

**TRAVEL AND TOURISM ACROSS KANSAS:
A Measure of Economic Impacts of the Industry on
Kansas Counties**

CD Study Report # 236

By

David L. Darling

and

Sreedhar Upendram

**Produced by the K-State Research and Extension
Department of Agricultural Economics**

Manhattan, KS

April 2005

TABLE OF CONTENTS

INTRODUCTION.....	1
METHODOLOGY.....	1
MATHEMATICAL FORMULA.....	1
TRAVEL AND TOURISM LOCATION QUOTIENTS.....	1
TRAVEL AND TOURISM EMPLOYMENT AND LABOR SHARES.....	2
TOURISM AND THE LOCAL ECONOMY.....	3
TABLE 1. COUNTIES WITH TOP 10 LOCATION QUOTIENTS	2
TABLE 2. COUNTIES WITH TOP 10 EMPLOYMENT LEVELS.....	2
TABLE 3. COUNTIES WITH TOP 10 LABOR SHARES	3
TABLE 4. KANSAS COUNTY TRAVEL AND TOURISM LOCATION QUOTIENT.....	4
MAP 1. KANSAS COUNTY TRAVEL AND TOURISM LOCATION QUOTIENT.....	8
MAP 2. KANSAS COUNTY TRAVEL AND TOURISM LABOR SHARES.....	9
FIGURE 1. TOURISM AND THE LOCAL ECONOMY: A MATRIX FOR ANALYSIS.....	10

Introduction:

Travel and tourism activities support many businesses across Kansas. These include hotels, motels, bed and breakfast places, restaurants, convenience stores, gas stations and entertainment businesses. This Community Development (CD) Study Report, numbered 236, is produced to assist those who are interested in gaining more knowledge about the structure of tourism in the Kansas economy. Specifically, the authors use the data and methodology described below to estimate the impact of the travel and tourist industry in all 105 counties.

Methodology:

The first measure used by the authors is called a Location Quotient (LQ). Economists use this measure to estimate the concentration of a cluster of like firms, for example retail businesses, in a locality by comparing some measure of economic activity, such as employment, to a benchmark measure such as state, regional, or national data. The authors calculated the percentage of all county workers in the accommodation and food services sector (A & FS). Then this number is divided by percentage of all workers in Kansas employed in this travel and tourism supported industry, A & FS. The formula being used in this report is shown below.

When the LQ value for an industry in a county is 1.00, then the work force employed in the A & FS industry is the same as in the State. Table 1, below, presents the ten counties with the highest LQ values in Kansas. All are above 1.00

Travel and Tourism Location Quotients:

From the analysis, twenty nine counties were found to have a travel and tourism location quotient of 1.00 or greater. Thomas County has the highest travel and tourism LQ value, 1.76. The higher location quotient areas for travel and tourism are clustered across the major highways. Gray County has the lowest LQ value, 0.16. The higher location quotients areas for travel and tourism trace out the major highways. The county average travel and tourism location quotient is 0.85. (See Map: 1)

Mathematical Formula:

$$LQ_{YX} = \frac{(\% \text{ of County Y's labor force in industry X})}{(\% \text{ of State labor force in industry X})}$$

Table 1: Counties with top 10 Location Quotients

Thomas	1.76
Chase	1.70
Douglas	1.61
Cloud	1.57
Riley	1.53
Trego	1.47
Russell	1.46
Ellis	1.40
Woodson	1.39
Sumner	1.28

Travel and Tourism Employment and Labor Shares

Johnson County had the highest tourism related employment of 22,253 whereas Hodgeman had the least employment of 8. The county average tourism employment for travel and tourism is 910. For travel and tourism the following counties had a tourism employment of 1500 or greater:

Table 2: Counties with top 10 Employment levels

Johnson	22,253
Sedgwick	18,931
Shawnee	6,446
Douglas	5,685
Wyandotte	3,646
Riley	2,845
Saline	2,550
Reno	2,252
Butler	1,582
Ellis and Lyon	1,580

The labor share (LS) is the ratio of tourism employment of the county to the total employment in the state of Kansas for A & FS industry. From the analysis, 29 counties were found to have a labor share of 0.50% or greater. Johnson County has the highest market share of 23.29%. The higher labor share counties line up with the major retail centers. Hodgeman County had the smallest labor share of 0.01%. The county average for travel and tourism labor share is 0.95%.

