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PRELIMINARY IOWA POPULATION PROJECTION: 1970 - 2020

IOWA STATE DEPARTMENT OF HEALTH

AND

OFFICE FOR PLANNING AND PROGRAMMING

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INTRODUCTION

Population projections are not forecasts of what will actually take place. They are presumed to be accurate only under specified conditions. Projections are statements of what the size and the age-sex composition of the population would be at a specified future time if fertility, survival and migration rates were to follow specified trends. A projection is an "if and then" statement. If certain specified trends continue, then the population will be as projected.

METHODOLOGY 1/

Three components are calculated by age and sex groups. Fertility rates are figured for each appropriate age-group of women, and male and female survival and migration rates are calculated for different age-groups. These rates are called age-specific and sex-specific rates. Because each specified age and sex group comprises a cohort, this method is called a cohort-survival component method; since these projections are based on the age-sex-specific rates of three components of population (live birth, death, migration). This method produces a sensitive projection because it is a highly refined procedure involving detailed calculations.

A brief summary of this method is as follows. The objective is to obtain projected figures for 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010, 2015, and 2020. The age-sex specific survival rates for the state as a whole and the age-sex-specific fertility rates and migration rates for each county are determined. According to assumptions about change between 1970 and 1975, each rate for each cohort in each county are applied to the 1970 population of that cohort, resulting in a projected cohort population to 1975 for all 99 counties. Then each specific rate, newly adjusted according to assumptions of change between 1975 and 1980,

are applied to its corresponding 1975 cohort population. This will result in a projected cohort population to 1980. The procedure is repeated for each projected period, each new projection being calculated from the previously projected figure and according to assumptions about the changes in rates of the components.

The period from 1969 to 1971 provides the basis for determining the fertility and the survival rates, and the census decade 1960 to 1970 provides the base for calculating the net migration rates.

ASSUMPTIONS*

1/
Survival rates: Five year survival rates for Iowa males and females, by age, were calculated and tied-in with the United States projected rates. It was assumed that the state age and sex specific survival rates are sufficiently uniform to be applicable to all 99 counties. United States survival rates show a slight increase in the future.

2/
Fertility rates: Age specific rates calculated for each county were adjusted to follow the national trend of Series E. Series E assumes an ultimate completed fertility of 2.1 children per woman.

3/
Net migration rates: County rates, by age and sex, based on the 1960-1970 net migration experience were adjusted to conform with the 1970-1973 county trends. Because of the uncertainty of these trends continuing over time, they have been gradually reduced to 0 by the year 2000.

*For additional information regarding methodology, assumptions or adjustment, contact Mr. James Taylor, Director, Statistical Services Section, Division of Records and Statistics, Iowa State Department of Health, Telephone (515) 281-5871.

REFERENCES

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