



# Budget Model

## Mortality by Education—an Update

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**Summary:** In 2018 and 2019, age-specific mortality rates for ages 60 through 80 continued to decline by 0.5 percent annually. For the same age group, age-specific mortality increased for those without a high school diploma but decreased 2.5 percent for those with a BA or advanced degrees.

### Introduction

We [previously](#) highlighted the increasing mortality gap by education over the period 1996 through 2017. For those born after 1950, each additional level of educational attainment is associated with at least an 18 percent lower mortality rate. This post extends that analysis with updated data for 2018 and 2019. All estimates combine National Center for Health Statistics (NCHS) death record data with CPS population estimates, reported as deaths per 100,000 population.

### Updated Figures for 2018 and 2019

Figure 1 plots age-specific mortality rates over the past decade from ages 60 through 85. Mortality rates at these ages (beyond midlife) give a sense of any improvements in overall longevity. The previous post indicated reductions in mortality rates at these ages from 1996 through 2017, and the additional data present in Figure 1 suggests more of the same trend.

Adults over the age of 60 continued to see improvements in longevity from 2017 through 2018 at virtually every age (a 0.5 percent decrease, on average), and this trend continued into 2019 for those aged 60 through 80. However, between 2018 and 2019, the age-specific death rates for ages 80 through 85 increased by an average of 216 deaths per 100,000. Visually, this is remarkable because mortality rates sharply accelerate after age 80, but it should be kept in mind that deaths per population did decrease for ages 60 through 80.

Figure 1: Time lapse of all-cause mortality for ages 60-85 over the window 2010-2019

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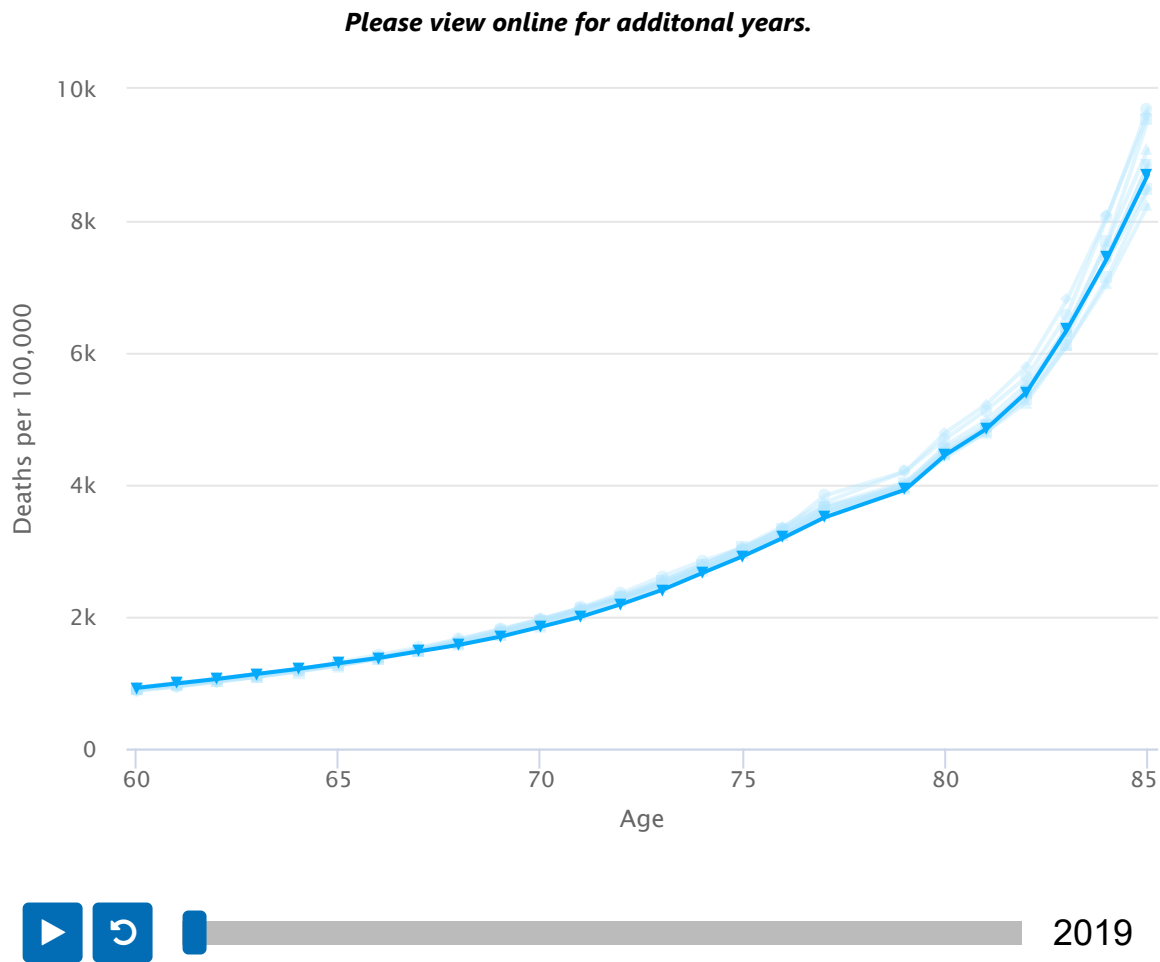