Table 3: Counties with top 10 Labor Shares

Johnson	23.29%
Sedgwick	19.82%
Shawnee	6.75%
Douglas	5.95%
Wyandotte	3.82%
Riley	2.98%
Saline	2.67%
Reno	2.36%
Butler	1.66%
Ellis	1.65%
Lyon	1.65%

Tourism and Local Economy

Travel and tourism activity boosts the revenue of the A & FS businesses thereby bringing in more money to the local economy. The following strategies will strengthen the economy by improving the location quotients, employment and labor share in A & FS businesses:

1. The Travel and tourism industry expands the market for many local businesses and generate more taxes. This outcome is connected with the retention and expansion economic development strategy.
2. The Industry helps enrich the businesses environment and this makes a community more likely to incubate new businesses.
3. Expanding and new businesses will likely buy more inputs locally and employ more workers. This should improve the backward and forward linkages which increases the multiplier effect.
4. High quality communities that attract tourists often attract retired, transplanted families. These retirees bring in new wealth and more captured dollars to the local economy.
5. Communities pursuing the travel and tourism dollar tend to pay attention to their image, their cleanliness, their key attractions, and their environmental quality. Thus, they are both a good place to visit and a good place to live. These factors help a community succeed using the attraction strategy.

The means to achieve the above goals are six forms of capital: human capital, social capital, political capital, financial capital and engineered capital. The six forms of capital are defined below:

1. Human Capital: The embodied assets humans provide to the production process.
2. Social Capital: The working relationships between parties of all types and the trust among those who may partner together to undertake planned efforts such as the building of a commercial development.
3. Political Capital: This asset is one of access, influence and control over resources managed by governmental units.
4. Financial Capital: Any form of money that is used as a means to facilitate the production process. This includes cash and credit. This is capital when invested.

5. Engineered Capital: All things created by humans and used in the production process not accounted for elsewhere. This includes roads, bridges, buildings, organizations, and culture.
6. Natural Capital: Natural and environmental resources that have been transformed into inputs, such as trees in a plantation and fish in a fish farm.

The outcome of using the six forms of capital in conjunction with the five strategies will help in mapping the assets in the local economy. By mapping the assets, community decision makers will make better use of all six types of capital. But to be more efficient, the community will be forced to be better organized. Then highly competent leaders will improve the competitiveness of both the community and businesses in the area. These leaders will help create assets to attract more tourists and more money will flow into the local economy bringing more prosperity. (See Figure 1).

Table 4: Kansas County Travel and Tourism Employment, Location Quotient and Labor Shares

County	Region	Urban Influence code	On/Off major highway	TAC	Total employment in County	Ratio	TPF	% MS
Thomas	NW	11	1	557	4,216	13.21%	1.76	0.58%
Chase	NC	7	1	95	742	12.80%	1.71	0.10%
Douglas	NE	2	1	5,685	46,980	12.10%	1.61	5.96%
Cloud	NC	11	1	478	4,037	11.84%	1.58	0.50%
Riley	NC	5	0	2,845	24,771	11.49%	1.53	2.98%
Trego	NW	10	1	124	1,119	11.08%	1.48	0.13%
Russell	NW	9	1	292	2,664	10.96%	1.46	0.31%
Ellis	NW	8	1	1,580	15,036	10.51%	1.40	1.66%
Woodson	SE	12	0	80	763	10.48%	1.40	0.08%
Sumner	SC	2	1	577	5,997	9.62%	1.28	0.61%
Butler	SC	2	0	1,582	16,537	9.57%	1.28	1.66%
Sherman	NW	11	1	315	3,424	9.20%	1.23	0.33%
Pratt	SC	9	0	395	4,386	9.01%	1.20	0.41%
Republic	NC	12	0	181	2,021	8.96%	1.19	0.19%
Lyon	NC	5	1	1,580	17,772	8.89%	1.19	1.66%
Morris	NC	9	0	153	1,747	8.76%	1.17	0.16%
Marion	NC	6	0	339	3,914	8.66%	1.15	0.36%
Logan	NW	12	1	91	1,075	8.47%	1.13	0.10%
Saline	NC	8	1	2,550	30,308	8.41%	1.12	2.67%
Crawford	SE	5	0	1,457	17,784	8.19%	1.09	1.53%
Reno	SC	5	0	2,252	27,750	8.12%	1.08	2.36%
Wallace	NW	12	0	41	513	7.99%	1.07	0.04%

