10-2000

Lower Columbia College Enrollment Forecast, 2000 – 2010

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Summary

This report provides a student enrollment forecast, including background demographic information and analysis, for Lower Columbia College (LCC). The report considers several factors that are likely to affect the College's enrollment between 2000 and 2010, including and the geographical areas within and surrounding the service district (Cowlitz and Wahkiakum Counties, the cities of Longview, Kelso, Woodland and others in the vicinity). Five different scenarios of population, housing, and enrollment participation changes were developed to demonstrate their effects on enrollments. Three scenarios rely on different rates of housing and population growth, and two depend on changes of enrollment participation in the Service Area. For each scenario, a forecast was made for total enrollment, by student type, for the years 2000, 2005, and 2010.

The first three different growth scenarios are described as follows:

1) Current Trends. Under this scenario, the current trends of population and housing growth, and of enrollment participation of the 1990s are continued during the next 10 years.
2) Low Growth. Population and housing growth is lower and enrollment participation remains the same in this scenario than under the Current Trends assumption.
3) High Growth. Population and housing growth is higher and enrollment participation remains the same in this scenario than under the Current Trends assumption.

The next two "what if" scenarios are described as follows:

4) What if the City of Woodland were to have the same enrollment participation rates as the City of Longview or the City of Kelso? Under this scenario, participation rates of the City of Woodland are adjusted, but population and housing growth remains the same as in the Current Trends scenario.
5) What if LCC were to attract a bigger proportion of seniors in the LCC Service Area than it does under the Current Trends scenario? This scenario involves raising the participation rate of those persons age 60 and older; population and housing growth remains the same as in the Current Trends scenario.

Under any of the scenarios, enrollments will increase for most types of students. The driving force behind any growth in the service district will be in-migration of people due to the construction of new housing in the area. New housing will be a mix of single-family and multiple family residences. A mix of single persons, young professionals, young families, empty nesters, and retired persons are predicted to be the occupants of vacant or new housing. Another factor in the growth of population in the Service Area is that historically the total fertility rate for the area has been higher than the State of Washington rate. The fertility rate assumed in all scenarios hold that trend.

For the enrollment forecasts, we classified LCC students as either full-time (FT) or part-time (PT). In consultation with LCC staff, we further distinguished four types of full-time and part-time students:

- Workforce – students primarily with employment goals,
- Transfer – students transferring from other schools,
- Basic Skills – students returning to school with specific educational goals such as earning the GED or learning to speak English, and
- Other – students enrolled for other purposes than the three listed above.

The forecast using the continuation of **current trends** predicts enrollment increases for all student types but one (Part-time Other) from the present to the year 2010. Total enrollment will increase by 1,397 students, or almost 30 percent. Total full-time enrollment, which represented almost 50 percent of total enrollment in 1999, will increase by over 46 percent and total part-time enrollment will increase by approximately 13 percent. Growth of enrollment by student type, however, will be uneven. Enrollments for Full-time Transfer, Full-time Basic Skills, Full-time Other, and Part-time Transfer all are expected to increase much more rapidly than total enrollment. Enrollment for Part-time Other will see the only decrease with a change of –16.7 percent.

Current Trends (Medium Growth)	1999	2010	1999-2010 Change	
			Number	Percent
Total	4,683	6,080	1,397	29.8%
FT, Total	2,330	3,413	1,083	46.5%
PT, Total	2,353	2,667	314	13.4%
FT, Workforce	1,045	1,259	214	20.4%
FT, Transfer	887	1,292	405	45.7%
FT, Basic Skills	248	480	232	93.4%
FT, Other	150	382	232	154.9%
PT, Workforce	911	1,054	143	15.7%
PT, Transfer	244	507	263	107.7%
PT, Basic Skills	255	321	66	25.7%
PT, Other	943	786	-157	-16.7%

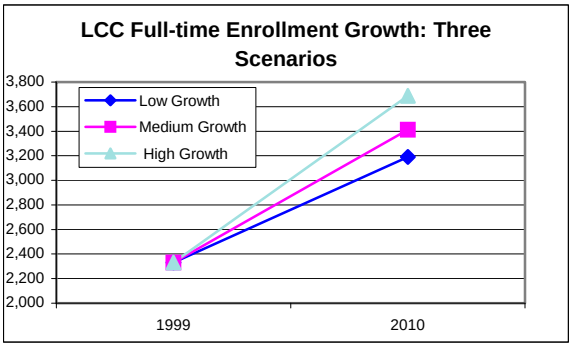
Under the **low enrollment growth** scenario, there will be a continued enrollment increase in LCC as well. However, overall enrollment increases in 2010 will be 521 students less than under the Current Trends growth forecast. The low forecast suggests that total enrollment will increase by 876 students, or approximately 19 percent, between 1999 and 2010.

