OFM
Office of Financial Management

November 2024 Forecast

Forecast of the State Population

Acknowledgments

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Background

Each November, the Office of Financial Management (OFM) produces a forecast of the state population for 30 years from the latest decennial census. These forecasts by sex and single year of age incorporate assumptions about how fertility, mortality, and migration will change in the future. We update these assumptions each year to reflect recent trends, and then reconstruct the forecast to start from the latest official OFM April 1 population estimates.
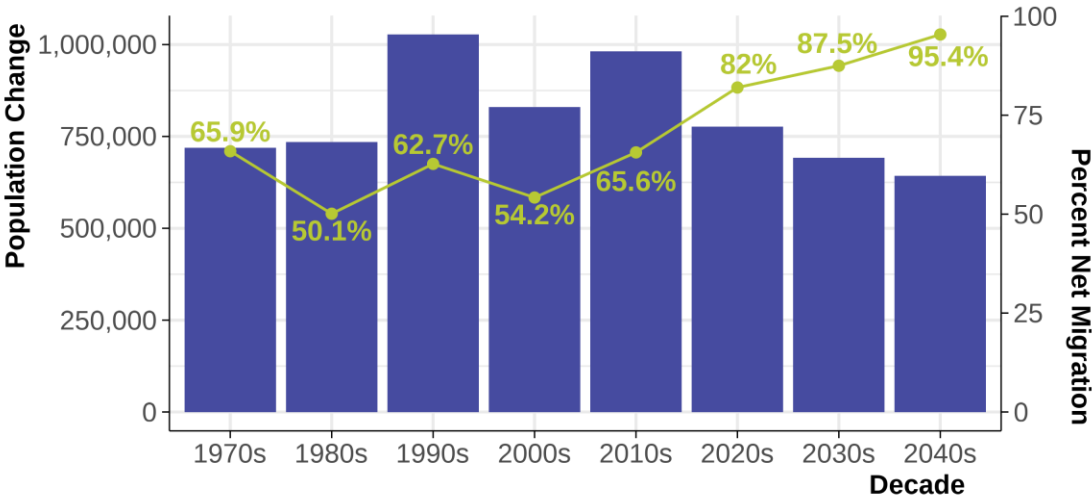
Overall population change

We expect Washington's population to continue growing from 7.7 million in 2020 to just over 9.8 million in 2050 (a 27% increase), for an annual average growth rate of 0.8%.

Population changes in three ways: births, deaths, and migration. Natural change is the number of births minus the number of deaths. Net migration is the number of people moving into Washington minus the number of people moving out of the state. Figure 1 shows the increasing importance of net migration as a driver of population growth (see Table 1 for additional detail). Between 2020 and 2050, we expect Washington to add about 2,111,100 people, reaching 9,817,500 in 2050. Approximately 88% (1,855,500 people) of the increase is due to net migration, with the other 12% (255,600 people) due to natural change.

Natural change is expected to decline from 26,300 in 2020 to just under 900 in 2050. Births are forecast to increase over time as the population grows, but the rise in deaths as the Baby Boomer generation ages will temper natural change. This population aging explains the increasing role of net migration in population growth for the coming decades.

**Figure 1. Components of population change by decade, 1980–2050**

Age-specific population change

The change in Washington's total population is only part of the story, as many impacts we associate with population change are age-group specific, such as effects on health care, labor force, and education. The population will get older over the forecast window as births decline and the large Baby Boomer generation ages. In fact, the median age will increase from 38.1 years in 2020 to 44.1 in 2050. Based on the projection, this section highlights changes in the school-age, senior, and most elderly populations. Table 2 contains the total population data for each of the following age categories.

School-age population (ages 5 to 17)

This age group approximates the population potentially enrolling in school from kindergarten through 12th grade. This group numbers 1,243,000 in 2020 and will add 84,300 people to reach a total of 1,327,300 in 2050. While recent growth has been strong — averaging 5,400 people per year from 2020 to 2025 — this cohort will likely shrink until 2037, reflecting lower births since 2017. After the decline, this population will return to a pattern of growth for the remainder of the forecast.