Sedgwick	SC	2	1	18,931	238,721	7.93%	1.06	19.86%
Johnson	NE	1	1	22,253	289,059	7.70%	1.03	23.34%
Anderson	SE	4	0	163	2,119	7.69%	1.03	0.17%
Kiowa	SW	10	0	94	1,224	7.68%	1.02	0.10%
Scott	SW	9	0	151	1,986	7.60%	1.01	0.16%
McPherson	NC	5	1	1,063	14,036	7.57%	1.01	1.12%
Jackson	NE	2	1	339	4,481	7.57%	1.01	0.36%
Franklin	NE	1	1	721	9,714	7.42%	0.99	0.76%
Washington	NC	10	0	165	2,241	7.36%	0.98	0.17%
Geary	NC	5	1	875	11,998	7.29%	0.97	0.92%
Cheyenne	NW	12	0	66	909	7.26%	0.97	0.07%
Bourbon	SE	4	0	483	6,656	7.26%	0.97	0.51%
Ford	SW	8	0	1,149	15,845	7.25%	0.97	1.21%
Harvey	SC	2	1	955	13,353	7.15%	0.95	1.00%
Norton	NW	11	0	169	2,385	7.09%	0.94	0.18%
Lincoln	NC	10	0	67	950	7.05%	0.94	0.07%
Kingman	SC	6	0	171	2,437	7.02%	0.94	0.18%
Finney	SW	8	0	1,225	17,555	6.98%	0.93	1.28%
Cowley	SC	5	0	1,014	14,769	6.87%	0.92	1.06%
Atchison	NE	3	0	443	6,464	6.85%	0.91	0.46%
Dickinson	NC	9	1	478	7,054	6.78%	0.90	0.50%
Montgomery	SE	8	0	1,092	16,212	6.74%	0.90	1.15%
Greenwood	SC	6	0	124	1,848	6.71%	0.89	0.13%
Cherokee	SE	6	0	414	6,171	6.71%	0.89	0.43%
Shawnee	NE	2	1	6,446	96,419	6.69%	0.89	6.76%
Grant	SW	11	0	225	3,400	6.62%	0.88	0.24%
Harper	SC	7	0	143	2,174	6.58%	0.88	0.15%
Morton	SW	10	0	80	1,225	6.53%	0.87	0.08%
Decatur	NW	12	0	75	1,154	6.50%	0.87	0.08%
Miami	NE	1	0	538	8,400	6.40%	0.85	0.56%
Jewell	NC	12	0	63	1,005	6.27%	0.84	0.07%
Barton	SC	8	0	777	12,594	6.17%	0.82	0.82%
Brown	NE	6	0	301	4,890	6.16%	0.82	0.32%
Leavenworth	NE	1	0	1,238	20,303	6.10%	0.81	1.30%
Labette	SE	8	0	565	9,287	6.08%	0.81	0.59%
Jefferson	NE	2	0	216	3,555	6.08%	0.81	0.23%
Elk	SC	7	0	43	711	6.05%	0.81	0.05%
Marshall	NC	9	0	280	4,656	6.01%	0.80	0.29%
Graham	NW	12	0	63	1,048	6.01%	0.80	0.07%

