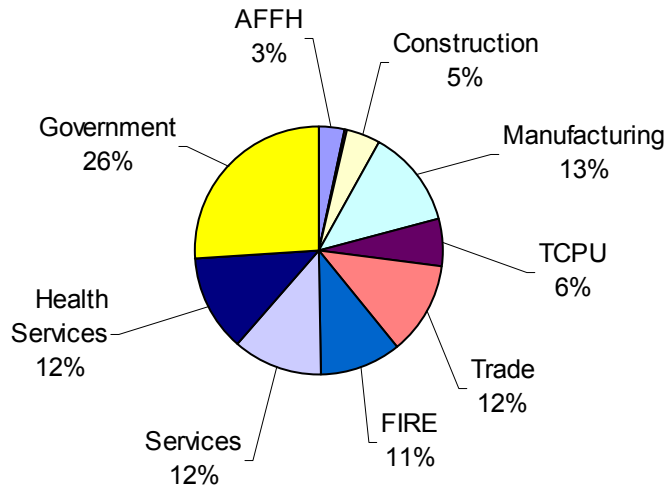


Figure 3. Republic County Total Income by Sector



AFFH is agriculture, forestry, fishing and hunting; TCPU is transportation, communications and public utilities; FIRE is finance, insurance and real estate.

Impact of the Health Services Sector

The previous section detailed the direct contributions of the Health Services sector within the Republic County economy, but the full impact of the sector goes beyond the number of people employed and the wages they receive. The employment and income levels in the health sector have a significant impact on employment and income throughout other industries in the market area. This secondary impact or “ripple effect” comes from local businesses buying and selling to each other and from area workers spending their income for household goods and services; the ripple effect spreads the economic impact of the health sector throughout the community economy.

One way to measure the size of the ripple effect is through multiplier analysis, which measures the ripple effect based on the structure of the local economy. Tables 3 and 4 illustrate the ripple effect in the Republic County market. As an example, Table 3 shows that the hospital employs 180 people and has an employment multiplier of 1.58. This means that for each job created in the hospital sector, another 0.58 jobs are created in other businesses and industries in the Republic County economy. The direct impact of the 180 hospital employees results in an indirect impact of 105 jobs ($180 \times 0.58 = 105$) throughout all businesses and industries in the market area. Thus, the hospital sector employment had a total impact on area employment of 285 jobs ($180 \times 1.58 = 285$).

Similarly, multiplier analysis can estimate the total impact of the \$6,689,000 payroll for hospital employees given in Table 4. The hospital sector had an income multiplier of 1.34, which indicates that for every one dollar of income generated in the hospital sector, another \$0.34 is generated in other businesses and industries in the Republic County market area. Thus, the hospital sector had an estimated total impact on income throughout all businesses and industries of \$8,970,000 ($\$6,689,000 \times 1.34 = \$8,970,000$).

In this manner, the total employment and income impacts of all the health services sectors can be estimated. In Table 3, the total employment impact of the Republic County health services sector results in an estimated 503 jobs in the local economy. In Table 4, the total income impact of health services results in an estimated \$14,473,000 for the economy.

Table 3. Republic County Health Sector Impact on Employment

Health Sectors	Direct Employment	Economic Multiplier	Total Impact
Health and Personal Care Stores	27	1.32	36
Veterinary Services	10	1.36	14
Home Health Care Services	9	1.31	12
Doctors and Dentists	45	1.35	61
Other Ambulatory Health Care Services	2	1.62	3
Hospital	180	1.58	285
Nursing and Residential Care Facilities	70	1.32	92
Total	343		503

Note: Most data obtained from secondary sources; some data unavailable or extrapolated.

2001 IMPLAN database, Minnesota IMPLAN Group, Inc.

The last column in Table 4 shows the potential retail sales the health sector helps to generate. To estimate this, this study incorporates a retail sales capture ratio (retail sales to total personal income). In 2001, the Republic County health care market area had retail sales of \$34,188,542 and total personal income of \$122,101,000, thus estimated retail sales capture ratio equals 28.0 percent. This says that people in the Republic County health care market area spent 28.0 percent of their income on retail goods and services within in the county. By taking all the household income associated with health sector activities and multiplying by the retail sales capture ratio, we can estimate the impacts of the health sector on area retail sales. Thus, the total retail sales generated by the retail sector equals \$4,052,000 ($\$14,473,000 \times 28.0 = \$4,052,000$). This is a conservative estimate, as this method does not consider the impact of any local purchases made by the health services businesses.

Table 4. Republic County Health Sector Impact on Income and Retail Sales,
\$2001 thousands

Health Sectors	Direct Income	Economic Multiplier	Total Impact	Retail Sales
Health and Personal Care Stores	\$512	1.34	\$685	\$192
Veterinary Services	\$155	1.45	\$224	\$63
Home Health Care Services	\$161	1.34	\$216	\$60
Doctors and Dentists	\$2,045	1.16	\$2,365	\$662
Other Ambulatory Health Care Services	\$68	1.38	\$94	\$26
Hospital	\$6,689	1.34	\$8,970	\$2,512
Nursing and Residential Care Facilities	\$1,430	1.34	\$1,920	\$538
Total	\$11,060		\$14,473	\$4,052

Note: Most data obtained from secondary sources; some data unavailable or extrapolated.