Figure 2. School-age population and annual change, 1990–2050
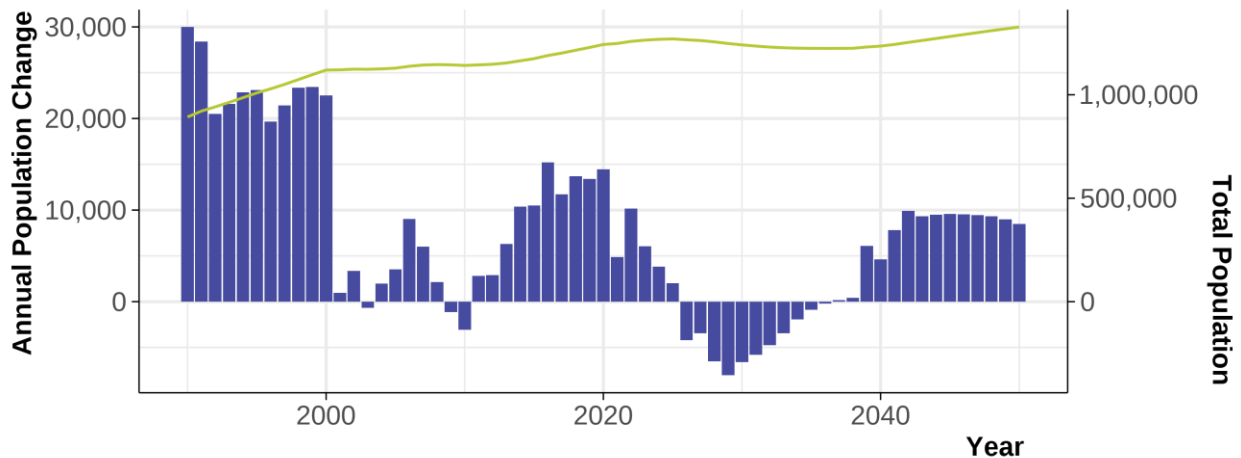
College-age population (ages 17 to 22)

A key indicator of labor force change is the college-age population, including most students in postsecondary institutions and young workers entering the labor force. The population aged 17 to 22 will grow by 36,700 from 2020 to 2050, from 582,100 to 618,800. The next decade will see the fastest growth, adding 5,600 people per year from 2020–2030. Declines in this population from 2032 through 2043, again, reflect recent low birth rates.

Figure 3. College-age population and annual change, 1990–2050
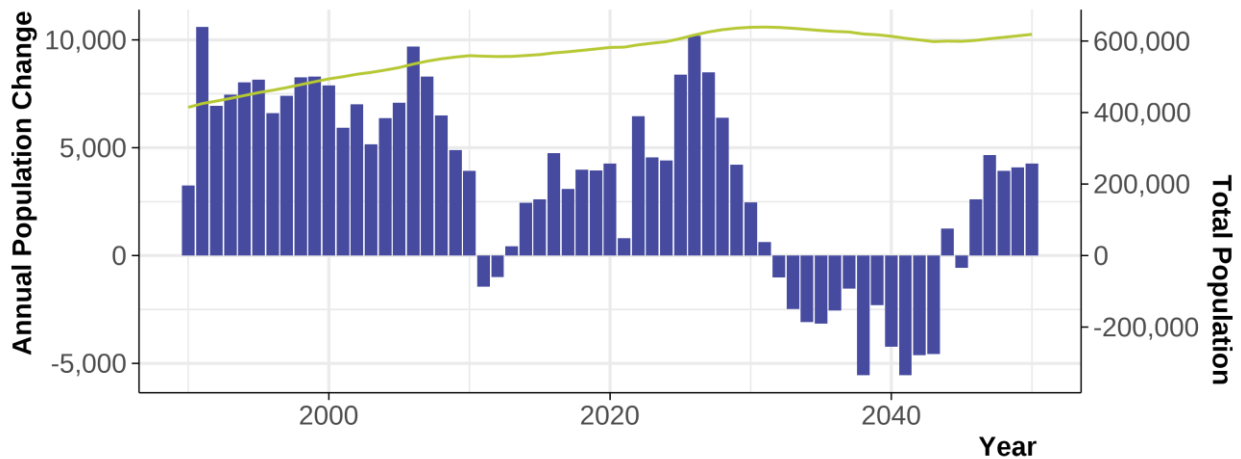
Senior population (ages 65 and over)

