



Earnings Gaps Based on Gender and Education in Kentucky

The second of three research briefs on lifetime earnings in Kentucky

How does gender affect lifetime earnings?

Earnings comparisons between full-time male and female workers consistently show that women earn less over a lifetime than their male counterparts. In 2019, the U.S. Census Bureau reported that women made \$.82 for every \$1.00 earned by men¹. This research brief examines the disparities in median lifetime earnings of Kentuckians based on educational attainment and gender. It relies on data from the 2016-18 American Community Survey related to full-time workers, ages 25-64, with at least a high school diploma².

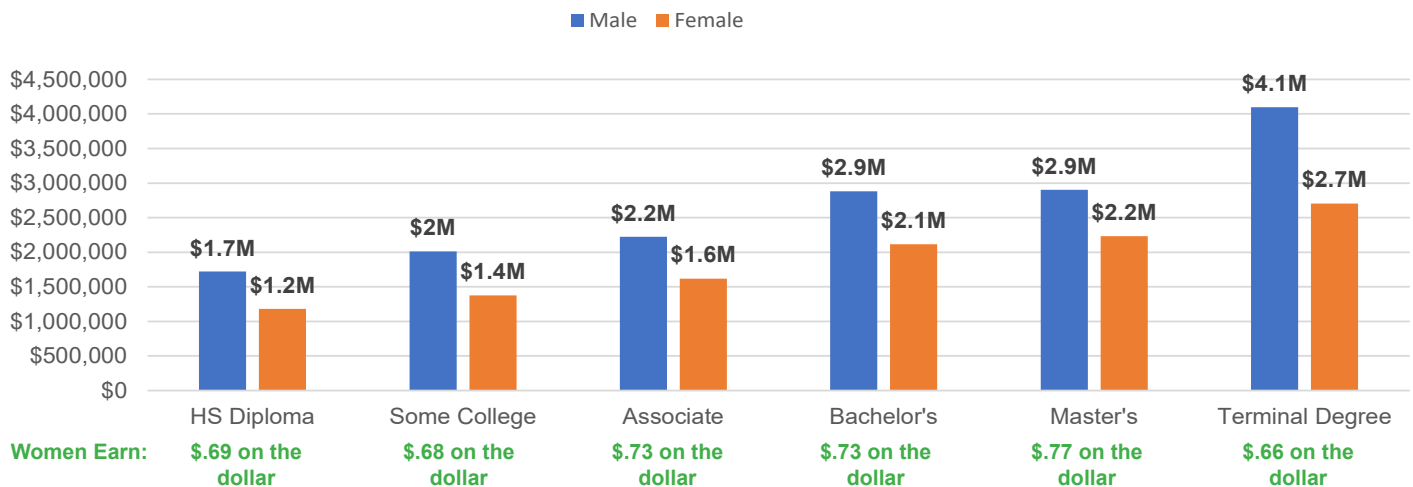
Females earn less than males across all education levels in Kentucky

While there is a positive relationship between educational attainment and lifetime earnings for all Kentuckians, women in Kentucky earn significantly less than their male counterparts at every degree level. Figure 1 highlights the substantial lifetime median earnings gap between men and women. The disparity ranges from a low of \$537,000 among male and female high school graduates to a high of nearly \$1.4 million among male and female terminal degree holders (this category includes doctoral and professional degrees like law and engineering). For context, this difference also is expressed as a ratio of female to male earnings (e.g., female high school graduates earn \$.69 to every dollar earned by a male high school graduate).

Kentucky's earnings gap is larger than the U.S. average

While women earn \$.82 on the dollar nationally, women in Kentucky do not fare as well, as seen in Figure 1. Generally, the wage gap decreases as education level increases; among workers with a high school diploma

Figure 1. Lifetime Earnings of Kentuckians (ages 25-64) by Education Level and Gender³



1. U.S. Census Bureau (2019). Income and Poverty in the United States: 2019

2. U.S. Census Bureau. Oct. 2012. Creation of the Synthetic Work-Life Earnings Estimates for Field of Degree Brief and Infographics. <https://www.census.gov/library/visualizations/2012/comm/pathways-series/synthetic-work-life-earnings-estimates.html>

3. Female to male earnings ratio labeled below education level (in green).

or some college, women earn just under \$.70 on the dollar, increasing to \$.73 with an undergraduate degree and \$.77 with a master's degree. The exception is at the terminal degree level, where females earn just \$.66 to every male dollar.

