

## **The Effect of State Funding for Postsecondary Education on Long-Run Student Outcomes**

Most public colleges and universities rely heavily on state financial support for operation. As state budgets have tightened over the past several decades, appropriations for higher education have declined substantially, especially at less-selective institutions that tend to serve students with lower levels of collegiate preparation. Furthermore, institutions experience considerably yearly fluctuations in state support, which subjects them to budgetary risk. Despite concerns expressed by policymakers and scholars that declines and instability in state support have reduced the return to education investment for public sector students, little evidence exists that can identify the causal effect of these funds on long-run student outcomes. We present the first such analysis in the literature using new data that leverages the merger of two rich datasets: consumer credit records from New York Fed's Consumer Credit Panel (CCP) sourced from Equifax and administrative college enrollment and attainment data from the National Student Clearinghouse.

We overcome identification concerns related to the endogeneity of state appropriation variation using an instrument that interacts the baseline share of total revenue that comes from state appropriations at each public institution with yearly variation in state-level appropriations per college-age resident. This “shift-share” instrument exploits the fact that a statewide change in appropriations for higher education will have larger effects on institutions that are more reliant on state funds. Our focus is on state appropriation shocks that occur when students are already enrolled in college, which allows us to abstract from extensive margin effects. Because the variation we use exploits yearly appropriations shocks, our estimates can speak to the impact of variability in state support as well as the level of state support. We examine the effect of state appropriations among 25-30 year olds and 30-35 year olds, separately by whether students initially enrolled in a four-year or two-year institution. Our findings indicate that state appropriation shocks students experience in college have long-lasting impacts on their life outcomes into their mid-30s. Among students whose first college is a four-year institution, state appropriation increases during college lead to a lower probability of having any student loan debt, lower student debt balances, higher credit scores, and increased likelihood of owning a car and a home. For two-year students, state appropriations increases lead to higher credit scores, an increased likelihood of owning a car and a home, and higher auto and home mortgage loan balances.

The results from our analysis have several policy implications. First, they suggest that state appropriation variation has a large effect on the return to postsecondary investments made by young adults that last into later adulthood. State appropriations are under the direct control of policymakers, and so our results are relevant for those making state budgeting decisions in supporting expenditures on higher education. Furthermore, our estimates relate more generally to the question of whether changes in spending affect postsecondary outcomes. Lastly, our estimates relate to ongoing policy concerns regarding inequality in postsecondary education. Lower-resource and lower-selectivity schools are most reliant on state appropriations; the sensitivity of long-run student outcomes to state appropriations suggests that continued declines and volatility in state support for higher education will continue to exacerbate this stratification.