The aging of Washington's population is clearly reflected in the dramatic increase of the 65 and older population over the next 30 years. The rapid growth of this older population carries important planning and policy implications at the state and local levels. In 2020, there were 1,252,300 people over age 65 (about 16% of the total population). By 2050, we expect the senior population to nearly double, reaching 2,283,600 people (over 23% of the population). The fastest growth is expected to occur before 2030 as the Baby Boomer generation enters the age bracket. For reference, the 2011 spike in the 65 and over population corresponds to the spike in births in 1946 (exactly one year after American service members returned from World War II).

Figure 4. Senior population and annual change, 1990–2050
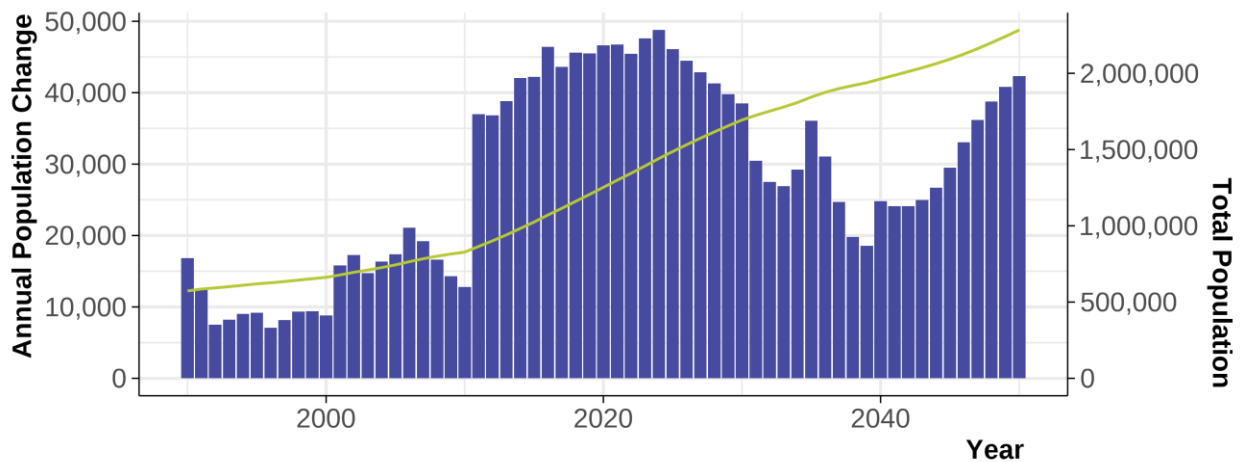
Most elderly population (ages 85 and over)

The most rapid shift will come at the oldest end of the age distribution, those age 85 and over. This population is expected to almost quadruple from 2020 to 2050, growing from 131,000 in 2020 to 519,900 in 2050. Growth in this group has important fiscal and capacity planning implications for long-term care. In the first half of the forecast, 2020 to 2035, the population will grow by an average of 9,600 people per year. We expect this rate to double in the second half of the forecast, however, adding 16,200 people per year between 2035 and 2050.

