Economic Impact of the 2021 Wyoming International Climbers' Festival

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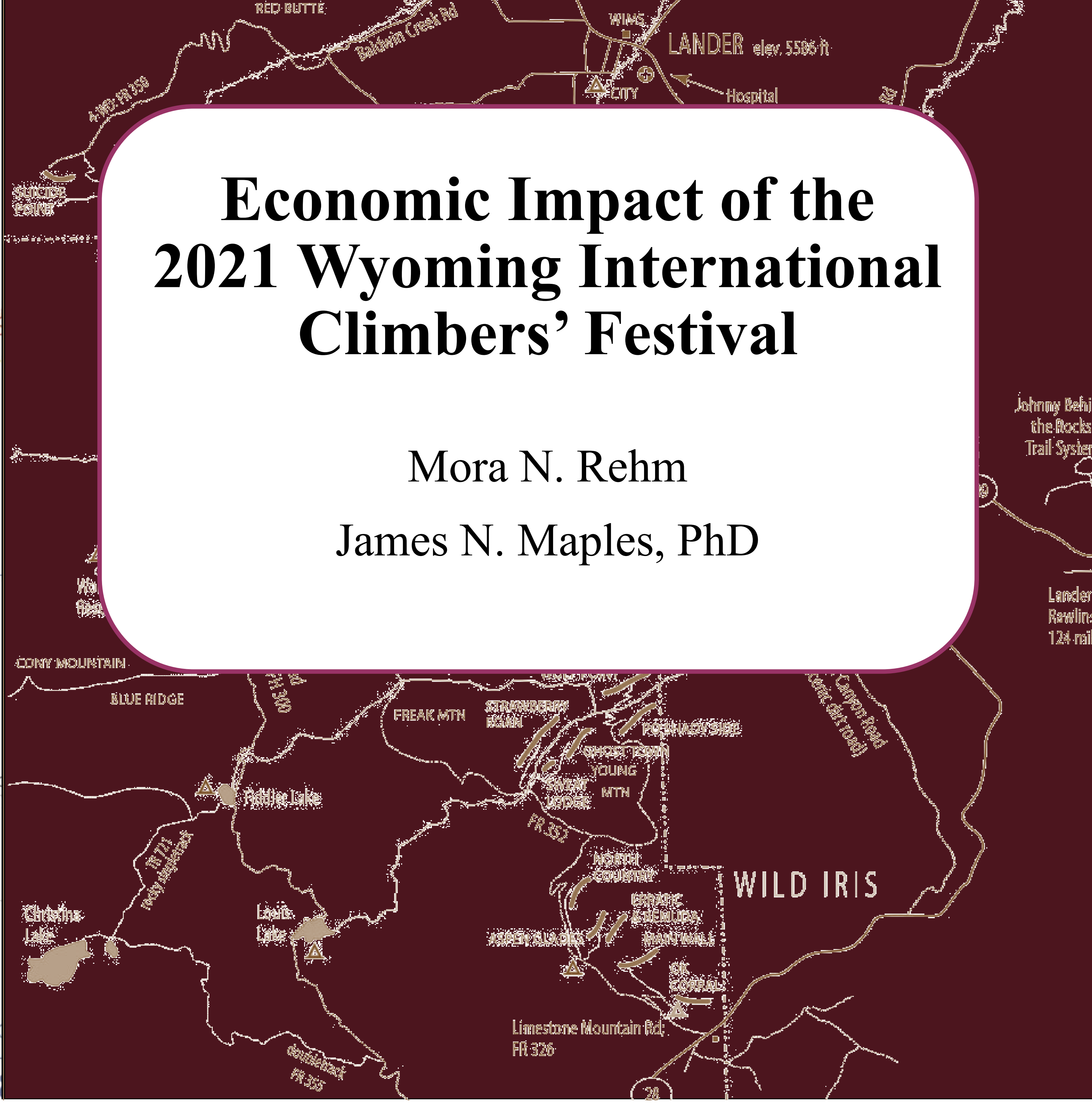

Executive Summary

- EKU'S Division of Regional Economic Assessment and Modeling (DREAM) conducted an economic impact study of visiting climber expenditures in attendance of the Wyoming International Climbers' Festival in 2021.

