

Full Narrative Report:
Sub-recipient 23-01-10

Economic Analysis of COVID-19 for Western North Carolina
Center for the Study of Free Enterprise

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Final Report:
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“North Carolina’s Prospects for COVID-19 Economic Recovery: Top-Down and Bottom-up Assessments” By Emma Blair Fedison and Edward J. Lopez	
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Outline of Economic Grant Proposal to Survey Citizens, Businesses, and Officials on Economic Development By Edward J. Lopez	

Report Overview:

This report summarizes the research activities, findings, and ongoing work under the funded project. Full details are enclosed as three Appendices, each corresponding to the three parts of the funded research proposal. A total of seven Western Carolina University personnel were paid from this award, consisting of three faculty and four research assistants. Of the funded \$109,878, we report eligible expenditures of \$102,944.33 and unspent funds of \$6,933.67. We provide a list of media hits, which total nine news stories and interviews to date.

Report of Research Part 1: The Economic Impact of the Closure of Western Carolina University on the Economy of Western North Carolina

Research Team:

Inhyuck “Steve” Ha, Professor of Economics (Investigator)

Natalie Chait, Student Worker (Research Assistant)

Proposed work:

Part 1 of the project proposed an economic impact study to measure the dollars and jobs of economic activity lost due to the partial closure of WCU in March 2020. The investigators planned to collect a wide variety of financial and employment data from the university, define the geographic market of WCU in order to understand the extent of the economic influence in the region, and test a number of geographic definitions to comprehend how widely the university, its visitors and students spend money in the region.

Findings:

Using spending by WCU students as a major input, the investigators measured the degree to which the economies of Jackson and Buncombe Counties were affected by the pandemic – in terms of both lost revenue and taxes. A survey was conducted among 457 invited WCU students, asked to provide information on their WCU enrollment, monthly spending, employment, and recent residence. Most WCU students continued to live at home as they were prior to the pandemic and they remain enrolled at WCU. While 41% of respondents did not suffer negative effects related to their jobs, about a third lost their jobs or saw their hours reduced. Another 13% lost jobs, but found new jobs. At the same time, respondents saw their monthly expenses increase about 14%, or \$341 a month. The largest cause of the increase was around housing where they spent about \$195.97 more a month. The survey was then combined with multiplier analysis to calculate estimates of job and tax revenue impacts.

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APPENDIX 1: “The Impact of the COVID-19 Pandemic on Western North Carolina: An Economic Analysis” by Inhyuck “Steve” Ha

Ongoing or future work:

None.

Report of Research Part 2: The Economic Impact of Covid-19 and North Carolina’s Response on the 23 Western Counties: A panel data and a synthetic control investigation

Research Team:

Sean E. Mulholland, Professor of Economics (Investigator)

Abigail Fairbrother, Student Worker (Research Assistant)

Jordan Fox, Student Worker (Research Assistant)

Proposed work:

Part 2 of the proposed work sought to investigate: 1) relative to the entire state of North Carolina and counties in the neighboring states of Georgia, South Carolina, and Tennessee, economic impact of Covid-19 and Governor Cooper's executive orders in 23 WNC counties, and; 2) what might future economic activity look like as Governor Cooper relaxes restrictions and residents utilize local businesses and services. The research design was to code executive orders and estimate economic impact by county.

Findings:

The research team also compared counties by COVID-19 death rates. The synthetic twin analysis was used to generate a timeline graph that compares each actual WNC county with their estimated twins. These patterns varied by counties. Many counties, such as Buncombe, Haywood, and Henderson, witnessed higher unemployment rates than they would have witnessed under looser restrictions enacted by neighboring governors. Moreover, the results suggest that Buncombe, Haywood, and Henderson would have also witnessed lower death rates from Covid-19 under those alternative orders. On the other hand, counties such as Alleghany, Ashe, and Yancey witnessed lower unemployment rates and lower Covid-19 death rates compared to alternatives. Further research is needed to why these patterns varied by county.

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APPENDIX 2: “The Economic Impact of Covid-19 and North Carolina’s Response on the 23 Western Counties: A panel data and a synthetic control investigation” by Sean E. Mulholland

Ongoing or future work:

The research team is in the process of completing the analysis and writing the findings and policy implications for academic publication and public distribution.