Figure 5. Most elderly population and annual change, 1990–2050
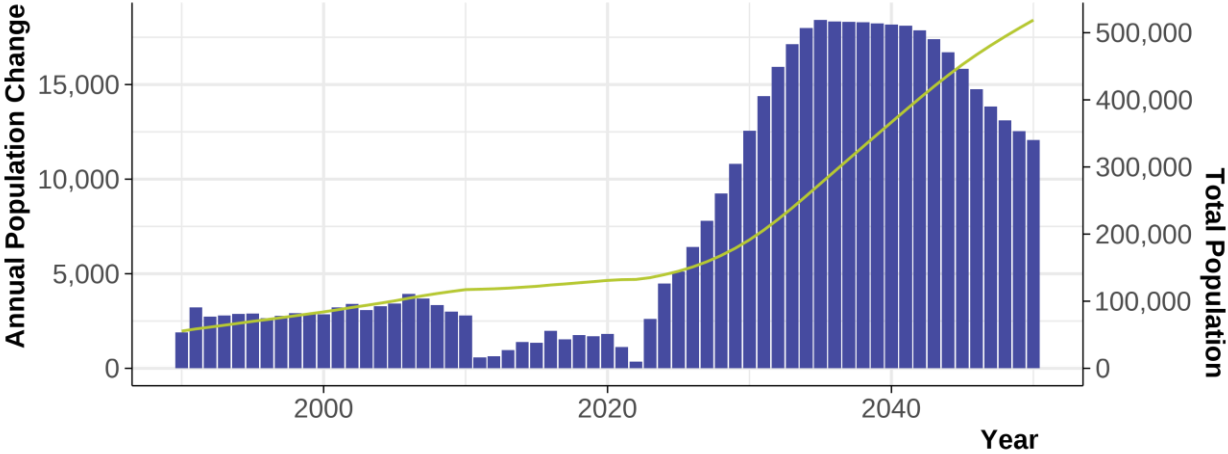
Forecast model and assumptions

To produce the state forecast, we construct a model based on the population balancing equation: that the population this year is equal to the population last year plus births, minus deaths, plus net migration. Our model is a cohort-component model because it also accounts for the age and sex structure of the population. Specifically, the model *starts* with 2020 population by single year of age and sex, *ages* each group one year older while subtracting mortality, *applies* fertility rates to generate new births, and *adds* migration to generate the population for 2021. These values are controlled to estimated births, deaths, and net migration for the estimate years of the model, 2020–24. The model repeats this process for each year until the forecast horizon in 2050.

This November forecast updates the assumptions we have about long-term fertility rates, life expectancy, and short-term migration values.

Fertility assumptions

The total fertility rate, or the average number of children born to a woman who experiences all childbearing years, is at a historic low following decades of decline. This decline is consistent with national trends and with trends in western European countries. We rely on the United Nations' 2024 projections for the U.S. and other countries to construct our 2050 total fertility rate forecast of 1.67 children per woman in Washington, an increase from the current TFR of 1.51 (United Nations, Department of Economic and Social Affairs, Population Division 2024). This forecasted increase is not only in line with the UN projections, but also agrees directionally with U.S. Census Bureau projections (U.S. Census Bureau 2023). There are several substantive reasons to believe fertility rates will recover slightly from their current lows. First, fertility rates fell during the COVID-19 pandemic, dramatically impacting economic and social life in the nation. In response to these shocks, women may be delaying their childbearing rather than foregoing childbearing altogether. Such delays are consistent with the previously observed dramatic declines in fertility rates for 15-to-19-year-old women, while fertility rates for women over 30 have increased in the long-term. Our forecast assumes fertility rates will recover somewhat but not return to the same levels we saw pre-pandemic.

The decline in fertility rates has led to lower numbers of births since 2017. Approximately 81,700 babies were born in Washington in 2024, about 900 lower than 2023, the lowest values since 2004 when the population was 1.8 million people smaller. As the total population grows, largely through in-migration of working-aged people (ages 16 to 64), the number of births will increase to 89,600 in 2035 and 95,900 in 2050 despite lower rates. As migration's importance for population growth increases, the fertility behavior of those migrants will shape how birth rates change in the future as well.

Mortality assumptions

Life expectancy at birth measures the average number of years a person born in a period would live, assuming mortality rates stay the same. This is the metric that the state forecast model uses to project the level of mortality in the population.

Washington's life expectancy has historically been higher than the U.S., a trend we project into the future. We apply this shift to UN projections of U.S. life expectancy by sex to construct Washington life expectancy through 2050. Life expectancy will increase more quickly for males compared to females. However, it will remain higher throughout the forecast with women reaching 86.5 years compared to 83.4 for men by 2050. We've maintained our approach to COVID-19 deaths as the pandemic's impact on deaths has waned and been incorporated into the estimate years 2020–23. Previous forecasts assumed a faster increase in life expectancy from the lows of the pandemic years that was not supported by the estimated data.

