

FROM CAMPUS TO COMMUNITY:

THE ECONOMIC IMPACT OF ESU ON EMPORIA

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Introduction

Emporia State University plays a massive role in the economic activity in the local area. In addition to providing employment for 665 employees (222 instructional staff) with over \$36 million in spending on salaries and wages, ESU also draws in a large non-local student body and visitors that come to campus for a wide range of activities and events. These visitors and students add to the economy by purchasing from local businesses and vendors. Moreover, the workers employed by ESU and the businesses supported by university business are then spending a portion of their salaries on further purchases in the local area economy. Our study will examine how much added value ESU brings to the local area economy through such direct spending on goods, services, and employment, as well as the secondary effects that ripple through the economy.

This report is essential for ESU's administration, local government officials, state policymakers, business communities, and the residents of the regions ESU influences. It speaks to anyone vested in the socioeconomic prosperity of Kansas, providing a transparent, data-driven perspective on the university's impact. Moreover, the study will empower ESU with the data needed in bargaining with its varied stakeholders. By demonstrating ESU's positive economic impact, the university can make a strong case that more funds would enable it to contribute even further to the region's economic well-being.

The procedure involves collection of data on ESU spending for salaries and capital improvement projects. Visitor and student survey data will also be collected to estimate where and how much they are spending during their stays in the area. We then utilize the robust input-output econometric model developed by IMPLAN to estimate the direct, indirect, and induced effects of spending associated with the university.



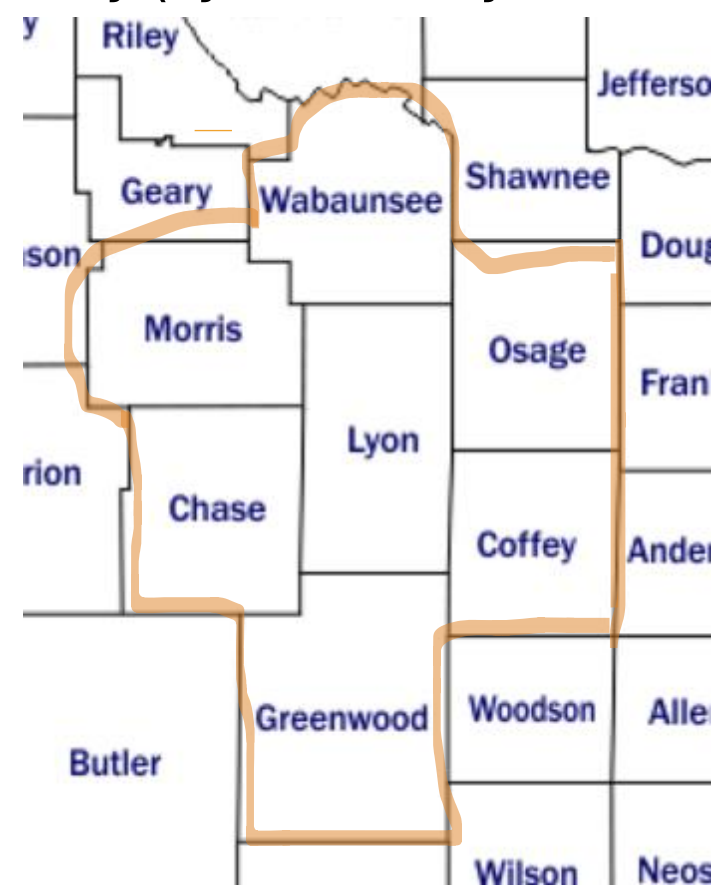
Background

The assessment of economic impact is commonplace for any large-scale business operations or events. This section discusses the methodologies and findings from two local studies on the impact of massive sporting events or university contribution.

In their study, Chakraborty and Edmiston (2012) presents an in-depth analysis of the university's economic contributions to its local and regional economies. This analysis utilized the RIMS-II input-output model and multipliers to estimate the impact of ESU business activities, including spending by the university on salaries and wages, capital improvements, visitor and student spending.

Similarly, in their recent analysis, Selby and Detlefsen (2023), conducted by the Center for Decision Science at ESU, the researchers provides a detailed examination of the economic implications of the UNBOUND gravel bike race. The study highlights how non-local participants' expenditures significantly contribute to the local economy through lodging, food, and other related activities. This study utilizes the IMPLAN input-output econometric model to estimate the direct, indirect, and induced spending of participants in the race, offering a granular view of how such events can foster economic vitality in a locality.

Our study replicates to some extent that of the previous study by Chakraborty and Edmiston (2012) using more recent data, but also employs the robust input-output econometric model utilized in Selby and Detlefsen (2023). This reduces issues related to double-counting and gives the ability to estimate indirect and induced effects that are not available in other economic impact models. We also focus our attention on the impact of ESU on the local area economy (Lyon County and all adjacent counties).



