

Dissertation Defense

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9:00AM

368 ISR

and

1208 LeFrak

COGNITIVE AGING AND SURVEY MEASUREMENT

Increases in life expectancy and progress in medical treatments will dramatically change the age distribution of Western societies over the next few decades. The U.S. population of people age 65 and older is expected to double from 36 million in 2003 to 72 million in 2030, representing an increase from 12% of the population in 2003 to 20% in 2030. These demographic shifts pose a major challenge for survey methodologists. Normal aging is associated with a decline in many cognitive abilities that play a prominent role in the processes underlying respondents' answers to survey questions. Hence, normal cognitive aging may be associated with increased difficulties in answering survey questions, resulting in poorer data quality. This dissertation addresses this possibility and explores when and how cognitive aging can introduce survey errors. It consists of three essays.

The first essay addresses whether age-related decline in cognitive functioning increases the likelihood that respondents rely on cognitively less taxing response strategies when answering behavioral frequency questions. The results show that older respondents are more likely to use strategies associated with overreporting, although reliance on these strategies did not produce overall differences in response accuracy. The second essay attempts to disentangle the influence of cognitive aging, decline in physical health and changes in social networks on panel attrition in studies of the elderly. It shows that cognitive aging as well as physical decline increase the likelihood of a proxy-interview compared to a self-interview in the next wave but exert no influence on the likelihood of a refusal. The use of proxy interviews seems to be an important tool to minimize panel attrition bias. The third essay explores how diurnal cycles influence the quality of older respondents' survey answers. In general, older adults show better cognitive performance early rather than late in the day, suggesting that time-of-day of the interview may affect data quality. This expectation received no support, nor could the usually obtained diurnal differences in cognitive functioning be observed in the survey context.