Report of Research Part 3: Economic Development in Rural Settings: Top-Down and Bottom-Up Approaches

Research Team:

Edward Lopez, Professor of Economics (Principal Investigator)

Ann Miller, WCU Alumna (Research Assistant)

Proposed work:

The research team proposed to present implications and further discussion of economic development policy in the unique context of WNC, as well as statewide. The determinants of economic development depend on the social and geographic contexts of regional economies. Since the Western North Carolina economy is integrated with the economies of upstate South Carolina, north Georgia, and Southeast Tennessee, we face unique circumstances when it comes to designing sound public policy to support economic development. The scholarly wisdom has shifted from tax incentives and large anchors, to a more ecological approach. The investigators aimed to compare and contrast the results of Chapters 1 and 2 against current policies, incorporating the latest results and direction of the literature on economic development in rural settings.

Findings:

The first major finding is that North Carolina entered the pandemic in relatively good condition to absorb the shock of the SARS-CoV-2 novel coronavirus. This finding is the result of a combined top-down and bottom-up assessment of fiscal health and economic health in the state, detailed in our study, published in early February, 2021, included below as APPENDIX 3.

The second finding is that the rural economic development literature is sparse and yields little insight into comparing the results in this report with policy questions. However, this literature does support the development of a new survey methodology for studying persistent questions in rural economic development.

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APPENDIX 3: "North Carolina's Prospects for COVID-19 Economic Recovery: Top-Down and Bottom-up Assessments," CSFE Issue Briefs, Vol. 3, No. 3, February 2021.

By Emma Blair Fedison and Edward J. Lopez

Ongoing or future work:

The research team is moving a grant proposal forward to develop the survey methodology and begin designing and administering it in WNC.

Report of Expenses Proposed and Actual:

	Proposed Expenditures	Actual Expenditures
STATA 16 MP 2-core (perpetual license)	\$550	\$1,180
Student STATA 16 IC (one-year) for 2 research assistants (\$94 each)	\$188	\$0
IMPLAN software including NC county-level data	\$5,100	\$5,099.15
Research Assistance: 3 Research Assistants (\$18 per hour × 10 hours per week × 26 weeks)	\$14,040	\$6,665.18
Faculty salary and Fringe Benefits	\$90,000	\$90,000
Total	\$109,878	\$102,944.33

Report of Additional Funding Awards or Proposals

Additional Proposal: Part 3 of the project has led to a follow-up research project to design, administer, and analyze a survey of citizens, businesses and officials regarding economic development priorities. This is a work in progress. The research team has not identified a potential funding agency to submit for consideration.

List of personnel paid under this award:

1. Edward Lopez, WCU professor of economics and CSFE Director
2. Inhyuck “Steve” Ha, WCU professor of economic and CSFE Faculty Affiliate
3. Sean Mulholland, WCU professor of economics and CSFE Associate Director
4. Natalie Chait, WCU undergraduate student and CSFE Research Assistant
5. Ann Miller, WCU alumna and CSFE Research Assistant
6. Abigail Fairbrother, WCU undergraduate student and CSFE Research Assistant
7. Jordan Fox, WCU undergraduate student and CSFE Research Assistant

List of news articles and other media attention:

1. Cantrell, G. (2021, February 3). CSFE examines state's prospects for economic recovery after pandemic. *WCU Stories*. ([Web link](#)).
2. Kokai, M. (2021, February 03). WCU's Edward Lopez discusses economic freedom and NC COVID-19 recovery. ([Web link](#)).
3. School examines state's prospects for economic recovery after pandemic. (2021, February 07). *The News Herald*. ([Web link](#)). Retrieved February 7, 2021, from
4. W. (2021, February 4). North Carolina's economy shows signs of recovery. *WMYA*. ([Web link](#)).
5. WCU center examines economic recovery after pandemic. (2021, February 4). *WCU Center Examines Economic Recovery after Pandemic*. ([Web link](#)).
6. WCU to study COVID's economic impact. (2020, September 20). *The Sylva Herald*. ([Web link](#)).
7. Western Carolina University – CSFE examines state's prospects for economic recovery after pandemic. (2021, February 3). *Brief Hot News*. ([Web link](#)).
8. Western Carolina University – CSFE examines state's prospects for economic recovery after pandemic. (2021, February 3). *VTS Finance*. ([Web link](#)).
9. Western Carolina University – CSFE examines state's prospects for economic recovery after pandemic. (2021, February 03). *Trade Learner*. ([Web link](#)).