



Kansas Active Transportation Plan
Economic Impact Analysis

April 2022

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Economic Impact Analysis

Kansas Department of Transportation

Final Report

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Executive Summary

Active transportation is an important factor to consider for economic growth and investment. Investing in active transportation creates opportunities for people to exercise, for increased tourism, and for lower greenhouse emissions among other benefits. Further, active transportation facilities are vital in low-income and minority communities. Individuals in those communities are less likely to own cars, and dangerous streets might pose a barrier to using active transportation. This economic impact analysis quantifies the economic benefits of active transportation facilities, details best practices and case studies from other peer states, and provides a toolkit for evaluating future projects.

Active transportation provides a great benefit to the State of Kansas and is borne out in the data found in the active transportation plan. Four primary classes of benefits were addressed. Combining these, an approximation of the total annual economic benefit was calculated based on the modeling and available data. The total benefit of active transportation in the State of Kansas (in 2021 dollars) includes:

- Total Annual Tourism/Events Economic Benefits: \$42,553,400
- Total Annual Retail Economic Benefits: \$41,635,400
- Total Annual Transportation Economic Benefits: \$70,868,000
- Total Annual Facility Access Economic Benefits: \$7,494,300
- **Total Annual Economic Benefits: \$162,551,100**

In addition to the ongoing annual benefits, trail construction has well quantified benefits to increasing property values in the area adjacent to the trail. Based on the known trails that exist in the state, it was calculated that **past trail construction was associated with an increase in property values of \$464,346,400**. This is not an on-going benefit because it is considered a one-time property value increase at the time of trail construction.

Other states have estimated economic impact of active transportation. Two states in particular have conducted similar comprehensive analyses such as this one including Utah and Iowa. Both of these states have extensive active transportation infrastructure and many tourist focused events and activities.

- \$407 million was the calculated annual economic benefit from active transportation in Utah
- \$764 million was the calculated annual economic benefit from active transportation in Iowa

It is clear from this analysis that active transportation provides a major economic benefit to the State of Kansas. However, compared to some peer states, there is even more economic benefit that could be realized if more investment were made towards infrastructure and tourism.

Benefit-Cost Case Studies

When calculating statewide benefits of active transportation, it's not possible to provide a full benefit-to-cost analysis because costs of all sidewalks, trails, and bike facilities in the state are not known. To show the direct benefits that can be obtained from investment, case studies were developed for two

different types of active transportation investment. These case studies include the development of the Prairie Spirit Trail State Park and the city-wide active transportation network in Newton, KS.

Prairie Spirit Trail State Park

The Prairie Spirit Trail State Park is a linear trail park that totals 51 miles of trail between Ottawa and Humboldt and passes through nine other Kansas towns. Construction on the trail began in 1992 and was fully completed in 2008. The trail is constructed primarily as crushed limestone surfacing and is popular with cyclists and hikers. According to the Kansas Department of Wildlife & Parks, there are approximately 66,070 visitor nights spent on the trail every year.¹ Using the benefit-to-cost calculator it was found that:

For every \$1 spent on the Prairie Spirit Trail, the calculated benefit to the Kansas economy is \$20.92.

- If the Prairie Spirit Trail were constructed today, the cost would likely be approximately \$38 million with an additional \$300,000 in yearly operations and maintenance costs.
- Over a 30-year period, the Prairie Spirit Trail has a calculated economic benefit to the state of \$936 million.
- The benefit-to-cost ratio is calculated as 20.92:1. This means that for every \$1 spent on the trail, the Kansas economy sees a \$20.92 in benefit as calculated over a 30-year period.
- Construction of the trail likely supported approximately 4,215 jobs over the 30-year lifecycle analysis

More details on the specific inputs and outputs of this case study can be seen in the Benefit-Cost Calculator User Guide attached as an appendix to this report.

¹ <https://ksoutdoors.com/content/download/54370/594916/file/ks-state-parks-impact-study.pdf>



Figure 1: Prairie Spirit Trail State Park (Image Source: KDWP)

City-Wide Active Transportation Network of Newton

The City of Newton, KS has a long history of investing in active transportation. The Sand Creek Trail is the backbone of the active transportation network in the city. The trails total approximately 7 miles through Newton and connecting to the City of North Newton, KS on both sides of Sand Creek. In addition to the Sand Creek Trail, the city has constructed a number of other bicycle and pedestrian facilities throughout the city and is currently working to implement the Newton Bicycle Master Plan completed in 2015.

The City of Newton realizes \$6.0 million in annual benefits in perpetuity from their trail system with an estimated \$150,000 in annual maintenance costs.

- Many of the facilities in Newton were constructed in the past with fully depreciated costs, meaning the city realizes ongoing benefits in perpetuity with only minimal ongoing yearly costs estimated at \$150,000 per year.
- Every year, the City of Newton’s active transportation network has a calculated economic benefit to the community of \$6.0 million annually.
- Existence and maintenance of the trails is calculated to support approximately 18 jobs continually.

More details on the specific inputs and outputs of this case study can be seen in the Benefit-Cost Calculator User Guide attached as an appendix to this report.



Figure 2: Sand Creek Trail in Newton, KS

Local Attitudes Towards Active Transportation

In order to inform the economic impact calculator for KDOT, interviews with representatives from the following three locations in Kansas were consulted:

- Manhattan
- Newton/Harvey County
- Ottawa

Generally, most community members were initially skeptical of investing in active transportation facilities, however, attitudes warmed once these facilities were installed and the communities were able to use and see and feel the impact firsthand, to the point that their skepticism has turned into a demand for more facilities. Overall, active transportation infrastructure has led to economic, health, and community benefits, especially in the wake of the COVID-19 pandemic. The communities see active transportation as an important part of public health and wellness. They also have seen economic benefits because of active transportation usage. Multiple interviewees noted a large increase in the sale of bikes recently.

Tourism and events are an important factor when considering the economic impact of investments in active transportation infrastructure. Both overnight and day-trip tourists play a key role in supporting local economies in myriad ways, from lodging to supporting local restaurants during their trips.

Tourism related to active transportation has material economic impacts on the communities surveyed, and all communities indicated that their areas host events tailored for this type of tourism.

Applying the Benefit-Cost Toolkit

Transportation projects are sometimes evaluated for funding opportunities in terms of a Benefit-Cost Ratio (BCR), which measures if the economic benefits of a given project outweigh the costs of constructing and maintaining the project. The benefits that are quantified in a typical Benefit-Cost Analysis (BCA) include benefits such as include travel time savings, environmental benefits, and health benefits. A tool was constructed for use by local agencies to help make project selection and prioritization easier. The application of this tool can be seen in the Benefit-Cost Case Studies above.

The Kansas Department of Transportation is making this tool available upon request to public agencies. This tool will provide information on the benefits and costs related to the specific project, based on user inputs and data included in the model itself. The tool can be used to evaluate generalized large-area economic benefits in a city, county, or larger area (a slightly modified version of the tool was utilized to calculate the statewide benefits reported in this document). The tool can also be used to evaluate project-specific benefits and costs and calculate a BCR, as was done in the Benefit-Cost Case Studies above. The tool can show if a project is expected to have more economic benefit than the cost of the project.

The tool should be utilized within the larger framework of planning, programming, and designing active transportation facilities. If an active transportation facility has been shown to be desirable to the community and important for network connectivity and other considerations, a low BCR reported by this tool should not disqualify the project for consideration by the community. Likewise, a project with a high BCR reported by this tool may not be appropriate for implementation if the community does not desire the project and the project is not part of a larger network plan.

This tool, which was built to provide a high-level analysis of project costs and benefits, should be used for project selection and prioritization, rather than as an authoritative source for USDOT grant applications. The results will provide insight as to whether a project might be competitive in a grant scenario.

Introduction

Investments in active transportation provide a range of benefits to both the direct users of a given facility, and to the larger regional and state economy. The purpose of the economic impact analysis is to document and quantify these benefits so that the Kansas Department of Transportation (KDOT), local decision-makers, and stakeholders have a better understanding of the impact of active transportation investments. The analysis quantified the economic benefits of active transportation facilities, detailed best practices and presented case studies from other peer states and provides a toolkit for evaluating future projects.

The economic impact analysis consisted of four primary tasks:

1. Economic Impact Peer Evaluation
2. Stakeholder Interviews
3. Benefit-Cost Toolkit Development
4. Economic Baseline Analysis

Each of these tasks informed the subsequent tasks. The results of the peer evaluation and the information gathered through the stakeholder interviews was utilized to inform the inputs utilized in the Benefit-Cost Toolkit development. Then the Benefit-Cost Toolkit was utilized to model the baseline economic impact of active transportation in Kansas. The process to complete these tasks is detailed in this document.

Economic Impact Peer Evaluation

To determine the potential for economic development related to active transportation, a review of case studies from other states was conducted. The case studies focused on similar types of active transportation projects that have been implemented or promoted by the state or municipality, and any available quantified results specific to economic development. The consultant team worked with KDOT to identify a list of applicable regional and national projects to evaluate as part of the effort and direct outreach options if supplemental information was required. The analysis determined which types of economic benefits would be relevant to the State of Kansas and the potential magnitude of those benefits that could be realized to the state as a result of active transportation investments. A summary of economic benefits was generated with a table of benefits from each of the studies cited. Applicable economic benefits were incorporated into the Benefit-Cost Toolkit with peer project information used as reference points.

This section presents research findings from six states that serve as peer comparisons to Kansas as the state works to further develop its active transportation infrastructure. The states identified as peers to Kansas are **Iowa, Indiana, Missouri, Utah, Arkansas, and Texas**.

This section answers the following questions about each peer state:

- What was implemented or promoted by the state?
- Does the state quantify results of economic development due to active transportation?
- Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas because of these activities?

Case Studies

The following case studies were referenced in order to develop this document and inform the benefit-cost toolkit.

Table 1: Peer States and Case Studies Referenced

Peer State	Case Study	Author	Year of Publication
Iowa	Economic and Health Benefits of Bicycling in Iowa	Iowa Bicycle Coalition	2011
Indiana	Assessment of the Impact of the Indianapolis Cultural Trail	Indiana University Public Policy Institute	2015
Missouri	Katy Trail Economic Impact Report	Synergy Group, Pragmatic Research, Inc., James Pona Associates	2012
	Economic Impacts of Bike Master Plan	University of Missouri Kansas City	2019
Utah	Economic Impacts of Active Transportation	Utah Transit Authority	2017
Arkansas	Economic and Health Benefits of Bicycling in Northwest Arkansas	BBC Research and Consulting	2018
Texas	Economic Impact of Bicycling in Texas	Texas Department of Transportation	2018

Peer States Case Studies and Analysis

The following sections include details from case studies from each identified peer state.

Iowa

What was implemented or promoted by Iowa?

- Iowa invested \$141,552,384² between 2010-2018 in Transportation Enhancements and Transportation Alternatives.
- The Iowa Bicycle Coalition published “Economic and Health Benefits of Bicycling in Iowa” in 2011, which measures the following economic impacts:
 - Spending by individual cyclists
 - Bicycle specific retail sales
 - Economic activity generated by bicycle organizations
 - Health cost savings
- Iowa Transportation Commission published a 25+ year forward-looking State Transportation Plan in 2012 which details planned investments in active transportation infrastructure.

Does Iowa quantify results of economic development due to active transportation?

² Transportation Alternatives Data Exchange, <https://trade.railstotrails.org/index> ; aggregated sum of investments in Transportation Alternatives and Transportation Enhancements.

- The 2011 report details statewide economic impacts of bicycle commuters and recreational cyclists.³

Table 2: Economic Impact of Active Transportation in Iowa

	Bicycle Commuters	Recreational Cyclists
Total Economic Impact	\$51,965,317	\$364,864,202
Output Multiplier	2.18	2.07
Total Value Added / Income	\$32,375,511	\$227,186,202
Income Multiplier	2.07	1.95
Total Employment	862	6,309
Employment Multiplier	1.51	1.47
Health Cost Savings	\$13,266,020	\$73,942,511

- The 2012 State Transportation Plan details planned costs and revenues for the development of a statewide trail network, but it does not include an economic impact assessment.⁴ The average annual cost is \$81.9M, of which Iowa DOT is directly funding \$38.3M.

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas as a result of these activities?

- Yes, assuming Kansas has a similar share of Gross State Product (GSP) related to biking equipment, this data could be relevant. Commuters and recreational cyclists in Kansas could provide similar economic impacts.
- The State Transportation Plan is less relevant because it focuses on the development of a trail network but is still a useful data point for comparison purposes.

Indiana

What was implemented or promoted by Indiana?

- Indiana invested \$33,674,875 between 2010-2018 in Transportation Enhancements and Transportation Alternatives.⁵
- In 2012, construction was completed on an 8-mile trail in Indianapolis that connects six cultural districts in the area; \$63M of public and private investment.
- The Trail has generated an estimated economic impact of \$865 million, helped create over 11,000 jobs, and added five acres of new pervious surfaces in the heart of downtown.