In the coming decades we'll see large increases in the number of deaths as the population ages and grows. This is true despite increasing life expectancy as Washington's population continues to age into higher mortality groups. The crude death rate (deaths per 1,000 people) will increase from 7.7 in 2020, to 9.2 in 2035, and finally to 9.7 in 2050.

Net migration assumptions

Net migration is the primary driver of forecasted population change as natural change slowly decreases. Migration is also the hardest to predict because it can change far more quickly than births or deaths. Typically, migration follows cyclical economic indicators such as employment. However, it can also change due to non-economic factors such as military installation changes or refugee resettlement. In the near term, the forecast uses econometric models that weigh changes in employment in Washington against California and the rest of the nation along with other economic indicators. In the long term, migration is set to an adjusted 30-year average to provide a reasonable estimate despite significant uncertainty. The near-term forecast is smoothly transitioned to hit the long-term forecast by 2041.

Figure 6. Comparison of forecast net migration with historical estimates, 1990–2050
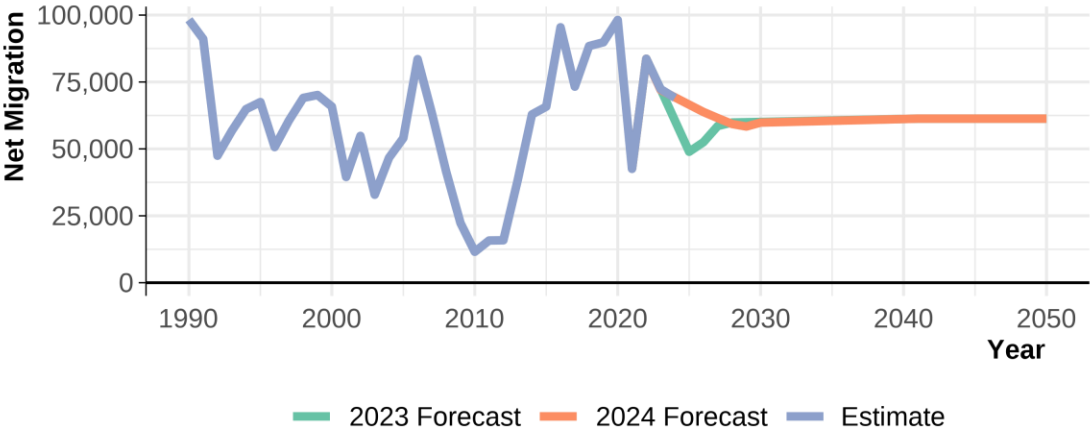
Figure 6 shows historical and predicted net migration from 1990 to 2050 and includes a comparison of this year's forecast to the previous year. In 2024, the estimated net migration was 69,300, which is about 8,700 higher than the forecast from last year. We did not change our long-term migration assumption of 61,300, and we hold it constant after hitting that value in 2041. This long-term migration assumption is higher than the previous decade, as the updated 30-year average excludes low migration in the 1980s and includes recent higher migration. Looking at the short term, the forecast is 7,300 people higher than the previous forecast for 2030.

