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A New Method for Attributing Changes in Life Expectancy to Various Causes of Death, with Application to the United States

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Abstract

This article focuses on decomposition of changes in life expectancy by cause of death. We propose an alternative to Arriaga's (1984) method for performing such decompositions. We apply our method to changes in life expectancy in the United States between 1970 and 2000 and compare results to those produced using Arriaga's formulation. The major difference between the approaches pertains to diseases prominent at older ages such as cardiovascular disease. For applications where causes of death are the central focus, our technique appears to have a modest advantage because of its conceptual clarity and attractive byproducts in the form of cause-deleted life tables.

Keywords

Aging, Arriaga, Birth, Births, Cause-deleted life table, Cause of death, Causes of death, Census, Census Bureau, Centers for Disease Control and Prevention, Das Gupta, Data, Death, Decomposition techniques, Decompositional methods, Demographic measures, Demography, Disease, Kitagawa, Life expectancy, Life Tables, Longevity, Morbidity, Mortality, National Center for Health Statistics, Race, Sex, Statistical modeling, Statistics, United States, United States Census Bureau

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