0.47	-2.84
Non-Farm Proprietors' Income (\$000s)	130,456	282,074	318,673	515,871	434,176	458,529	382,194	515,871	*	0.55	-1.80	3.04	0.58
Wage & Salary Disbursements (\$000s)	591,418	1,977,759	2,154,883	2,903,851	1,968,323	3,214,969	2,584,416	2,903,851	*	5.03	-2.16	1.17	1.30
Earnings Per Worker*	8,616	18,663	23,420	29,310	28,675	30,338	28,088	29,310	*	0.57	-0.77	0.43	0.07
Farm Income Per Proprietor	12,627	2,841	16,934	21,077	42,024	4,618	20,309	21,077	*	-19.81	15.96	0.37	-2.27
Non-Farm Income Per Proprietor	8,092	12,462	14,428	17,762	26,931	20,258	17,304	17,762	*	-2.81	-1.56	0.26	-1.38
Wage & Salary Disbursements Per WS Worker	7,992	22,249	26,804	34,398	26,599	36,166	32,146	34,398	*	3.12	-1.17	0.68	0.86
Kansas' Oklahoma Border Counties													
Earnings by Place of Work (\$000s)*	793,884	1,455,588	2,208,346	2,928,594	2,642,159	2,366,148	2,648,536	2,928,594	*	-1.10	1.13	1.01	0.34
Farm Proprietors' Income (\$000s)	183,351	29,551	147,057	44,842	610,218	48,037	176,370	44,842	*	-22.45	13.89	-12.80	-8.33
Non-Farm Proprietors' Income (\$000s)	117,044	190,358	247,462	353,698	389,539	309,439	296,789	353,698	*	-2.28	-0.42	1.77	-0.32
Wage & Salary Disbursements (\$000s)	493,489	1,235,679	1,813,827	2,530,054	1,642,402	2,008,672	2,175,377	2,530,054	*	2.03	0.80	1.52	1.45
Earnings Per Worker*	8,621	13,806	20,785	25,956	28,693	22,442	24,928	25,956	*	-2.43	1.06	0.41	-0.33
Farm Income Per Proprietor	18,050	2,959	17,420	5,395	60,073	4,810	20,892	5,395	*	-22.31	15.82	-12.66	-7.72
Non-Farm Income Per Proprietor	7,496	9,212	13,096	15,363	24,948	14,974	15,706	15,363	*	-4.98	0.48	-0.22	-1.60
Wage & Salary Disbursements Per WS Worker	7,442	16,524	22,986	31,046	24,768	26,860	27,568	31,046	*	0.81	0.26	1.20	0.76

* Includes wage and salary employees and proprietorships

Definitions Related to the Data Used in this Report (Provided by U.S. Bureau of Economic Analysis)

Total Full-Time and Part-Time Employment

The BEA employment series for states and local areas comprises estimates of the number of jobs, full-time plus part-time, by place of work. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included, but unpaid family workers and volunteers are not included.

Proprietors employment consists of the number of sole proprietorships and the number of partners in partnerships. The description "by place of work" applies to the wage and salary portion of the series and, with relatively little error, to the entire series. The proprietors employment portion of the series, however, is more nearly by place of residence because, for non-farm sole proprietorships, the estimates are based on IRS tax data that reflect the address from which the proprietor's individual tax return is filed, which is usually the proprietor's residence. The non-farm partnership portion of the proprietors employment series reflects the tax-filing address of the partnership, which may be either the residence of one of the partners or the business address of the partnership.

The employment estimates are designed to be consistent with the estimates of wage and salary disbursements and proprietors' income that are part of the personal income series. The employment estimates are based on the same sets of source data as the corresponding earnings estimates and are prepared with parallel methodologies. Two forms of proprietors' income—the income of limited partnerships and the income of tax-exempt cooperatives—have no corresponding employment estimates.

Wage and Salary Workers

Wage and salary jobs, also referred to as wage and salary employment, measures the average annual number of full-time and part-time jobs in each area by place-of-work. All jobs for which wages and salaries are paid are counted. Full-time and part-time jobs are counted with equal weight.