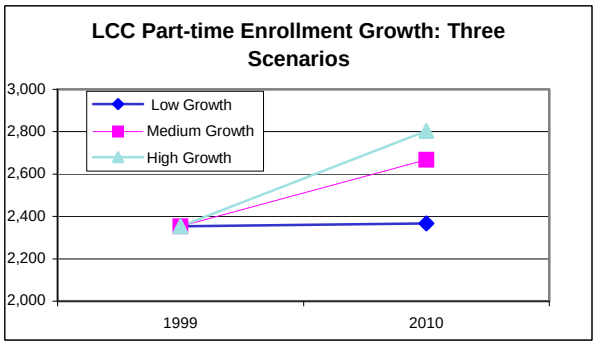
Low Growth	1999	2010	1999-2010 Change	
			Number	Percent
Total	4,683	5,559	876	18.7%
FT, Total	2,330	3,192	862	37.0%
PT, Total	2,353	2,367	14	0.6%
FT, Workforce	1,045	1,209	164	15.7%
FT, Transfer	887	1,175	288	32.4%
FT, Basic Skills	248	452	204	82.3%
FT, Other	150	355	205	136.9%
PT, Workforce	911	968	57	6.3%
PT, Transfer	244	454	210	85.9%
PT, Basic Skills	255	311	56	22.1%
PT, Other	943	634	-309	-32.8%

Under the **high enrollment growth** forecast, there will be growth in enrollment over the next ten years, with total enrollment increases exceeding the Current Trends enrollment forecast by approximately 411 students. The high enrollment forecast suggests that total enrollment will increase by 1,808 students, or almost 39 percent, between 1999 and 2010.

High Growth	1999	2010	1999-2010 Change	
			Number	Percent
Total	4,683	6,491	1,808	38.6%
FT, Total	2,330	3,687	1,357	58.3%
PT, Total	2,353	2,803	450	19.1%
FT, Workforce	1,045	1,363	318	30.4%
FT, Transfer	887	1,396	509	57.4%
FT, Basic Skills	248	514	266	107.2%
FT, Other	150	414	264	176.2%
PT, Workforce	911	1,103	192	21.1%
PT, Transfer	244	543	299	122.5%
PT, Basic Skills	255	345	90	35.2%
PT, Other	943	812	-131	-13.9%

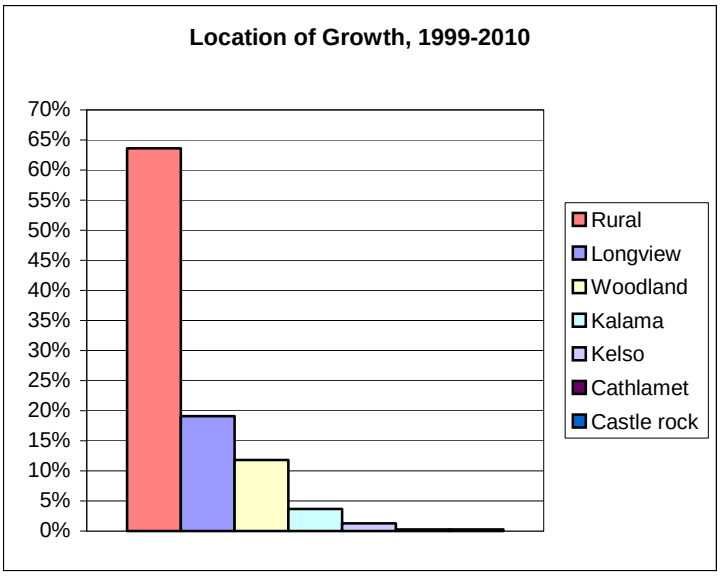
The most notable change in all three growth scenarios is that Full-time enrollment is predicted to increase more rapidly (at a higher rate) than Part-time enrollment (see Graphs below). Additionally, all student types are expected to see increases during the forecast period except for Part-time Other, which will see a decrease in all scenarios.