- The researchers estimate that visitors to the Wyoming International Climbers' Festival (ICF) spent a total of $149,307.

- Climber expenditures support approximately $45,000 in local wages (labor income) and supported local employees.

- Attending climbers are well-educated with 45% holding a bachelor degree and another 25% holding advanced degrees.

- For repeat attendees of the ICF, climber expenditures were marginally impacted by COVID-19 with just under one fifth (19%) indicating a decrease in spending compared to previous years.

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Meet Your Research Team

Mora N. Rehm is the Student Lead Researcher of the Division of Regional Economic Assessment and Modeling (DREAM) at Eastern Kentucky University. Mora is a senior Honors student and sociology major; her research is centered on social justice and community equity.

Dr. James Maples is an Associate Professor of Sociology and Director of the Division of Regional Economic Assessment and Modeling (DREAM) at Eastern Kentucky University. His research agenda examines rural economies in transition with a focus on utilizing outdoor recreation as a sustainable base of economic growth.

Methodology

Study Purpose

This study examined the economic impact, participant experiences, satisfaction, and demographics of climbers visiting the Wyoming International Climber's Festival (ICF) in the Lander region of Wyoming.

Study Area

The Lander Region of Wyoming includes the Lander Front and all of its canyons: Wild Iris, the Wind River Mountains, and Sweetwater Rocks.

Held in Lander, the Wyoming ICF celebrates the community of climbing. It is the longest-running climbers' festival in the world and has stayed true to its grassroots origins: from its start by locals in 1994 to the creation of a nonprofit Central Wyoming Climbers' Alliance (CWCA) in 2014, the ICF provides a place for climbers from all regions of the world to gather and celebrate the climbing community. Event revenues are used to support regional youth climbing programs, public lands and recreation advocacy, environmental stewardship, and climbing outreach activities.

Data Collection

This study used an online survey containing questions examining climber expenditures, event participation, and other measures relating to their travel and stay for attending the 2021 ICF. This survey is available upon request. Variables are summarized and described throughout the report by topic. Data were collected from July 2021 to August 2021. In all, 85 persons initiated and completed the survey past the consent page. Responses are included up to the point a respondent stopped taking the survey.

Data Cleaning

Data cleaning is required specifically for the economic impact variables to ensure conservative, reliable estimates. These include the following common methodological steps of excluding persons with abnormal stays (operationalized as three standard deviations from the mean, here over 14 nights, which is 6 cases), groups with eight or more persons (0 cases), and persons living in the study area (7 cases). Note these responses are included in the remainder of the study.

Participant Demographics and Experiences

Demographics

Table One summarizes four of the demographic variables of interest in the survey. Most of the variables (excluding age and first year of climbing) are dichotomously coded, which means a one equals the presence of the trait being studied and a zero equals the absence of this trait. The mean results can therefore be interpreted as percentages. Age and first year of climbing are summarized as means.

40% of respondents indicated being female which is typical of most American climbing community studies. As has been found in other climbing studies, festival attendees/climbers are well-educated: 45% indicated having a college degree, while another 31% indicated having advanced degrees. Additionally, 15% of respondents are currently enrolled in college. Most climbers in the study reported incomes of $50k or greater, with one in four indicating six figure personal incomes.

The average attendee age was 34. Note that persons under the age of 18 did not qualify to participate in this study, which certainly impacts this variable. Attendees on average held over a decade of climbing experience with the mean first year climbing being 2008. Finally, 14% respondents reported ever bringing a dog to a climbing crag.

Participant Experiences

Table Two describes festival participants' experiences, including group size, prior attendance, and satisfaction. Group sizes were typically small with a mean of 2 persons and a maximum of 7. Interestingly, two thirds of responding participants had attended an ICF before; a further average describes that the 2021 ICF was these repeat attendee's fourth visit. Satisfaction is remarkably high, noted in the Table below at a 4.46 rating of a 5-point scale, wherein 5 is maximum satisfaction.

