

FEDERAL-STATE COOPERATIVE PROGRAM FOR  
**Population Estimates**

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**ESTIMATES OF THE POPULATION OF WASHINGTON  
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 Washington. 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. 66. The provisional estimates in the last cited report are superseded by the numbers published here.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. 592.<sup>1</sup>

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.<sup>2</sup> The series of data used in the Regression method for Washington are: automobile registrations ( $X_1$ ), voter registrations ( $X_2$ ), and elementary school enrollment in grades 1

<sup>1</sup> 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.

<sup>2</sup> 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.

through 8 plus elementary special and elementary ungraded ( $X_3$ ). The prediction equation for Washington for the 1970's is given by

$$\hat{Y} = -0.0065 + 0.1848X_1 + 0.4255X_2 + 0.3971X_3$$

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.<sup>2</sup>

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.<sup>3</sup> 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 were developed by adding the average change between 1973

and 1974 estimates based on Component Method II and the Regression method 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. 592. 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 King and Pierce.

The estimates presented in the tables 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.

<sup>2</sup>See footnote 2 on page 1.

<sup>3</sup>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 1. ESTIMATES OF THE POPULATION OF WASHINGTON COUNTIES:  
JULY 1, 1973 AND JULY 1, 1974**

(State estimates are shown to the nearest thousand, county estimates to the nearest hundred)

County	July 1, 1974 (provi- sional)	July 1, 1973	April 1, 1970 (census) <sup>1</sup>	Change, 1970 to 1974		Components of change, 1970 to 1974 <sup>2</sup>			
				Number	Percent	Births	Deaths	Net migration	
								Number	Percent
Washington.....	3,476,000	3,431,000	3,409,169	67,000	2.0	220,000	129,000	-29,000	-0.9
Adams.....	12,800	12,700	12,014	700	6.2	1,000	400	100	0.5
Asotin.....	14,900	14,700	13,799	1,100	7.9	900	700	900	6.5
Benton.....	70,600	68,700	67,540	3,000	4.5	4,400	2,000	600	0.9
Chelan.....	39,800	39,300	41,103	-1,300	-3.2	2,200	1,900	-1,600	-4.0
Clallam.....	39,700	38,400	34,770	4,900	14.2	2,500	1,700	4,100	11.8
Clark.....	149,500	145,400	128,454	21,000	16.4	9,600	4,800	16,200	12.6
Columbia.....	4,500	4,600	4,439	100	1.1	200	200	100	2.1
Cowlitz <sup>3</sup> .....	70,800	70,300	68,616	2,200	3.2	5,000	2,500	-300	-0.4
Douglas.....	19,100	18,500	16,787	2,300	13.6	900	500	1,800	10.8
Ferry.....	4,300	4,000	3,655	600	16.9	300	100	500	12.4
Franklin.....	26,500	26,400	25,816	700	2.7	2,100	900	-500	-1.9
Garfield.....	2,800	3,000	2,911	-100	-2.8	200	100	-100	-3.6
Grant.....	44,400	43,400	41,881	2,500	5.9	3,200	1,300	600	1.5
Grays Harbor.....	60,600	59,800	59,553	1,100	1.8	4,000	2,900	-100	-0.1
Island.....	32,100	31,200	27,011	5,100	18.8	2,500	900	3,500	12.8
Jefferson.....	11,600	10,900	10,661	1,000	9.1	500	500	900	8.8
King.....	1,134,500	1,129,700	1,159,369	-24,900	-2.1	65,100	41,100	-48,900	-4.2
Kitsap.....	106,400	102,900	101,732	4,700	4.6	6,900	3,900	1,800	1.7
Kittitas.....	25,800	26,300	25,039	800	3.0	1,300	900	300	1.1
Klickitat.....	13,000	13,000	12,138	900	7.5	900	500	600	4.9
Lewis.....	47,800	47,100	45,467	2,300	5.1	3,200	2,300	1,400	3.2
Lincoln.....	9,400	9,600	9,572	-200	-1.6	500	500	-200	-1.7
Mason.....	22,600	21,800	20,918	1,700	7.9	1,300	900	1,200	5.9
Okanogan.....	26,900	26,700	25,867	1,000	4.0	1,800	1,200	400	1.6
Pacific.....	16,200	15,800	15,796	400	2.7	900	900	500	2.9
Pend Oreille.....	7,100	6,700	6,025	1,100	18.7	500	300	900	15.6
Pierce.....	397,800	388,000	412,344	-14,600	-3.5	28,600	14,400	-28,800	-7.0
San Juan.....	5,100	4,800	3,856	1,200	31.1	200	200	1,200	32.2
Skagit.....	53,600	53,000	52,381	1,200	2.3	3,200	2,400	300	0.7
Skamania.....	6,200	6,000	5,845	400	6.6	400	200	200	3.0
Snohomish.....	261,200	261,700	265,236	-4,000	-1.5	18,100	8,200	-13,800	-5.2
Spokane.....	303,900	300,400	287,487	16,400	5.7	20,500	12,700	8,500	3.0
Stevens.....	19,500	19,000	17,405	2,100	11.9	1,200	800	1,700	9.7
Thurston.....	89,000	84,800	76,894	12,100	15.8	5,500	2,900	9,600	12.4
Wahkiakum.....	3,600	3,600	3,592	(Z)	1.0	200	200	(Z)	-0.6
Walla Walla.....	42,000	41,800	42,176	-200	-0.4	2,200	2,000	-400	-0.1
Whatcom.....	88,800	88,100	81,983	6,800	8.3	5,300	3,400	4,900	6.0
Whitman.....	40,300	40,500	37,900	2,400	6.4	2,100	1,100	1,400	3.7
Yakima.....	151,200	148,600	145,212	6,000	4.2	10,900	6,400	1,500	1.1

Z Less than 50 persons.