Does Indiana quantify results of economic development due to active transportation?

³ Iowa Bicycle Coalition, “Economic and Health Benefits of Bicycling in Iowa,” pg 5, 22-23 (2011)

⁴ Iowa State Department of Transportation, “Iowa State Transportation Plan”, pg. 123-124 (2012)

⁵ Transportation Alternatives Data Exchange, <https://trade.railstotrails.org/index> ; aggregated sum of investments in Transportation Alternatives and Transportation Enhancements.

Indiana Department of Transportation and Indiana Economic Development Corporation do not quantify investments in active transportation or economic impacts.

- 2015 “Assessment of the Impact of the Indianapolis Cultural Trail” quantifies economic impacts of the Cultural Trail:
 - Increase of \$1,013,544,460 in total property value for properties located within 500ft of the trail
 - Direct spending estimated to be \$963,000-\$3.2M

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas as a result of these activities?

- Yes, Kansas could realize economic benefits from increased property values.

Missouri

What was implemented or promoted by Missouri?

- Missouri invested \$55,655,077 2010-2018 in Transportation Enhancements and Transportation Alternatives.⁶ In MoDOT’s 2020 Citizen’s Guide to Transportation Funding, future investments in multimodal infrastructure were identified as a “high priority unfunded need.”⁷

Does Missouri quantify results of economic development due to active transportation?

- Missouri DOT and Missouri Economic Development Council do not have data on investments in or economic impacts of active transportation.
- The 2019 report, “Economic Impact Analysis of the Kansas City, MO Bicycle Master Plan,” details the impacts of the implementation of the new master plan over the course of 20 years (2030-2050).
 - The economic impacts measured include:
 - Increased traffic safety (fewer crashes)
 - Increased physical activity (lower healthcare costs)
 - Increased labor productivity
 - Decrease in air pollution
- More local consumption due to reduced overall spending on auto-based transportation
 - The analysis found that implementing the bike plan (along with corresponding increases mode share to 5%) led to almost a \$500 million dollars growth in the regional economy by 2050.
 - 12,600 additional jobs would be supported over that period.
- The 2012 Katy Trail Economic Impact Report quantifies the economic impact of tourism on the Katy Trail, a 240-mile-long rail-trail throughout the state.

⁶ Transportation Alternatives Data Exchange, <https://trade.railstotrails.org/index>; aggregated sum of investments in Transportation Alternatives and Transportation Enhancements.

⁷ Missouri Department of Transportation, https://www.modot.org/sites/default/files/documents/2020%20Citizen%27s%20Guide%20to%20Transportation%20Funding%20in%20Missouri_0.pdf, pg. 39 (2020)

- 400,000 annual visitors have a total economic impact of \$18,491,000 annually. 367 jobs are supported, and total value added is \$8,204,000.

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas as a result of these activities?

- The 2019 report, “Economic Impact Analysis of the Kansas City, MO Bicycle Master Plan,” is relevant to Kansas, as the 2017 bicycle commute mode share in Kansas City, MO (0.26%) is comparable to the statewide bicycle commute mode share in Kansas (0.36%). However, the study’s scenario assumptions that 2.5%, 5%, and 10% of bicycle mode share by 2030 might not be as relevant, depending on the investments that Kansas is currently making in active transportation infrastructure.
 - This study shows that the economic impacts of investing in active transportation infrastructure extend into the future, and Kansas could expect to see similar results given the comparable mode share to Kansas City, MO.
- The 2012 Katy Trail Economic Impact Report is relevant to Kansas, as establishing a similar scenic trail could spur similar positive economic impacts associated with tourism in small towns and supporting local businesses.

Utah

What was implemented or promoted by Utah?

- Utah invested \$17,121,020 between 2010-2018 in Transportation Enhancements and Transportation Alternatives.⁸
- Utah Transit Authority (UTA) published “Economic Impacts of Active Transportation” in 2017 utilizing IMPLAN, which breaks down economic impacts at state and county levels, detailed below.⁹

Table 3: Breakdown of Utah Economic Impact Analysis

State-level Economic Impacts	County-level Economic Impacts
<ul style="list-style-type: none"> – Equipment and services – Tourism 	<ul style="list-style-type: none"> – Capital construction – Facility maintenance – Equipment and services – Tourism – Healthcare – Reduced employee absenteeism

- This study developed a flexible economic impact assessment calculator in Excel to model the economic impacts of different categories (listed below) of active transportation infrastructure developments:

⁸ Transportation Alternatives Data Exchange, <https://trade.railstotrails.org/index> ; aggregated sum of investments in Transportation Alternatives and Transportation Enhancements.

⁹ Utah Transit Authority, “Economic Impacts of Active Transportation” (2017)

- Bicycle infrastructure only
- Off-street multi-use trails
- On-street bicycle and pedestrian facilities (no road construction)
- Pedestrian infrastructure only
- Road infrastructure with bicycle and pedestrian facilities
- Road infrastructure with pedestrian facilities

Does Utah quantify results of economic development due to active transportation?

- This report quantifies economic impacts for the entire state and specific projects. Statewide impacts totaled nearly \$550M, as shown in the Table 4 below.

Table 4: Statewide Economic Impacts of Active Transportation in Utah¹⁰

	Total Economic Impact (\$M)	Jobs Supported	Income (\$M)
Equipment and Services	\$303.9	1,974	\$77.2
Tourism	\$121.9	1,499	\$46.7
Total	\$406.8	3,473	\$123.9

Additionally, this report quantified the county-specific economic impacts of certain parks, detailed in Table 5.

Table 5: County-specific Economic Impacts of Active Transportation in Utah¹¹

County	Total Economic Impact (\$M)	Jobs Supported	Income (\$M)
Utah County, Murdock Canal Trail	\$3.6	23.31	\$1.1
Grand County, Dead Horse Point State Park	\$19.1	220	\$5.7

- There is no current Utah-specific database that quantifies all of Utah’s investments in active transportation, but that is an action item in the case study as an area for future development and improvement

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas because of these activities?

- The multipliers in the case study aren’t relevant to Kansas, therefore the economic impacts they calculate should not be used to quantify potential benefits for Kansas. However, the methodology behind the output is relevant and useful.

¹⁰ Utah Transit Authority, “Economic Impacts of Active Transportation” (2017), pg 19-20

¹¹ Utah Transit Authority, “Economic Impacts of Active Transportation” (2017), pg 41-44

Arkansas

What was implemented or promoted by Arkansas?

- Arkansas invested \$72,505,708 between 2010-2018 in Transportation Enhancements and Transportation Alternatives.¹²
- Arkansas invested \$38M in the Razorback Regional Greenway, a 36-mile shared-use paved trail that links major cities in the Northwest region of the state. In 2018, “Economic and Health Benefits of Bicycling in Northwest Arkansas” was published.

Does Arkansas quantify results of economic development due to active transportation?

- Arkansas DOT quantifies TAP awarded projects within the past 5 years but does not quantify economic impacts. The Arkansas Economic Development Commission does not have data on investments in or economic impacts of active transportation.
- The 2018 study quantified regional economic benefits, but not economic impacts:
 - \$51M in business benefits annually
 - \$21M in household and resident spending on bicycles and related equipment
 - \$3M in retail sales and retail sales taxes
 - \$27M in tourism spending by out of state visitors
 - Property values
 - A typical home ¼ of a mile from the trail sells for \$6,300 more than a home 1 mile from the trail
 - Net avoided healthcare costs for active bicyclists: \$6.8M
 - \$9.8M avoided healthcare costs (as a result of ~4,600 moderately active bicyclists, quantified utilizing Health Economic Assessment Tool (HEAT) methodology)
 - \$3M incurred healthcare and lost productivity costs

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas as a result of these activities?

- Kansas could expect property value increases for home located near shared-use paved trails, which would have as positive impact on property tax revenue.
- Kansas could also expect similar benefits in the form of net avoided healthcare costs, depending on the quantity of moderately active bicyclists and pedestrians.

Texas

What was implemented or promoted by Texas?

- Texas invested \$292,042,190 between 2010-2018 in Transportation Enhancements and Transportation Alternatives.

¹² Transportation Alternatives Data Exchange, <https://trade.railstotrails.org/index> ; aggregated sum of investments in Transportation Alternatives and Transportation Enhancements.

- TxDOT details 3 investments in active transportation infrastructure in their 2018 report, “Economic Impact of Bicycling in Texas”:
 - \$16.1M on A-Train Rail Trail, a ~20-mile shared use path next to a light rail line.
 - \$320,000 on Lamar Street Cycle Track, a ¾ mile two-way protected bikeway in downtown Houston.
 - \$4M on White Oak Trail Extension, a 2-mile extension that connects two existing shared use paths in downtown Houston.

Does Texas quantify results of economic development due to active transportation?

- TxDOT’s 2018 report details the statewide direct, indirect, and induced impacts from cycling tourism, sales, manufacturing, and construction.¹³ This was calculated utilizing data from IMPLAN. Property values were not calculated on a statewide level due to regional variation.

Table 6: Economic Impact of Cycling in Texas

Type of Impact	Estimated Totals
Employment	36,000 jobs supported
Tax Revenue Generated¹⁴	\$153M in state and local taxes
Labor Income Generated	\$1,225M
Health Benefits (quantified utilizing HEAT methodology)	\$352M in reduced mortality risks

- This study also examined local case studies: A-Train Rail Trail, Lamar Street Cycle Track, and White Oak Trail Extension.

¹³ Texas Department of Transportation, Economic Impact of Bicycling in Texas (2018), pg. 6

¹⁴ This does not include taxes on production and imports for bikeway construction projects.

Table 7: Comparison of Economic Impacts of Active Transportation Infrastructure in Texas

	A-Train Rail Trail (Shared Use Path)	Lamar Street (Protected Bike Lane)	White Oak Trail Extension (Shared Use Path)
Investment	\$16.1M from 1998-2018	\$320,000 from 2015-2018	\$4M from 2015-2017
Economic Impact of Construction (2018\$)	Employment: 96 jobs Labor Income: \$5,626,908 Total Value Added: \$7,989,504 Total Economic Output: \$16,906,232	Employment: 2 jobs Labor Income: \$212,343 Total Value Added: \$296,990 Total Economic Output: \$553,653	Employment: 33 jobs Labor Income: \$2,622,770 Total Value Added: \$3,668,293 Total Economic Output: \$6,838,494
Property Values	Undetermined.	27% increase in commercial property values, 40% increase in high rise condominiums within ¼ mile of bikeway.	Positive impact to local property values, but unable to quantify exactly how much is due to the bike path.
Health Impacts¹⁵	~\$1M	\$119,000	\$1,099,000

Is this relevant to Kansas? What is the potential magnitude of economic impacts that could be realized to the state of Kansas as a result of these activities?

- The Texas case study focused on the economic impact of construction, and there is no indication that Kansas would not realize similar benefits from constructing shared use or on-road bike paths.
 - In addition, Kansas could realize numerous other economic impacts than were measured in this study, such as tourism, user equipment, and facility maintenance.
- This study indicated that property values have increased as a result of the construction of bike paths. While researchers were unable to specifically quantify the amount of the positive increase in property values that were directly attributable to the active infrastructure, this has positive implications for property values in Kansas.
- An aspect of this analysis that is relevant for Kansas is the finding that reduced mortality benefits are greatest for the White Oak Trail Extension, which could indicate that it is particularly valuable to connect existing shared use paths to one another.

¹⁵ Measured as an Annual Reduced Mortality Benefit. This study measures the economic benefit of reduced mortality by utilizing World Health Organization’s Health Economic Assessment Tool (HEAT), which estimates the value of health benefits that occur as a result of the reduction of mortality due to physical inactivity (pg. 53).

Summary of Findings

- At a statewide level, none of the states researched measure the economic impact of active transportation at the Department of Transportation (DOT) or economic development bureau levels.
- Most case studies utilized IMPLAN to identify accurate multipliers to assess economic impacts, therefore the results were not immediately applicable to Kansas.
- Out of the states included in this review, **Texas** has invested the most (\$292M) in active transportation infrastructure¹⁶ since 2010.
- At a statewide level, the **Iowa** case study provides a reasonable framework and estimate for how Kansas can approach measuring economic impacts of active transportation at a statewide level and the types of benefits the state can expect.
- Similarly, **Utah's** county-specific case study of the economic impacts of active transportation serves as a key framework for how Kansas can iteratively assess active transportation projects.
- Increased property values surrounding an urban trail in **Indiana**, a rural trail system in **Arkansas**, and shared use trails in **Texas** suggest that properties in Kansas could realize similar benefits.
- Overall, there is a wide variation among peer states when it comes to the economic impacts of investments in active transportation.

Inputs to Benefit-Cost Toolkit

Certain findings from the research detailed in the prior sections, including assumptions and methodologies, were used to develop the Benefit-Cost Toolkit for the KDOT and are detailed in Table 8 below.

