



Learning About Local Community through Undergraduate Research

Praopan Pratoomchat, Ph.D. and Rubana Mahjabeen, Ph.D.
School of Business and Economics, University of Wisconsin-Superior

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. Since Fall 2019, all Economics faculty teaching Principles of Macroeconomics and Principles of Microeconomics have agreed to integrate research assignments on local/regional economy in all Economics principle course sections. All research assignments were developed to complement and reinforce the material learned in courses and all instructors use the same assignment(s). Through experiential/active learning experience, the project aims to raise student knowledge and interest in the local/regional economy. The research assignment will advance the Economics program learning outcomes and better prepare students for conducting research in upper-level Economics courses and future careers. At UW-S, Principles of Macroeconomics and Principles of Microeconomics are used as gateway courses for business and economics majors. As of Spring 2021, approximately 400 students (18 sections) have completed the developed assignments. Students taking Principles of Macroeconomics and Principles of Microeconomics get exposed to two undergraduate research assignments with a focus on local/regional economy. End-of-the-semester student surveys were utilized to capture student learning outcomes and feedback to developed assignments.

Due to the pandemic, during Fall 2020 and Spring 2021 the Economics courses were offered in the synchronous online format. The two research assignments were adjusted to the online delivery mode. The student survey response rate was very much affected.

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 Implementation

Literature Review:

- DeLoach, Stephen B; Perry-Sizemore, Elizabeth; Borg, Mary O. (2012). Creating quality undergraduate research programs in Economics: How, When, Where (and Why). American Economist, Vol. 57, Issue 1.
- Deegan, M., Gambino, G., and Borick, C. (2009). Connecting Students to their Community: A Public Research Model of Service, Council on Undergraduate Research Focus. 29(4), 18-22.

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

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%
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



Undergraduate Research Projects

Principles of 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

Analysis:

- 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

Principles of 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.

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

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

Corresponding Authors:

pratoom@uwsuper.edu; rmahjabe@uwsuper.edu