Learning About Local Community through Undergraduate Research

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Project Overview

- This project describes the initiative undertaken by the Economics faculty at the University of Wisconsin-Superior (UW-S) to stimulate student interest in the local economy through data-based undergraduate research at the entry-level principle courses of Economics.
- Two courses research assignments and one student survey assessing students' learning outcomes were developed and implemented.
- All research assignments were developed to complement and reinforce the material learned in courses and all instructors use the same assignment(s).



Student Learning Outcomes

- Students will be able to apply their knowledge to understand how a local/regional economy works
- Students will be able to demonstrate critical thinking by integrating information from various sources and interpreting data on local/regional economy
- Students will be able to effectively communicate about their research, including oral and written format, and display of data using Excel
- Students will become informed and interested in the local/regional economy



Project Format

- Courses: Principles of Microeconomics, Principles of Macroeconomics
- Products: 2 undergraduate research assignments and student feedback form
- Grade: 10% of the course grade; based on data collection, analysis, and discussion
- Frequency: every semester



Microeconomics: Demand and Supply National vs Local

- Identify a good that a student buys daily/weekly/monthly
- Collect time-series data of average annual expenditure by a national consumer on the chosen good from the BLS website
- Collect time-series data of national annual retail sales of the chosen good from the U.S. Census Bureau website
- Collect data of average annual expenditure by local consumers on the chosen good through a survey of class members
- Collect data of local supply of the chosen good from the U.S. Census Bureau website

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Microeconomics: Demand and Supply National vs Local

<u>Analysis</u>

- Displaying data in table and trend line format using Excel
- Analysis of buyers' & sellers' behavior
- Comparative analysis of national and local data
- Application of economic theory to the analysis of national and local data



Macroeconomics: Learning local economic conditions and designing economic policies

- Study fifteen counties surrounding Lake Superior; an individual student/a group choose(s) the county of interest.
- Collect data on the macroeconomic conditions such as GDP growth of different sectors, unemployment, number of establishments, and average wage rates of the assigned county from publicly available data sources.
- Students are encouraged to conduct more research on the county's website and interview local people to learn more about a specific economic problem.



Macroeconomics: Learning local economic conditions and designing economic policies

Analysis:

- Display county data using Excel
- Identify at least one economic problem in the county using the evidence from the data and provide policy recommendations.
- Application of economic theory to the analysis of the county data
- Student presents the findings to the class



Student Prior Knowledge of Local/Regional Economy

On a scale of 0-10, prior to completing the UR, how knowledgeable you were about the local (Superior & Douglas County) economy?	All Principle Courses (% of Total Responses)
Lower Level of Prior Knowledge (0-5)	70.23%
Higher Level of Prior Knowledge (6-10)	29.77%



Student Survey Results

All Sections of Economics Principle Courses Fall 2019 - Spring 2021 (N = 262 completed surveys; 69% response rate; 82% response rate before the pandemic)	Strongly Agree and Agree (% of total responses)	Strongly Disagree and Disagree (% of total responses)
The assignment helped you to master the knowledge of economics terms, concepts, and theories.	77.96%	3.10%
The assignment enhanced your skill to apply your knowledge to understand how a local or regional economy works.	87.29%	1.16%



Student Survey Results

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The assignment raised your skills of collecting, processing, and interpreting data on local or regional economy.	90.41%	0.76%
The assignment raised your skills of displaying data on local or regional economy using Excel.	83.26%	4.17%
The assignment raised your knowledge about the local or regional economy.	86.27%	3.08%
The assignment raised your interest/curiosity about the local or regional economy.	65.73%	7.71%



Key Words from Student Comments



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Interpretation of Results and Areas for Improvement

- Integration of undergraduate research project into Economics principle courses was beneficial for student learning
- The undergraduate research projects are significantly supporting students' skills in collecting, processing, and interpreting data on the local or regional economy.
- Provide 'just enough' step-by-step guidance for every phase of the assignment
- Make assignments more writing-intensive