Table 8: Case Study Methodologies Utilized in Model

Methodology	Use in Model	Source
Calculation of economic impact of avoided healthcare expenditures as a result of inactive and insufficiently active individuals increasing their activity levels	Economic Impact of Health Benefits	Economic Impacts of Active Transportation, Utah Transit Authority (2018)
Tourism expenditures for day trips and overnight trips.	Economic Impact of Tourism	Economic Impacts of Active Transportation, Utah Transit Authority (2018)

¹⁶ Active transportation infrastructure investments were gathered from Transportation Alternative Data Exchange. Investments in active transportation infrastructure are categorized as Transportation Alternatives (TA) and Transportation Enhancements (TE), detailed further in the TrADE State Data Excel.

Additionally, in the absence of specific state data from Kansas, generalized inputs from selected case studies were utilized in the model, detailed in Table 9.

Table 9: Case Study Inputs Utilized in Model

Variable	Unit	Value	Source
Economic Impact of Reduced Healthcare Expenditures – Total Output (\$)	Multiplier	0.95	UTA 2017
Economic Impact of Reduced Healthcare Expenditures – Jobs per \$Million	Multiplier	2.71	UTA 2017
Economic Impact of Reduced Healthcare Expenditures – Income (\$)	Multiplier	0.61	UTA 2017
Economic Impact of Day Trip Tourism – Total Output	Multiplier	1.20	UTA 2017
Economic Impact of Day Trip Tourism – Jobs per \$Million	Multiplier	16.08	UTA 2017
Economic Impact of Day Trip Tourism – Income (\$)	Multiplier	0.40	UTA 2017
Economic Impact of Overnight Trip Tourism – Total Output	Multiplier	1.36	UTA 2017
Economic Impact of Overnight Trip Tourism – Jobs per \$Million	Multiplier	21.28	UTA 2017
Economic Impact of Day Overnight Tourism – Income (\$)	Multiplier	0.51	UTA 2017
Economic Impact of Capital Expenditures – Job and Income Multiplier	Multiplier	Project specific multipliers	Peltier 2011

Stakeholder Interview Summary

In order to inform the economic impact calculator for KDOT, interviews with representatives from the following three locations in Kansas were consulted:

- Manhattan
- Newton/Harvey County
- Ottawa

This document summarizes qualitative data from these three interviews and includes a brief overview of the interview process. Information gathered from the interviews is presented in Table 10. This is followed by a discussion of how this data is included and utilized in the economic impact calculator to model the effects of tourism on the local economy.

Interview Process

Interviews were undertaken during the spring of 2021 with representatives from Manhattan, Newton/Harvey County, and Ottawa. The data collected throughout this process were used to inform the economic impact calculator for KDOT, specifically focusing on economic impacts pertaining to tourism and tourist events.

Interview questions specifically relating to tourism were divided into “Pre COVID” and “Post COVID” categories in order to ascertain what “normal” benefits of tourism in each community were, how the COVID-19 pandemic has affected usage throughout the past year, and expectations for active transportation usage moving forward.

Summary of Interview Data

General Findings

Generally, most communities were initially skeptical of installing active transportation facilities, however, attitudes warmed once these facilities were installed and the communities were able to use and see and feel the impact firsthand, to the point that their skepticism has turned into a demand for new facilities. Overall, active transportation infrastructure has led to economic, health, and community benefits, especially in the wake of the COVID-19 pandemic.

In all communities interviewed, recreational usage was the main use of active transportation with usage mainly being split 70/30 male to female in both Newton and Manhattan according to interviews, with the usage in Ottawa being evenly split among the sexes. In addition, one interviewee indicated that the construction of active transportation infrastructure has seen the largest growth among lower-income residents noting the shifting demographics of bike riders in the community.

Interviewees also noted the health benefits that were brought in due to increased use of active transportation, especially during the pandemic where usage rates increased as there were fewer vehicles on the road. The pandemic may have brought about these positive health changes by making

people more health-conscious and due to the closure of gyms and other recreational facilities. Communities see active transportation as an important part of public health and wellness.

Economic benefits as a result of active transportation usage were also noted. Multiple interviewees noted a large increase in the sale of bikes with one saying that he “Expected some growth, but growth seen through the pandemic has been enormous” with that growth driven mainly from an increase in local business. Overall, local economies have benefitted according to local material conditions, such as in Ottawa where residents shopped more locally due to the pandemic.

Safety concerns predominate throughout with most concern being driven primarily through non-riders. Safety concerns mostly deal with gaps in trail access which are seen as more dangerous between neighborhoods and less dangerous within. Safety should continue to be a strong priority in all cases.

Tourism and Events Related Findings

Tourism and events are an important factor when considering the economic impact of investments in active transportation infrastructure. Both overnight and day-trip tourists play a key role in supporting local economies in myriad ways, from lodging to supporting local restaurants during their trips.

Tourism related to active transportation has material economic impacts on the communities surveyed, and all interviewees indicated that their areas host events tailored for this type of tourism. In fact, an interviewee mentioned that they had met tourists “who are on cross-country rides that have stopped in Manhattan because they heard it was a bike friendly city.”

Two interviewees indicated that day trips were far more common than overnight trips; the third interviewee did not specify the breakdown of types of tourism.

Both Manhattan and Ottawa have seen a positive increase in active transportation since COVID. The Manhattan interviewee noted that Manhattan had a “bike boom” in 2020 and that “COVID has caused walking/biking rates to increase.”

There are also community-specific economic impacts that are important for site-specific understanding; for example, Newton/Harvey interviewees noted that the golf course was a major tourism draw and that these tourists typically come to the area for that reason, but end up using other active transportation facilities while in the area. It is necessary to consider all facets of active transportation and which types of local events might create positive economic impacts.

Summary of Results

Qualitative data was gathered from the interview process and is summarized below.

Table 10: Summary of Interview Data

Location	Local Active Transportation Events	Number of Tourists ¹⁷	Breakdown of Overnight and Day Tourists	Businesses Affected
Manhattan	5k races downtown Pathfinder (bike business) in downtown does bike demonstrations	Not specified	Food/drinking business were seeing day-trip visitors coming into town, but still not very many coming in for overnight stays	Restaurants, retail establishments
Newton/Harvey	Two bike rides that attract state and regional visitors (Chisholm Trail Ride and the MCC Flatlander ride) Multiple runs are hosted each year Monthly bird walks on the first Saturday of each month Walk & Roll Harvey also promotes active events on conjunction with other planned events, which draw walkers and bikers	2,000-3,000 annually	Vast majority are day trips.	Hotels, restaurants
Ottawa	5k runs on local trails "Rhythm & Ride" bike event In addition to this were planned events in and around town, which are all focused on biking and music	~500 per event	Not specified	Retail establishments, hotels

Inputs For Benefit-Cost Toolkit

When modeling the economic impacts of tourism or tourist events, it is necessary to consider the following inputs:

- Type of event
- Number of visitors

- Type of visitor (overnight or day trip)
- Breakdown of expenditures / businesses affected

The selected interviewees provided information that was used to inform inputs for the economic impact calculator. First, as all interviewees indicated that their local areas had different types of active transportation events that drew tourists to the area, it is important to model an accurate event type for the specific location, as generalizing this information might not be applicable. Second, while the number of tourists varied widely, averages were derived to use as preliminary inputs to model a tourist event. Third, two interviewees indicated that the majority of visitors were day trips rather than overnight trips, which influences related expenditures. While interviewees did not give specific expenditure breakdowns, they indicated which types of businesses might be positively impacted by tourists—namely, bike retail shops, hotels, and restaurants—which informed how tourists’ spending habits are modeled.

¹⁷ This data point was gathered as a pre-Covid-19 estimate.

Benefit-Cost Toolkit Development

An economic model was developed for use by KDOT staff to evaluate the economic impacts of active transportation projects and compares against the cost of those projects. This model is referred to as the Benefit-Cost Toolkit. This toolkit provides a high-level estimate of project benefits based on the location of the project and type of facility to be constructed. The intention is that KDOT and local agencies could utilize the toolkit to help determine which active transportation infrastructure projects are likely to have the highest benefits to inform project prioritization. This toolkit is not intended to supplant a traditional benefit-to-cost analysis as outlined in the USDOT guidelines. This toolkit is intended to provide an indication of what the outputs of a full benefit-to-cost analysis would be based on our specific evaluation criteria. Users input information such as roadway context (rural, urban), crash statistics, existing usage (AADT, bicycle/pedestrian counts), roadway characteristics (number of lanes, speed limits), and surrounding land usage and property values. A user guide for the Benefit-Cost Toolkit is included in the appendix of this report.

The economic analysis utilized to develop the economic model for the Benefit-Cost Toolkit analysis seeks to detail the total gross state product associated with active transportation for individual projects and for the state as a whole. This model development involved looking at current active transportation trends in the state including daily walking and biking statistics, existing trail and bikeway network development, active transportation-related events, and the economic sectors directly or indirectly benefiting from active transportation. Benefits were put into four main classes of active transportation activity: tourism/events, retail, transportation, and destination access:

- **Tourism/Events** benefits based on spending attributed to tourism in areas of the state where active transportation events are attracting visitors. This included both residents of Kansas and visitors from outside the state. Elements explored for the tourism benefit included direct expenditures on lodging, food, equipment rentals, transportation to the sites, and other potential indirect and induced benefits from those expenditures. Events included organized bike rides or races, trail rides, foot races, and other activities focused on active transportation. Because of the challenges associated with estimating visitors to trails and parks that aren't associated with specific events, these tourists were not included in the analysis. It should be noted that the exclusion of these tourists means that the tourism benefit is likely higher than what is reported in this analysis.
- **Retail** benefits related to the direct sales of equipment related to active transportation. This category was related to the sales of active transportation equipment such as bike shops, outdoor recreation stores, and running stores. Benefits were calculated using the estimated usage and purchasing habits of typical active transportation consumers.
- **Transportation** benefits were calculated based on benefits derived from utilizing active transportation. When people choose to walk or bike as opposed to driving a car, there are direct benefits in the form of safety, improved public health, improved air quality, reduced noise, and reduced roadway damage/maintenance. It should be noted that possible disbenefits such as

reduced spending on gasoline and associated jobs are not factored by the USDOT. Transportation benefits were quantified based on a survey of academic and industry research covering, but not limited to, average active transportation trip length, induced active transportation trips attributed to various types of active transportation investments and proximity to residential, commercial, and retail, and reduced healthcare expenditures attributed to a more active lifestyle.

- **Facility Access** benefits were calculated based on the proposed facilities integration with existing active transportation infrastructure, impact on property values and land use patterns within a certain proximity of the facility, and population levels within a certain proximity of the facility. Data was derived from existing active transportation infrastructure maps, property values from the county assessor’s office, and socioeconomic information from Census information for Census tracts on or adjacent to the proposed facility.

Data Input and Usage

A variety of data was used to inform the economic model. The data gathered was primarily utilized to determine inputs and adjustment factors that could be applied to benefits that stem from active transportation infrastructure. The baseline economic modeling and factors were primarily based on national models and local and regional data provided a more realistic estimate of economic impact in a specific area. Both quantitative and qualitative information were used to inform adjustment factors to national assumptions or as direct inputs into the economic evaluation. Additional data considered as direct inputs could include existing trip and travel time data, the existing number of retail stores catering to active transportation, existing and planned events and participation, connectivity to other active transportation facilities, etc.

Data was obtained from sources such as:

- Regional information on comparable active transportation projects obtained in the peer evaluation task
- Survey data from public outreach
- Focus group responses
- Stakeholder interview responses
- Active transportation usage data provided by local agencies
- Publicly available data related to existing retail shops, events, and tourism focused amenities
- US Census Bureau
- Facility data provided by KDOT as part of the Kansas Bike Map
- County property valuation data

Benefit-Cost Toolkit Development Methodology

The data collected was utilized to tailor the proprietary WSP PRISM economic forecasting tool to active transportation in Kansas. PRISM is a proprietary tool which has been developed to measure economic impact for individual transportation projects of all kinds. The tool has a track reviewed by USDOT and has a track record of several awarded grant applications. For this analysis, the tool was modified to

provide quantitative economic impact outputs for active transportation in Kansas related the four primary benefit classes.

Much of the economic modeling related to the transportation benefits that was incorporated into the modified PRISM tool derived from research and unit assumptions provided by the USDOT in the Benefit-Cost Analysis Guidance for Discretionary Grant Programs.¹⁸ This methodology was utilized for the calculation of benefit-to-cost ratios for discretionary grant programs including the RAISE and INFRA grant programs. The toolkit simplified the calculation of facility usage projections to what is typically readily available to the state or agency sponsor. Data analysis such as increased discretionary trips and reduced VMT helped to inform projections on improved health and safety, reduced environmental impacts from emissions and noise, reduced operating and maintenance costs for vehicles and roadways, reduced fuel costs, and improvements to travel times for specific facility implementations.