Data tables

Table 1. Components of population change, 2010–50

Time Period	April 1 Population at End of Period	Population Change	Percentage Population Change	Number of Births	Birth Rate	Number of Deaths	Death Rate	Natural Change	Net Migration	Net Migration Rate
2010–11	6,777,903	53,363	0.79	86,383	12.80	48,786	7.23	37,597	15,766	2.34
2011–12	6,831,660	53,757	0.79	87,134	12.80	49,231	7.23	37,903	15,854	2.33
2012–13	6,906,026	74,366	1.09	87,250	12.70	51,109	7.44	36,141	38,225	5.56
2013–14	7,005,209	99,183	1.44	87,026	12.51	50,711	7.29	36,315	62,868	9.04
2014–15	7,106,620	101,411	1.45	88,479	12.54	52,848	7.49	35,631	65,780	9.32
2010–15		382,080		436,272		252,685		183,587	198,493	
2015–16	7,237,219	130,599	1.84	89,819	12.52	54,661	7.62	35,158	95,441	13.31
2016–17	7,344,073	106,854	1.48	89,664	12.30	56,075	7.69	33,589	73,265	10.05
2017–18	7,463,479	119,406	1.63	87,346	11.80	56,372	7.61	30,974	88,432	11.94
2018–19	7,581,818	118,339	1.59	85,708	11.39	57,205	7.60	28,503	89,836	11.94
2019–20	7,706,310	124,492	1.64	84,843	11.10	58,520	7.66	26,323	98,169	12.84
2015–20		599,690		437,380		282,833		154,547	445,143	
2020–21	7,766,975	60,665	0.79	82,100	10.61	63,978	8.27	18,122	42,543	5.50
2021–22	7,864,400	97,425	1.25	84,451	10.81	70,701	9.05	13,750	83,675	10.71
2022–23	7,951,150	86,750	1.10	82,626	10.45	67,930	8.59	14,696	72,054	9.11
2023–24	8,035,700	84,550	1.06	81,711	10.22	66,431	8.31	15,280	69,270	8.67
2024–25	8,115,982	80,282	1.00	83,093	10.29	69,338	8.59	13,755	66,527	8.24
2020–25		409,672		413,981		338,378		75,603	334,069	
2025–26	8,193,401	77,419	0.95	83,746	10.27	70,111	8.60	13,635	63,784	7.82
2026–27	8,268,275	74,874	0.91	84,345	10.25	70,982	8.62	13,363	61,511	7.47
2027–28	8,340,524	72,249	0.87	84,874	10.22	71,940	8.66	12,934	59,315	7.14
2028–29	8,411,286	70,762	0.85	85,394	10.20	73,000	8.72	12,394	58,368	6.97
2029–30	8,482,952	71,666	0.85	85,970	10.18	74,138	8.78	11,832	59,834	7.08
2025–30		366,970		424,329		360,171		64,158	302,812	
2030–31	8,554,189	71,237	0.84	86,638	10.17	75,368	8.85	11,270	59,967	7.04
2031–32	8,625,023	70,834	0.83	87,362	10.17	76,629	8.92	10,733	60,101	7.00
2032–33	8,695,415	70,392	0.82	88,100	10.17	77,942	9.00	10,158	60,234	6.96
2033–34	8,765,295	69,880	0.80	88,840	10.18	79,327	9.09	9,513	60,367	6.91
2034–35	8,834,687	69,392	0.79	89,565	10.18	80,673	9.17	8,892	60,500	6.88
2030–35		351,735		440,505		389,939		50,566	301,169	
2035–36	8,903,558	68,871	0.78	90,259	10.18	82,022	9.25	8,237	60,634	6.84
2036–37	8,971,969	68,411	0.77	91,000	10.18	83,356	9.33	7,644	60,767	6.80
2037–38	9,040,009	68,040	0.76	91,794	10.19	84,654	9.40	7,140	60,900	6.76
2038–39	9,107,687	67,678	0.75	92,544	10.20	85,899	9.47	6,645	61,033	6.73
2039–40	9,174,940	67,253	0.74	93,199	10.20	87,113	9.53	6,086	61,167	6.69
2035–40		340,253		458,796		423,044		35,752	304,501	
2040–41	9,241,648	66,708	0.73	93,692	10.17	88,284	9.59	5,408	61,300	6.66
2041–42	9,307,688	66,040	0.71	94,127	10.15	89,387	9.64	4,740	61,300	6.61
2042–43	9,373,153	65,465	0.70	94,581	10.13	90,416	9.68	4,165	61,300	6.56
2043–44	9,438,091	64,938	0.69	94,955	10.10	91,317	9.71	3,638	61,300	6.52
2044–45	9,502,530	64,439	0.68	95,247	10.06	92,108	9.73	3,139	61,300	6.47
2040–45		327,590		472,602		451,512		21,090	306,500	
2045–46	9,566,443	63,913	0.67	95,441	10.01	92,828	9.74	2,613	61,300	6.43
2046–47	9,629,836	63,393	0.66	95,578	9.96	93,485	9.74	2,093	61,300	6.39
2047–48	9,692,762	62,926	0.65	95,709	9.91	94,083	9.74	1,626	61,300	6.34
2048–49	9,755,272	62,510	0.64	95,803	9.85	94,593	9.73	1,210	61,300	6.30
2049–50	9,817,458	62,186	0.64	95,898	9.80	95,012	9.71	886	61,300	6.26
2045–50		314,928		478,429		470,001		8,428	306,500	
2020–50		2,111,148		2,688,642		2,433,045		255,597	1,855,551	

Notes: 1. Unrounded data should not be considered accurate to the last digit. 2. Rates computed per 1,000 population at yearly midpoint.

