Data Sources

- **Census American Community Survey (ACS):** We use the 2017-2021 5-year estimates of the ACS. These data are extracted as microdata from IPUMS. We pull annual earnings by educational attainment, collapsing educational attainment levels into the highest credential earned at the high school, associate's degree, and bachelor's degree level.
- **Integrated Postsecondary Education Data System (IPEDS) and College Scorecard:** Our institutional data come from both IPEDS and the College Scorecard. We pull information from the collection year 2021 in IPEDS and the compiled academic year 2020-21 from the College Scorecard. From IPEDS, we use directory information, information on college cost, financial aid, graduation rates, enrollments, and educational expenditures. These variables serve to identify institutions by type, locate institutions within a given commuting zone, and control for institutional characteristics that have been shown to impact graduate earnings in prior studies. From the College Scorecard, we use median earnings by institution measured 10 years after the student entered the institution (i.e., a student entering the institution at age 18 would have their earnings measured at age 28). Earnings estimates in the Scorecard come from the Student Loan Data System (SLDS) and include any student who received Title IV aid from the federal government, which includes any federal grant like the Pell Grant or any federal student loan. Earnings also include both graduates and non-graduates.

Key Definitions

- **Minimum Economic Return:** An institution meets this measure if median student earnings are at least as much as a high school graduate plus enough to recoup their total net price plus interest within ten years. Under the Postsecondary Value Commission, this is Threshold 0.
- **Earnings Premium:** An institution meets this measure if median student earnings reach at least median earnings for degree holders in the commuting zone with the institution's predominant degree type. Institutions that predominantly offer certificates are compared to a weighted earnings measure of associate's degree holders. Under the Postsecondary Value Commission, this is Threshold 1.
- **Economic Mobility:** An institution meets this measure if median student earnings reach the level of earnings needed to enter the fourth (60th to 80th percentile) income quintile in the commuting zone. Under the Postsecondary Value Commission, this is Threshold 3.

- **Comparison Group:** Earnings data from the ACS are limited to those individuals who have positive earnings, are aged 22-40, and are not currently enrolled in any type of schooling.
- **Local Area:** We define "local" geographies using commuting zones. Commuting zones are clusters of counties that represent regional labor markets at the sub-state level. These zones were created by the United States Department of Agriculture (USDA) using Census journey-to-work data. These zones can (and often do) cross state boundaries. We use the [commuting zone definition](#) based on the 2010 decennial Census given that our microdata spans 2017-2021, which clusters 3,142 counties into 625 commuting zones.

Aggregation

Earnings data from the ACS are compiled from weighted microdata. To calculate earnings at the commuting zone level, we follow these steps:

1. Collapse microdata earnings into the median of the smallest possible geography by educational attainment level. Also collapse earnings at the 60th percentile for the *Economic Mobility* threshold. The smallest possible geography for microdata is the Public Use Microdata Area (PUMA), which is a non-overlapping statistical area with no fewer than 100,000 people that do not cross state boundaries.
2. Crosswalk PUMA estimates to counties using an allocation factor provided by [Geocorr](#), a geographic engine service provided by the Missouri Census Data Center. We use the 2020 Census population as the weighting factor. A PUMA that lies entirely inside a county would have an allocation factor of 1. A PUMA whose 2020 Census population (based on Census blocks) lies 98% in one county and 2% in another would allocate .98 and .02, respectively. Using these allocation factors, we assign county-level weighted estimates.
3. Crosswalk counties up to commuting zones using the 2010 designations. We retrieve population estimates for the 22–40-year-old population in each county from the ACS, which is then used to assign weighted earnings estimates to each commuting zone.

Limitations

- **Institutions, not students.** We are not tracking individual students and cannot confirm that they remained in their institution's commuting zone following graduation or exit.
- **Weighted estimates.** Our ACS measures are based on doubly-weighted estimates of survey data that we aggregated through crosswalks; while we are using the most

appropriate weights available, they are still an approximation of population earnings.

- **IPEDS aggregation bias.** IPEDS records institutions based on the Program Participation Agreement (PPA) signed between the Department of Education and the institution. There is a degree of variation in reporting requirements for institutions, resulting in some institutions reporting all data at the main campus and other institutions reporting for each campus individually. This makes geographic analysis using IPEDS problematic.

- **College Scorecard earnings measures.** Earnings measures in the College Scorecard only include those students who participated in Title IV programs such as the Pell Grant or federal loans. Recent analysis using the Postsecondary Employment Outcomes (PSEO) dataset has found that College Scorecard earnings can be biased because of this limitation, especially the further out one looks.