The USDOT economic impact analysis methodology lacks inputs for many real economic benefit categories related to the Tourism/Events, Retail, and Facility Access benefit classes. Additional economic analysis included monetizing benefits attributed to increased property values within a certain radius of the facility also considering the type of improvement, impact on retail sales within a certain radius of the facility, increased tourism, and potential for attracting major employers and employees seeking opportunities for active lifestyles.

To supplement the guidance from the USDOT, research from the Victoria Transport Policy Institute (VTPI) was utilized for specific active transportation benefits.¹⁹ VTPI is an independent policy research institute focused on quantifying the benefits of planning for transportation demand management and mode shift analyses. Many of the benefit calculations derived from VTPI resources include elements such as public health and property value escalation.

In addition to the guidance from VPTI, the benefits derived in the Tourism/Events, and Retail categories were estimated using traditional economic modeling techniques where the impact of tourism spending in retail, restaurant, lodging, and other tourism-dependent sectors is monetized. The model considered factors, such as miles traveled, number of lodging nights, and average tourism spending with macroeconomic indicators, such as value-added or gross domestic product/gross state product (GDP/GSP).

Much of the transportation benefits relied on estimates of usage. Because statewide active transportation usage data is not available, estimates were made utilizing guidance provided in NCHRP Report 552 – Guidelines for Analysis of Investments in Bicycle Facilities, in particular, Appendix B.²⁰ The NCHRP methodology was largely reliant on national and local census bureau information and based on generic factors. These factors were adjusted to the extent possible for Kansas utilizing existing usage data where available. From this information, an estimate of general usage was provided to inform the transportation benefit calculations.

18 <https://www.transportation.gov/office-policy/transportation-policy/benefit-cost-analysis-guidance-discretionary-grant-programs-0>

19 <https://www.vtpi.org/index.php>

20 <http://www.trb.org/Main/Blurbs/157244.aspx>

Additional details on some of the factors used to develop the Benefit-Cost Toolkit are expanded on in the following sections.

Crash Reduction Potential Methodology

Safety is a major benefit when installing active transportation facilities. Analyzing crash reduction benefits is typically a data and labor-intensive process. To simplify this process for the Benefit-Cost Toolkit, the statewide systemic crash analysis (as detailed in the Kansas Active Transportation Plan Crash Analysis) was used to provide safety factors. The systemic crash analysis calculated an average number of bicycle and pedestrian crashes based on the centerline miles of certain types of facilities. This was done for rural areas, small to medium sized towns, and large urban areas. Average crash rates used to provide a predictive factor for the benefits of a project. Because active transportation facilities often result in a reduction of crashes for single vehicle and vehicle-vehicle crashes in addition to bicycle and pedestrian crashes, average crash rates were also developed for these types of crashes. Table 11 shows the results of this analysis. It should be noted that the data for rural local roads (this includes primarily county roads) was very limited, so no estimate was made for these roads.

Table 11: Average Calculated Crashes per Mile

Location	Type of Road	AADT	# Crashes per Mile (Bike/Ped)	# Crashes per Mile (Vehicles)
Urban (50,000+)	State Highway	Under 5,000	0.015	3.999
Urban (50,000+)	State Highway	5,000-15,000	0.063	7.239
Urban (50,000+)	State Highway	Over 15,000	0.080	15.950
Urban (50,000+)	Local Road	Under 5,000	0.057	2.694
Urban (50,000+)	Local Road	5,000-15,000	0.337	15.496
Urban (50,000+)	Local Road	Over 15,000	0.487	40.172
Urban (2,500-50,000)	State Highway	Under 5,000	0.056	4.791
Urban (2,500-50,000)	State Highway	5,000-15,000	0.215	13.279
Urban (2,500-50,000)	State Highway	Over 15,000	0.108	12.790
Urban (2,500-50,000)	Local Road	Under 5,000	0.037	1.829
Urban (2,500-50,000)	Local Road	5,000-15,000	0.267	13.501
Urban (2,500-50,000)	Local Road	Over 15,000	0.333	30.489
Rural	State Highway	Under 5,000	0.002	0.385
Rural	State Highway	5,000-15,000	0.004	1.505
Rural	State Highway	Over 15,000	0.004	2.038
Rural	Local Road	Under 5,000	-	-

Rural	Local Road	5,000-15,000	-	-
Rural	Local Road	Over 15,000	-	-

As an extension of the crash analysis results, crash modification factors from the Highway Safety Manual and the Crash Modification Factor Clearinghouse²¹ as well as from the FHWA Proven Safety Countermeasures²² site were utilized to predict the safety benefits of facility installation. Different facility types will convey different levels of safety benefits. To provide generic CMFs for different types of facilities, six types of generic facilities were developed:

- Bicycle infrastructure only
- Off street multi-use trails
- On-street bicycle and pedestrian facilities (without road construction)
- Pedestrian Infrastructure Only
- Road infrastructure with bicycle and pedestrian facilities
- Road infrastructure with pedestrian facilities

More detail on the generic improvement types is included in the following section.

For these six generic facility types, average CMFs were calculated to assess crash reduction benefits. These were separated by crash types, with CMF's for all crashes, vehicle/pedestrian crashes, vehicle/bicycle crashes. The bike and pedestrian CMF's were averaged to find the reduction in those specific crashes in building active transportation. Then, the CMF for the reduction in all crashes was also averaged across project categories to find the reduction in all crashes for certain active transportation implementation. To estimate (CMF) of each type of project, various CMF's were aggregated based upon whichever project category they fell into. These were then averaged along to get the most possible value for the reduction of crashes. For example the bike and pedestrian crash CMF's which were averaged for bicycle infrastructure only were taken from the installation of a bike lane (.86), installation of a bike boulevard (.37), installation of bike infrastructure (.27), installation of signalized intersection bike lanes (.63), addition of green colored pavement markings for bike conflict areas (.61). These average out to a bike and pedestrian crash CMF of .55. This was done for all the project types coming out to the following bike and pedestrian crash CMF's. This along with the CMF's for all crashes can be seen in Table 12 below.

Table 12: CMF's for Crash Type and Project Type

Active Transportation Project Type	CMF of All Crashes	Bike/Ped Crash CMF
Bicycle infrastructure only	0.72	.55
Off street multi-use trails	1.00	.45
On-street bicycle and pedestrian facilities (without road construction)	0.78	.50

²¹ <http://www.cmfclearinghouse.org/>

²² <https://safety.fhwa.dot.gov/provencountermeasures/>

Pedestrian Infrastructure Only	0.79	.45
Road infrastructure with bicycle and pedestrian facilities	0.70	.41
Road infrastructure with pedestrian facilities	0.72	.43

Development of Estimated Cost of Construction

An estimated cost of construction was developed for various bicycle and pedestrian infrastructure options. Cost of construction for six generic facility types were developed including:

- Bicycle infrastructure only
- Off street multi-use trails
- On-street bicycle and pedestrian facilities (without road construction)
- Pedestrian Infrastructure Only
- Road infrastructure with bicycle and pedestrian facilities
- Road infrastructure with pedestrian facilities

Table 13 describes the six options explored and the combination of bicycle, pedestrian, and road components involved. Figure 3 through Figure 6 show typical sections and layouts of the components of each infrastructure option.

Table 13: Bicycle and Pedestrian Infrastructure Option Components

Infrastructure Option	Pedestrian	Bicycle	Road	Side Roads/ Crossings	Reference Figures
Bicycle Infrastructure Only	N/A	On-street, conventional 6 ft bike lanes in both directions; No buffer	Pavement Marking on existing pavement	N/A	Figure 3
Off-Street Multi-Use Trails	10 ft wide trail		N/A	1 enhanced crossing per mile	Figure 4
On-Street Bicycle & Pedestrian Facilities	5 ft sidewalk on both sides of street	On-street, conventional 6 ft bike lanes in both directions; No buffer	Pavement Marking on existing pavement	1 sideroad w/ complete pedestrian crossings per ¼ mile	Figure 3, Figure 5
Pedestrian Infrastructure Only	5 ft sidewalk on both sides of street	N/A	N/A	1 sideroad w/ complete pedestrian crossings per ¼ mile	Figure 5
Road Infrastructure w/ Bicycle & Pedestrian Facilities	5 ft sidewalk on both sides of street	On-street, conventional 6 ft bike lanes in both directions; No buffer	New 3-lane road with curb & gutter, 48 ft pavement width	1 sideroad w/ complete pedestrian crossings per mile	Figure 6
Road Infrastructure w/ Pedestrian Facilities	5 ft sidewalk on both sides of street	N/A	New 3-lane road with curb & gutter, 36 ft pavement width	1 sideroad w/ complete pedestrian crossings per mile	Figure 5

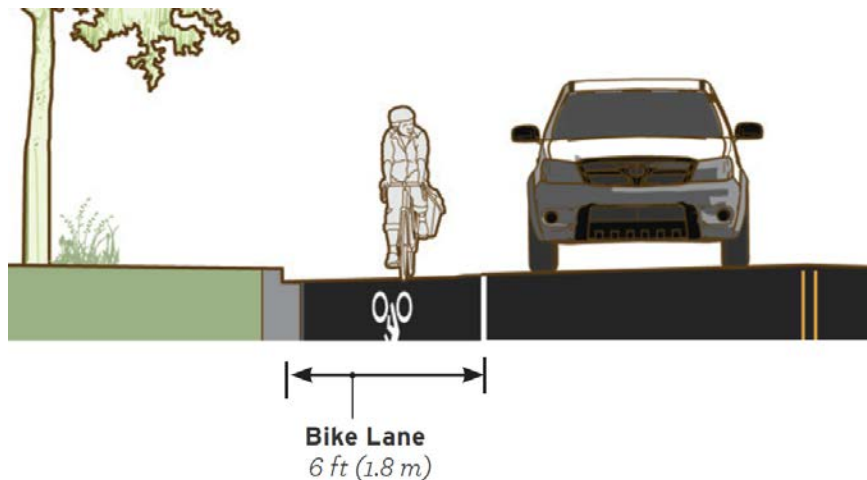


Figure 3 – Bicycle Infrastructure Typical Section

(Source: *Small Town and Rural Multimodal Networks, FHWA Report*)

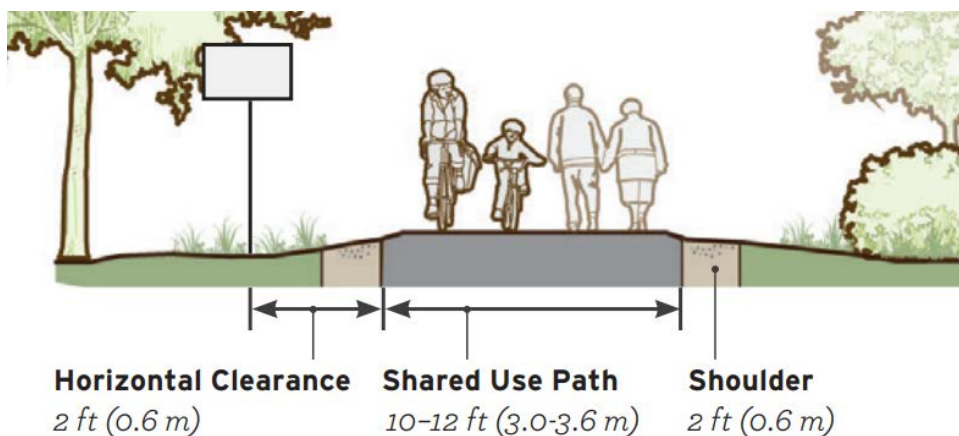


Figure 4 – Off-Street Multi-Use Trails Typical Section

(Source: *Small Town and Rural Multimodal Networks, FHWA Report*)

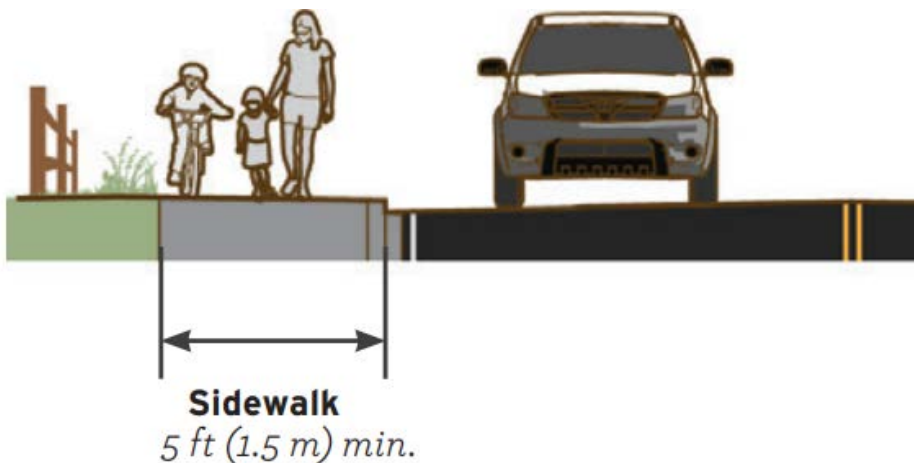


Figure 5 – Pedestrian Infrastructure Typical Section

(Source: *Small Town and Rural Multimodal Networks, FHWA Report*)

