

Integrating Applied Field Work into the Undergraduate Economics Curriculum

Thomas Kemp

Abstract: This paper documents the development and implementation of an undergraduate research methods course incorporating field work. Conducted in collaboration between the UW-Eau Claire Department of Economics and local elected officials and county staff in Buffalo County, WI undergraduate students were assigned the task of developing and presenting initiating a county-wide economic redevelopment strategy during the Spring term 2018. Course specific learning goals included: Hard skills development (software usage, data acquisition and analysis, benchmarking, and survey design) and soft skills development (presentation of sensitive economic information to lay audiences and teamwork). Initial results suggest that field-based coursework improves student learning, student interest in economics, improve local economic performance, and may help to bridge the ‘Town versus Gown’ divide.

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Thomas Kemp
Department of Economics
PO Box 4004
University of Wisconsin – Eau Claire
105 Garfield Ave.
Eau Claire, WI 54702-4004
Phone: 715 836 2150
E-mail: kempta@uwec.edu

Thomas Kemp is Professor and Chair of Economics at the University of Wisconsin – Eau Claire in Eau Claire, Wisconsin.

Introduction

A modern take on J.R. Commons' 'Look and See' approach to economic analysis, the following paper describes the development, operational details, and educational outcomes associated with an experimental undergraduate economics course offered by the Department of Economics at the University of Wisconsin – Eau Claire (UWEC) during the Spring term 2018. At the time of writing the course is scheduled again for the Spring term 2019. This second offering will partner with a different community partner. It is the intent of the instructor to be able to offer this class on a regular basis – each time with a different community partner and with different research objectives. Both 2018 and 2019 classes were made open to all Economics majors and minors – first-year to fourth-year students – and limited to 20 students with special permission.

The University of Wisconsin – Eau Claire is a mid-sized public University (roughly 10,500 undergraduate students with a limited number of graduate programs). The Department of Economics is a standalone department within the College of Arts and Sciences. It has 9 economists on the faculty and staff with roughly 110 majors and another 30 minors – most of whom come from the College of Business. (The department has programs in both colleges.)

Preliminary Work

The breadth and scope project developed during a series of discussions with the Buffalo County, WI economic development committee (itself a subset of the membership of the County Board of Supervisors). The initial intent and goal of the discussions was to identify possible collaborations between the nearby University of Wisconsin – Eau Claire and the County. Initially, the thinking was that this work might take the form of faculty consulting activities that might benefit the community while also involving a student or two as assistants.

As meeting proceeded two themes emerged: First, a great concern about the slow decline of the counties' population, employment, and the number of new business startups. Second, there was great interest in the need to develop entrepreneurial attitudes in the local youth. Eventually it was decided the taking a group of students and having them study the geography, demographics, economy, and business climate would be a good way to get people interested in rural living and to build a better understanding of the economic challenges that rural communities face. In short, to take a group of students 'out into the field' and have them learn more about rural economies.

While the learning benefits of undergraduate research have been reasonably well established, most work has been on how to build traditional undergraduate research projects into the undergraduate curriculum (Conaway, et. Al. 2018; Simkins, Mahjabeen, and Mahmud 2016; Yamarik, 2007; Santos and Lavin 2004). While this is almost certainly a positive development it may not be able to resolve the reported uncertainty of economics students with regards to what they will be expected to do as an economist (Salemi and Siegfried 1999; Siegfried et. AL. 1991). Although there has been a significant growth and interest in undergraduate research in economics there has been virtually no work on the possibilities and practicalities of getting economics students ‘out in the field’ to conduct research.¹ As a result, the majority of the class organization and structure was based upon the author’s work experience as an economist outside academia. While this worked out reasonably well there are a few areas which will need to be improved in future offerings (see challenges below).

Buffalo County – Relevant Background

Buffalo County, WI is located in West central Wisconsin adjacent to the Mississippi River on its Southern border. It resides within a triangle formed by three significantly more populous areas – Minneapolis/St. Paul to the Northwest, Eau Claire, WI to the Northeast, and LaCrosse, WI to the Southeast. Its economy is primarily agricultural although the manufacturing and transportation sectors are also significant employers. The current US Census Bureau estimates the total population of Buffalo County to be slightly above 13,000 peoples. The Census of 2000 determined the population of the county to be around 13,800 peoples – meaning that the population has fallen roughly 6% over the last 18 years. Likewise, the 21% of the population that are under 18 years of age has fallen over the same time period while about 21% of peoples in the county are also over the age of 65 – a greater percentage that at the turn of the millennium. Like most other rural counties in the upper Midwest, Buffalo County contains an “aging population.”

The present median household income in Buffalo County is \$52,000 compared to a Wisconsin median of slightly over \$54,000. 75% of the housing units within the county are owner-occupied, with a median value of \$151,000. Throughout the state of Wisconsin, 67% of housing units are owner-occupied, with a median value of \$167,000. The poverty rate within Buffalo County is

10.5%, while the poverty rate of Wisconsin is 11.8%. As a result, the reason for out-migration is more complicated than people leaving the region in search of better economic conditions.