Figure 2 depicts the overall mortality rate since 2010. The rate increased linearly over the time period observed, from 799 deaths per 100,000 in 2010 to 881 deaths per 100,000 in 2019. This is mostly attributed to the aging of the population—as a greater share of the population is of older ages (when mortality is more likely), the overall rate increases. While there is some [evidence](#) of increases in mortality at midlife, that falls outside the scope of this post.

Figure 2: Overall mortality, 2010-2019

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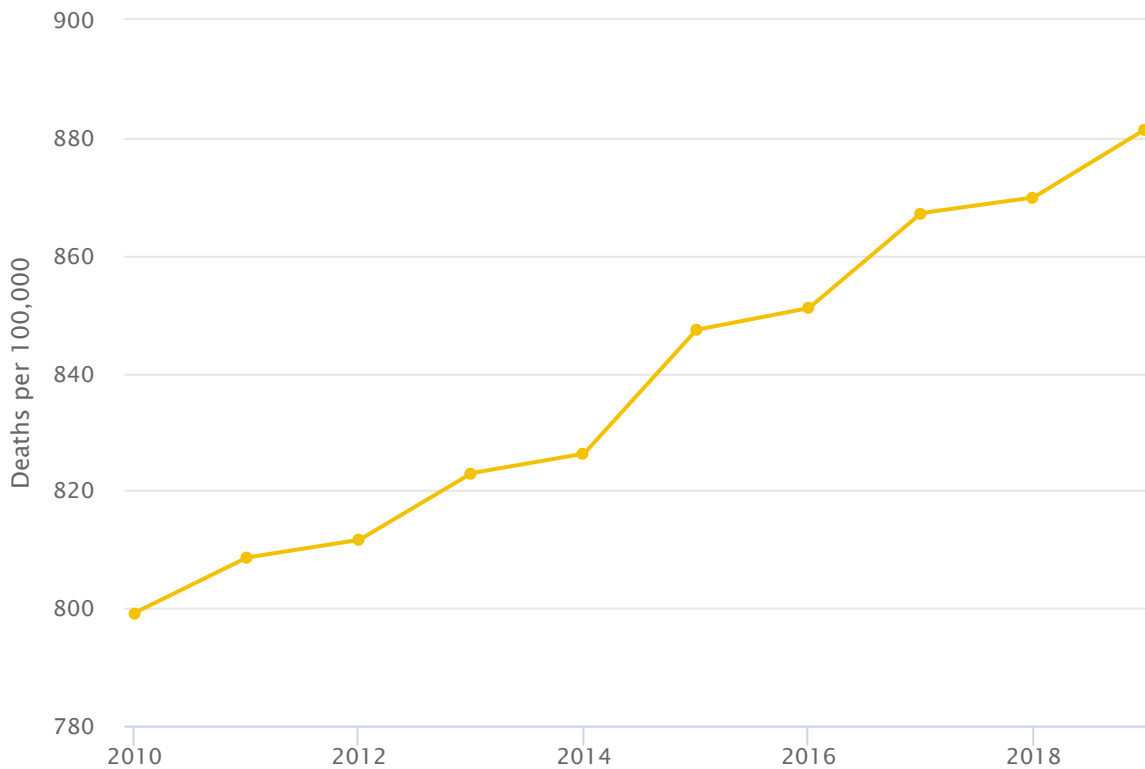
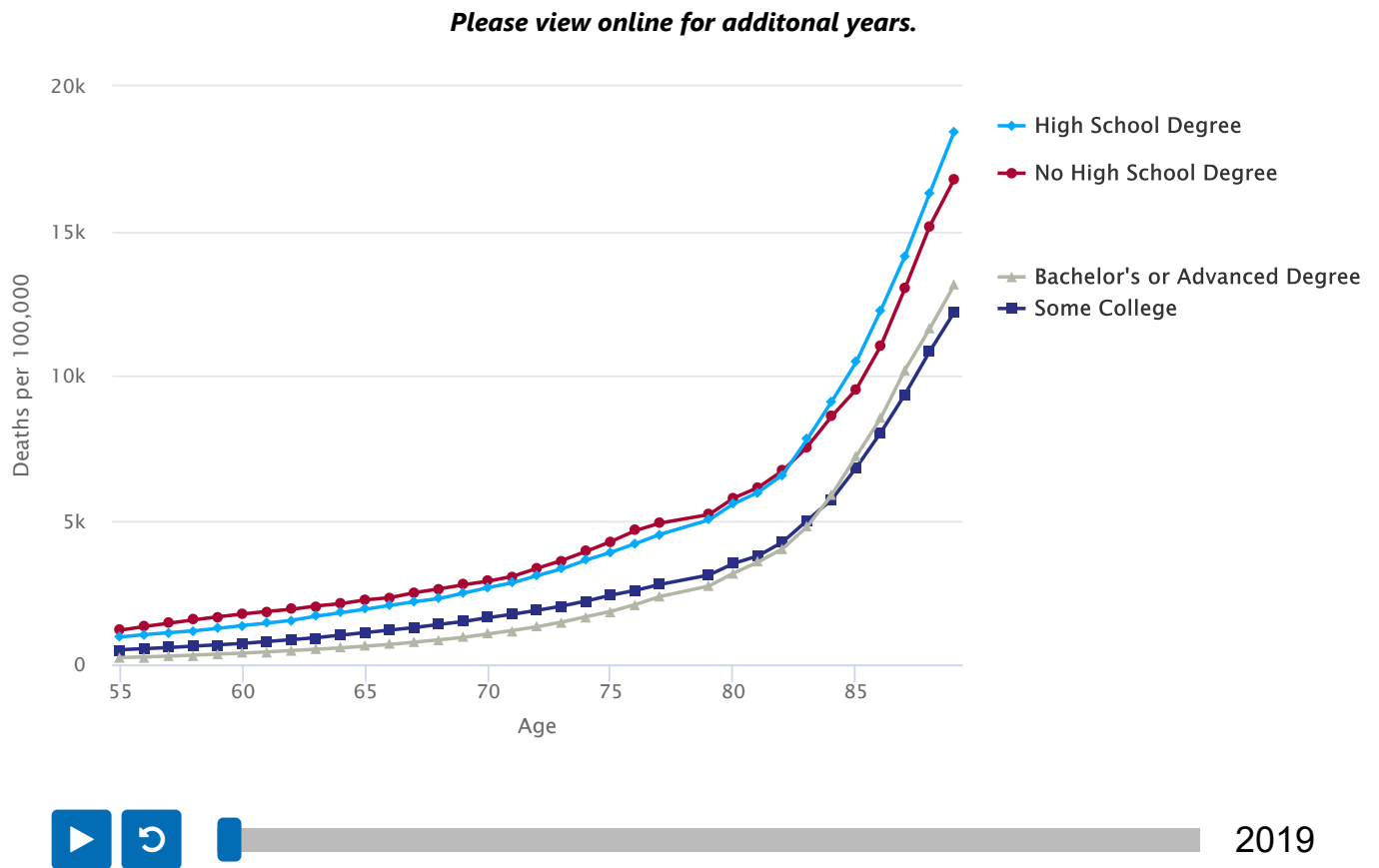


Figure 3 continues the analysis of mortality by education level among older adults. As in Figure 1, the trends observed for ages 80 and above differ from those aged 55 through 80. For those aged 55 through 80, those without a HS degree saw mortality increase from 2017 through 2019 by 55 deaths per 100,000 annually, on average. This is in sharp contrast to those with an advanced degree, who saw mortality decline over the same period. The age-specific death rate in those ages declined by about 2.5 percent from 2017 to 2019, to 1,067 deaths per 100,000.

Figure 3: Mortality rates by year and age, disaggregated by education level, 2010-2019

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