Jury and witness service, as well as paid employment of prisoners, are not counted as wage and salary employment; the payments for these activities are classified as "other labor income" in the personal income measure. Corporate directorships are counted as self-employment.

Wage and Salary Disbursements

Wage and salary disbursements consists of the monetary remuneration of employees, including corporate officers salaries and bonuses, commissions, pay-in-kind, incentive

payments, and tips. It reflects the amount of payments disbursed, but not necessarily earned during the year.

Wage and salary disbursements is measured before deductions, such as social security contributions and union dues.

In recent years, stock options have become a point of discussion. Wage and salary disbursements includes stock options of nonqualified plans at the time that they have been exercised by the individual. Stock options are reported in wage and salary disbursements. The value that is included in wages is the difference between the exercise price and the price that the stock options were granted.

Number of Farm Proprietors

Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners. A farm is defined as an establishment that produces, or normally would be expected to produce, at least \$1,000 worth of farm products--crops and livestock--in a typical year. Because of the low cutoff point for this definition, the farm self-employment estimates are effectively on a full-time and part-time basis. The estimates are consistent with the job-count basis of the estimates of wage and salary employment because farm proprietors are counted without regard to any other employment. Also referred to as farm self-employment.

Farm Proprietors' Income

Farm proprietors' income consists of the income that is received by the sole proprietorships and the partnerships that operate farms. It excludes the income that is received by corporate farms.

Number of Non-Farm Proprietors

The BEA local area estimates of non-farm self-employment consist of the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. The non-farm self-employment estimates resemble the wage and salary employment estimates in that both series measure jobs—as opposed to workers—on a full-time and part-time basis. However, because of limitations in source data, two important measurement differences exist between the two sets of estimates. First, the self-employment estimates are largely on a place-of-residence basis rather than on the preferred place-of-work basis. Second, the self-employment estimates reflect the total number of sole proprietorships or partnerships active at any time during the year—as opposed to the annual average measure used for wage and salary employment.

Non-Farm Proprietors' Income

Non-farm Proprietors' Income consists of the income that is received by non-farm sole proprietorships and partnerships and the income that is received by tax-exempt cooperatives.

The national estimates of non-farm proprietors' income are primarily derived from income tax data. Because these data do not always reflect current production and because they are incomplete, the estimates also include four major adjustments--the inventory valuation adjustment, the capital consumption adjustment, the "misreporting" adjustment, and the adjustment for the net margins on owner-built housing.

The inventory valuation adjustment offsets the effects of the gains and the losses that result from changes in the prices of products withdrawn from inventories; this adjustment for recent years has been small, but it is important to the definition of proprietors' income.

The capital consumption adjustment changes the value of the consumption, or depreciation, of fixed capital from the historical-cost basis used in the source data to a replacement-cost basis.

The "misreporting" adjustment adds an estimate of the income of sole proprietors and partnerships that is not reported on tax returns.

The adjustment for the net margins on owner-built housing is an addition to the estimate for the construction industry. It is the imputed net income of individuals from the construction or renovation of their own dwellings.

The source data necessary to prepare these adjustments are available only at the national level. Therefore, the national estimates of non-farm proprietors' income that include the adjustments are allocated to states, and these state estimates are allocated to the counties, in proportion to tax return data that do not reflect the adjustments.

In addition, the national estimates include adjustments made to reflect decreases in monetary and imputed income that result from damage to fixed capital and to inventories that is caused by disasters, such as hurricanes, floods, and earthquakes. These adjustments are attributed to states and counties on the basis of information from the Federal Emergency Management Agency.

KANSAS, INC.

Created by the 1986 Legislature, Kansas, Inc. is an independent, objective, and non-partisan agency designed to conduct economic development research and analysis with a goal of crafting policies and recommendations to insure the state's ongoing competitiveness for economic growth. This is achieved through these primary activities: 1) developing and implementing a proactive and aggressive research agenda; 2) identifying and promoting strategies and policies from the research; 3) conducting evaluation reviews and oversight of programs; and, 4) collaboration with economic development entities and outreach to potential partners. Kansas, Inc. is designed to be a public private partnership with expectations that state investments are leveraged with other funds to maintain a strong research portfolio.

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