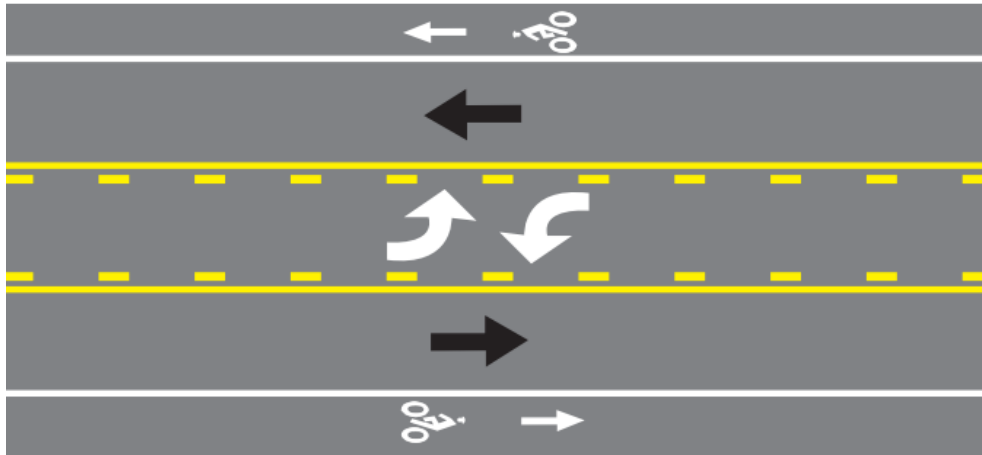


Figure 6 – Three-Lane Road with Bike Lanes Typical Section

(Source: [AASHTO Guide for Development of Bicycle Facilities, 4th Edition](#))

Table 14 summarizes the estimated cost of construction per mile for the various infrastructure options. These “planning level” cost estimates assumed roadway, signing, and pavement marking at unit price per area, while mobilization, seeding, erosion control, and Maintenance of Traffic (MOT) costs at lump sum prices based on percentages of total project cost.²³ The cost estimates are for the cost of construction only and do not included costs for design engineering, utility relocations, right of way acquisition or construction contract administration and inspection. Detailed cost estimate tables can be found in the Appendix.

Table 14: Estimated Cost of Construction by Option

Infrastructure Option	Estimated Cost of Construction
Bicycle Infrastructure Only	\$90,000 *
Off-Street Multi-Use Trails	\$420,000 *
On-Street Bicycle and Pedestrian Facilities	\$460,000 *
Pedestrian Infrastructure Only	\$310,000 *
Road Infrastructure with Bicycle and Pedestrian Facilities	\$3.3 million **
Road Infrastructure with Pedestrian Facilities	\$2.7 million **

Planning level construction costs rounded to the nearest \$10,000 & \$100,000***

²³ The estimated costs of construction are based on WSP USA's professional experience and judgment and shall be deemed to represent the company's opinion. WSP has no control over the cost of labor, material, equipment, and other relevant factors that could influence the ultimate construction costs. Thus, our company does not guarantee that proposals, bids, or the actual facility cost will be the same as the estimate of construction cost or that construction costs will not vary from its opinions of probable cost. Costs for design, right-of-way, coordination, or construction oversight are not included in any of the following cost estimates.

Economic Baseline Analysis

Once the Benefit-Cost Toolkit economic model was developed, it was utilized to create an economic baseline analysis for the State of Kansas. This baseline analysis estimated the benefits of all active transportation in the state in 2021 dollars. The benefits were developed based on inputting estimates of active transportation users, active transportation facilities, events/tourists, and retail sales on a state-wide level. The following sections highlight what data was utilized and input into the model and the results from each benefit class.

Tourism/Events Benefits

Tourism/Events benefits were based on spending attributed to tourism in areas of the state where active transportation events are attracting visitors. This included both residents of Kansas and visitors from outside the state. Elements explored for the tourism benefit included direct expenditures on lodging, food, equipment rentals, transportation to the sites, and other potential indirect and induced benefits from those expenditures. Events included organized bike rides or races, trail rides, foot races, and other activities focused on active transportation.

A tally of all running and bike races in Kansas completed or planned was found for the year of 2021. This was done using various online databases to find the times of participants, location of the race, date of the race, length of the race, and the registration fee. Using finishing results made it possible to determine the number of runners or cyclists a given race had. Many race results also included the hometown of the participants which made it possible to get a rough estimate of any out of state tourists, by taking a sample of around 25 visitors per event over 267 events, and seeing how many in that sample were out of state. For races which did not include hometown information, an estimated percentage of out of state was given based on similar races (similar distance, location, price, etc.) It was found that for both bike and running races, the longer and more expensive a race was the higher the out of state proportion. Overall, it was found that many of the largest active transportation events such as the Garmin Unbound provide large benefits to the communities in which they are held, bringing in thousands of participants to often small communities.

The total number of estimated tourists, both overnight and day trip was estimated based on this tally of events. It was estimated that approximately 12,000 overnight tourists and 46,000 day trip tourists spread over 250 events in Kansas annually.

In addition to the tourism based on events in Kansas, the Kansas Department of Wildlife and Parks completed an economic impact analysis for the Kansas State Parks in 2021. This analysis surveyed over 8,000 visitors to State Parks in Kansas in 2020 to gauge visit purpose and spending habits of these visitors. This analysis determined that between 2015 – 2019 there were an average of 58,600 annual visitors to Kansas State Parks who visited specifically for active transportation (hiking or biking) purposes. Those visitors stayed an average of 2.2 nights.²⁴ These visitors were added to the event tourists.

²⁴ <https://ksoutdoors.com/content/download/54370/594916/file/ks-state-parks-impact-study.pdf>

The total benefit of the tourism/events in the state (in 2021 dollars) includes:

- Annual Spending by Tourists: \$31,488,000
- Annual Income for Kansas Residents: \$15,873,000
- **Total Annual Tourism/Events Economic Output: \$42,553,400**

Retail Benefits

Retail benefits related to the direct sales of equipment related to active transportation. This category was related to the number of retail stores focused on the sales of active transportation equipment such as bike shops, outdoor recreation stores, and running stores. The retail benefit was quantified by both evaluating the presence of stores catering to the active transportation market and discussions with store owners to confirm staffing levels and indications on revenue generating trends.

Retail expenditures were calculated for bicyclists; it was assumed that pedestrians do not contribute significantly to retail expenditures relating to active transportation. To estimate retail expenditures, bicycle ridership demand was modeled based on Kansas' bicycle mode share data from the League of American Bicyclists²⁵ and usage estimates from FHWA.²⁶ Data on annual retail expenditures by bicyclists was gathered from UTA's report on active transportation. This data was used to estimate retail expenditures per mile of travel to calculate direct retail expenditures for bicyclists in Kansas. A multiplier was applied to direct expenditures to calculate the economic impact of retail spending.

The total benefit of the retail sales in the state (in 2021 dollars) includes:

- Annual Income for Kansas Residents: \$7,834,600
- **Total Annual Retail Economic Output: \$41,635,400**

Transportation Benefits

Transportation benefits were calculated based on benefits derived from utilizing active transportation. When people choose to walk or bike as opposed to driving a car, there are direct benefits in the form of safety, improved public health, improved air quality, reduced noise, and reduced roadway damage/maintenance. Transportation benefits were quantified based on a survey of academic and industry research covering, but not limited to, average active transportation trip length, induced active transportation trips attributed to various types of active transportation investments and proximity to residential, commercial, and retail, and reduced healthcare expenditures attributed to a more active lifestyle.

To quantify the statewide active transportation benefits, an estimate was made on the length of facilities and the number of people that are active transportation users in the state. To estimate the

²⁵ Report On 2017 American Community Survey Data by The League of American Bicyclists, https://bikeleague.org/sites/default/files/Where_We_Ride_2017_KM_0.pdf

²⁶ https://nhts.ornl.gov/assets/FHWA_NHTS_Brief_Bike%20Ped%20Travel_041520.pdf

length of facilities in the state, the facilities included in the Kansas Bicycle Map²⁷ were utilized. The length of facilities in the state are:

- Bike Paths (Trails/Shared-Use Paths): 1133 miles
- Bike Lanes (Conventional On-Street Bike Lanes): 190 miles

Although sidewalks are an important component of the active transportation network, there is no statewide data set showing where sidewalks currently exist. However, sidewalks are much more evenly distributed throughout the state than bicycle and trail facilities, and thus their economic benefits are more evenly applied based on pedestrian usage. Because of this, specific sidewalk benefits were not included in this analysis, but benefits of generalized pedestrian usage was. The facilities in the state along with the statewide average bicycle and pedestrian usage were input in the model to calculate the transportation benefits.

The total benefit of for transportation in the State of Kansas (in 2021 dollars) includes:

- Annual Economic Impact of Healthcare Expenditure Avoided Biking: \$3,871,900
- Annual Economic Impact of Healthcare Expenditure Avoided Walking: \$5,811,600
- Annual Value of Travel Time Savings: \$2,575,200
- Annual Vehicle Operating Cost Increases/Savings: \$2,282,800
- Annual State of Good Repair Cost Increases/Savings: \$9,600
- Annual Noise Cost Increases/Savings: \$7,100
- Annual Emission Impacts Costs/Savings: \$1,507,300
- Annual Change in Total Cycling Health Benefits: \$14,877,100
- Annual Change in Total Pedestrian Health Benefits: \$10,467,000
- Annual Crash Reduction for Bike/Ped: \$29,458,400
- **Total Annual Transportation Economic Benefit: \$70,868,000**

Facility Access Benefits

Facility Access benefits were calculated based on the proposed facilities integration with existing active transportation infrastructure, impact on property values and land use patterns within a certain proximity of the facility, and population levels within a certain proximity of the facility. Data was derived from existing active transportation infrastructure maps, property values from the county assessor's office, and socioeconomic information from Census information for Census tracts on or adjacent to the proposed facility.

To identify the Facility Access benefits, the primary benefit was calculated based on the proximity of residential housing units to trails in the state. Trails have well quantified benefits to increasing property value in the area adjacent to the trail. The trails from the Kansas Bike Map were utilized in GIS software to compare against US Census Bureau data on housing units within a 1/4 mile buffer of these facilities. It was determined that approximately 94,500 housing units were in this buffer and the average housing unit cost of Kansas is \$93,200. Using this data, multipliers were applied to determine that property

²⁷ <https://ksdot.maps.arcgis.com/apps/webappviewer/index.html?id=486dcbaac91f4618ab03bb1add3567f0>

values in the state had likely seen an increase of \$464,346,400 based on past trail construction. This is not an on-going benefit because it is considered a one-time property value increase at the time of trail construction. However, this property value increase has an annual monetized benefit in terms of increased property tax collection. This annual property tax collection increase was calculated as \$7,494,300.

The total benefit of for Facility Access in the State of Kansas (in 2021 dollars) includes:

- Annual Additional Tax Levied: \$7,494,300
- **Total Annual Facility Access Economic Benefit: \$7,494,308**
- **One-time property value increase (not annual): \$464,346,400**

Total Benefits Summary

Combining all of the four primary benefit classes, the total annual benefit was calculated. The total benefit of for active transportation in the State of Kansas (in 2021 dollars) includes:

- Total Annual Tourism/Events Economic Benefits: \$42,553,400
- Total Annual Retail Economic Benefits: \$41,635,400
- Total Annual Transportation Economic Benefits: \$70,868,000
- Total Annual Facility Access Economic Benefits: \$7,494,300
- **Total Annual Economic Benefits: \$162,551,100**

Conclusion

Active transportation is an important factor to consider for economic growth and investment. Investing in active transportation creates opportunities for people to exercise, for increased tourism, and for lower greenhouse emissions. Further, active transportation facilities are most vital in low-income and minority communities. Individuals in those communities are less likely to own cars, and streets might pose a barrier to using active transportation. Active transportation provides a great benefit to the state of Kansas and is borne out in the data found in the active transportation plan.

This study has shown that active transportation in Kansas leads to over \$162 million in annual economic benefit to the state. The study has also provided a Benefit-Cost Toolkit that can be utilized by any agency in the state to estimate economic benefits and calculate benefit-to-cost ratios for contemplated projects. This toolkit will help agencies continue to select, plan, and prioritize projects that will increase the economic benefit that active transportation provides to the state. A user guide for the Benefit-Cost Toolkit is included in the appendix of this report.

