The Link between Local Unemployment Rates and CC Enrollments

Hillman & Orians recently studied how local unemployment rates relate to enrollment levels at community colleges. They make the following points, among others, in this analysis:

1. “...the unemployment elasticity literature provides strong evidence of the counter-cyclical nature of community college enrollment demand; the research evidence points to a positive relationship with enrollments, as anticipated in demand theory models...Unfortunately, much of what we currently know about the business cycle of community college enrollments is based on studies that were conducted prior to the two most recent recessions. Additionally, much of this research focuses on 18–24 year-olds’ responsiveness to state-level unemployment rates...our study contributes to previous enrollment demand research by taking advantage of data from the most recent economic recessions, while also including unemployment elasticity estimates for full-time and part-time enrollment according to local (CBSA) service regions...”

2. “This study utilizes institution-level enrollment data and local economic indicators for the years 1990–2009, to examine the extent to which community college enrollment demand changes relative to changes in local unemployment rates. We find that part-time and full-time enrollment demand responds to unemployment rates at different magnitudes, as a 1 % change in unemployment rates is associated with ~3.3 % increase in full-time enrollment demand while part-time enrollment changes by ~1.1–1.6 percentage-points...”

3. [From their literature review] “Using a different national survey, the U.S. Census Bureau’s Current Population Survey, Dellas and Sakellaris (2003) find similar patterns as the previously mentioned study, where full-time enrollment rises at larger rates than part-time enrollment during periods of high unemployment. In this study, enrollment demand increased by ~2 % for every one percentage point increase in the state unemployment rate, ceteris paribus...”

4. “We also find evidence of variations across micro- and metropolitan statistical areas [see note 6 below], where demand for community college tends to be more responsive to unemployment rates in metro areas. Our study suggests that community college enrollment demand runs countercyclical to the business cycle, where periods of weak economic times are associated with greater demand for education. Behaving well with economic theory, our results suggest that when opportunity costs decline during recession, people are more inclined to invest in this form of human capital...”

5. “Enrollment demand theory posits that several measurable factors (i.e. price, labor market conditions, etc.) can predict enrollment decisions; however, it is possible that other sources of unobserved variation could also explain why students choose to enroll in community college. A community’s cultural norms and customs, for example, may be associated with local demand for community college education yet these concepts are difficult to measure. Due to this unobserved heterogeneity, we specify our model using institution fixed effects. Fixed-effects techniques account for the unobserved institutional heterogeneity that exists among community colleges and is relatively stable over time, such as cultural norms and customs as well as other similar factors...” [Note: Their models also controlled for factors such as “the pool of recent high school graduates, tuition levels, manufacturing employment, institutional enrollment profiles, and per-capita income levels.”]
6. “We developed a unique institution-level panel dataset for the years 1990–2009, which merges data from the U.S. Department of Education Integrated Postsecondary Education Data Systems (IPEDS) with federal datasets from the Bureau of Labor Statistics (BLS) and Bureau of Economic Analysis (BEA). Since the service region of a community college is not constrained to the county in which it is located, we aggregate county-level BLS and BEA data to each institution’s CBSA [Core Based Statistical Area] using County Federal Information Processing Standard (FIPS) codes. To measure community college enrollment levels, we utilize the fall total, full-time, and part-time degree-seeking enrollment levels from IPEDS. The key predictor variable of interest, local area unemployment rates, is collected from the BLS Local Area Unemployment Statistics (LAUS).... Finally, we include tuition levels reported in IPEDS to measure each institution’s own tuition and the regional average tuition (i.e. cross-price elasticity) to serve as our price elasticity controls…”

7. “CBSA’s are determined by an area’s population density and the commuter patterns of the area’s core urban center, where micropolitan areas have urban cores with 10,000–50,000 people, while metropolitan areas are larger than 50,000…”

8. [Although the link between tuition levels and enrollment was not a focus of this study, Hillman & Orians did report the statistical results for the predictive power of tuition on enrollment. With their national data, they found that tuition level was statistically significant for predicting full-time enrollment but NOT statistically significant for predicting part-time enrollment (see Table 2 in the article).] “...The majority of enrollment demand research focuses on how students respond to changes in price. When a college increases its tuition rate, then the institution should expect enrollment demand to decline; alternatively, enrollments should increase if a nearby institution increases its tuition price. Researchers have consistently found that a $100 increase in an institution’s own price generally corresponds with a 0.5–1.0 percentage-point decline in enrollment…”

This analysis has relevance for researchers and policymakers because institutions, local boards, and state governments may consider the levels of local unemployment in budgeting and staffing decisions. Observe that this analysis defined its enrollment counts in IPEDS with the “degree-seeking” condition, and this specification may affect the applicability of the study to particular institutions and to specific planning objectives of administrators.

Nicholas W. Hillman and Erica Lee Orians (both with the Department of Educational Leadership and Policy, University of Utah, Salt Lake City, Utah) detail their analysis in a 16-page article (“Community Colleges and Labor Market Conditions: How Does Enrollment Demand Change Relative to Local Unemployment Rates?”) in the peer-reviewed Research in Higher Education (online February 27, 2013, vol. 54). The article should be accessible to readers with a background in higher education, data analysis, and economics.

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