

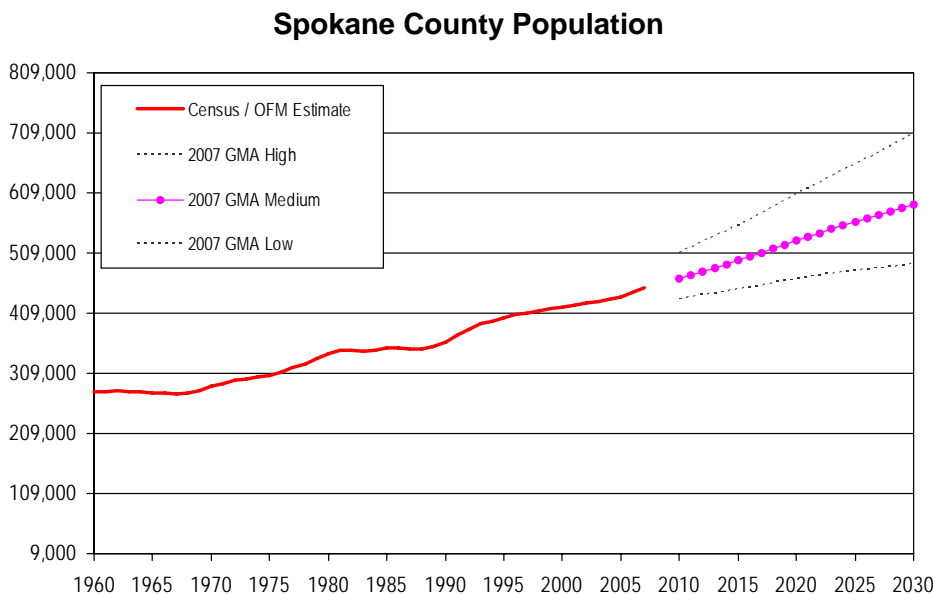
Growth Management Act (GMA) Population Projections Final 2007 County Projection Update Office of Financial Management

Section I. State and Local Authority

Development of population projections for GMA is a shared responsibility.

- As directed by statute RCW 43.62.035, the Office of Financial Management (OFM) prepares a range of possible population growth for Washington's counties to use as they plan for future growth under GMA. These population projections go to 2030, and are presented by age and gender in five-year increments.
- As indicated in RCW 36.70A.110 and RCW 36.70A.115, local officials are responsible for selecting a 20-year GMA planning target that is within the high and low growth projections prepared by OFM. County officials select the county planning target.
- Within each county, population planning targets for cities, towns, and unincorporated areas are developed among all affected local jurisdictions as part of the city and county planning process.

An example of the GMA planning target range for Spokane County is shown below. Spokane County's 2002 GMA projection will carry forward to 2030 because the county's actual growth is tracking well with expectations.



The population that needs to be accommodated by a given area for GMA depends on 1) the county growth range projected by OFM, 2) the county planning target selected by county officials, and 3) the city and sub-county population planning targets developed cooperatively by all local governments.

Section II. OFM Population Projection Process and State Forecast Update

GMA county projections are developed within the framework of expected state population growth through 2030. The state forecast starts with the 2000 census count by single year of age and gender. The census population is “aged” forward using specific assumptions about births, deaths, and migration.

At the state level, birth and death rates are relatively stable and predictable. Average lifetime births per woman have been at about 2.0 since the mid-1980s and are expected to remain at this level through 2030. Modest increases in life expectancy are anticipated through the 30-year forecast horizon.

Migration is the most variable and difficult component of change to predict. Annual migration from OFM’s long-standing April 1 population estimates program provides a considerable advantage in forecasting and tracking near-term migration at the state level. The amount of movement to Washington is primarily driven by people seeking or taking new jobs. OFM’s migration model relates the attractiveness of Washington’s employment opportunities—in terms of traded sector employment change—to job opportunities in California and the nation as a whole.¹

A state forecast update through 2030 for the 2007 Growth Management was developed after the official April 1, 2007 population estimates were finalized in June (Table 1). These data provided an additional year of population change for each county. The estimates also provided an additional year of net migration that could be added to the state’s time series regression model used to forecast net migration. Figure 1 shows actual, fitted, and forecast net migration based on the most recent employment forecasts for Washington, California, and the rest of the U.S.² As in previous state projections, the near-term employment based migration is transitioned to *average annual long term expectations* that are based on historical population growth and long-term employment assumptions.

