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Research Abstract
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Abstract of Ongoing Research

Housing Wealth, Liquidity Constraints and College Enrollment (Job Market Paper)

An important empirical question in economics is whether liquidity constraints prohibit individuals from making optimal consumption and investment decisions over the life cycle. In this paper, I test for the existence of short-run credit constraints surrounding the decision to invest in college by examining the relationship between housing wealth and college attendance.

I generate exogenous housing wealth variation at the household-level using the timing and geographic dispersion of the recent U.S. housing boom. With data from the Panel Study of Income Dynamics, I show housing wealth became a relevant component of how households finance college after 2000: a $10,000 increase in housing equity increases the likelihood of college attendance by 0.6 percent. I argue the most likely explanation for this relationship is credit constraints in higher education, because the positive relationship between housing wealth growth and college enrollment tracks the explosion in the liquidity of housing wealth over time, is restricted to households most likely to be credit constrained and exists only for those families who live in MSAs that experienced high price growth due to housing supply constraints. There also is little evidence of a commensurate wealth effect on consumption goods from housing equity increases. My estimates imply that upwards of 12 percent of families with children in college use housing equity to relax potential short-run credit constraints

These results have particular relevance to current policy as credit markets have tightened and housing prices have begun to decline in many areas of the country. A simulation of the recent housing market slowdown using my estimates suggests that the 20.6 percent housing price decline since June 2006 could reduce college enrollment by about 3.6 percentage points. To the extent this will reduce the growth in college-educated labor supply, the housing bust can have negative long-run effects on economic growth.

The Effect of Teachers' Unions on Education Production: Evidence from Union Election Certifications in Three Midwestern States (Revise and Resubmit – Journal of Labor Economics)

Teachers' unions are a prevalent but controversial fixture in the U.S. public education system. In this paper, I use unique data that I hand-collected on the timing of teachers' union election certifications in Iowa, Indiana and Minnesota to analyze the effect of unions on school district resources and student academic attainment. I argue these data represent a significant improvement over union data used in previous analyses, such as those in the Census of Governments, because they provide an accurate picture of when teachers in each school district organized for the purpose of collective bargaining.

I estimate the time pattern of union effects using an event study methodology. My results indicate unions have no impact on teacher pay, either in the short- or long-run. I find unions increase teacher employment by between 5 and 10 percent but that this employment increase is offset by enrollment increases in the unionized districts, causing unions to have little effect on class sizes. I also estimate that

unions have little effect on per-student expenditures, particularly in the long-run. Finally, I find evidence that unions increase dropout rates in the short-run, but in the longer-run unionized districts experience a decrease in dropout rates relative to non-unionized districts. The results from this analysis highlight the importance of correctly measuring unionization status in union impact studies.

"Why Have College Completion Rates Declined: Marginal Students or Marginal Colleges?" (With John Bound and Sarah Turner, Revise and Resubmit – American Economic Journal: Applied Economics)

This paper documents and explains the drop in college completion rates that has occurred in the United States since the 1970s. Using data from the National Longitudinal Study of 1972 (NLS72) and the National Educational Longitudinal Study of 1988 (NELS:88), we show that college completion rates have declined nationally, from 51.1 to 45.3 percent, and that this decline is localized to students beginning college at lower-ranked public schools as well as at community colleges.

We perform simulations in which we decompose the observed changes in completion rates into the component due to changes in the preparedness of entering students and the component due to collegiate resources. We find that reductions in math test scores and increases in college student-faculty ratios combined with sectoral shifts in where students first attend college can account for the entire observed decline in college completion rates. Each of these components is independently responsible for about 2 percentage points of the total 6 percentage point decline. For students beginning college at a lower-ranked public university, declines in math preparedness as well as increases in student-faculty ratios explain about half of the total observed drop in completion rates, while for students beginning at community colleges, these factors explain the entire decline.

Our analysis indicates that changes in college preparedness of incoming students and changes in institutional resources contribute about equally to the overall declines in college completion rates. Together, these factors can account for nearly all of the college completion rate changes that have occurred since the 1970s. The main contribution of this analysis is to show the importance of institutional resources for collegiate outcomes, which has received little attention in previous work.

"Playing With Fire: Cigarettes, Taxes and Competition from the Internet" (With Austan Goolsbee and Joel Slemrod, Revise and Resubmit (2nd Round) – American Economic Journal: Economic Policy)

This paper documents the rise of the Internet as a source of state-tax-free cigarettes and its impact on taxed sales elasticities. Using data on cigarette tax rates, taxable cigarette sales and individual smoking rates by state from 1980 to 2005 merged with data on Internet penetration, we estimate that the rise of online shopping has dramatically increased the sensitivity of in-state purchases to state tax rates. The price elasticity of taxable cigarette sales has risen most in those places where the Internet has grown the fastest and, in magnitude, increased the sensitivity of taxable cigarette sales to state tax rates by 70 percent. We present evidence that the state-specific growth in Internet usage is unrelated to secular changes in cigarette sales and sales elasticities absent the presence of online price savings, which implies the increased tax sensitivity is due to Internet smuggling. The estimates imply that the increased sensitivity from cigarette smuggling over the Internet has lessened the revenue generating potential of cigarette tax increases significantly, although states are still far from the revenue-maximizing tax rates.