Data

This research project requires data from several sources. Data on Emporia State University spending on salaries and capital projects was collected from KanView, a data repository managed by the Kansas Department of Administration. Salary data includes all spending on labor in 2023 by Emporia State University, regardless of title or position. This includes only spending on worker salaries and excludes payments made to state or federal governments or benefits such as insurance or retirement. Capital spending includes only spending on building improvements and new structures in 2023. Visitor spending data will come from surveys distributed to recent visitors to estimate the conditional average spending on lodging, retail, food, and fuel. Total number of visitors per year is estimated using cell-phone location data obtained from Placer.AI, focusing only on visitors that traveled at least 30 miles to visit campus. Student spending data will come from surveys distributed to undergraduate students in general education math, composition, and science courses in Fall 2024 to estimate spending on housing (if off campus), recreation and activities, food and drink, and retail. Total number of students (non-local) is calculated using data from the student information system (Banner).

ESU Spending (2023)

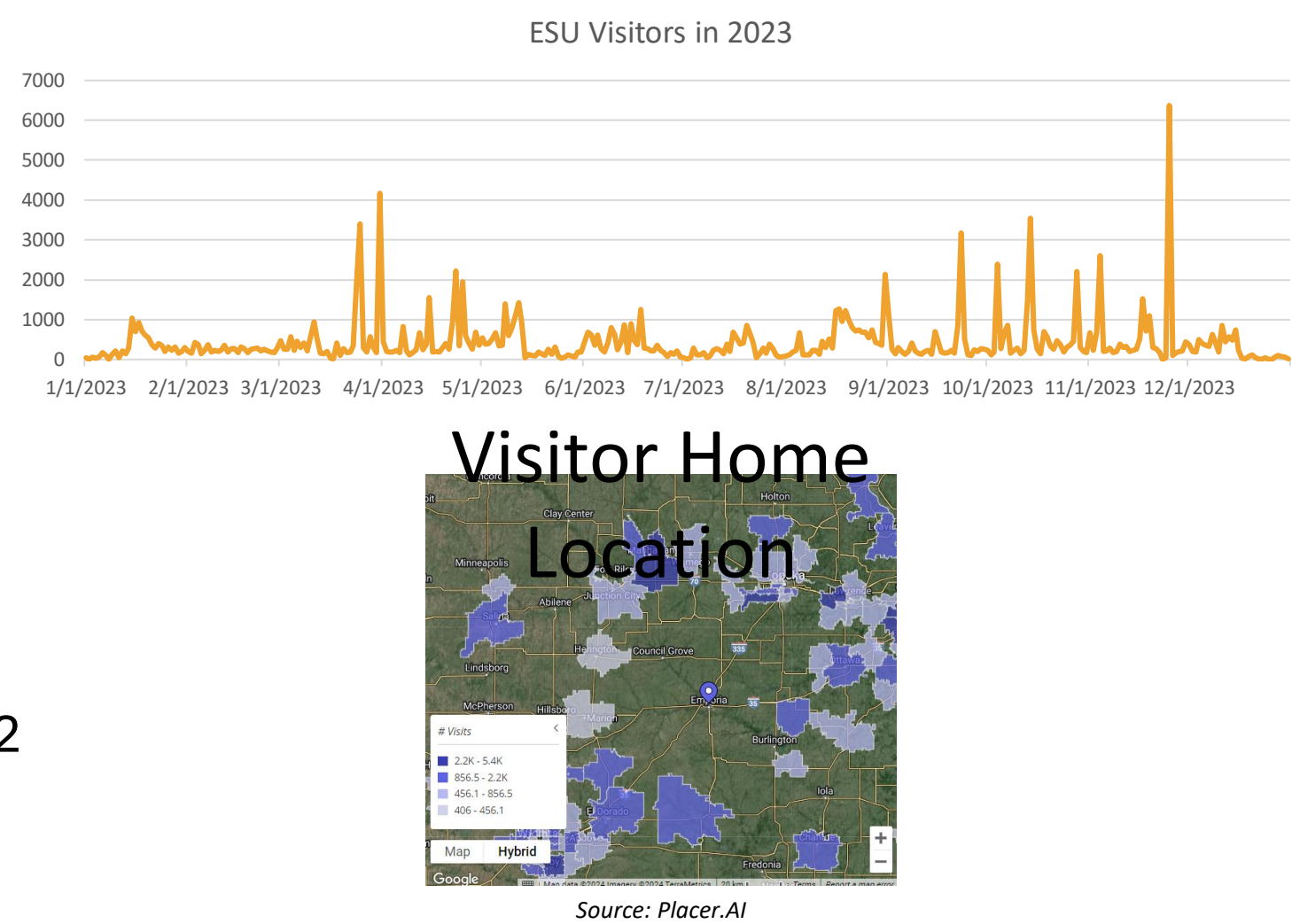
- **Salaries:** \$36,414,116
- **Capital Improvement:** \$4,741,371

Visitors (2023)

- **Estimated # of Non-Local Visitors:** 157,400
- **Average time on Campus/Stadium:** 4 hours

Students (2023)

- **Total ESU On-Campus Non-Local Students:** 3,242



Preliminary Results

The following table shows the direct, indirect, and induced effects of ESU's Fiscal Year 2023 spending on salaries/wages and capital improvement projects. The table is organized by the type of spending, the impact type, the number of FTE employment supported by the spending, the corresponding labor income supported, the value added by the spending (transforming the raw materials into finished product), and the total amount of output.