Participant Demographics and Experiences

Table One: Participant Demographics

Variable	N	Min	Max	Mean	SD
Respondent Sex (1=Female, 0=Male)	77	0	1	0.40	0.49
Respondent age	78	18	68	34.06	12.17
Respondent's first year climbing	78	1961	2020	2008.29	11.36
Currently enrolled in College	78	0	1	0.15	0.36
Has Bachelor's College degree	78	0	1	0.44	0.50
Has Advanced degree	78	0	1	0.30	0.46
Personal income greater than $50K	75	0	1	0.50	0.50
Personal income greater than $99K	75	0	1	0.25	0.43
Has ever brought a dog to climbing crag	73	0	1	0.14	0.34

Table Two: Participant Experience

Variable	N	Min	Max	Mean	SD
Number of people in group attending ICF	78	1	7	1.69	1.08
Respondent has attended ICF before	35	0	1	0.65	0.48
Number of times attended:	23	2	8	3.35	1.64
Overall Satisfaction (1=low, 5=high)	78	3	5	4.46	0.61

Visitor Expenditures: Conference Experience

Participant Expenditures Related to Conference Experience

Table Three summarizes climber expenditure patterns both within and outside of the Lander Region during the ICF, specifically retail purchases and event-related purchases. Additionally, these tables include data regarding changes in spending due to covid-19 for prior attendees as well as a value estimation of 'money-hours' from the Volunteer Project service.

Retail: Climbers spend around $21 on general retail purchases at stores like Wal Mart or a Dollar General within the Lander region. Additionally, climbers spend around $27 per trip on climbing gear. When compared to retail purchases outside of Lander, these numbers drop significantly to $0.35 and $1.37, respectively. Recall also that retail expenditures are capped at their respective cut points to reduce the chance of inflating estimates.

Services: While guides, shuttles, and rental gear options do exist, they are rarely used by climbers, particularly when considering the setting of a climbing-specific festival and the population demographics indicating highly experienced climbers. Further, zero respondents indicated utilizing climbing guide services in Lander during their stay and no taxi services were used by local or visiting respondents. Further, climbers are likely to reuse gear or share gear, leading to purchases rather than rentals. Only three cases of rental gear were reported, and all three were excluded during data cleaning as being atypical results. Thus no summary statistic is reported for rental gear.

Table Three: Participant Expenditures Relating to Conference Experience

Variable	N	Min	Max	Mean	SD
Retail Climbing Gear purchases in Lander	79	0	200	26.84	51.70
Outside of Lander Region	78	0	27	0.35	3.057
Other Retail purchases in Lander	78	0	208	21.59	42.80
Outside of Lander Region	78	0	57	1.37	7.56
Rental Climbing Gear	78	-	-	-	-
Climbing Guide Services in Lander	77	0	0	0	0

Visitor Expenditures: Events and Volunteer Time

Visitor Expenditures:

Using an online survey of attendees, the researchers examined visitor expenditures across several facets, which can be seen below in Table Four. These are detailed in the coming tables before analyzing these findings in IMPLAN.

Events:

The ICF hosted an Art Crawl, Trade Fair, and a Farmer's Market with 600 attendees. Spending patterns were investigated in this survey for each festival event, which are shown below. To provide greater accuracy, these statistics are detailed as expenditure trends for all survey respondents in Table Three (A), and as figures representing average spending for those who did attend each festival event in Table Three (B). Mean spending at each festival event is as followed: Art Crawl: $24.30; Trade Fair: $13.87; and the Farmer's Market: $2.33. This can be compared to the highest average spending at an event was at the Art Crawl, where respondents who participated in these festival events indicated average spending of $56. This figure is followed by spending averages at the Trade Fair of $41.52, and at the Farmer's Market of just under $20.

Volunteer Service:

Volunteer service is a meaningful contribution towards bettering communities. In the personal dedication of time, talent, and energy, volunteers' service work is incredibly valuable. Though performed for no compensation, it is estimated that, as of 2021, each hour of volunteer service is equivalent to $28.51 in wages (University of Maryland Do Good Institute, 2021). Statistics collected through participant surveys indicate an average of 4.4 hours served and therefore an average individual contributive value of $125.44. Participation in the service project was not factored into economic impact estimates, but was valuable to mention.

