

**Education Quality in the U.S., States, and Metropolitan Areas:
Data from the 2009 American Community Survey**

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INTRODUCTION

Social science researchers have long debated various indicators of education progress and quality. Measures of educational quality are diverse and vary greatly depending on the age-group of interest and geography. This analysis attempts to identify a small number of indicators to address this issue, particularly as they relate to the overall educational quality of a specific geographical area. We also attempt to make each measure relevant to a distinct and exclusive segment of the population. Ultimately, we are interested in providing a summary measure as a single comprehensive indicator, or “overall educational quality score.”

With this goal in mind, our research seeks to address three basic questions. First, can we measure the overall “quality” of a specific geographical area? Perhaps just as importantly, what indicators would go into such a measurement? Finally, if we can successfully devise a measurement device, how much variability will exist across the United States, specifically at the state and metropolitan levels?

Our strategy for answering these questions began with conceptualizing five individual indicators of educational quality, each directionally positive and mutually exclusive (mostly by age). These indicators cover nearly 100-percent of the United States population, ages 3 to 44, and include measurements of the following concepts.

- Early childhood enrollment
- Modal grade enrollment (age appropriate grade level)
- High school attendance
- College attendance
- College completion

Theoretically, each of our indicators range in value from 0 to 100-percent. After presenting and analyzing each of the indicators individually, we summed all five measures into an “Overall Quality” score ranging from 0 to 500. This strategy therefore produces a total of six indicators of educational quality, each produced at the state and metropolitan levels, and each analyzed relative to the United States average of the measures.

This approach relied on data from the 2009 American Community Survey, single year file (1,917,748 sample housing units). All fifty states and the District of Columbia are included in our analysis, as well as 366 metropolitan areas.¹

Readers will find graphical maps for each measure in our poster. These display the distribution for all six indicators at both the state and metropolitan levels, and there is also a graph that shows each measurement distribution, alongside statistical tests of significance (relative to the national averages).

¹ Metropolitan areas require the presence of a distinct city with 50,000 or more inhabitants, or the presence of an urban area (more than a single city or town) with a total population of at least 100,000.

SUMMARY

Despite high levels of variability across measures, some states stand out for their consistently high or low performance on most indicators. For example, Connecticut and New Jersey are statistically higher than the national average for all six indicators, whereas Missouri, Oklahoma and Texas are without exception statistically lower than the national average.

Similar results are observed at the metropolitan level. While metropolitan areas such as New York City, San Francisco, and Boston are uniformly higher than the U.S. average, localities like Elkhart and Anderson, Indiana are among the metropolitan areas with uniform deficits (relative to United States averages). Both Yakima, Washington and Farmington, New Mexico are found on this list too.

Other interesting patterns emerge as well. For the most part, states and metros with high percentages of college attendees display high percentages of college completers, which together appear to be positively linked to overall quality results. This, of course, makes logical sense, as metropolitan areas with large student populations will likely have highly educated adult populations as well.

There are, however, some interesting exceptions to this rule. California, for example, displays relatively high levels of college attendance, but when analyzed against the national average, that state's level of college completion is not statistically significant from the nation's. Analysis of Washington state shows a similar result, albeit in the opposite direction (i.e. low levels of college attendance, high levels of residents with degrees).

Clearly, overall educational quality varies across the country. There are many additional factors that might logically account for, or correlate with, the geographic variation observed in this research. Not considered in this analysis are the quality-levels in non-metropolitan areas, differences in local educational funding, geographic variability in education policy, or labor market characteristics like local educational structures. Future analyses will need to focus on the correlation of these and other factors with overall education quality scores.