Spending	Impact	Employment	Labor Income	Value Added	Output
Capital	1 - Direct	41.34	\$1,888,745	\$2,318,303	\$4,721,185
Capital	2 - Indirect	4.00	\$204,628	\$367,257	\$834,218
Capital	3 - Induced	5.16	\$165,357	\$413,637	\$789,017
Salaries	1 - Direct	665.00	\$36,414,116	\$36,414,116	\$58,654,435
Salaries	2 - Indirect	53.88	\$1,884,018	\$3,926,157	\$10,080,146
Salaries	3 - Induced	91.71	\$2,949,391	\$7,364,362	\$14,040,442
Total		861.08	\$43,506,254	\$50,803,833	\$89,119,443

Spending by ESU on capital products has a direct impact to output equal to the amount purchased (in this case, \$4.7 million). In order to produce this output, approximately 41 FTE workers were needed, and this generated \$1.9 million in income for these workers. Additionally, the businesses hired to complete the work would need to purchase some materials locally, adding an additional \$838,000 in output and four additional jobs supported. The worker's salaries would then go back into the economy as additional spending, adding almost \$800,000 in total output. ESU spending on salaries has a direct effect on employment and labor income equal to the amount spent on this category. Similar to capital spending, this injection into the economy spills over into intermediate purchasing of supplies by businesses and additional spending by supported workers on goods and services in the economy.

Methodology

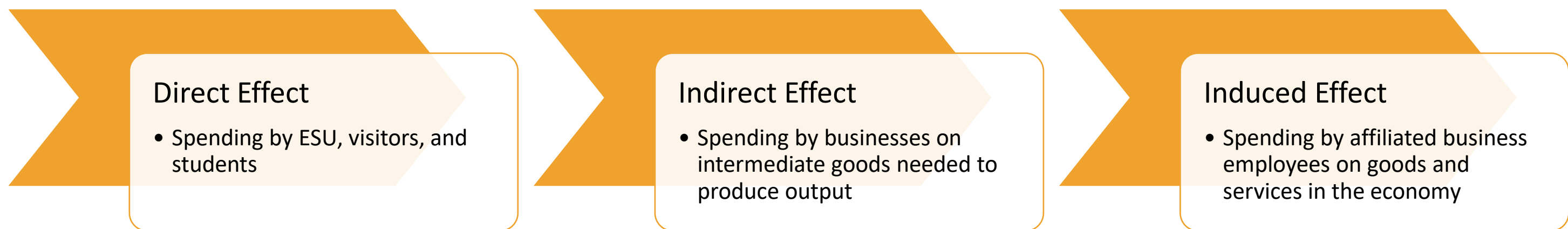
In this project, we utilize a robust input-output methodology created by IMPLAN. This tool has a rich data source of production and labor data and maps the production of raw materials from one sector of the economy into other sectors. IMPLAN codifies economic sectors into 528 categories.

For spending associated with Emporia State University, we make some simplifying assumptions:

- We are looking only at the impact of ESU on Lyon County and all adjacent counties.
- ESU spending on salaries and wages is codified as spending in colleges/universities (code 481).
- ESU spending on building capital is codified as spending in construction of new educational and vocational structures (code 53).
- Only visitors and students that would not have come to ESU for reasons besides the university are included.
- Visitor spending is restricted to lodging (code 507), full-service restaurants (code 509), general retail (code 411) and gasoline (code 408).
- Student spending is restricted to books (code 410), food (code 511), recreation (code 501), and general retail (code 411).

As this represents only a subset of total spending by visitors and students, the outcomes can be viewed as a lower-bound estimate.

Using the input-output analysis, we can then determine the direct (actual spending), indirect (spending by businesses on intermediate goods), induced effect (spending on employed individuals on other goods and services), and total effect (the sum of these three).



Next Steps

The immediate next steps in this research project includes collection of visitor spending data from surveys given to recent participants in ESU events (sporting and recruitment). From this data, we plan to estimate the conditional average spending on lodging, retail, food, and fuel and extrapolate using the estimates of total visitors to campus from Placer.AI. This survey has been under beta-testing with small groups and, through partnerships with the Memorial Union and ESU Athletics, we plan to distribute it to a wide audience through email.

In the Fall, we will distribute a similar survey to students enrolled in general education courses (especially math, composition, and science). This survey will ask questions on student spending habits for housing (off-campus students), books, retail, food and beverage, and recreation or entertaining. We will calculate the conditional averages and extrapolate based on the total number of students enrolled at ESU in 2023 that have permanent address zip codes that are further than 30 miles from ESU.

Once sufficient responses have been collected from both surveys, the data will undergo an analysis like that presented in this poster for ESU spending on salaries and capital. We also plan to expand the ESU spending to identify the economic impact of the construction of the new nursing building and other previously unaccounted for campus spending. Lastly, we plan to incorporate an analysis of the tax (federal, state, and local) impact of the spending. A final report will be provided to ESU administration to support future initiatives and planning.

References:

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