Appendix B – Detailed Cost Estimate Tables

Project #1: Bicycle infrastructure only - Typical conventional bike lane or buffered bike lane-- mostly paint and guide posts with some signing				
-6' Conventional Bike Lanes in both directions. Separated from motor traffic by Solid White Lane Line				
-Bike Lane Pavement Marking Symbol and Signs posted at 500' intervals				
-Assuming pavement existing, no new road construction				
BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION STAKING	1	Lump Sum	\$2,500.00	\$2,500.00
MOBILIZATION	1	Lump Sum	\$4,900.00	\$4,900.00
CLEARING AND GRUBBING	1	Lump Sum	\$2,500.00	\$2,500.00
PAVEMENT MARKING ITEMS:				
PAVEMENT MARKING LANE LINES	10,560	Lin. Ft.	\$2.50	\$26,400.00
PAVEMENT MARKING SYMBOLS	22	Each	\$500.00	\$11,000.00
SIGNING (STANDARD)	22	Each	\$500.00	\$11,000.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$2,500.00	\$2,500.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$2,500.00	\$2,500.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$4,900.00	\$4,900.00
			Sub-Total	\$68,200.00
		CONTINGENCY	30%	\$20,460.00
			PROJECT #1 TOTAL CONSTRUCTION COST	\$88,660.00

Project #2: Off street multi-use trails - 10' wide trail				
-new asphalt pavement, 2' gravel shoulders				
-broken centerline striping				
-1 quality mid-block crossing				
BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION STAKING	1	Lump Sum	\$7,300.00	\$7,300.00
MOBILIZATION	1	Lump Sum	\$14,600.00	\$14,600.00
CLEARING AND GRUBBING	1	Lump Sum	\$29,200.00	\$29,200.00
EARTHWORK (EXCAVATION, GRADING, EMBANKMENT & COMPACTION)	1	Lump Sum	\$90,000.00	\$90,000.00

ROAD ITEMS:				
SIDEWALK RAMP	2	Each	\$3,000.00	\$6,000.00
FLASHING BEACON SYSTEM	1	Each	\$35,000.00	\$35,000.00
ASPHALT SURFACING ITEMS:				
HMA PAVEMENT (12") (A70)	1,956	Sq. Yd.	\$45.00	\$88,000.00
AGGREGATE SHOULDER (AS-1)	782	Sq. Yd.	\$10.00	\$7,822.22
PAVEMENT MARKING ITEMS:				
24" PAVEMENT MARKING LINES	10	Lin. Ft.	\$20.00	\$200.00
PAVEMENT MARKING LANE LINES	1,320	Lin. Ft.	\$5.00	\$6,600.00
PAVEMENT MARKING SYMBOLS		Each	\$500.00	\$0.00
SIGNING (STANDARD)	4	Each	\$500.00	\$2,000.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$14,600.00	\$14,600.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$14,600.00	\$14,600.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$7,300.00	\$7,300.00
			Sub-Total	\$323,222.22
		CONTINGENCY	30%	\$96,970.00
			PROJECT #2 TOTAL CONSTRUCTION COST	\$420,190.00

Project #3: On-street bicycle and pedestrian facilities (without road construction) - combination of bike infrastructure + pedestrian infrastructure

-6' Conventional Bike Lanes in both directions. Separated from motor traffic by Solid White Lane Line

-assuming 2-lane side road at 1/4 mile intervals, unsignalized

-Bike Lane Pavement Marking Symbol and Signs posted at every intersection

-5' sidewalks in both directions

BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION STAKING	1	Lump Sum	\$11,600.00	\$11,600.00
MOBILIZATION	1	Lump Sum	\$23,200.00	\$23,200.00
CLEARING AND GRUBBING	1	Lump Sum	\$11,600.00	\$11,600.00
EARTHWORK (EXCAVATION, GRADING, EMBANKMENT & COMPACTION)	1	Lump Sum	\$30,000.00	\$30,000.00
ROAD ITEMS:				
SIDEWALK CONSTRUCTION (4") (AE)	1,920	Sq. Yd.	\$50.00	\$96,000.00
SIDEWALK RAMP	16	Each	\$3,000.00	\$48,000.00

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PAVEMENT MARKING ITEMS:				
24" PAVEMENT MARKING LINES	1,032	Lin. Ft.	\$20.00	\$20,640.00
PAVEMENT MARKING LANE LINES	10,240	Lin. Ft.	\$5.00	\$51,200.00
PAVEMENT MARKING SYMBOLS	16	Each	\$500.00	\$8,000.00
SIGNING (STANDARD)	16	Each	\$500.00	\$8,000.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$11,600.00	\$11,600.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$11,600.00	\$11,600.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$23,200.00	\$23,200.00
			Sub-Total	\$354,640.00
			CONTINGENCY	30%
				\$106,390.00
				PROJECT #3 TOTAL CONSTRUCTION COST
				\$461,030.00

Project #4: Pedestrian infrastructure only - 5' wide sidewalks on both sides of the street with 4 high quality crossings per mile				
-assuming 2-lane side road at 1/4 mile intervals, unsignalized				
-5' sidewalks in both directions				
BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION STAKING	1	Lump Sum	\$8,300.00	\$8,300.00
MOBILIZATION	1	Lump Sum	\$16,500.00	\$16,500.00
CLEARING AND GRUBBING	1	Lump Sum	\$8,300.00	\$8,300.00
EARTHWORK (EXCAVATION, GRADING, EMBANKMENT & COMPACTION)	1	Lump Sum	\$8,300.00	\$8,300.00
ROAD ITEMS:				
SIDEWALK CONSTRUCTION (4") (AE)	1,920	Sq. Yd.	\$50.00	\$96,000.00
SIDEWALK RAMP	16	Each	\$3,000.00	\$48,000.00
PAVEMENT MARKING ITEMS:				
24" PAVEMENT MARKING LINES	1,032	Lin. Ft.	\$20.00	\$20,640.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$8,300.00	\$8,300.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$8,300.00	\$8,300.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$16,500.00	\$16,500.00
			Sub-Total	\$239,140.00
			CONTINGENCY	30%
				\$71,740.00
				PROJECT #1 TOTAL CONSTRUCTION COST
				\$310,880.00

Project #5: Road infrastructure with bicycle and pedestrian facilities - 3-lane road with bike lanes/sidewalks				
-6' Conventional Bike Lanes in both directions. Separated from motor traffic by Solid White Lane Line				
-assuming unsignalized intersection beginning and of mile				
-5' sidewalks in both directions				
BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION STAKING	1	Lump Sum	\$75,800.00	\$75,800.00
MOBILIZATION	1	Lump Sum	\$151,500.00	\$151,500.00
CLEARING AND GRUBBING	1	Lump Sum	\$75,800.00	\$75,800.00
EARTHWORK (EXCAVATION, GRADING, EMBANKMENT & COMPACTION)	1	Lump Sum	\$450,000.00	\$450,000.00
ROAD ITEMS:				
CURB AND GUTTER, COMBINED (TYPE 1 or 2) (AE)	10,560	Lin. Ft.	\$35.00	\$369,600.00
SIDEWALK CONSTRUCTION (4") (AE)	1,956	Sq. Yd.	\$50.00	\$97,777.78
SIDEWALK RAMP	8	Each	\$3,000.00	\$24,000.00
CONCRETE SURFACING ITEMS:				
CONCRETE PAVEMENT (9" UNIFORM) (AE)	9,387	Sq. Yd.	\$65.00	\$610,133.33
AGGREGATE BASE (AB-3) (6")	9,387	Sq. Yd.	\$25.00	\$234,666.67
PAVEMENT MARKING ITEMS:				
PAVEMENT MARKING LANE LINES	23,760	Lin. Ft.	\$5.00	\$118,800.00
PAVEMENT MARKING SYMBOLS	60	Each	\$500.00	\$30,000.00
SIGNING (STANDARD)	60	Each	\$500.00	\$30,000.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$75,800.00	\$75,800.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$75,800.00	\$75,800.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$151,500.00	\$151,500.00
			Sub-Total	\$2,571,177.78
		CONTINGENCY	30%	\$771,350.00
			PROJECT #1 TOTAL CONSTRUCTION COST	\$3,342,530.00

Project #6: Road infrastructure with pedestrian facilities - 3-lane road with sidewalks				
-assuming unsignalized intersection beginning and of mile				
-5' sidewalks in both directions				
BID ITEM	QUANTITY	UNIT	UNIT PRICE	EXTENSION
CONTRACTOR CONSTRUCTION				
STAKING	1	Lump Sum	\$60,700.00	\$60,700.00
MOBILIZATION	1	Lump Sum	\$121,400.00	\$121,400.00
CLEARING AND GRUBBING	1	Lump Sum	\$60,700.00	\$60,700.00
EARTHWORK (EXCAVATION, GRADING, EMBANKMENT & COMPACTION)	1	Lump Sum	\$338,000.00	\$338,000.00
ROAD ITEMS:				
CURB AND GUTTER, COMBINED (TYPE 1 or 2) (AE)	10,560	Lin. Ft.	\$35.00	\$369,600.00
SIDEWALK CONSTRUCTION (4") (AE)	1,956	Sq. Yd.	\$50.00	\$97,777.78
SIDEWALK RAMP	8	Each	\$3,000.00	\$24,000.00
CONCRETE SURFACING ITEMS:				
CONCRETE PAVEMENT (9" UNIFORM) (AE)	7,040	Sq. Yd.	\$65.00	\$457,600.00
AGGREGATE BASE (AB-3) (6")	7,040	Sq. Yd.	\$25.00	\$176,000.00
PAVEMENT MARKING ITEMS:				
PAVEMENT MARKING LANE LINES	13,200	Lin. Ft.	\$5.00	\$66,000.00
PAVEMENT MARKING SYMBOLS	30	Each	\$500.00	\$15,000.00
SIGNING (STANDARD)	15	Each	\$500.00	\$7,500.00
TEMPORARY EROSION CONTROL ITEMS	1	Lump Sum	\$60,700.00	\$60,700.00
PERMANENT SEEDING ITEMS	1	Lump Sum	\$60,700.00	\$60,700.00
MAINTENANCE OF TRAFFIC & TRAFFIC CONTROL	1	Lump Sum	\$121,400.00	\$121,400.00
			Sub-Total	\$2,037,077.78
		CONTINGENCY	30%	\$611,120.00
			PROJECT #1 TOTAL CONSTRUCTION COST	\$2,648,200.00

Appendix C – Kansas Active Transportation Events

Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Hangover Half Marathon & 5K	El Dorado	1/1/2021	13.1 M/5K	32	10%	3.2
Run	Run In the New Year 5K	El Dorado	1/1/2021	5K	13	9%	1.17
Run	Run The Neuf!	Newton	1/8/2021	2M/9K	145	20%	29
Run	Hangover Half Marathon	Overland Park	1/10/2021	13.1M/10K	186	35%	65.1
Run	Topeka to Auburn Half Marathon	Auburn	1/16/2021	13.1M	103	10%	10.3
Bike	Annual Bicycle Cancerthon	Leavenworth	1/30/2021	6 hours			0
Run	Kickoff 5K	Leawood	2/7/2021	5K	299	48%	143.52
Run	DS Sweetheart 10K/5K	Overland Park	2/13/2021	10K/5K	171	10%	17.1
Run	Wichita Sweetheart Run 5K	Wichita	2/14/2021	10K/5K	28	5%	1.4
Run	Polar Strut 5K - Emporia	Emporia	2/20/2021	5K	10	10%	1
Run	Not 4 Wimps Race	Derby	2/21/2021	13.1M/10M/10k	201	10%	20.1

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Punisher Trail Race	Randolph	2/27/2021	5K/10K	65	5%	3.25
Run	Polar Strut 5K - Kansas City	Kansas City	2/27/2021	5k	23	10%	2.3
Run	Polar Strut 5K - Haysville	Haysville	2/27/2021	5k	9	11%	0.99
Run	Cookie Run 5K	Overland Park	3/6/2021	5K	335	40%	134
Run	Shamrock Shuffle 5K	Haysville	3/6/2021	5K	81	5%	4.05
Run	Dust Bowl Marathon Series - Day 4	Ulysses	3/8/2021	26.2M/1 3.1M	100	92%	92
Run	Wichita St Patrick's 5K	Wichita	3/13/2021	5K	396	8%	31.68
Run	Run4Hope Timberrun	Leon	3/13/2021	1M/5K	12	5%	0.6
Bike	Spring Fling Criterium Series Race #1 – Permitted	Lawrence	13-Mar-21	Various	81	30%	24.3
Run	St Patrick's 5K	Leawood	3/14/2021	5k	260	40%	104
Run	DS St Patrick's Day 5K	Junction City	3/14/2021	5K		5%	0
Run	Leprechaun Lane KC	Shawnee	3/20/2021	5K/10K	168	50%	84
Bike	Spring Fling	Lawrence	20-Mar-21	Various	127	35%	44.45