Technical Data Input Notes Comparing the Office of Financial Management State Population Forecasts Released by OFM November 2006 and July 2007

Specific Input	November 2006 Forecast	July 2007 Forecast
1. Base census	2000	2000
2. Estimates of annual population growth and migration based on actual symptomatic data through	April 1, 2006	April 1, 2007
3. Net migration based on an econometric model input relating Washington’s migration to traded sector employment change in Washington, California, and the rest of the nation. Source and date of employment forecasts: <ul style="list-style-type: none"> • Economic & Revenue Forecast Council (Washington) • Global Insight, Inc. (California & rest of the nation) 	Sept. 2006 August 2006	June 2007 May 2007
4. Actual Vital events: <ul style="list-style-type: none"> • Births • Deaths 	2000 to 2005 2000 to 2005	2000 to 2005 2000 to 2005
5. Forecast average lifetime births per woman: 2006 through 2030	Constant at about 2.0	Constant at about 2.0
6. Forecast life expectancy in years: <ul style="list-style-type: none"> • Male • Female 	<u>2006</u> <u>2030</u> 75.5 yrs 78.0 yrs 81.4 yrs 83.7 yrs	<u>2006</u> <u>2030</u> 75.5 yrs 78.0 yrs 81.4 yrs 83.7 yrs

¹ Traded sector employment are those sectors of the economy that export goods and services to other states or abroad.

² The net migration forecast is based on the Economic and Revenue Forecast Council’s June 2007 employment forecast for Washington and Global Insight’s May 2007 U.S. and California forecasts.

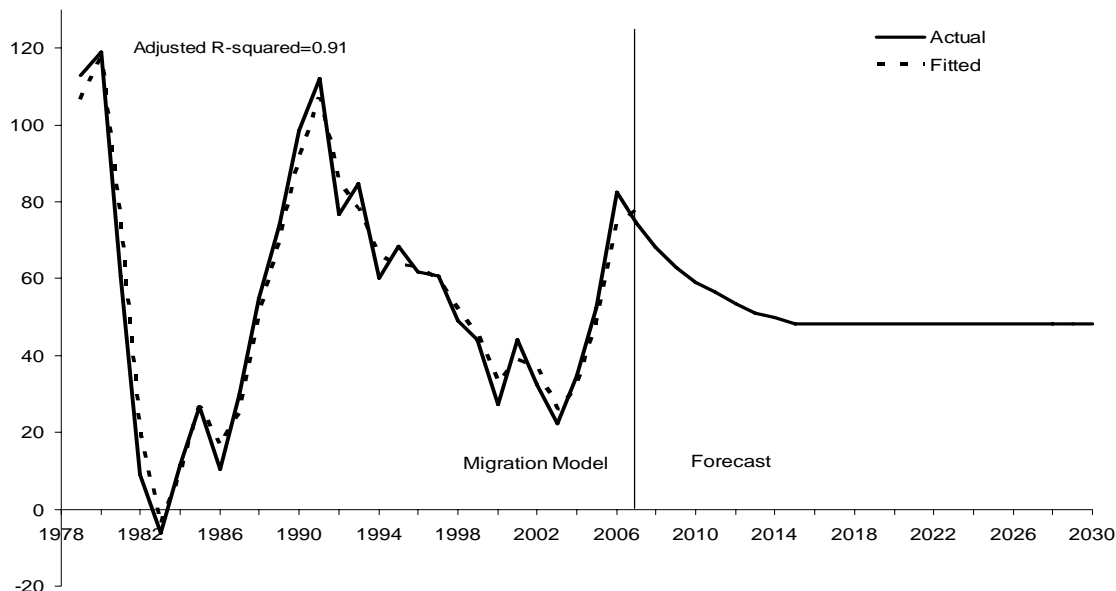
Table 1. Forecast of the State Population and Components of Population Change: 1990 to 2030