Table Four: Participant Conference Expenditures and Volunteer Time

Variable	N	Min	Max	Mean	SD
Spending at Art Crawl (mean for all attendees)	77	0	130	$24.30	34.33
Spending at Trade Fair (mean for all attendees)	76	0	100	$13.87	22.74
Spending at Farmer's Market (mean for all attendees)	76	0	30	$2.33	6.20
Spending at Art Crawl (participated in this event)	36	10	150	$56.14	35.50
Spending at Trade Fair (participated in this event)	29	5	150	$41.52	30.43
Spending at Farmer's Market (participated in this event)	14	5	50	$19.79	14.72
Hours served in volunteer project (valued at $28.51/hr) (not analyzed in economic impact	5	4	5	$4.40	0.54

Visitor Expenditures: Travel and Stay

Participant Expenditures Related to Travel and Lodging

Table Five examines climber expenditure patterns both within Lander Region during the ICF.

Lodging estimates represent only persons staying overnight during their visit as they are from outside the Lander region (which is approximately 90% of visitors). Climbers largely used hotels for this event, spending an average of $52.77 on their lodging. The researchers also ran these estimates to exclude zero-expenditure cases and provide a comparison. In the few cases that indicated lodging expenses, climbers choosing to stay in hotels spend an average of $89.34 (rather than $52.77) per visit on their trip, while those camping spend an average of $1.89 (rather than $8) on their trip.

Other expenditures included gasoline, food purchases, and retail purchases. On average, attendees spent $43.77 on gasoline inside the study area as a result of their visit. Additionally, respondents spent $7.43 at fast food restaurants and $68.59 at dine in restaurants (restaurants including wait staff). In comparison, climbers spend around $8 per trip on food from gas stations and convenience stores and $35 per trip on groceries at local grocery stores.

Table Five: Participant Travel and Stay Expenditures within Lander Region

Variable	N	Min	Max	Mean	SD
Length of Stay	67	1	14	4.57	2.518
Lodging: Hotel	78	0	750	$52.77	153.38
Lodging: Campgrounds	78	0	20	$0.45	2.813
Lodging: Rental cabin or house	79	-	-	-	-
Fast food	79	0	50	$7.43	13.37
Dine-in restaurants	79	0	300	$68.59	80.21
Groceries	79	0	200	$35.89	51.19
Gas station food and drink purchases	79	0	50	$7.77	13.52
Gasoline	79	0	150	$43.77	38.87
Taxis and Shuttles	79	-	-	-	-

Economic Impact: Terminology

In the coming pages, the research team employs IMPLAN, a leading economic impact estimator, to create economic impact estimates for what visiting climbers contributed to the Lander region's economy during the ICF. IMPLAN (Impacts for Planning) uses input-output modeling to establish economic impact by exploring what happens when climbers spend money in specific sectors (such as food, lodging, and retail). The analysis follows approaches used in prior peer-reviewed research and Forest Service studies. The researchers are conscious in ensuring the resulting economic impact results are conservative and valuable to the Lander community. Recall that cases with disproportionately long stays or large group sizes (greater than eight) have been excluded and instances of unusually high expenditures have been listed as missing data.

In the following paragraph, the researchers use three terms to describe economic impact: direct effect, indirect effect, and induced effect. Direct effect is the economic result created by the money spent as a result of visitors being present in the study area. This direct effect can generate further change in the local economy via indirect and induced effects. Indirect effect is economic activity created when local businesses purchase goods and services from other local industries to support their business operations as a result of the initial direct effect. For example, indirect effect could include a local restaurant buying vegetables to create future meals for sale. Finally, induced effect is the estimated expenditures by local households and employees as a result of the initial direct impact. For example, a local restaurant employee may choose to spend his/her wages at another local business, creating additional rounds of local economic activity as the initial money spent multiplies throughout the study area.