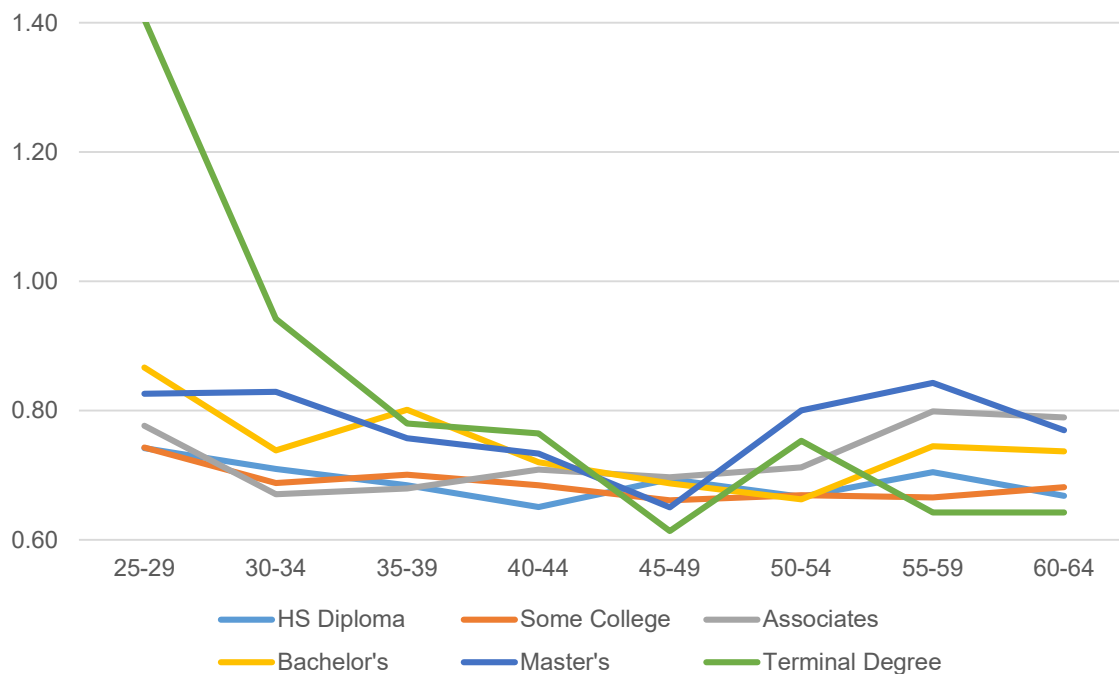
Younger women with advanced degrees are outearning their male counterparts

Gender-based differences in median annual earnings fluctuate greatly among advanced degree earners. In Figure 2, each line on the graph displays the female to male earnings ratio at a specific education level, by age group. The biggest wage gap exists for female workers with a terminal degree in the 45-49 age group, where women earn just \$.61 on the male dollar. On the other hand, female advanced degree holders ages 25-29 earn more than their male counterparts (\$1.41 to every male \$1.00). This anomaly was driven largely by women under 30 with a doctoral degree, whose median annual earnings were nearly \$7,000 higher than their male counterparts. Although a promising trend for younger women, it remains unclear if these higher earnings will be sustained across a lifetime. The modest annual earnings advantage of women under 30 with a terminal degree is still small compared to the \$10,000 to \$55,000 annual earnings advantage of older men at the same educational level.

Summary

Both women and men benefit from the positive relationship between educational attainment and lifetime earnings. However, Kentucky women in all age groups face a significant wage gap exceeding the national average. Furthermore, Kentucky women with a master's degree earn close to \$650,000 less than male bachelor's degree recipients over a lifetime. In this case, gains in educational attainment by Kentucky women did not close the earnings gap with less educated men.

Figure 2. How Much Women Earn on the Dollar, by Age Group and Education Level



Kentucky Council on Postsecondary Education
 One Airport Drive, 2nd Floor
 Frankfort, Kentucky 40601
 502.573.1555
cpe.ky.gov

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