	Population at End of Period	Population Change		----- Components of Change from Previous Period -----						
		Number	Percent	Births Number	Rate	Deaths Number	Rate	Natural Increase	Net Migration Number	Rate
1990-1991	5,021,335	154,643	3.18	79,076	15.99	36,575	7.40	42,501	112,142	22.68
1991-1992	5,141,177	119,842	2.39	80,236	15.79	37,160	7.31	43,076	76,766	15.11
1992-1993	5,265,688	124,511	2.42	79,077	15.20	39,353	7.56	39,724	84,787	16.29
1993-1994	5,364,338	98,650	1.87	78,194	14.71	39,535	7.44	38,659	59,991	11.29
1994-1995	5,470,104	105,766	1.97	77,453	14.30	39,957	7.38	37,496	68,270	12.60
1990-1995		603,412		394,036		192,580		201,456	401,956	
1995-1996	5,567,764	97,660	1.79	77,008	13.95	41,152	7.46	35,856	61,804	11.20
1996-1997	5,663,763	95,999	1.72	78,035	13.90	42,632	7.59	35,403	60,596	10.79
1997-1998	5,750,033	86,270	1.52	78,828	13.81	41,564	7.28	37,264	49,006	8.59
1998-1999	5,830,835	80,802	1.41	79,758	13.77	43,145	7.45	36,613	44,189	7.63
1999-2000	5,894,121	63,286	1.09	79,853	13.62	43,743	7.46	36,110	27,176	4.64
1995-2000		424,017		393,482		212,236		181,246	242,771	
2000-2001	5,974,910	80,789	1.37	80,732	13.60	43,923	7.40	36,809	43,980	7.41
2001-2002	6,041,710	66,800	1.12	79,291	13.20	44,900	7.47	34,391	32,409	5.39
2002-2003	6,098,300	56,590	0.94	79,069	13.03	44,732	7.37	34,337	22,253	3.67
2003-2004	6,167,800	69,500	1.14	80,957	13.20	46,025	7.50	34,932	34,568	5.64
2004-2005	6,256,400	88,600	1.44	81,845	13.18	45,623	7.34	36,222	52,378	8.43
2000-2005		362,279		401,894		225,203		176,691	185,588	
2005-2006	6,375,600	119,200	1.91	82,893	13.12	46,188	7.31	36,705	82,495	13.06
2006-2007	6,488,000	112,400	1.76	85,407	13.28	47,569	7.40	37,838	74,562	11.59
2007-2008	6,593,177	105,177	1.62	87,507	13.38	50,430	7.71	37,077	68,100	10.41
2008-2009	6,693,998	100,821	1.53	89,162	13.42	51,141	7.70	38,021	62,800	9.45
2009-2010	6,792,318	98,320	1.47	91,081	13.51	51,861	7.69	39,220	59,100	8.76
2005-2010		535,918		436,050		247,189		188,861	347,057	
2010-2011	6,888,485	96,167	1.42	92,445	13.51	52,678	7.70	39,767	56,400	8.25
2011-2012	6,982,309	93,824	1.36	93,812	13.53	53,488	7.71	40,324	53,500	7.71
2012-2013	7,074,341	92,032	1.32	95,350	13.57	54,318	7.73	41,032	51,000	7.26
2013-2014	7,165,934	91,593	1.29	96,780	13.59	55,187	7.75	41,593	50,000	7.02
2014-2015	7,255,672	89,738	1.25	97,738	13.55	56,100	7.78	41,638	48,100	6.67
2010-2015		463,354		476,125		271,771		204,354	259,000	
2015-2016	7,345,195	89,523	1.23	98,487	13.49	57,064	7.82	41,423	48,100	6.59
2016-2017	7,434,400	89,205	1.21	99,190	13.42	58,085	7.86	41,105	48,100	6.51
2017-2018	7,523,186	88,786	1.19	99,824	13.35	59,138	7.91	40,686	48,100	6.43
2018-2019	7,611,426	88,240	1.17	100,416	13.27	60,276	7.97	40,140	48,100	6.36
2019-2020	7,698,939	87,513	1.15	100,883	13.18	61,470	8.03	39,413	48,100	6.28
2015-2020		443,267		498,800		296,033		202,767	240,500	
2020-2021	7,785,449	86,510	1.12	101,199	13.07	62,789	8.11	38,410	48,100	6.21
2021-2022	7,870,927	85,478	1.10	101,514	12.97	64,136	8.19	37,378	48,100	6.14
2022-2023	7,955,297	84,370	1.07	101,817	12.87	65,547	8.28	36,270	48,100	6.08
2023-2024	8,038,504	83,207	1.05	102,168	12.78	67,061	8.39	35,107	48,100	6.01
2024-2025	8,120,510	82,006	1.02	102,515	12.69	68,609	8.49	33,906	48,100	5.95
2020-2025		421,571		509,213		328,142		181,071	240,500	
2025-2026	8,201,177	80,667	0.99	102,793	12.60	70,226	8.61	32,567	48,100	5.89
2026-2027	8,278,060	76,883	0.94	103,132	12.52	74,349	9.02	28,783	48,100	5.84
2027-2028	8,356,278	78,218	0.94	103,580	12.45	73,462	8.83	30,118	48,100	5.78
2028-2029	8,433,276	76,998	0.92	104,155	12.41	75,257	8.96	28,898	48,100	5.73
2029-2030	8,509,161	75,885	0.90	104,821	12.37	77,036	9.09	27,785	48,100	5.68
2025-2030		388,651		518,481		370,330		148,151	240,500	
2000-2030		2,615,040		2,840,563		1,738,668		1,101,895	1,513,145	

