Understanding College Student Responses to Economic Shocks

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What We Studied

This paper explores the impact of changing economic conditions on student enrollment in two- and four-year colleges in the state of Texas. Specifically, it focuses on the probability that students enroll and the likelihood that students continue to enroll in college as a result of changes in the unemployment rate, housing prices, and layoff rates. These students might not otherwise enroll or continue in college if the economy was doing better. Students are found to be responsive to economic conditions. A one percentage point increase in the unemployment rate increases the probability that an 18-year-old student enrolls in two-year college by .2% and the probability that an 18-year-old student enrolls in four-year college by .3%. Similarly, a one percentage point increase in the unemployment rate increases the probability that a student enrolls for six consecutive years by .3% at the two-year level and 1.6% at the four-year level.

This study leverages geographic and time level variation in economic conditions to identify the effect of changing unemployment rates and other indicators of economic success on college student enrollment before, during, and after the Great Recession. Since the Great Recession spanned from December 2007 until June 2009, students graduating from high school between 2005 and 2011 are considered. This framework isolates the impact of changes in economic conditions on the likelihood of enrollment and continued enrollment, controlling for individual characteristics, like race, gender, socioeconomic conditions, and high school exit exam scores, and county level policies and trends other than economic conditions which might impact enrollment decisions. These results are consistent across different specifications.

In this paper, I present an exploratory study of the Great Recession on enrollment and persistence decisions by public two- and four-year college students in the state of Texas. Results suggest that college students in Texas were not very responsive to changing economic conditions. This might be because the impacts of the Great Recession were relatively small in Texas as compared with other areas of the country.

Texas has a large system of higher education that educates many students. For example, 26.7% of public high school students in the sample attend a community college at age 18. In particular, there are many two- and four-year colleges, both of which provide excellent opportunities for students to advance their skills. When the economy is not doing well, the value of jobs students might get in the absence of higher education are lower, and might influence students' decisions to enroll in college when they otherwise might not have. Texas institutions provide lower cost options for residents, as both two- and four-year colleges come with lower price tags for residents.

When understanding capacity constraints, state funded colleges must understand how student demand for college changes as a result of what is going on in the world. In particular, economic conditions impact students' decisions to enroll and persist in higher education. During the Great Recession, measures of economic activity, such as the unemployment rate, approached levels not seen since the Great Depression. In addition, changing economic conditions impact the supply and demand for college, which might impact students from less affluent families and minorities differently, potentially exacerbating inequality which is already a growing issue in Texas and the United States. In order to combat exacerbated inequality resulting from recessions, it is important to understand how changing economic conditions impact students' decisions.

It could be that students who would otherwise work decide to enter college as a result of poor job opportunities. It could also be that financially constrained students who want to attend four-year respond to poor economic conditions by enrolling in two-year college instead, with a hope of saving money and transferring later. In addition, there are reasons to expect that older students might choose to return to college in response to poor economic conditions. Finally, it could also be that students observe a lack of job opportunities around them and decide to stay in college longer. These considerations are articulated in Long (2015), Betts and McFarland (1995) and Petre (2019).

How We Analyzed the Data

This research asks "what are the drivers of two- and four-year college enrollment and persistence?" Specifically, how do perspective two- and four-year college students respond to changing economic conditions in terms of their decisions to enroll in and continue in college.

College enrollment has been changing over time. Specifically, college student enrollment changes with changing economic conditions.

For example, Figure 1 plots the unemployment rate, which measures changing economic conditions, together with average annual enrollment in two-year colleges over time in the state of Texas.

