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ISSN 1435-9871

published by the Max Planck Institute for Demographic Research. A free, open access, expedited, peer-reviewed journal of the population sciences, published regularly on the web since July 1999.

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Estimation of multi-state life table functions and their variability from complex survey data using t

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VOLUME 22 - ARTICLE 6 PAGES 129 - 158

Date Received: 7 Jan 2009 Date Published: 26 Jan 2010

http://www.demographic-research.org/volumes/vol22/6/

## doi: 10.4054/DemRes.2010.22.6



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## Abstract

The multistate life table (MSLT) model is an important demographic method to document life cycle processes. In this study, we present the SPACE (Stochastic Population Analysis for Complex Events) program to estimate MSLT functions and their sampling variability. It has several advantages over other programs, including the use of microsimulation and the bootstrap method to estimate the sampling variability. Simulation enables researchers to analyze a broader array of statistics than the deterministic approach, and may be especially advantageous in investigating distributions of MSLT functions. The bootstrap method takes sample design into account to correct the potential bias in variance estimates.

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Keywords bootstrap, health expectancy, multi-state life table, population aging

Word count (Main text) 7708

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