Note: Rates are computed per 1,000-midpoint populations. Unrounded figures are not meant to imply precision.

Office of Financial Management, Forecasting Division
 July 2007 for GMA Projections

Figure 1. Comparison of Actual and Fitted Migration Using OFM's Model, 1979-2007 and Forecast Migration Through 2030



The state growth expectations that were used in the 2002 GMA projection are compared to the July 2007 state forecast used in the 2007 update in Table 2.

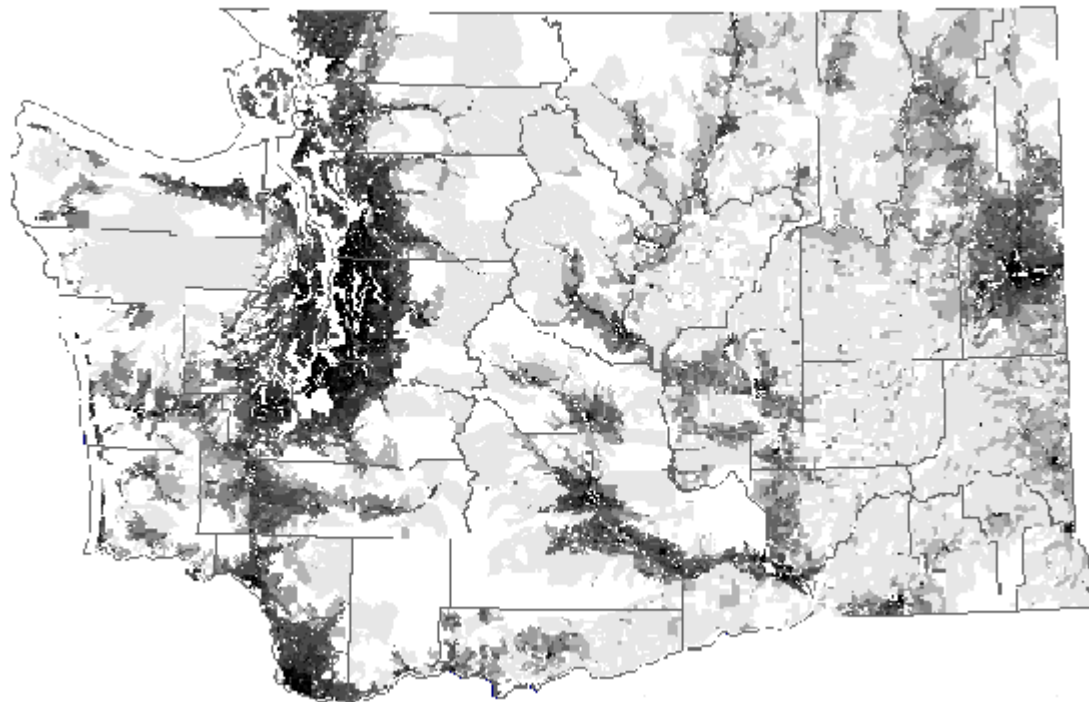
Table 2. Annual Population and Decade Population Change, Washington

	Fall 2001 State Forecast Used for 2002 GMA Projection		July 2007 State Forecast Used for 2007 GMA Projection Update	
	Population	Change from Prior Period	Population	Change from Prior Period
1990 Census	4,866,663	--	4,866,663	--
2000 Census	5,894,121	1,027,458	5,894,143	1,027,480
2010	6,648,112	753,991	6,792,318	898,175
2020	7,545,269	897,157	7,698,939	906,621
2030	8,378,813	833,544	8,509,161	810,222

Note: Differences in decennial census counts due to corrections after the initial release.