<sup>1</sup>Total does not agree with the sum of the counties due to corrections made to the county populations after release of the official State counts.

<sup>2</sup>Births 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.

<sup>3</sup>The population of Cowlitz County, as counted in the special census taken by the Population Studies Division, Office of Program Planning and Fiscal Management on September 10, 1973, was 70,408. The estimates shown here have been adjusted to reflect this count.

Table 2. ESTIMATES OF THE POPULATION OF METROPOLITAN AREAS AND THEIR COMPONENT COUNTIES: WASHINGTON, 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 <sup>1</sup>			
				Number	Percent	Births	Deaths	Net migration	
								Number	Percent
PORTLAND, OREG.-WASH. (Wash. portion).....	149,500	145,400	128,454	21,000	16.4	9,600	4,800	16,200	12.6
Clark.....	149,500	145,400	128,454	21,000	16.4	9,600	4,800	16,200	12.6
RICHLAND-KENNEWICK, WASH.....	97,100	95,100	93,356	3,700	4.0	6,400	2,800	100	0.2
Benton.....	70,600	68,700	67,540	3,000	4.5	4,400	2,000	600	0.9
Franklin.....	26,500	26,400	25,816	700	2.7	2,100	900	-500	-1.9
SEATTLE-EVERETT, WASH.....	1,396,800	1,392,700	1,424,605	-27,800	-1.9	83,200	49,300	-61,600	-4.3
King.....	1,135,600	1,131,000	1,159,369	-23,800	-2.0	65,100	41,100	-47,800	-4.1
Snohomish.....	261,200	261,700	265,236	-4,000	-1.5	18,100	8,200	-13,800	-5.2
SPOKANE, WASH.....	303,900	300,400	287,487	16,400	5.7	20,500	12,700	8,500	3.0
Spokane.....	303,900	300,400	287,487	16,400	5.7	20,500	12,700	8,500	3.0
TACOMA, WASH.....	397,800	388,000	412,344	-14,600	-3.5	28,600	14,400	-28,800	-7.0
Pierce.....	397,800	388,000	412,344	-14,600	-3.5	28,600	14,400	-28,800	-7.0
YAKIMA, WASH.....	151,200	148,600	145,212	6,000	4.2	10,900	6,400	1,500	1.1
Yakima.....	151,200	148,600	145,212	6,000	4.2	10,900	6,400	1,500	1.1

<sup>1</sup>Births 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.

## APPENDIX

## ESTIMATES PUBLISHED IN SERIES P-26 REPORTS SINCE 1970

(Reports issued under the Federal-State Cooperative Program for Population Estimates, jointly prepared by the Bureau of the Census and designated State agencies)

State	Report No.			State	Report No.		
	1973 and provisional 1974	1972 and provisional 1973	1971 and provisional 1972		1973 and provisional 1974	1972 and provisional 1973	1971 and provisional 1972
Ala.....		76	48	Mont.....	109	53	19
Alaska.....		( <sup>2</sup> )	( <sup>3</sup> )	Nebr.....	104	58	25
Ariz.....	94	50	*11	Nev.....		67	29
Ark.....		70	33	N. H.....	107	52	18
Calif.....		( <sup>2</sup> )	*41	N. J.....		82	20
Colo.....	103	62	17	N. Mex.....		85	( <sup>3</sup> )
Conn.....		79	( <sup>3</sup> )	N. Y.....		( <sup>2</sup> )	( <sup>3</sup> )
Del.....	111	57	15	N. C.....	114	68	44
Fla.....		90	46	N. Dak.....	102	60	( <sup>3</sup> )
Ga.....		92	37	Ohio.....		80	*40
Hawaii.....	105	56	23	Okla.....	112	63	24
Idaho.....	106	51	9	Oreg.....		74	( <sup>3</sup> )
Ill.....		78	27	Pa.....		93	*39
Ind.....	113	75	14	R. I.....	98	65	22
Iowa.....		72	31	S. C.....	108	71	34
Kans.....		64	43	S. Dak.....	101	61	*12
Ky.....		84	35	Tenn.....		83	47
La.....	97	54	*16	Tex.....		( <sup>2</sup> )	( <sup>3</sup> )
Maine.....	99	59	28	Utah.....	96	55	10
Md.....	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>3</sup> )	Vt.....	95	49	*13
Mass.....		91	42	Va.....		88	36
Mich.....	110	69	32	Wash.....	( <sup>1</sup> )	66	( <sup>3</sup> )
Minn.....		87	38	W. Va.....		89	30
Miss.....		86	( <sup>3</sup> )	Wis.....		81	26
Mo.....		77	45	Wyo.....	100	73	( <sup>3</sup> )

\*First year only. For second year, see Series P-25, No. 517.

<sup>1</sup>County or county equivalent estimates for 1973 and provisional 1974 are published in Series P-25 for the following States: Maryland, No. 596; Washington, No. 597.

<sup>2</sup>County or county equivalent estimates for 1972 and provisional 1973 are published in Series P-25 for the following States: Alaska, No. 531; California, No. 532; Maryland, No. 530; New York, No. 527; and, Texas, No. 535.

<sup>3</sup>County estimates for this State for 1971 and provisional 1972 are published in Series P-25, No. 517.

# COUNTIES, METROPOLITAN AREAS, AND SELECTED PLACES: WASHINGTON