Constructing the Study/Outline of the Class

The course met twice weekly (3 contact hours) as a seminar. The students were seated around a large conference table with the professor at one end and a presentation screen (linked to a laptop) at the other. A typical class began with students – either individually or in groups – briefly reporting on their work (and any problems they encountered) assigned to them in an earlier class. A brief lecture was given by the instructor with each lecture covering: a) The specific economic questions that need to be answered, b) An introduction to the data or qualitative information that will be used to answer the question, and where applicable, c) the software that will be used to conduct the analysis. In the case of the latter this was generally at least the second time the students had seen the software used.ⁱⁱ Finally, before the end of class students were assigned specific tasks with specific objectives (individually or in groups as appropriate) to be due either the next class or within the next week.

Because the work had to fit within the span of a regular semester – Late January to Mid-May, 2018 in this case – the challenge of how to fit the analysis within the short time-span available and still provide meaningful content to Buffalo county supervisors and local decision makers. To bring the students ‘up-to-speed’ on the economic status of the county in a short period of time the first task was for the class to review the recent commissioned report authored by the UW – Extension entitled: “Buffalo County Economic Recovery Strategy” and the associated county demographic and economic data from all available sources.ⁱⁱⁱ

Once a basic level of knowledge about the county had been achieved students were broken into smaller groups to tackle specific aspects of the overall project. In order to gain familiarity with the county students were tasked with reporting upon the economic makeup of the county on a municipality-by-municipality basis. In addition to the aforementioned data sources students employed Wisconsin Department of Revenue data and google mapping software. The former was used to determine the land use patterns and tax base of the municipalities within the county. The latter was used to get a ‘bird’s eye’ view of the economic activity within the county. Students were asked to report their findings to the rest of the class. Through this the students became responsible

not only for their own learning but – in part -- the learning of others. In this way students were also able to learn a great deal about the county in a relatively short period of time. Roughly concurrent with the conclusion of this first part of the work, students verbally presented their preliminary findings to the County Board of Supervisors and requested affirmation on the direction of the work.

With about one-third of the course complete at this point the direction of the class switched to benchmarking with a smaller group working on entrepreneurial education. The class began the benchmarking process by reviewing the basic economic data (U.S. Census and Ag. Census) for all counties in the upper Midwest with populations between ten (10) and sixteen (16) thousand residents. From this list of well over 100 counties we began to weed out counties that, for one reason or another, were not useful or reasonable comparisons. From the shorter list the class was again broken into groups with each group charged with finding five (5) counties that they thought would serve as useful benchmarks. These groups were further tasked with presenting their rationale to the larger class. In this way, the entire class became familiar not only with Buffalo county but were able to identify patterns within the economic challenges faced by smaller, more rural counties. Finally, from those counties presented as possible benchmarks the class chose the list within this report to serve as the final points of comparison.

Concurrent with the benchmarking process the smaller group of students was tasked with: a) Investigating the current state of business and entrepreneurial education within the Buffalo County school district, b) investigating what resources are available for the Buffalo County entrepreneur, c) Completing the same (a and b) for Eau Claire county, d) Identifying online resources and lesson plans that might be used by the Buffalo County school district and continuing education providers at very low or zero costs, and e) making recommendations for how Eau Claire county resources might be delivered to Buffalo county at low or zero additional cost. This process involved students making calls and inquires to the school district, individual school and teacher.

Roughly two-thirds (2/3) of the way through the term students again shifted their work. To better understand how to match existing resources to areas of potential development the class learned how to use both the commercially available IMPLAN software and the freely available RIMS II database. This data and software taught the students how to identify both upstream suppliers and downstream demanders to and from existing industries within Buffalo County. Using these tools

in combination with the benchmarking process helped students to identify and test economic development possibilities within the county. Development opportunities identified included: The further development of ag tourism and niche ag, health clinics, niche retail and tourism, and commercial riverfront infrastructure.

An outline of the final report was developed by the instructor and individual sections of the report assigned to students based upon personal interest and capabilities. These individual reports were then edited and compiled into a final report. The work was separated into three sections that made up the final report. The first section reviewed the current economic industrial, commercial, industrial, agricultural and household data for the county. The second section gave a brief presentation along similar lines of the benchmarked counties – including a brief statement of the ‘lessons’ to be learned from each. The final section of the report presented what the class felt were the specific challenges faced by the County and identified several opportunities that were well suited to the current economic, sociological, and geographic nature of the County. This final section also included several resources that could be used to develop a ‘culture of entrepreneurship’ within both the formal and informal educational systems.

The final report (roughly 80 pages – available upon request) was submitted to the Buffalo County, WI Board of Supervisors and County economic development staff shortly after the end of the term in mid-May 2018. A short time afterwards (August 2018) several of the students from the class returned to give a final oral report to the Board of Supervisors.