Table 2. Population by specific age groups 2000–50

Year	School Age (5-17)	College Age (17–22)	Labor Force (18-64)	Senior (65+)	Very Elderly (85+)
2000	1,119,533	494,223	3,718,167	662,142	84,083
2001	1,120,486	500,143	3,773,650	677,931	87,304
2002	1,123,863	507,153	3,837,308	695,188	90,713
2003	1,123,183	512,313	3,887,006	709,905	93,789
2004	1,125,174	518,680	3,945,811	726,276	97,080
2005	1,128,718	525,768	4,010,130	743,666	100,509
2006	1,137,756	535,454	4,094,334	764,778	104,449
2007	1,143,750	543,761	4,168,063	783,988	108,139
2008	1,145,885	550,250	4,227,894	800,598	111,473
2009	1,144,749	555,147	4,275,500	814,880	114,480
2010	1,141,681	559,073	4,315,517	827,685	117,278
2011	1,144,501	557,630	4,332,047	864,696	117,863
2012	1,147,393	556,638	4,349,131	901,497	118,492
2013	1,153,710	557,060	4,379,997	940,333	119,459
2014	1,164,080	559,510	4,426,875	982,367	120,847
2015	1,174,590	562,110	4,475,497	1,024,579	122,198
2016	1,189,790	566,860	4,542,919	1,070,985	124,186
2017	1,201,523	569,942	4,594,063	1,114,575	125,710
2018	1,215,222	573,927	4,653,181	1,160,185	127,470
2019	1,228,628	577,875	4,711,662	1,205,662	129,159
2020	1,243,062	582,137	4,773,831	1,252,275	130,975
2021	1,247,946	582,935	4,787,977	1,299,043	132,093
2022	1,258,101	589,390	4,828,992	1,344,494	132,446
2023	1,264,144	593,935	4,864,400	1,392,094	135,057
2024	1,267,969	598,352	4,900,394	1,440,867	139,543
2025	1,269,994	606,735	4,936,141	1,486,948	144,659
2026	1,265,802	616,933	4,972,197	1,531,422	151,082
2027	1,262,338	625,436	5,008,271	1,574,296	158,873
2028	1,255,820	631,818	5,043,869	1,615,602	168,106
2029	1,247,777	636,039	5,079,395	1,655,406	178,913
2030	1,241,179	638,506	5,116,297	1,693,889	191,473
2031	1,235,359	639,132	5,159,903	1,724,379	205,859
2032	1,230,608	638,119	5,204,859	1,751,902	221,788
2033	1,227,155	635,644	5,248,483	1,778,817	238,913
2034	1,225,222	632,552	5,287,545	1,808,051	256,898
2035	1,224,335	629,394	5,318,084	1,844,121	275,308
2036	1,224,135	626,853	5,352,415	1,875,161	293,643
2037	1,224,284	625,325	5,392,254	1,899,868	311,967
2038	1,224,708	619,771	5,436,293	1,919,673	330,266
2039	1,230,796	617,475	5,475,528	1,938,246	348,502
2040	1,235,420	613,251	5,509,650	1,963,035	366,676
2041	1,243,218	607,707	5,540,908	1,987,169	384,778
2042	1,253,119	603,089	5,569,732	2,011,281	402,640
2043	1,262,455	598,528	5,598,052	2,036,242	420,043
2044	1,271,965	599,777	5,624,306	2,062,952	436,752
2045	1,281,559	599,212	5,647,583	2,092,430	452,586
2046	1,291,103	601,819	5,667,129	2,125,463	467,333
2047	1,300,545	606,485	5,683,403	2,161,655	481,174
2048	1,309,850	610,409	5,697,106	2,200,421	494,291
2049	1,318,831	614,491	5,708,979	2,241,210	506,820
2050	1,327,331	618,756	5,719,662	2,283,551	518,894

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