2001 IMPLAN database, Minnesota IMPLAN Group, Inc.

Summary and Conclusions

The Health Services sector of Republic County plays a large role in the area's economy. Health Services represents one of the largest employers in the area and also serves as one of the largest contributors to income. Additionally, the health sector has indirect impacts on the local economy, creating additional jobs and income in other sectors. The health sector also contributes substantially to retail sales in the region. All of this demonstrates the importance of the health care sector to the local economy.

While the estimates of economic impact are themselves substantial, they are only a partial accounting of the benefits to the county. Health care industries in rural counties help to preserve the population base, invigorating the communities and school systems. Similarly, many hospitals and nursing care facilities have active community outreach programs that enhance community services and the quality of life for community residents.

A vigorous and sustainable health care system is essential not only for the health and welfare of community residents, but to enhance economic opportunity as well. Health-related sectors are among the fastest growing in economy. Given demographic trends, this growth is likely to continue. The attraction and retention of new business and retirees also depends on access to adequate health care services.

While industry trends related to health care are positive overall, many rural communities have significant challenges. The economics of health care are rapidly changing. As health care costs escalate and government funding becomes tighter, rural markets may become less attractive to many providers. Declining population trends can have a similar impact. This will lead to the continued restructuring of rural health care services in many areas.

If a community wants to maintain the benefits associated with accessible and affordable health care, it must actively work to meet these challenges. The challenges cannot be met by those directly responsible for health care administration alone. They require a community-wide response involving Government, business and civic leaders, and they frequently incorporate outside assistance from professional resources providers, such as the Kansas Hospital Association, the Office of Local and Rural Health, the Kansas Department of Health and Environment, and others.

In meeting current and future challenges, health care and community leaders can engage in an ongoing process of strategic health planning. This is continuous effort to maintain and enhance the community's health care situation. The strategic health planning process helps local communities identify their health care needs; examine the social, economic, and political realities affecting the local delivery of health care; determine what is wanted and what realistically can be achieved to meet their identified health care needs; and develop and mobilize an action plan based on their analysis and planning.

Strategic health planning involves cooperation among people and organizations to pursue common goals. The process is designed to answer three questions:

- (1) Where is the community now?
- (2) Where does the community want to go?
- (3) How will the community get there?

For the strategic health planning process to be most effective, it must be based in the community and driven by the community. Local residents and their leaders must participate; a current knowledge of the health care industry is not necessary. This process is about local people solving local problems. The local hospital and health care providers should have input into the decision-making and should support and trust the outcomes, but, the community must provide the energy and commitment.

These demographic trends create an imperative for those who would prefer an alternative to a dwindling economic and public sector base. While the challenges are difficult and the solutions elusive, one thing remains certain: any major change in these trends will require a broad-based, community-wide effort. No one group or entity alone can hope to have a substantial impact.

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Glossary of Terms

Doctors and Dentists Sector: includes physicians, dentists, chiropractors, optometrists, other health care professionals, and all support staff employed by these professionals.

Employment: annual average number of full and part-time jobs, including self-employed for a given economic sector.

Employment Economic Multiplier: indicates the total jobs in the economy closely tied, in this case, to one job in the health sector.

Employee Compensation: total payroll (wages, salaries and certain benefits) paid by local employers.

Government Sector: includes all federal, state and local government enterprises; federal, state and local electric utilities; state and local government passenger transit; state and local government education and non-education; and federal military and non-military.

Gross Domestic Product (GDP): the total value of output of goods and services produced by labor and capital investment in the United States.

Health and Personal Care Stores: pharmacies.

Income Economic Multiplier: indicates total income generated in the economy due to one dollar of income, in this case, in the health sector.

Indirect Business Taxes: sales, excise fees, licenses and other taxes paid during normal operation. All payments to the government except for income taxes.

Multipliers: Its calculation is based on the structure of the local economy. All of the buying and selling relationships between businesses and consumers are charted in an economic transactions table. When a dollar is spent in one area of the economy, all of the economic interconnections are stimulated as the effect “ripples” to other areas of the economy. The effect is caused by businesses buying and selling goods or services to each other and by local labor who use their income to purchase household goods and services. Over successive rounds of spending and re-spending, the effect of the original dollar is multiplied to some new, larger level of activity. Eventually, the economic “leakages” associated with the purchase of imported goods and non-local taxes and investments causes the ripple effect to finally run out. Multipliers are derived through algebraic calculations of the economic transactions table of the local economy.

Other Ambulatory Health Care Services: medical and diagnostic labs and other outpatient care services and all of their employees.

Other Property Income: corporate income, rental income, interest and corporate transfer payments.

Proprietor Income: income from self-employment (farmers and business proprietors, for example).

Personal Income: income received by individuals from all sources (employment, social security, et cetera).

Total Income: employee compensation plus proprietor income plus other property income plus indirect business taxes.

Total Sales: total industry production for a given year (industry output).



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