



Population Estimates and Projections

U.S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

Series P-25, No. 602

Issued June 1975

ESTIMATES OF THE POPULATION OF OREGON COUNTIES AND METROPOLITAN AREAS: JULY 1, 1973 AND 1974

This report presents population estimates for July 1, 1973 and provisional estimates for July 1, 1974 for counties and metropolitan areas in Oregon. These estimates were prepared by the Bureau of the Census as part of its continuing population estimates program. They are consistent in methodological approach with county estimates for other States jointly prepared by State agencies and the Bureau of the Census under the auspices of the Federal-State Cooperative Program and published in *Current Population Reports*, Series P-26.

County estimates for July 1, 1971, July 1, 1972, and provisional estimates for July 1, 1973, were published earlier in *Current Population Reports*, Series P-25, No. 517 and Series P-26, No. 74. The provisional estimates in the last cited report are superseded by the numbers published here.

This report introduces an additional estimating procedure using administrative records, made possible by the availability of a new data source. Because of the resultant change in weighting of methods and changes in input data in other methods used, estimates shown here may not always be comparable with those for the earlier years.

The methods used have been tested against the 1970 census and recent special censuses. A decision on current methodology was made by the Bureau of the Census on the basis of the tests. For a more detailed description of the Federal-State Cooperative Program and an analysis of 1970 test results for methods other

than the recently developed Administrative Records method, see *Current Population Reports*, Series P-26, No. 21, "Federal-State Cooperative Program for Local Population Estimates: Test Results—April 1, 1970," April 1973. Results of a test of the Administrative Records method are presented in *Current Population Reports*, Series P-25, No. 582.¹

The estimates shown for July 1, 1973, are based on an average of the following methods, adjusted to agree with the July 1, 1973 State estimate published in Series P-25, No. 533.

1. The **Regression (ratio-correlation) method.** In the Regression method a multiple regression equation is used to relate changes in a number of different data series to change in population distribution.² The series of data used in the Regression method for Oregon are: elementary school enrollment in grades 1 through 8 plus elementary special and elementary ungraded (X_1),

¹ Results of earlier studies were given in "Use of Administrative Records for Small-Area Population Estimates," by Meyer Zitter and David L. Word; a paper presented at the Annual Meeting of Population Association of America, New Orleans, Louisiana, April 27, 1974. A copy of this paper can be obtained by writing Chief, Population Division, Bureau of the Census, Washington, D.C. 20233.

² Descriptions of methodologies are given in *Current Population Reports*, Series P-25, Nos. 427 and 520. Modifications made to the methodologies for the current series will be given in forthcoming reports in Series P-25.

individual State income tax returns (X_2), and registered voters (X_3). The prediction equation for Oregon for the 1970's is given by

$$\hat{Y} = -0.0370 + 0.2264X_1 + 0.4633X_2 + 0.3435X_3$$

2. **Component Method II.** This method employs vital statistics to measure natural increase and school enrollment to measure net migration. The estimates made by the Census Bureau's Component Method II are specific to the civilian population under 65. To this population is added an estimate of the population 65 and over based on Medicare statistics and an estimate of the resident military population based on station strength statistics.²

3. **The Administrative Records method.** This newly developed component method uses administrative records (in this instance individual Federal income tax returns) to measure civilian intercounty migration and reported vital statistics to estimate natural increase.³ The tax returns are matched for the successive periods to determine the number of persons whose county of residence changed during the estimating period. A net migration rate based on the number of taxpayers changing residence is derived; this rate is then assumed to apply to the total population. This estimate is made specific to the civilian population under age 65 by excluding from the migration computations data relating to persons 65 years and over. These estimates are then combined with independent estimates of the population 65 and over based on Medicare statistics. The other components of population change—births, deaths, immigration, net movement between the Armed Forces and civilian population, and resident military population—are identical with Component Method II (described above).

The provisional July 1, 1974 estimates for large metropolitan counties were developed by adding the average change between 1973 and 1974 estimates based on Component Method II and the Housing Unit method to the 1973 estimates. In the **Housing Unit method** the estimates of the population are based on estimates of the housing inventory. Changes in the

housing inventory are derived from data on building permits issued and demolition records, or on data on electric meter connections. The provisional July 1, 1974 estimates for the remaining counties were developed by adding the change between 1973 and 1974 Component Method II estimates to the 1973 estimates. All counties were subsequently adjusted to agree with the provisional July 1, 1974 State estimate published in **Current Population Reports**, Series P-25, No. 533.