Ten year population change for the 2000 decade in the 2002 GMA projection totaled 753,991 compared to a growth of 898,175 in the July 2007 update. This new projection adds 144,184 more population in Washington by 2010—largely due to a rebound of the Puget Sound economy that began in 2003. *Most of the 2010 upward population adjustment in the new forecast is documented and validated by population estimates through 2007. These estimates are developed from actual change in housing, grades K-8 school enrollment, voter registrations, drivers' licenses, and other indicator data.³ Thus, population estimates have been used to track the accuracy of the state and county growth expectations in the 2002 GMA release and also provide current migration trends to be considered in the 2007 update.*

³ Independent state and county population estimates developed by the U.S. Census Bureau—that use tax returns to develop migration—are very consistent with OFM's population estimates. The Census Bureau's 2006 population estimate for Washington is within 10,000, or 0.10 percent, of OFM's estimate. The vast majority of county population estimates are also very similar. The Bureau releases estimates a year or more after those released by OFM.

Figure 2. County Growth Patterns

County growth *expectations* are generally extensions of prior trends.

Assumptions are:

- Most growth will occur at existing population centers, and along existing transportation routes (Figure 2).
- Growth away from the transportation corridors due to retirement migration and telecommuting will continue, particularly in areas where sustained growth has occurred.
- Growth ranges for counties are usually established on the variability of prior growth. Other factors, such as water resources or the possible construction of roads or large state facilities, may be used.

Section 3. County Projection Update

The added growth in the revised state forecast is concentrated in relatively few counties. Table 3 compares the 2002 GMA county mid-range populations for 2007 with OFM's population estimates. Most of the additional growth occurred in King and Pierce Counties. By 2007, growth in King and Pierce Counties exceeded their mid-range population expectations by 44,800 and 30,600, respectively. These are large counties and their population increases drive state growth.⁴

⁴ Revised 2007 GMA population projections for the Puget Sound counties are developed and evaluated in a regional context.

Table 3. Comparison of OFM 2002 Growth Management Population Projections with 2007 Population Estimates

	2007 Estimate	GMA 2007			Difference from <i>Medium</i> Projection	
		Low	Medium	High	Number	Percent
Washington State	6,488,000	6,037,452	6,399,252	6,859,005	88,748	1.39
Adams	17,600	16,908	17,876	19,008	-276	-1.54
Asotin	21,300	20,727	21,912	23,299	-612	-2.79
Benton	162,900	144,844	155,408	170,901	7,492	4.82
Chelan	71,200	69,154	73,099	77,069	-1,899	-2.60
Clallam	68,500	61,978	66,083	69,953	2,417	3.66
Clark	415,000	382,445	407,750	434,362	7,250	1.78
Columbia	4,100	3,650	3,948	4,298	152	3.84
Cowlitz	97,800	95,283	102,420	113,988	-4,620	-4.51
Douglas	36,300	34,607	37,433	40,643	-1,133	-3.03
Ferry	7,550	7,260	8,094	9,079	-544	-6.72
Franklin	67,400	50,792	54,142	58,172	13,258	24.49
Garfield	2,350	2,255	2,466	2,695	-116	-4.69
Grant	82,500	78,898	84,771	90,944	-2,271	-2.68
Grays Harbor	70,800	63,166	67,445	71,725	3,355	4.97
Island	78,400	71,011	77,103	83,195	1,297	1.68
Jefferson	28,600	27,048	29,342	31,634	-742	-2.53
King	1,861,300	1,739,403	1,816,499	1,895,292	44,801	2.47
Kitsap	244,800	224,736	244,978	289,129	-178	-0.07
Kittitas	38,300	32,852	35,285	38,273	3,015	8.54
Klickitat	19,900	19,355	20,853	22,651	-953	-4.57
Lewis	74,100	68,393	74,800	82,996	-700	-0.94
Lincoln	10,300	9,536	10,211	11,327	89	0.87
Mason	54,600	51,310	55,715	62,039	-1,115	-2.00
Okanogan	39,800	39,816	42,499	45,482	-2,699	-6.35
Pacific	21,600	19,900	21,077	22,808	523	2.48
Pend Oreille	12,600	12,109	13,077	14,111	-477	-3.65
Pierce	790,500	723,228	759,935	817,242	30,565	4.02
San Juan	15,900	15,040	16,214	17,507	-314	-1.94
Skagit	115,300	109,709	117,404	127,692	-2,104	-1.79
Skamania	10,700	9,913	10,717	11,805	-17	-0.16
Snohomish	686,300	650,982	691,624	732,265	-5,324	-0.77
Spokane	451,200	424,780	451,208	485,706	-8	0.00
Stevens	43,000	40,952	43,897	49,910	-897	-2.04
Thurston	238,000	226,417	243,907	268,589	-5,907	-2.42
Wahkiakum	4,000	3,718	4,011	4,305	-11	-0.28
Walla Walla	58,300	54,507	58,497	63,584	-197	-0.34
Whatcom	188,300	175,531	186,479	203,473	1,821	0.98
Whitman	42,700	37,932	40,727	47,166	1,973	4.85
Yakima	234,200	217,309	230,347	244,686	3,853	1.67