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	Criterion Series Race #2– Permitted						
Run	Prairie Spirit Trail Ultra Races	Ottowa	3/27/2021	100M/50 M/100K/ 50K	311	70%	217.7
Bike	Spring Fling Criterion Series Race #3– Permitted	Lawrence	27-Mar-21	Various	142	35%	49.7
Run	Easter Egg 5K/10K	Overland Park	4/3/2021	5K/10K	393	35%	137.55
Run	Wichita Easter Egg 5K & Lil' Bunny Fun Run	Wichita	4/3/2021	5K/10K	122	10%	12.2
Run	Rockin K Trail Runs	Ellworth	4/3/2021	50M/26. 2M	68	25%	17
Bike	Spring Fling Criterion Series Race #4– Permitted	Lawrence	3-Apr-21	Various	162	33%	53.46
Run	El Dorado Half Marathon	El Dorado	4/10/2021	13.1M/5 K	209	10%	20.9
Run	Clean Water 5K	Wichita	4/10/2021	5K	116	5%	5.8
Run	Tonganoxie XC School 2 School	Tonganoxie	4/10/2021	5K	108	10%	10.8

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	Memorial 5K						
Run	GEAK5	Douglas County	4/10/2021	5K	98	5%	4.9
Run	GEM 5K: Heather Swinger	Haysville	4/10/2021	5K		5%	0
Run	Outrun Childhood Obesity	Garden City	4/10/2021	13.1M/2M/10K/5K		8%	0
Run	Arboretum 2 Mile	Lawrence	4/11/2021	2M	35	5%	1.75
Run	Westward Ho! 5K & Fun Run	Lawrence	4/17/2021	5K/1K	149	8%	11.92
Run	Superhero Fun Run	Concordia	4/17/2021	10K/5K/2M	140	5%	7
Run	Flint Hills 50 and Marathon	Manhattan	4/17/2021	50M/26.2M	87	40%	34.8
Run	Run Baby Run	Liberal	4/17/2021	10K/5K/1M	0	5%	0
Run	Noah's Bandage Run	Overland Park	4/18/2021	5K	633	40%	253.2
Run	704 Blue Run	Olathe	4/24/2021	7M/5K	133	15%	19.95
Run	Making an Impact 5K	Coffeyville	4/24/2021	5K	58	5%	2.9
Run	T-Bird Trot	Benton	4/24/2021	5K	57	5%	2.85
Bike	Open Range Gravel Race	Pratt	4/24/2021	200km/100km	210	60%	126
Run	Kansas City Corporate	Shawnee	5/1/2021	5K	600		0

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	Challenge - 5K						
Run	Tower 2 Tower 5K	Lenexa	5/1/2021	5K	346	20%	69.2
Run	Autism Society of the Heartland 5K	Kansas City	5/1/2021	5K/1K	96	40%	38.4
Run	Step Up for KIDS 5K	Wichita	5/1/2021	5K	75	10%	7.5
Run	PEO Race for the Stars	Abilene	5/1/2021	1M/5K	21	5%	1.05
Run	Community Access Center 5K	Independence	5/1/2021	5K	19	5%	0.95
Run	JWS Hope Epilepsy Walk and 5K	Manhattan	5/1/2021	5K		5%	0
Run	TK5K	Topeka	5/1/2021	5K		5%	0
Bike	2021 Chisholm Trail Bike Ride	Newton	5/1/2021	56M/46M/32M			0
Run	Prairie Fire Spring Half Marathon	Wichita	5/2/2021	13.1M/5K	1270	5%	63.5
Run	Healthy Kids Running Series - Wichita	Wichita	5/2/2021	.25/.5/1M		5%	0

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Nativity Knight Flight	Leawood	5/6/2021	1M/5K	30	12%	3.6
Run	Running with the Cows	Bucyrus	5/8/2021	13.1M/5K	1859	45%	836.55
Run	HP3 at Heritage Park	Olathe	5/8/2021	15K/10K/5K	327	20%	65.4
Run	Run2Believe 5K	Maize	5/8/2021	5K	137	5%	6.85
Run	Wildcat Warrior 5K	Manhattan	5/8/2021	5K	33	5%	1.65
Run	Prairie Series Day 6 - KS	Hiawatha	5/14/2021	26.2M/13.1M/10K/5K	38	90%	34.2
Run	Kansas City Corporate Challenge - Half Marathon	Shawnee	5/15/2021	13.1M	230		0
Run	MGA Triple Crown Showdown	Leawood	5/16/2021	5K	101	15%	15.15
Bike	Perry Dam Road Race – Permitted	Lawrence	16-May-21	Various	42	60%	25.2
Run	Bill Snyder Highway Half	Manhattan	5/22/2021	13.1M/5K	1162	5%	58.1
Run	Sunglasses Run 5K	Overland Park	5/22/2021	5k	439	28%	122.92
Run	Wine-O Trail Run	Winfield	5/22/2021	10K/5k	221	5%	11.05

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Minneola Community Day 5K	Minneola	5/22/2021	5K/1M	15	5%	0.75
Run	Beer Run Happy Basset Barrel House 5K	Topeka	5/22/2021	5K		10%	0
Run	Polar Strut 5K - Salina	Salina	5/22/2021	5k		5%	0
Run	Suicide Hill Trail Run	Little River	5/29/2021	10K/5k	64	10%	6.4
Run	Get Your Rear in Gear - Wichita	Wichita	5/30/2021	1M/5K	577	25%	144.25
Bike	Jesse Blancarte 10K Time Trial	New Century	5/30/2021	10k	71	33%	23.43
Run	Storm Chaser 5K	Ulysses	5/31/2021	5k	80	33%	26.4
Run	Opti Cares Memorial Day 5K	Wichita	5/31/2021	5k	56	5%	2.8
Run	5K Home Run	Lawrence	5/31/2021	5k		8%	0
Run	Big Run	Whitewater	6/2/2021	5K	20	5%	1
Bike	Unbound Gravel	Emporia	6/4/2021	25M/50M/100M/200M	2117	60%	1270.2
Run	River Run	Wichita	6/5/2021	2M/10k/5k	836	5%	41.8
Run	Donut Dash Fun Run	Oakley	6/5/2021	10k/5k/1M	111	10%	11.1

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Storm the Dam Trail Run	El Dorado	6/5/2021	13.1M/10K/5K	109	5%	5.45
Run	Spencer Family Memorial Walk Run Roll	Scott City	6/5/2021	1m/10k/5k	62	5%	3.1
Run	Riverless Festival Fun Run/Walk	Phillipsburg	6/5/2021	5k		5%	0
Bike	3 Feet Cycling SAG	Emporia	6/5/2021	200M/100M	155	30%	46.5
Run	Heroes for Hospice 5K	Overland Park	6/12/2021	5k	223	35%	78.05
Run	Strader Davies Memorial Run/Walk	Holton	6/12/2021	2M/5k	95	5%	4.75
Run	Free State Trail Run	Meriden	6/12/2021	40M/26.2M/13.1M/100K	87	35%	30.45
Run	Junebug Jog	Winfield	6/12/2021	1M/5k	69	5%	3.45
Run	Beer Run Manhattan Brewing Company 5K	Manhattan	6/19/2021	5k	43	5%	2.15
Run	Juneteeth ICT Wichita Athletics TC 2M Run	Wichita	6/19/2021	2M	21	5%	1.05

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Smallville 5K	Hutchinson	6/19/2021	1M/5K		5%	0
Run	Kansas Shrine Bowl Mine Run 5K	Hutchinson	6/26/2021	5k	115	5%	5.75
Run	Lenexa Freedom Run	Lenexa	7/3/2021	10k/5k	833	10%	83.3
Run	Stars & Stripes 5K - Overland Park	Overland Park	7/3/2021	5k	523	40%	209.2
Run	Freedom Run	Junction City	7/3/2021	10K/5K	361	32%	115.52
Run	Kansas Mennonite Relief Sale - Run for Relief 5K	Hutchinson	7/3/2021	5K	218	10%	21.8
Run	Wild West Fest 5K	Hays	7/3/2021	5k	149	5%	7.45
Run	Firecracker 5K	Galva	7/3/2021	5K	88	5%	4.4
Run	Wichita Stars & Stripes 5K	Wichita	7/4/2021	5k	483	16%	77.28
Run	Derby Firecracker Run	Derby	7/4/2021	4M/1M	387	10%	38.7
Bike	Maximum Effort Century	Sabetha	7/4/2021	63.2M	29	55%	15.95
Run	Waverly Ohio Days Run	Waverly	7/9/2021	1M/5k	84	5%	4.2
Bike	Heather's Ride	Wichita	7/9/2021	25M/50M/75M			0

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Gardner PD Law Dog 10K/5K	Gardner	7/10/2021	10k/5k	148	4%	5.92
Run	Sunflower State Games - Cauldron Run	Topeka	7/10/2021	10k/5k	92	15%	13.8
Run	Living Incredible 5K	Augusta	7/10/2021	1M/5K	78	5%	3.9
Run	Living Incredible 5K	Augusta	7/10/2021	1M/5K	78	5%	3.9
Run	Beer Run Fields & Ivy Brewery 5K	Lawrence	7/10/2021	5k	63	15%	9.45
Run	Run for the Paws	Wellington	7/10/2021	1M/5K	33	5%	1.65
Run	Dexter BBQ 5K/2M	Dexter	7/10/2021	2M/5k	30	5%	1.5
Run	Honey Badger 100M Ultra Road Race	Kingman	7/10/2021	100M	24	66%	15.84
Run	C.O.W. Fest 5K & 1 Mile Predict Race	Spearville	7/10/2021	1M/5K		5%	0
Bike	Waverly Ohio Days Family Fun Ride	Waverly	7/11/2021	5M/10M/20M	13	5%	0.65

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Bike	Lizard under the Skillet	Lawrence	7/15/2021	29M/41M/50M/62M			0
Bike	A Very Peculiar Criterium – Permitted	Kansas City	7/16/2021	Various	100	50%	50
Run	Diva Dash 5K - Overland Park	Overland Park	7/17/2021	5k	781	42%	328.02
Run	10-5-2 Prairie Run	Ft. Riley	7/17/2021	10M/5M/2M	242	8%	19.36
Run	Amelia Earhart Fun Run/Walk	Atchinson	7/17/2021	8k/2k	105	5%	5.25
Run	AHF Walk & Run 5K	Ellinwood	7/17/2021	5k	75	5%	3.75
Bike	Mowbray Metric/Storm the Castle	McPherson	7/17/2021	20M/40M/50M/32M	120	5%	6
Bike	6th Annual Leavenworth Metric Century	Leavenworth	7/17/2021	20M/36M/63M/65M	87	40%	34.8
Bike	Lenexa Moonlight Bike Ridge	Lenexa	7/17/2021	11m			0
Run	Midnight Run 5K/10K	Topeka	7/24/2021	5k/10k	322	24%	77.28
Run	You'll Never Run Alone 5K	Manhattan	7/24/2021	5k	289	5%	14.45

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Rodeo Run	Pretty Prairie	7/24/2021	13.1M/4 M/1M	115	5%	5.75
Run	River Rat 4 Mile	Lawrence	7/24/2021	4M	0	10%	0
Run	Spencer C. Duncan Make It Count 5K	New Century	7/31/2021	5k	794	25%	198.5
Run	Waldo McBurney Race	Quinter	7/31/2021	1M/10k/5k	91	5%	4.55
Bike	Sunflowers to Roses Bike Tour	Overland Park	8/1/2021	15M/34 M/62M	273	35%	95.55
Run	Haulin' Balls Run	El Dorado	8/7/2021	10K/5K/1K	54	5%	2.7
Run	Brew 2 Shoe 10K/5K	Manhattan	8/7/2021	1M/10K/5K	407	5%	20.35
Run	Haulin' Balls Run	El Dorado	8/7/2021	2M/10K	133	5%	6.65
Run	Miles for Mark	Olathe	8/7/2021	1.5M/5K	129	10%	12.9
Run	Picnic Run 5K	Tipton	8/7/2021	5K	87	5%	4.35
Run	Rodeo Run	Marquette	8/7/2021	1M/5k	54	5%	2.7
Run	Diva Dash 5K - Wichita	Wichita	8/14/2021	5K	422	5%	21.1
Run	Run for the Hills	Salina	8/14/2021	2M/5K	199	5%	9.95
Run	Cowboy UP 5K	Abilene	8/14/2021	5K	100	5%	5