Internal and External Course Objectives

The intent of and hopes for this work are many. First, and most importantly, to introduce students into a working environment similar to that of non-academic economists so that they might better know, ‘The way economists do’ to rephrase from the common introductory textbook line. In this process we hope teach them how to use conventional data sources, apply their economic and statistical reasoning to that data, and to present their findings (verbally and in writing) in a cogent and digestible manner. As has been reported elsewhere (source) we find that our student approach graduation of little idea about what they are expected to know and due upon graduation. This can lead to not knowing or insecurities about what types of jobs to apply for or even to not know about what careers are open to them.

Second, we hope to provide local and State decision makers with industrial, agricultural, and labor force data relevant to and within the context of economic and social policy choices. With this in mind we have put together data from a variety of sources that present an economic snapshot of the county, its demographics, business makeup, land use patterns including a more detailed analysis of its agricultural sector, and the tax implications of all of the above. Most of this data comes the U.S. Census and -- like all the data used in this study -- it is available for free to anybody. Data on the agricultural sector is drawn from the USDA Ag census. Additional data for these sections is drawn from the bureau of labor statistics (BLS) and the Wisconsin Department of Revenue (Wis DoR).

Third, we wished to benchmark present economic status and recent progress of Buffalo County, WI against other similar counties (in terms of geography and population). The rationale for this is straightforward: It is easy to think of economic develop in broad, abstract notions. It is also human nature to seek and admire the grass on the other side of the fence. Benchmarking allows us to look at other economic regions that are similar to better understand what the broader trends really are, what economics 'norms' look like for economies of a specific type, and to see how different policy choices are likely to play out within that specific economic context. Rural counties like Buffalo are not the same as more semi-urban counties like Eau Claire or wholly urban counties like Milwaukee. We should not expect policies that work in one place to necessarily work in other, very different, places.

Fourth, and finally we hope that this project represents a positive step in improving regional cooperation and understanding. In the final chapter of this study we have attempted to offer a handful of options that we believe are viable options or are at least worthy of further consideration for Buffalo County. Some of these will require some coordination across Western Wisconsin to maximize their effectiveness. Building a more entrepreneurial Wisconsin, for example, is something we would all benefit from. We look forward to these collaborations.

Outcomes and Challenges

Without exception student reported that they enjoyed the class and found it to be a useful learning experience. Of course, not everything was positive. A few of the student comments spoke to the

organizational difficulties of the class. (Indeed, it is clear that clear and specific controls need to be put into place to ensure that all students contribute to their potential.) Still, positive comment outweighed the negative by a wide margin and as of this writing, enrollment is strong for the Spring 2019 term course. In general, the students seemed to appreciate being able to make a positive contribution to their community. The comments below from the student evaluations are typical;

“...it [the course] engaged with a creative and unconventional pedagogy. I appreciate that this course created linkages with the ‘real world’ so that I can better understand how economics can be deployed to make the world a marginally better place.”

“Being responsible for projects that actual people depend on was very important for me.”

“The act of finding our own data to use...was a useful skill to continue developing”

Similarly, the outcomes from the community were generally positive. That said, the local elections held in the Spring of 2018 (April) meant that the Board of Supervisors we had begun the work with was significantly different the Board we finished the work with. The created some delays and misunderstanding about the nature of our work. Future efforts will put greater effort on ensuring stable community relations for the duration of the project. Still, in the end, County staff and elected officials appreciated the time and care students put into learning about the community and their efforts to uncover and suggest positive reforms. Several board members remarked favorably upon the work suggesting that policy actions based upon some of the recommendations would follow and offering to serve as references for the student presenters.

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Footnotes

ⁱ The only recent examples the author could locate is Henderson (2016) and Ziegert, A. L., and K. McGoldrick (2008). Going further back it is clear the fieldwork was once frequently employed by economists teaching within the original institutionalist tradition. (Commons, et. Al. 2000; Commons 1964, p 4-5, 46, and 128-130; Trepp 1939)

ⁱⁱ Several lectures were devoted solely to explaining software and it’s uses to students. This was done ahead of students being expected to use the software themselves. Examples of these included: Excel (advanced), IMPLAN (basic), and Eviews (basic to advanced). Similarly, there were lectures devoted completely to data presentation, working with public, and statistical reasoning (appropriate to the subject matter – e.g. problems with sampling in rural counties).

ⁱⁱⁱ A surprisingly large number of studies have been done either directly or indirectly related to the economic development potential of Buffalo County. In addition to the aforementioned UW-extension report (Not published but available upon request) two noteworthy recent studies are “Rising as a Region” published by the Mississippi River Regional Planning Commission (MRRPC) available online at http://www.mrrpc.com/Regional_Planning_and_Economic_Development_Survey.html and a shorter report published by www.economicmodeling.com and available free at the MRRPC website. In addition, the land use plans submitted by the municipalities provided background information for this study.