Note: The 2002 GMA series only produced growth expectation by five-year intervals prior to 2010. Annual populations through 2010 were developed by linear interpolation.

The Tri-Cities is another high growth area—with increases in Benton and Franklin Counties combined exceeding mid-range expectations by nearly 21,000. *Franklin County is the only county in the state to substantially exceed their high growth projection.*

Over all, the 2002 GMA projections have proved to be remarkably successful in terms of near-term accuracy (Table 4). The vast majority of the 2002 projections for Washington’s counties will remain unchanged—or only incorporate modest adjustments—in the 2007 update.

Table 4. Comparison of GMA Projections Released in 2002 to County Population Estimates for 2007

Population Below Low Forecast Range			Within Low & High Forecast Range		Population Above High Forecast Range		
County	Percent	Number	County		County	Percent	Number
Okanogan	-0.04	-16	Adams	Lewis	Franklin	15.86	9,228
			Asotin	Lincoln	Kittitas	0.07	27
			Benton	Mason			
			Chelan	Pacific			
			Clallam	Pend Oreille			
			Clark	Pierce			
			Columbia	San Juan			
			Cowlitz	Skagit			
			Douglas	Skamania			
			Ferry	Snohomish			
			Garfield	Spokane			
			Grant	Stevens			
			Grays Harbor	Thurston			
			Island	Wahkiakum			
			Jefferson	Walla Walla			
			King	Whatcom			
			Kitsap	Whitman			
			Klickitat	Yakima			

Note: The 2002 GMA series only produced growth expectation by five-year intervals prior to 2010. Annual populations through 2010 were developed by linear interpolation.

The 2007 mid-decade GMA update projections are developed within the same general parameters as all prior projections. These are:

- Future county growth is developed with state level growth expectations. State growth is forecast based on births, deaths, and migration. The migration component is developed by an econometric model measuring Washington’s attractiveness based on job opportunities (Figure 1). This growth is used in the county projections.
- *Most county growth expectations are based on an extension of prior growth and migration trends.* Growth and migration trends are developed using several procedures and a wide range of direct and indirect indicator data: housing, auto registrations, voter registration, employment, Medicare enrollments, K-8 school age-migration, drivers’ license movement, and other administrative data.
- *Population change and migration, as a component of population growth, are an excellent indicator of economic vitality. The information used in developing the population and migration estimates also captures the retirement and recreational attraction of many Washington counties.*

- Historical components of growth are usually trended forward. Sometimes emphasis is placed on recent years or situations that render specific historical periods more important.
- Expected near-term changes in population due to the addition or removal of correctional, educational, military, or other facilities are included. Forthcoming correctional capacity increases in Connell and Walla Walla are included in the 2007 update.
- The bands used to develop the high and low projections are based on historical population change and the specific factors contributing to that change in each county. The likelihood of higher population growth versus slower growth may not be equal. Thus, what is termed the “middle” population may not be exactly in the middle of the high and low expectations.
- County high and low projection alternatives actually reflect uncertainty bands. As noted, they are not, in a formal sense, alternative scenarios. In general, the uncertainty bands will be larger for smaller counties than large ones. They will be larger for faster growing than slower growing areas. They will be larger for counties with erratic growth in the past and smaller for counties that have had steadier growth. They will be larger for counties that may be impacted by changes in variable military, college, correctional, or other special populations. These uncertain factors are reflected in the “high” and “low” growth ranges. For example, Kittitas and Whitman Counties have wide ranges because of the uncertainty of how and where increasing university enrollments in Washington will be accommodated. Both series sum to statewide low and high projections similar to the medium series. *Annual projections for the years 2010 through 2030 are provided to accommodate the various target years used for GMA planning.*