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Arma VJ Homecoming 5K	Arma	8/14/2021	5k		4%	0
Run	Beer & Bagel - Kansas City	Bonner Springs	8/14/2021	4M		15%	0
Run	JW Tiger 5K	Meriden	8/14/2021	5K		5%	0
Run	Running Free	Johnson City	8/14/2021	5K		0%	0
Bike	Haddams Hounds Hundred		8/14/2021	100km/50km	49	55%	26.95
Run	BIGGSteps Kansas City	Overland Park	8/15/2021	10K/5K	286	6%	17.16
Run	Rexy Run	Lawrence	8/21/2021	10K/5K	350	5%	17.5
Run	Mulvane Old Settlers Road Race	Mulvane	8/21/2021	4M/1M	340	5%	17
Run	Party in the 060 5K	Haysville	8/21/2021	5k		5%	0
Run	Trot4Tots 5K	Topeka	8/21/2021	5k		5%	0
Bike	Flint Hills Trail Moonrise Bike Ride	Ottowa	8/21/2021	52M	104	30%	31.2
Run	Outpacing Melanoma 5K	Overland Park	8/22/2021	5k	882	15%	132.3
Run	Speedy PD 5K/10K	Manhattan	8/28/2021	10k/5k	474	5%	23.7

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Sunflower Trail Run	Buhler	8/28/2021	1M/5k	284	5%	14.2
Run	Tiblow Trot	Bonner Springs	8/28/2021	5M/5k/2k	165	8%	13.2
Run	CASA Superhero Run	Leavenworth	8/28/2021	5k	136	10%	13.6
Run	Beer Run Happy Basset Brewing Company 5K	Topeka	8/28/2021	5k		8%	0
Run	Bluestem PACE Race 5K	McPherson	8/28/2021	5k		0%	0
Run	Mullet Run	Winfield	8/28/2021	10K/5K		5%	0
Run	Sobriety Sprint	Wichita	8/28/2021	5k		5%	0
Bike	PedalFest	Wichita	8/28/2021	100k/50k /25k/5k	150	35%	52.5
Run	Head for the Cure 5K - Metro KC	Kansas City	8/29/2021	5k	165	5%	8.25
Run	Dream KCK - 5K and 10K	Kansas City	9/4/2021	10k/5k	117	30%	35.1
Run	FCA River Run	Wathena	9/4/2021	10k/5k	43	5%	2.15
Bike	Gorrilla Century	Pittsburg	9/4/2021	100M/62M/38M	202	70%	141.4
Bike	Atlanta Days Coram Deo Ride	Atlanta	9/4/2021	33M			0
Run	Leawood Rotary	Leawood	9/6/2021	5k	321	27%	86.67

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	Labor Day 5K						
Run	MAC 10M Labor Day Race	Hays	9/6/2021	10M	33	5%	1.65
Run	Helen Gold Run	Overland Park	9/11/2021	10k/5k	290	20%	58
Run	Hawk Hundred	Lawrence	9/11/2021	100M/50 M/26.2M	208	45%	93.6
Run	Steff Strong Run	Paola	9/11/2021	10k/5k	99	5%	4.95
Run	Pony Express Half Marathon & 5K	Marysville	9/11/2021	13.1M/5k	96	30%	28.8
Run	Danny J. Petersen 5K of Honor	Oskaloosa	9/11/2021	5k	55	5%	2.75
Run	Horsethief Canyon Trail Run	Marquette	9/11/2021	6.5M	55	5%	2.75
Run	Race to the Center Half Marathon	Smith Center	9/11/2021	13.1M	48	45%	21.6
Run	Patriots Run	Overland Park	9/11/2021	26.2M/1 3.1M/5k		25%	0
Run	Race for Freedom 5K	Wichita	9/11/2021	5k		8%	0
Run	Strollin' for the Colon 5K	Topeka	9/11/2021	5k		5%	0
Bike	Pony Express	Marysville	9/11/2021	120M	298	55%	163.9

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	120 Gravel Dash						
Bike	Bike MS: Flint Hills	Augusta	9/11/2021	100M/60 M/20M			0
Run	Heartland 5K	Wichita	9/12/2021	5k	73	5%	3.65
Bike	Summer Breeze Bicycle Tour	Kansas City	9/12/2021	5-100 Miles			0
Bike	Rutlader Gravel Fondo	Louisburg	9/15/2021	100k/50k /25k			0
Run	IrishFest 5K	Topeka	9/18/2021	5k	303	5%	15.15
Run	Prairie Pride 5K	Prairie Village	9/18/2021	1M/5k	268	5%	13.4
Run	Treehouse Labor Run	Wichita	9/18/2021	5k	60	6%	3.6
Run	Make a Joyful Noise 5K	Emporia	9/18/2021	5k	58	0%	0
Run	SHRC Glow Run 5K	Spring Hill	9/18/2021	5k		10%	0
Run	Tunes and Blooms 5K	Wichita	9/18/2021	5k		5%	0
Bike	Buffalo Bill Century Ride	Leavenworth	18-Sep-21	25M/50 M/60/10 0M	17	60%	10.2
Bike	Marmaton Massacre Festival	Fort Scott	9/18/2021	16M/7M	6	0%	0

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Bike	MCC Flatlander Bicycle Ride 2021	North Newton	9/18/2021	35M/45 M/65M	2	0%	0
Bike	Kaw Valley Bicycle Club 50th Anniversary Ride	Shawnee	9/18/2021	50M/31 M			0
Bike	KVBC 50th Anniversary Ride	Topeka	9/18/2021	31M/50 M/100M			0
Run	Paulina Cooper Dot to Dot 10K/5K	Overland Park	9/19/2021	10K/5K	471	40%	188.4
Run	Old Town 10K	Wichita	9/19/2021	10K	341	5%	17.05
Run	Konquer the Konza 25K & 10K	Manhattan	9/19/2021	25k/10k	304	5%	15.2
Bike	Lap the Lakes Gravel Grinder	Emporia	9/20/2021	20M/40 M/72M	250	10%	25
Run	C Clyde 5K and Midge's Mile	Riley County	9/25/2021	1M/5k	223	0%	0
Run	FlatRock 50K / 25K	Montgomery County	9/25/2021	50k/25k	178	35%	62.3
Run	Joggin for the Noggin	Atchison County	9/25/2021	5k/2k	92	5%	4.6
Run	KC Blind All-Stars	Wyandotte County	9/25/2021	5k	86	33%	28.38

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	Foundatio n 5K						
Run	Anytime Fitness 5K	Kansas City	9/25/2021	5k	62	0%	0
Run	Rome Sweet Home 5K	Shawnee County	9/25/2021	5k	48	5%	2.4
Run	Winged Foot Fast 5K/10K	Shawnee County	9/25/2021	5k	47	6%	2.82
Run	Kincaid Fair 5K	Anderson County	9/25/2021	5k	28	0%	0
Run	Farm K	Johnson County	9/25/2021	1M/5k	0	10%	0
Bike	Bike MS: Kansas City	Olathe	9/25/2021	100M/74 M/20M	702	15%	105.3
Run	Autumn Adventure KC	Johnson County	9/26/2021	10k/5k	82	15%	12.3
Run	Louisburg Cider Run	Louisburg	10/2/2021	10k/5k	542	5%	27.1
Run	Oktoberfest Run for the Poor 5K	Wichita	10/2/2021	1M/5k	524	5%	26.2
Run	No One Fights Alone 5K	Paola	10/2/2021	5k	209	24%	50.16
Run	Run For Paws 5K	Olathe	10/2/2021	5k	73	5%	3.65
Run	Merriam Drive Live 5K	Merriam	10/2/2021	5k		5%	0
Bike	The HEMI Gravel Race	Mulvane	10/2/2021	100M/50 M/25M	26	35%	9.1

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Bike	Take a Ride on the Wild Side	Kirwin	10/2/2021	6M/31M			0
Run	Victory Lap	Kansas City	10/3/2021	5k	57	60%	34.2
Run	Heartland	Cassoday	10/8/2021	125M		50%	0
Run	Run for the Roses	Rose Hill	10/8/2021	5k/1M	150	2%	3
Run	De Soto Half Marathon	De Soto	10/8/2021	13.1/5k	102	35%	35.7
Run	Heartland	Cassoday	10/9/2021	100M/50M/26.2M/100K		50%	0
Run	Jared Coones Memorial Pumpkin 5K	Olathe	10/9/2021	5k	1899	5%	94.95
Run	Little Apple Marathon	Manhattan	10/9/2021	26.2M/13.1M/5k	411	40%	164.4
Run	Coronado Heights Run	Lindsborg	10/9/2021	2M/1M/15k/5k	241	8%	19.28
Run	Heartland	Cassoday	10/9/2021	100M/50M/26.2M	83	55%	45.65
Run	Heartland	Cassoday	10/9/2021	125M	15	60%	9
Run	Beer Run ExBEERiment Brewery 5K	Gardner	10/9/2021	5k		10%	0
Bike	Gravel Grinder National Champion	Lawrence	10/9/2021	25M/50M/100M	216	55%	118.8

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
	ship Gravelleur Raid						
Bike	Wild West Gravel Fest	Abilene	10/9/2021	50km/100km/200km	32	60%	19.2
Run	Prairie Fire Marathon	Wichita	10/10/2021	26.2M/13.1M/5k	2049	15%	307.35
Run	ZERO Prostate Cancer Run - Kansas City	Kansas City	10/10/2021	5k	414	35%	144.9
Run	JCCC Lace Up For Learning 5K	Overland Park	10/10/2021	5k	174	6%	10.44
Bike	Falun Classic	McPherson	10/10/2021	32M			0
Run	Pumpkin Run	Wichita	10/16/2021	5k/1k	539	5%	26.95
Run	Flatlander Half Marathon	Great Bend	10/16/2021	13.1M/10K/5K	101	20%	20.2
Run	OVERRUN Ovarian Cancer 5K	Overland Park	10/17/2021	1M/5k	784	25%	196
Run	Kansas Rails-to-Trails Extravaganza	Ottawa	10/23/2021	100M/100K/50M/26.2M/13.1M	351	66%	231.66
Run	Mileage Monsters 5K	Olathe	10/23/2021	5k	88	15%	13.2

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Neewollah 5K, 10K	Independence	10/23/2021	10k/5k	45	0%	0
Run	Grace Hill Wine Run 5K	Whitewater	10/30/2021	5K		8%	0
Run	Monster Dash 5K and Lil' Monsters Kids Run	Overland Park	10/30/2021	5k	346	15%	51.9
Run	Grace Hill Wine Run 5K	Whitewater	10/30/2021	5k		8%	0
Run	Trail & Treat 3K/5K Trail Run	Hutchinson	10/30/2021	5k/3k		0%	0
Run	Great 'Pupkin' Run	Overland Park	10/31/2021	1M/5k	85	10%	8.5
Run	Lexi's 5K	Wichita	10/31/2021	1M/5k		0%	0
Run	Garmin Marathon - In the Land of Oz	Olathe	11/6/2021	26.2M/13.1M/10k	2151	30%	645.3
Run	Gralon Rhys 5K - Race for Hope	Shawnee	11/6/2021	1M/5k	110	15%	16.5
Run	Tails on the Trail 5K	Topeka	11/6/2021	5k	91	5%	4.55
Run	FreedomFest Run	Emporia	11/6/2021	12M/10k/5k	52	0%	0

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	Gobbler Grind	Overland Park	11/7/2021	26.2M/1 3.1M/10k /5k	1204	15%	180.6
Run	Who Let The Dogs Out 5K	Wichita	11/7/2021	1M/5k	173	5%	8.65
Bike	Chicken Creek Gravel Ride	Lawrence	11/7/2021	40M			0
Run	KUS 6/12/24 Hour Run	Wichita	11/12/2021	24H	24	40%	9.6
Run	KUS 6/12/24 Hour Run	Wichita	11/13/2021	12H/6H	39	60%	23.4
Run	Kansas Half Marathon	Lawrence	11/14/2021	13.1M/5k	757	20%	151.4
Run	KU Vets Day 5K	Lawrence	11/14/2021	5k	411	66%	271.26
Run	Wichita Turket Trot	Wichita	11/18/2021	2M/10k	2035	5%	101.75
Run	Frosty Fun Runs	Salina	11/20/2021	1M/5k	486	5%	24.3
Run	Winter Wonderland 5K	Topeka	11/20/2021	5k	218	5%	10.9
Run	Lagerhead Marathon and Half	Ottawa	11/20/2021	26.2M/1 3.1M	96	5%	4.8
Run	Girls on the Run 5K	Wichita	11/21/2021			N/A	0
Run	Thanksgiving Day 5K	Overland Park	11/25/2021		2137	30%	641.1

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Type	Name	City	Date	Distance	Estimated Attendance	Estimated Out of State Attendance	Number of Tourists
Run	runLawrence Thanksgiving 5K	Lawrence	11/25/2021		1012	16%	161.92
Run	Talk 2 Me 5K/10K	Prairie Village	11/28/2021		39	10%	3.9
Run	Ugly Sweater 5K Run & Little Dashers Run	Wichita	12/4/2021		130	5%	6.5
Run	Great Santa Run 5K	Overland Park	12/12/2021		918	10%	91.8
Bike	Biking Across Kansas		June 11-18 2021	501M	900	10%	90