Table 2 of this report presents estimates of the population of metropolitan areas and metropolitan counties in the State. The titles and definitions of the standard metropolitan statistical areas (SMSA's) are those currently defined by the Office of Management and Budget, Executive Office of the President. Where an SMSA falls in more than one State (indicated in the SMSA title) information on the other State parts of the area can be obtained by referring to the P-26 report for the other States.

The 1973 estimates published in this report represent revisions to county estimates shown in **Current Population Reports**, Series P-25, No. 582. They reflect more current data on population change than were available at the time that the Series P-25 report was prepared. The estimates for counties, incorporated places, and other general purpose governments published in the Series P-25 report were used as the basis for the distribution of funds under the State and Local Fiscal Assistance Act of 1972. See that report for a description of methods, assumptions, and limitations of the estimates.

Corresponding estimates for other States in the program will be published as they become available. The appendix table shows reports published to date for States in the 1973-74 series, together with those published earlier in the decade.

The 1970 census total for the State shown on the table may differ slightly from the sum of the counties because of corrections made subsequent to the release of the official State figure. All county populations for 1970 reflect the most recent corrections in the census count. Counties with corrections of more than 500 are Lane and Multnomah.

The estimates presented in the table have been rounded to the nearest hundred without being adjusted to the State total, which was independently rounded to the nearest thousand. Percentages are based on unrounded numbers.

² See footnote 2 on page 1.

³ For a discussion of this methodology see Donald E. Starsinic, "Development of Population Estimates for Revenue Sharing Areas," in U.S. Bureau of the Census, **Census Tract Papers**, Series GE-40, No. 10; and Zitter and Word, *op cit*.

Table 2. ESTIMATES OF THE POPULATION OF METROPOLITAN AREAS AND THEIR COMPONENT COUNTIES: OREGON, JULY 1, 1973 AND 1974

(SMSA totals rounded independently of county numbers)

| Standard metropolitan statistical area and county | July 1, 1974 (provisional) | July 1, 1973 | April 1, 1970 (census) | Change, 1970 to 1974 | | Components of change, 1970 to 1974 ¹ | | | |
|---|----------------------------|--------------|------------------------|----------------------|---------|---|--------|---------------|---------|
| | | | | Number | Percent | Births | Deaths | Net migration | |
| | | | | | | | | Number | Percent |
| EUGENE-SPRINGFIELD, OREG... | 236,600 | 230,300 | 215,401 | 21,200 | 9.9 | 14,300 | 6,800 | 13,700 | 6.3 |
| Lane..... | 236,600 | 230,300 | 215,401 | 21,200 | 9.9 | 14,300 | 6,800 | 13,700 | 6.3 |
| PORTLAND, OREG.-WASH. (Oreg. portion)..... | 930,200 | 917,400 | 878,676 | 51,600 | 5.9 | 55,400 | 37,200 | 33,400 | 3.8 |
| Clackamas..... | 201,000 | 191,000 | 166,088 | 34,900 | 21.0 | 10,900 | 5,900 | 29,900 | 18.0 |
| Multnomah..... | 538,500 | 543,800 | 554,668 | -16,200 | -2.9 | 33,400 | 26,700 | -22,900 | -4.1 |
| Washington..... | 190,800 | 182,700 | 157,920 | 32,900 | 20.8 | 11,200 | 4,700 | 26,400 | 16.7 |
| SALEM, OREG..... | 201,800 | 196,300 | 186,658 | 15,200 | 8.1 | 12,000 | 7,800 | 10,900 | 5.8 |
| Marion..... | 163,800 | 158,900 | 151,309 | 12,500 | 8.2 | 9,900 | 6,300 | 8,900 | 5.9 |
| Polk..... | 38,000 | 37,400 | 35,349 | 2,700 | 7.6 | 2,100 | 1,400 | 2,000 | 5.6 |

¹Births and deaths are based on reported vital statistics from April 1, 1970, to December 31, 1973, with extrapolations to June 30, 1974. Net migration is the difference between net change and natural increase.

COUNTIES, METROPOLITAN AREAS, AND SELECTED PLACES: OREGON

