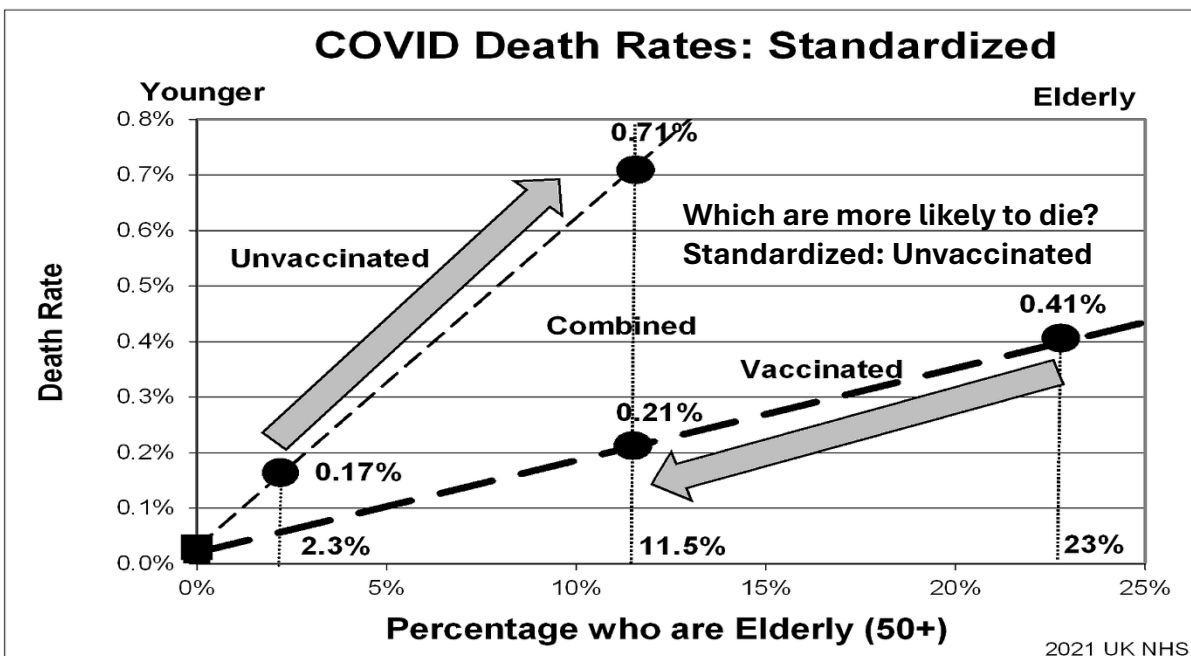
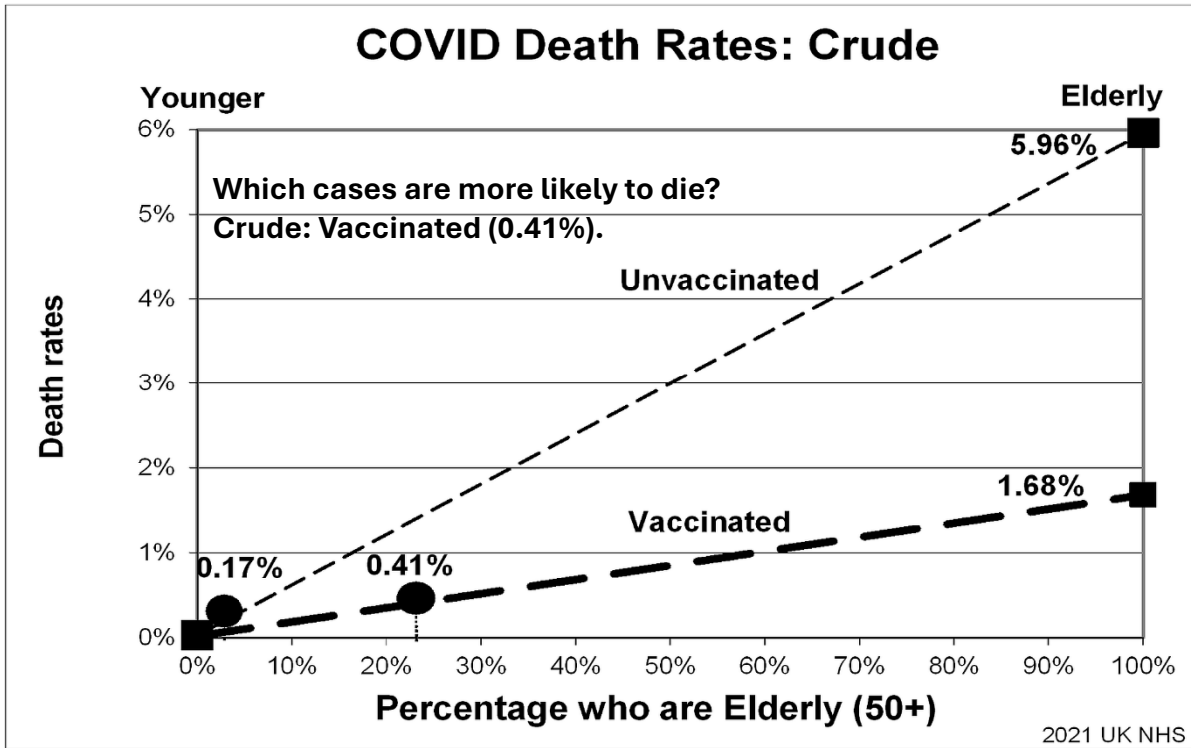
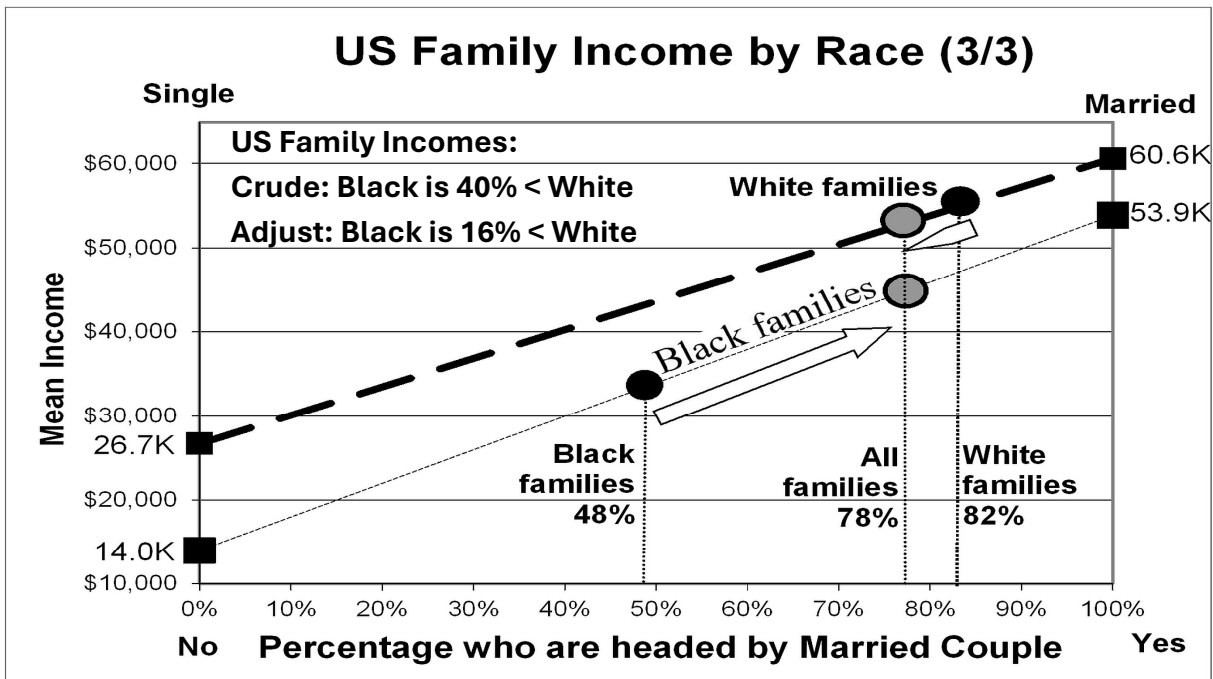
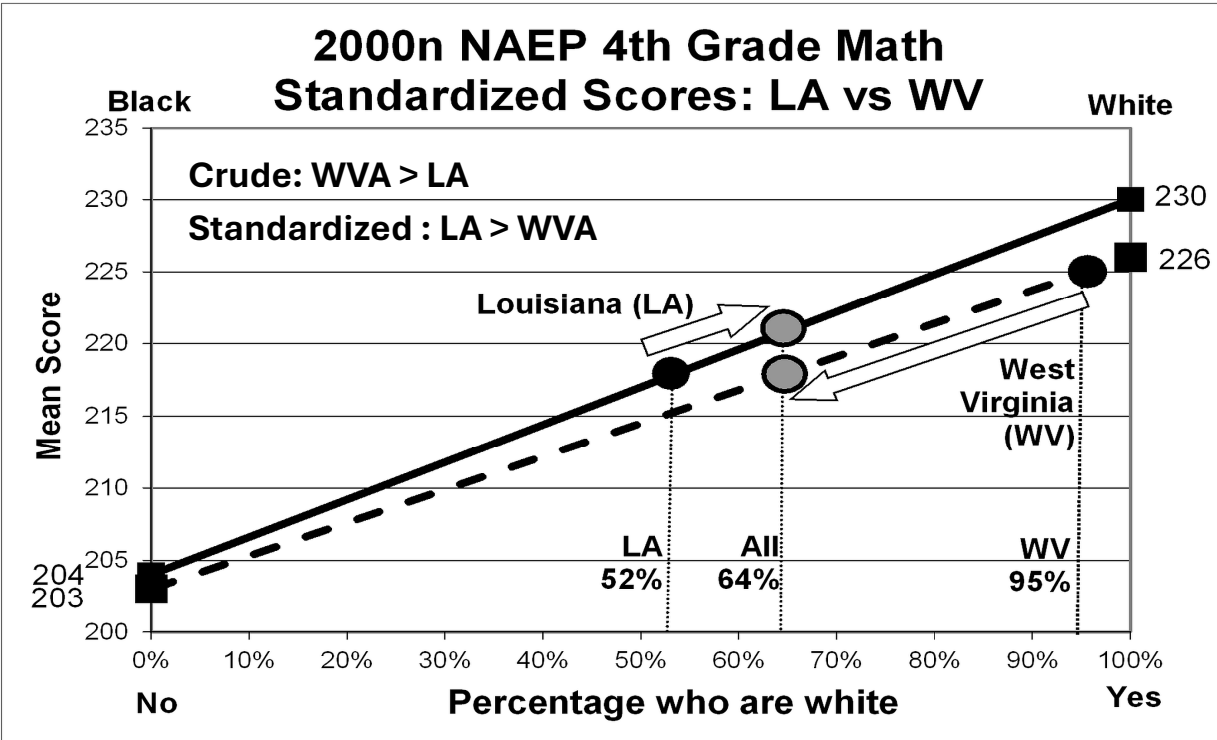


Teaching Confounding:

Abstract: The 2016 GAISE update recommended multivariate thinking and confounding. But none of their suggested methods allowed students to work problems with numeric answers. Students in Math1300 at the Univ. of New Mexico work problems (without computer software) that *'take into account'* the influence of a measured confounder. This is a game-changer for most of our students who deal primarily with observational data. Learn how it's done. See how controlling for a confounder can change statistical significance into insignificance -- and vice versa. See (visually) Simpson's paradox. Talk about including confounding in your introductory statistics class.



All college graduates should know what it means to *take something into account quantitatively!*



Difference between a crude comparison and a standardized (adjusted) comparison: it's the MIX!!

Crude comparisons of ratios often have unequal mixtures of a confounder.

Diagonal lines are the weighted average lines.

Weighted average (value) depends on the percentage of the confounder for that group.

Standardized weighted averages have the same mixture of the confounder.

Taking a confounder into account means both groups have the same mixture of that confounder.