A DEMOGRAPHIC APPROACH TO FORECASTING GROUPS COVERED BY EMPLOYER HEALTH INSURANCE

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ABSTRACT

Unlike their counterparts in other industrialized countries, most U.S. residents receive health care coverage through an employer. Employer health care costs depend on the size and characteristics of the covered population, including employees and their dependents. Employer costs are related to the population's age-sex composition and also are reduced when enrollees receive Medicare coverage at age 65. Costs fall from infancy, rise steadily to age 50, accelerate to age 65 and the fall precipitously because government provided Medicare insurance begins. Compared to men, women's costs are slightly higher during the childbearing years.

We evaluate extrapolative, headship, and cohort-component methods for forecasting population size and age-sex composition using data about the General Motors salaried health benefits population from 1983 to 1993. We use 1988 as a jump-off year, forecast the population 1989 to 1993, and compare forecasts to actual annual data. Extrapolation procedures predict total population size well, as has been found elsewhere. Cohort-component methods forecast the age-sex composition better than other procedures. Unlike prior studies, we find that accuracy levels vary dramatically across both techniques and years, and that errors do not increase with the length of the forecast horizon. These findings suggest that population dynamics in socially-defined populations differs markedly from that in geographically-defined populations.