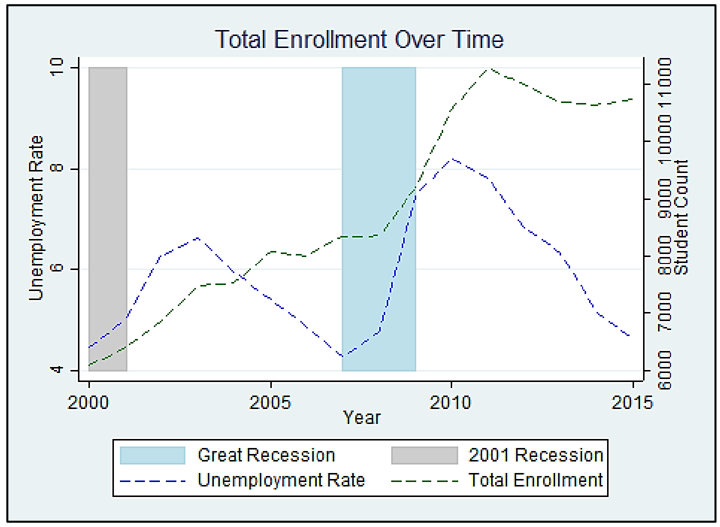

FIGURE 1

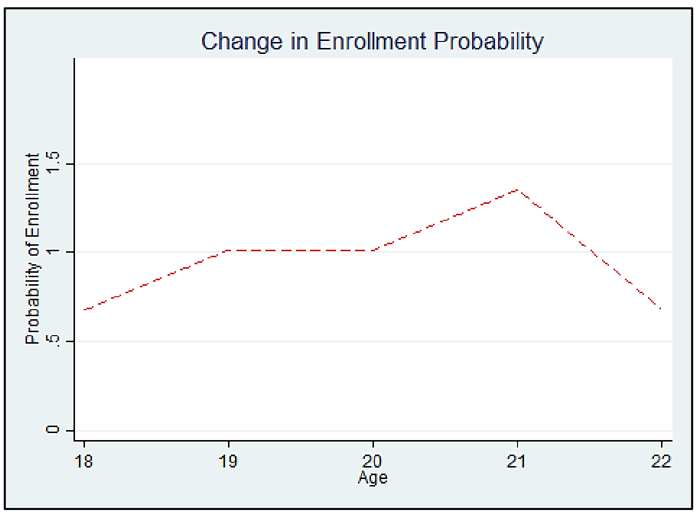

FIGURE 2

This paper looks at the probability of enrollment by different ages as a result of changing economic conditions. Figure 2 illustrates the likelihood of enrolling in college by different ages as a result of a 3.38% increase in the unemployment rate. In addition, it looks at the probability of remaining enrolled in subsequent years as a result of changing economic conditions.

Similarly, Figure 3 illustrates the likelihood of remaining enrolled in college for different amounts of time as a result of a 3.38% increase in the unemployment rate.

Using county and time level variation in local conditions helps to isolate the effect of these conditions on student decisions.

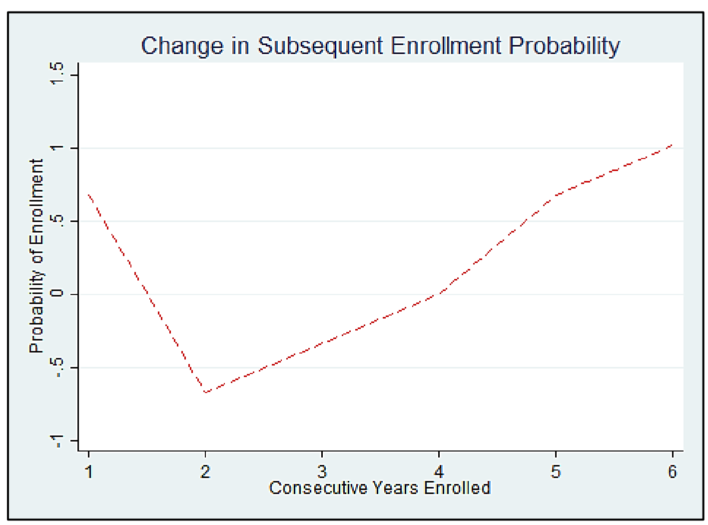

FIGURE 3

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What We Discovered

During this time period of the Great Recession, December 2007 to June 2009, the unemployment rate in Texas rose from 4.79% to 8.17%, on average. This is a total increase of 3.38%.

- A 3.38% increase in the unemployment rate increases the probability of being enrolled in two-year college by age 18 by .676%.
- A 3.38% increase in the unemployment rate increases the probability of enrolling in subsequent semesters six years in a row by 1.014% for those attending two-year college.
- A 3.38% increase in the unemployment rate increases the probability of being enrolled in four-year college by age 18 by 1.014%.
- A 3.38% increase in the unemployment rate increases the probability of enrolling in subsequent semesters six years in a row by 5.4% for those attending four-year college.
- Similar estimates can be calculated for other ages, and more years of subsequent enrollment, as shown in Figures 2 and 3.
- Similar results are found when changes in the housing price index and layoff rate are used to measure economic conditions.

This paper provides insights into how college students respond when economic conditions change, specifically in terms of their decisions to enroll in two- and four-year college and their decisions to remain enrolled. While it does not offer specific policy recommendations, it does provide a picture of what policy makers might expect if economic conditions worsen. Namely, changes in the unemployment rate, housing prices, and layoff rates are associated with increases in college enrollment at the two- and four-year levels, and increased duration of enrollments.

References

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