

## Methodology appendix

### ***Setting wage thresholds***

This analysis uses data from the American Community Survey (ACS), Bureau of Labor Statistics (BLS), and Economic Policy Institute (EPI) to identify the share of workers in the nation’s largest metropolitan economies that earns a wage high enough to support a typical family in that region. The thresholds used to define a “living wage” are provided by EPI’s Family Budget Calculator, and are based on typical county-level costs incurred by a family of two or fewer children per year for housing, food, child care, transportation, health care, other necessities, and taxes.

For each county in the United States, we calculate a single “good wage” based on the median cost of living for six household types: those with one worker or two workers, and with zero, one, or two children. For two-income households, we employ Living Wage For US’s (LW4US) [estimate](#) of 1.76565 full-time workers, while single-income households are assumed to have one full-time worker. All cost-of-living inputs are adjusted to 2023 USD.

After defining the “good wage” for each county, we calculate a “premium wage” for workers in that county who have obtained a four-year college degree or higher based on the [median usual weekly earnings for workers of different educational attainment levels](#) (adjusted to hourly rates). These premiums are set equal to the difference in hourly earnings between workers with a four-year degree or higher and the hourly earnings of a worker with an associate degree. These premiums are then adjusted for each metro area to reflect differences in regional costs of living using [regional price parity indices](#) provided by the Bureau of Economic Analysis. While we believe that the “good wage” is an appropriate barometer of job quality for workers with an associate degree or higher, the “premium wage” serves as an indicator for whether a region’s economy is rewarding workers for increasing their educational attainment level at a rate comparable to the nation overall.

### ***Applying the thresholds***

The share of workers in each metro area is calculated using data from the 2022 ACS one-year microdata. We calculate the hourly wage for each respondent to the survey by dividing each worker’s total annual wage income (adjusted to 2023 dollars) by their reported typical number of hours worked:

$$wage_{hr} = \frac{\left( annualincome \times \frac{pci_{2023}}{pci_{2022}} \right)}{(wkhp \times wkwn)},$$

Where *annualincome* represents each worker’s unadjusted annual income, *pci* represents each year’s [price index for personal consumption expenditures](#), *wkhp* represents each worker’s reported typical hours worked per week in the past 12 months, and *wkwn* represents each worker’s usual hours worked per week over the last 12 months.

Then, we identify whether or not that worker earned a “good wage” and “premium wage” based on the county where they lived and their reported level of educational attainment. The base educational attainment premium was set equal to the difference in typical median weekly earnings for full-time workers with a bachelor’s degree and workers with an associate degree, [provided annually](#) by the BLS (divided by 40 to obtain an hourly rate). These premiums were adjusted to accommodate cost-of-living differences across counties and metro areas by applying [regional price parity indices](#) provided by the BLS for states and metropolitan areas. We then added this adjusted educational attainment premium to the “good wage” threshold assigned to each worker age 25 years and older who had obtained a bachelor’s degree or higher to estimate their premium wage rate.