



ISSUES IN POLITICAL ECONOMY

Undergraduate Student Research in Economics

FORWARD

This year's publication of *Issues in Political Economy* has produced eight different papers of undergraduate research. Some authors have used sophisticated econometric tools such as a logistic regression while others analyzed theoretical argument in great depth. These papers have each shed important light upon new economic trends or vital questions of concern to both national and international economics and social policy.

In the journal's first paper, Olga Sorokina, Denison University, analyzes the salaries of college presidents at "highly selective private liberal arts colleges." She uses regression analyses to determine the impact of institutional performance on a president's salary. Using performance variables which include college tier, admissions selectivity, retention rate, and alumni giving rate, Sorokina hypothesizes that they will all, except college tier, have positive effects on the pay of college presidents. The college tier variable accounts for the differences between colleges in differing tiers. Tier one schools, she hypothesizes, will have a positive effect on pay and tier three schools will have a negative effect on pay. She concludes that personal characteristics are just as important in determining presidents' pay as the measures of institutional performance. Through this research, Sorokina's analysis also shows that on average, female college presidents earn about 5.7 percent more than their male counterparts. Sorokina concludes that for some performance variables, the available data is misconstrued, but for other variables the data and results are accurate and in line with her predictions.

Next, Kristen Collett of Bellarmine University tackles a topic that has been controversial since the first Surgeon General's report that linked smoking to health problems. She uses econometric techniques to determine the significant factors affecting tobacco consumption by teens. Collett hypothesizes that placing high excise taxes on cigarettes is not an effective deterrent of teenage smoking. She goes so far as to say that excise tax is an insignificant variable in her regression analysis with tobacco consumption of 25-44 year olds emerging as the only significant variable.

In a paper that will attract the interest of many students and faculty nation-wide, Rebecca Nelson from Mary Washington College analyzes college students' progressive efficiency through college on maximizing their GPA. By examining drinking habits, studying time and classes being skipped, Nelson determines each variable's relative effect on a student's GPA. By using a cross-sectional perspective and comparing freshman year to the student's current year, Nelson is able to be innovative in her research and determine that students who are just starting college must work harder to keep a high GPA than their upperclassmen counterparts. As students progress and learn better study habits and become more efficient in their school work, they are able to participate in a more active social life while still maintaining a high GPA.

E. Catesby Beck of Mary Washington College offers an interesting paper on the recent consumer buying trends in the automobile market. Because many companies are offering low financing deals in place of lowered prices of cars it is hypothesized by some that there is a larger demand for cars that have better financing options. By using regression analyses in log linear form, Beck produces results that suggest trends contrary to what most have thought. Beck, in fact, concludes that the price elasticity of demand for cars is larger than the interest rate elasticity of demand. These results indicate that the recent increase in popularity for more attractive financing deals on cars is not a change in an overall buyer trend.

The next paper comes from Patrick Gallagher of Elon University. Gallagher examines which theories best explain fluctuations in the US business cycle from 1959-2000. In such an unstable economic time it is important to examine the business cycle to find out exactly what kinds of factors drive its performance. Gallagher hypothesizes that the Real Business Cycle theory will account for most of these business cycle fluctuations. He notes that much recent research has supported the notion that the business cycle and changes in technology are closely related and result in matched economic fluctuations. Using regression analysis to determine whether the Real Business Cycle theory was the driving force behind the fluctuations in the economy, Gallagher determines that the theory isn't as influential as previous research has suggested. His results point to exogenous changes in government spending and exports as the primary causes of business cycles during this period.

The paper by Tim Gottgetreu from Mary Washington College is a very interesting paper that deals with Evolutionary Game Theory. In the paper, Gottgetreu provides theoretical as well as empirical support for the theory that wholly altruistic systems evolve and remain evolutionary stable propagated by the quasi-altruistic agents. The author explains how a quasi-altruistic agent who defects in the first round, would collude in the second round if matched with another quasi altruistic agent; however, the same agent would choose to defect if matched with an egotist. The paper is unique in that it evaluates the existence of altruism using a repeated prisoner dilemma game with an undisclosed horizon, where the initial distribution of agents is a very important assumption. The author finds that if the proportion of rational altruists is high, then the population evolves into entirely rational altruists who always collude. Further, Gottgetreu finds empirical evidence that the better informed more evolved group, perform along the theoretical predictions. Within this group, the rational altruist scores higher on average than the egotists. However, Gottgetreu does not find support for the theory with the group that was not informed and represented the un-evolved players. Gottgetreu concludes that in reality, if the second group were left to evolve, where they could reach clearly defined strategies, then once again rational altruists and egotists would emerge trying to gain population dominance.

The next paper, by Nicole Coomer of Bellarmine University, discusses the macro-economic factors that affect crime in the United States beginning in the 1960's. While most studies focus primarily on variables like unemployment and inflation on crime rates, Coomer's study focuses on the relationship of income disparity and educational attainment to the index crime rate. Using time-series data beginning in 1967, econometric techniques are used to determine if economic status is a significant factor in determining crime rates. Coomer concludes that for the underclass people in America, the benefits from committing crimes are highest, and that with improvements in socio-economic conditions, crime rates might be substantially lower.

In a paper that interprets consumer spending as it relates to trends in the stock market, Rachel Ungerer from Mary Washington College uses regression analyses to explain the model of consumer spending. Based on the findings of Ungerer's regressions, it can be concluded that there is a positive relationship between consumer spending and the stock market trends. Compared to other, comparable studies, there were differing magnitudes for the amount of influence consumer spending had on the stock market. Based on the economically unique period of time being examined, there was a lower marginal propensity to consume

The importance of these papers in regard to national, local, and world policy issues is evidence of successful undergraduate research. By promoting economic research by undergraduates, *Issues in Political Economy* hopes to raise awareness of significant undergraduate contributions. This year's publication is sure to provide economists a variety of topics that we hope will spark continued research and debate.

Lindsey Conley, May 15, 2003