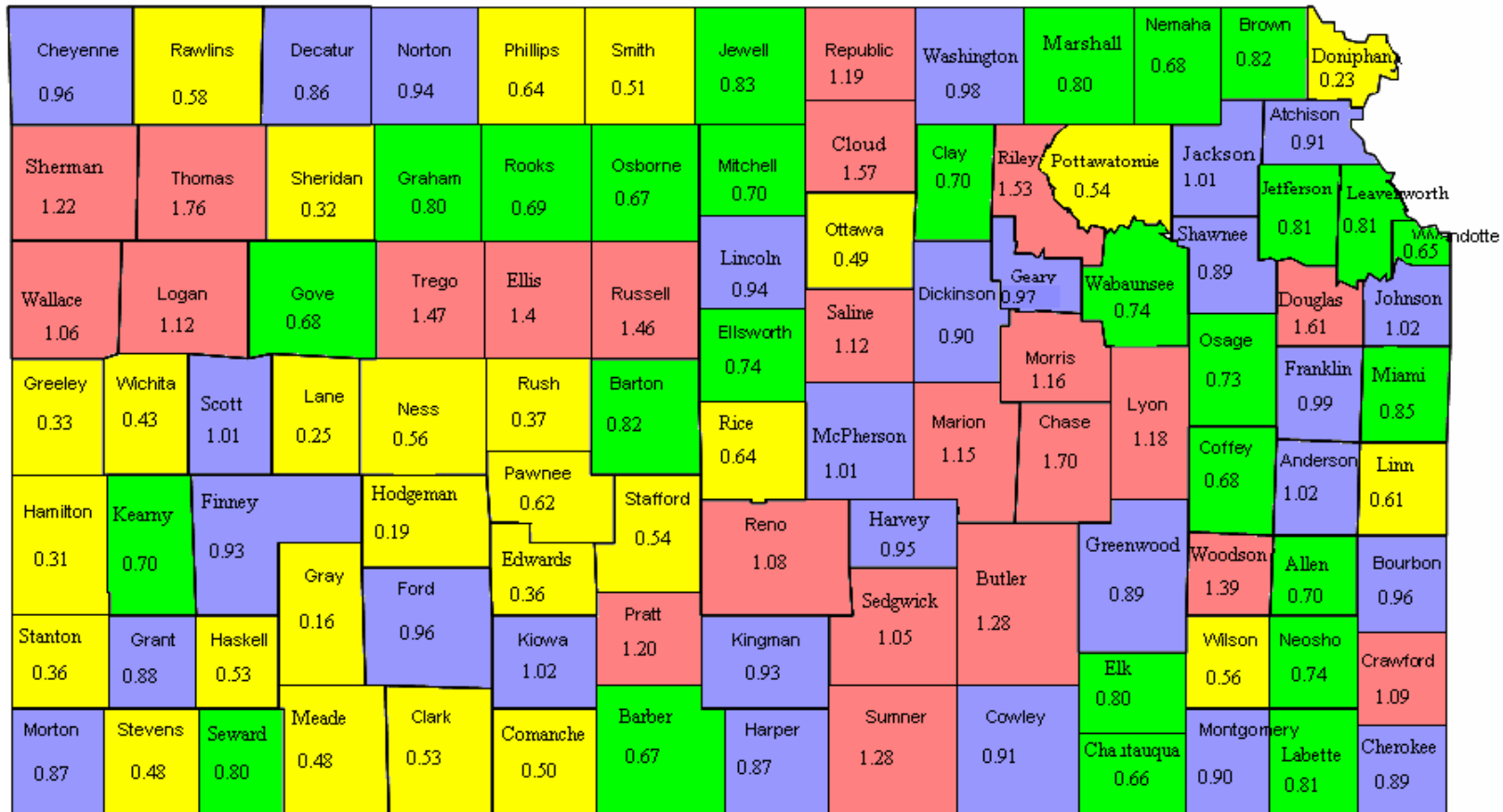
Seward	SW	8	0	683	11,416	5.98%	0.80	0.72%
Ellsworth	NC	9	0	128	2,287	5.60%	0.75	0.13%
Neosho	SE	9	0	460	8,252	5.57%	0.74	0.48%
Wabaunsee	NE	2	0	73	1,319	5.53%	0.74	0.08%
Osage	NE	2	1	177	3,204	5.52%	0.74	0.19%
Kearny	SW	10	0	67	1,268	5.28%	0.70	0.07%
Clay	NC	9	0	160	3,041	5.26%	0.70	0.17%
Mitchell	NC	11	0	172	3,273	5.26%	0.70	0.18%
Allen	SE	11	0	314	5,996	5.24%	0.70	0.33%
Rooks	NW	10	0	103	1,993	5.17%	0.69	0.11%
Coffey	SE	4	1	198	3,847	5.15%	0.69	0.21%
Gove	NW	12	0	58	1,128	5.14%	0.69	0.06%
Nemaha	NE	6	0	223	4,375	5.10%	0.68	0.23%
Osborne	NW	12	0	78	1,554	5.02%	0.67	0.08%
Barber	SC	12	0	93	1,857	5.01%	0.67	0.10%
Chautauqua	SC	10	0	50	1,012	4.94%	0.66	0.05%
Wyandotte	NE	1	1	3,646	74,900	4.87%	0.65	3.82%
Rice	SC	9	0	159	3,285	4.84%	0.65	0.17%
Phillips	NW	11	0	124	2,571	4.82%	0.64	0.13%
Pawnee	SC	9	0	146	3,148	4.64%	0.62	0.15%
Linn	SE	1	0	95	2,081	4.57%	0.61	0.10%
Rawlins	NW	12	0	39	901	4.33%	0.58	0.04%
Wilson	SE	9	0	165	3,938	4.19%	0.56	0.17%
Ness	SW	12	0	50	1,196	4.18%	0.56	0.05%
Pottawatomie	NC	6	0	322	7,930	4.06%	0.54	0.34%
Stafford	SC	10	0	58	1,432	4.05%	0.54	0.06%
Haskell	SW	10	0	57	1,420	4.01%	0.54	0.06%
Clark	SW	10	0	32	799	4.01%	0.53	0.03%
Smith	NW	12	0	55	1,426	3.86%	0.51	0.06%
Comanche	SW	12	0	25	665	3.76%	0.50	0.03%
Ottawa	NC	10	1	49	1,332	3.68%	0.49	0.05%
Stevens	SW	9	0	66	1,810	3.65%	0.49	0.07%
Meade	SW	10	0	47	1,305	3.60%	0.48	0.05%
Wichita	SW	12	0	27	827	3.26%	0.44	0.03%
Rush	SC	10	0	30	1,085	2.76%	0.37	0.03%
Stanton	SW	12	0	21	770	2.73%	0.36	0.02%
Edwards	SW	10	0	26	960	2.71%	0.36	0.03%
Greeley	SW	12	0	15	607	2.47%	0.33	0.02%
Sheridan	NW	12	0	20	832	2.40%	0.32	0.02%