These three terms can also be further divided by their employment impact in the region, value added to the local economy, and output. Labor income impact is measured by the estimated labor income (for employees and proprietors) created by the economic activity in the region. Labor income impact is a conservative estimate of economic impact and is the approach highlighted in this report. Value added indicates the true economic wealth added to the local economy after subtracting the cost of inputs needed to conduct everyday business. Value added includes expenditures in profit, employment compensation, and taxes. Finally, output is value added plus total revenues and sales from economic activity.

Economic Impact Summary

Table Six summarizes the economic impact of the ICF in the study area. The below estimates examine mean expenditures and visits to the Lander region. Again, note these results exclude persons who live inside any of the study area counties, as local resident expenditures are not considered new expenditures inside a study area because they already exist inside the economy. For reference purposes, mean festival expenditures within the Lander region are presented in Table Five. Note this estimate excludes eight percent of attendees as persons living in the study area. The estimate also does not attempt to model the expenditures of organizing and hosting the event or the expenditures of vendors at the event.

Based on attendance of 600 people and mean expenditures from this study, the research team estimates the ICF generates **$149,307.18 in visitor expenditures**. Table Six highlights what occurs when these funds are spent inside the study area in terms of labor income, value added, and output. Focusing on labor income (the most conservative measure of economic impact of the three listed), **visitors to the ICF generated an estimated $45,064.84 dollars in labor incom**e inside the study area.

Climber expenditures also produce taxes at the local, state, and federal level as summarized in Table Seven. In all, climbers' estimated expenditures supported $7789.91 in local/state taxes and $10847.44 in federal taxes.

Table Six: Economic Impact Summary

	Labor Income	Value Added	Output
Direct	$32,726.56	$49,582.95	$95,639.00
Indirect	$6,992.41	$11,989.82	$28,083.64
Induced	$5,345.87	$11,127.44	$20,758.46
TOTAL	$45,064.84	$72,700.21	$144,481.11

Table Seven: Taxes Generated

	County	State	Federal	Total
Direct	$799.85	$5,140.06	$7,859.08	$15,520.19
Indirect	$100.56	$677.06	$1,641.61	$2,634.90
Induced	$146.64	$925.74	$1,346.75	$2,734.87
Total	$1,047.05	$6,742.86	$10,847.44	$20,889.96

Expenditures Beyond Study Area

Visitors to the ICF also create expenditures outside of Fremont County while traveling to the area to attend this event. Table Eight summarizes those expenditures.

The most common expenditure travelling into the study area is gasoline ($17.73). This is a common finding for events of this kind, as people travel to the area most often via their cars. This generally includes a quick stop for snacks at a gas station ($2.60 on average per person), fast food like McDonald's ($2.39) and/or a dine in restaurant ($3.62). Few stopped for groceries, with the average expenditure being less than $1. Instead (as indicated in the previous expenditure table), attendees were more apt to purchase groceries inside the study area.

Visitors almost certainly chose to stay in Lander and/or Fremont County versus the surrounding area. No lodging expenditures were reported outside Fremont County for this festival.

Table Eight: Participant Travel and Stay Expenditures Outside of the Lander Region

Variable	N	Min	Max	Mean	SD
Lodging: Hotel	79	-	-	-	-
Lodging: Campgrounds	78	-	-	-	-
Lodging: Rental cabin or house	79	-	-	-	-
Fast food	79	0	30	$2.39	7.31
Dine-in restaurants	78	0	50	$3.62	11.11
Groceries	78	0	45	$0.83	5.54
Gas station food and drink purchases	78	0	30	$2.60	7.03
Fuel	78	0	180	$17.73	38.02
Taxis and Shuttles	78	-	-	-	-

Contact Information for Future Studies

EKU's Division of Regional Economic Assessment and Modeling (DREAM) offers valuable research studies at a reasonable price across the nation. These include:

- Economic impact studies
- Feasibility studies
- Visitor experience studies
- Marketing studies
- Needs assessments
- Recreation studies
- Tourism studies
- Cost-benefit analyses
- Place-attachment studies
- Motivation studies

Please contact DREAM Director, Dr. James Maples (james.maples@eku.edu) with questions or ideas regarding studies needed in your community and region.