The development of any series of population projections necessarily reflects the purpose and use of the projections. Purpose and use usually determine the length of the projection horizon, the update cycles, and considerations relating to how and when projection adjustments are made. In this respect, growth management may be viewed as an on-going and long-term planning process. As such, the long-range population projections used for planning should be allowed to play out over time. Short-term expansions and contractions in population growth do not necessarily indicate that twenty-year growth expectations require revision. Adjustments should always be made with consideration given the tenuous nature of short-term trends. Developing and implementing comprehensive growth management plans consume a considerable amount of local resources. Implementation may take several years to accomplish in metropolitan counties or counties with specific planning challenges. Revisions made in the 2007 county projections were developed on a case by case basis in the context of the following considerations:

- Minor differences between the 2002 GMA projections and the tracking estimates (Table 3) should not automatically result in changes to the High, Medium, and Low projections.
- Mid-decade county growth trends are based on population estimates that contain some uncertainty.⁵ While population estimates are a good source of tracking county growth and developing migration trends—estimates are approximations. Historically, population estimates for some counties have been more reliable than for other counties.

⁵ OFM’s county population estimates have an average difference of about two percent when compared to decennial census counts. In 1990, 30 counties showed a difference of about two percent or less. In 2000, 26 counties showed a difference of about two percent or less. The largest difference in 1990 was for Franklin County, an underestimate of 9.8 percent. San Juan showed the largest difference in 2000, an underestimate of 7.6 percent.

- Differences between actual and expected growth, particularly differences on the *low* side, may correct over time.
- Differences on the *high* side are not as likely to return to the mid-range, but the magnitude of the difference may diminish.
- Some counties, particularly large Puget Sound counties, have shown rather extreme cyclic population change on a short term basis—but relatively stable and constant decade growth. In such cases, decade growth patterns should be given priority.
- Differences due to change in correctional, military, and educational facilities are not likely to repeat.

Table 5 shows counties grouped into three categories on the basis of the procedure used to evaluate and update their GMA population.

Column 1: Counties listed have retained their 2002 GMA projections. Generally, any differences in the 2007 population estimate and growth expectations are not considered sufficient to change the long-range expectations. In some cases, the population estimates were not considered sufficiently reliable to make projection adjustments. The 2007 projections shown for the counties listed as “not changing” will, however, be somewhat different from the prior projections. This is due to controlling to a revised state level population projection.⁶

Column 2: Projections for the counties listed have been adjusted on the basis of the 2007 tracking difference shown in Table 3. All or part of the tracking difference was used to adjust the 2002 projection at each five-year interval. Most adjustments are relatively minor.

Column 3: New projections were developed for the counties shown in Column 3. The large variance for Franklin County, plus a large new correctional facility, required a new projection. New projections were developed for the Puget Sound Counties because of changes in their regional decade growth patterns.

Table 5. Identification of Counties by Type of Revision to the 2002 GMA Projections

Column 1		Column 2		Column 3
2002 GMA Projection Retained		Revisions to 2002 Projection Developed on Basis of 2007 Tracking Differences		New Projections Developed
Cowlitz	Pend Oreille	Adams	Garfield	Franklin
Douglas	San Juan	Asotin	Grays Harbor	King
Grant	Skagit	Benton	Kittitas	Kitsap
Island	Skamania	Chelan	Okanogan	Pierce
Jefferson	Spokane	Clallam	Walla Walla	Snohomish
Klickitat	Stevens	Clark	Whitman	
Lewis	Thurston	Columbia	Yakima	
Lincoln	Wahkiakum	Ferry		
Mason	Whatcom			
Pacific				

⁶ Controlling procedures are the adjustments made to individual county projections so that the sum of the county figures match the state total.