Hamilton	SW	12	0	25	1,064	2.35%	0.31	0.03%
Lane	SW	10	0	14	743	1.88%	0.25	0.01%
Doniphan	NE	2	0	39	2,220	1.76%	0.23	0.04%
Hodgeman	SW	10	0	8	575	1.39%	0.19	0.01%
Gray	SW	10	0	31	2,552	1.21%	0.16	0.03%
State				95,335	1,270,760	7.50%	1.00	100.00%

Map 1: Kansas County Travel and Tourism Location Quotients

Kansas County Travel and Tourism Location Quotients

David Darling
Sreedhar Upendram
K-State Research and Extension



Counties in red have a location quotient above 1.05
 Counties in blue have a location quotient in the range 0.86-1.05
 Counties in green have a location quotient in the range 0.65-0.86
 Counties in yellow have a location quotient below 0.65

Index prepared by K-State Research and Extension

Source: Annual Employment and Wages 2003, Kansas Department of Human Resources, Labor Market Information Services

FIGURE 1. TOURISM AND LOCAL ECONOMY: A MATRIX OF ANALYSIS

STRATEGIES		CAPITALS	OUTCOMES
		Uses all six capitals	Stronger local economy because
Retention and expansion	Expand Markets	Human	Assets mapped
Firm Creation	New Opportunities	Financial	Better local organization
Improving local linkages	Encourages more buy/sell in Kansas	Social	Leadership development
Capturing new unearned dollars	Brings in retirees	Political	Tourist assets developed
Attracting outside interest	Attracts new investors and visitors	Engineered	New visitors
		Natural	New dollars
			Stronger economy

Additional Tourism Information:

1. “Strategies for monitoring tourism in your community’s economy.” <http://ag.arizona.edu/pubs/marketing/az1113>
2. “Capturing the character of rural communities through tourism development.” Published by the Community Development Society. Order through David L. Darling.
3. Additional about retail activity – “County Trade Pull Factors: Annual Report for Fiscal Year 2004”. <http://www.agecon.ksu.edu/ddarling/d2002/StudyReports.htm>

Contact Information:

David L. Darling,
 Extension Specialist,
 216, Waters Hall,
 Department of Agricultural Economics,
 Kansas State University,
 Manhattan, Kansas 66506.
 Phone: 785-532-1512
 Fax: 785-532-6925
 Email: ddarling@ksu.edu