To evaluate where the amount of growth is likely to occur in the service district, consideration was given to the estimated share of the population that each of its geographical areas has, along with their historical and predicted growth rates. The Cities of Woodland and Kalama

experienced the highest growth rates in the past decade, followed by the rural area of Cowlitz and Wahkiakim Counties. However, because the share of population in these cities to the total population in the LCC service area is small (3.8% and 1.7% respectively), most growth has taken place in the rural area where its share of the population is 45% of the entire service area. Based on Current Trends, the rural area is predicted to continue to experience the most growth during the next 10 years with capturing 64% of the service area's growth, followed by the City of Longview where 19% of the service area's growth is estimated to occur. The communities with the least amount of growth expected are Cathlamet and Castle Rock, both with only under one-half of a percent of the area's growth, and Kelso with 1.3% (see Chart below).



Special analysis for two "What if?" scenarios revealed future enrollment possibilities for two cases:

- Enrollment in the City of Woodland. LCC currently enrolls 160-190 students who reside in the City of Woodland. If Woodland had the same LCC enrollment participation rates as Longview and Kelso, current enrollments would currently increase to about 275 - 325 students, and further grow to about 350 - 450 students in 2010.

- Enrollment of the senior population. The senior population is increasing and will continue to grow in the LCC service area. Under current trends, seniors enrolled in LCC will increase from about 370 – 380 in 2000 to approximately 600-700 in 2010. If senior enrollment rates increased by 10 percent, enrollments would grow by about 30 – 40 students in 2000 and 50 – 100 students in 2010. Larger gains in senior enrollment rates increase enrollments even more (Appendix 2 presents results for rate increases of 20 and 50 percent as well as 10 percent).

Introduction

This study forecasts enrollment changes for Lower Columbia College (LCC) from 2000 to 2010. The forecasts are for those students residing in the service area, which encompasses Cowlitz and Wahkiakum Counties. The model used for this project forecasts overall population by age groups and enrollment by student type. This report presents enrollment forecasts for a range of population growth, including five different future population and housing growth assumptions based on population forecasts for Cowlitz and Wahkiakim Counties and their geographical components made by State and local governments.

This report covers the following topics:

1. Recent Enrollment Trends. Factors that influence population and enrollment changes in the Service Area, including school enrollments, population characteristics, and changes in population and housing.

2. The Current Trends (Medium), and Low and High Enrollment Forecasts (The Results). A description of how low, medium, and high forecasts are made: forecasts that are based on population and housing growth assumptions derived from the continuation of current trends and from studies made by State and local governments and planners. The results are presented.

3. Housing and Population Growth Assumptions. A description of the assumptions used in the low, medium, and high growth forecasts.

4. Methods and Data. A description of the Current Trends population and enrollment model and data sources used in this study.

5. Alternative Scenarios. Forecasts for two additional different scenarios regarding enrollment participation changes in the Service Area were created based on "what if" situations. The results are presented in Appendix 3.

This report contains 4 appendices:

Appendix 1. Detailed forecast tables for the three growth scenarios for LCC enrollment and Service Area population.

Appendix 2. Forecast results for the two "what if" scenarios.

Appendix 3. Documentation of conversations with LCC's Service Area's local Planners.

Appendix 4. Maps depicting the Service Area population, and the location of LCC student residences.

Recent Enrollment Trends

Lower Columbia College (LCC) serves students in the counties of Cowlitz and Wahkiakum, including the cities of Longview, Kelso, Woodland, Castle Rock, Kalama, and Cathlamet, and the rural areas outside of city limits. The students are categorized according to which type of program they are enrolled in and whether they attend full-time or part-time. The categories of student types, for both Full and Part-time, are: Workforce, Basic Skills, Transfer, and Other.

Total enrollment for LCC increased overall from 1990 to 1999 by 10.9%. However, during 1990-1995 there was a slight decrease of 6.2%, which was then followed by a 21% increase during 1995-1999. The student types that experienced the greatest increases during the whole nine year period were Full-time Basic Skills, Part-time Transfer, and Full-time Other. The only student type to experience a decrease in enrollment during this period was Part-time Other (see Figures 1 and 2 and Table 1).

Figure 1. LCC Historical Full-time Enrollment

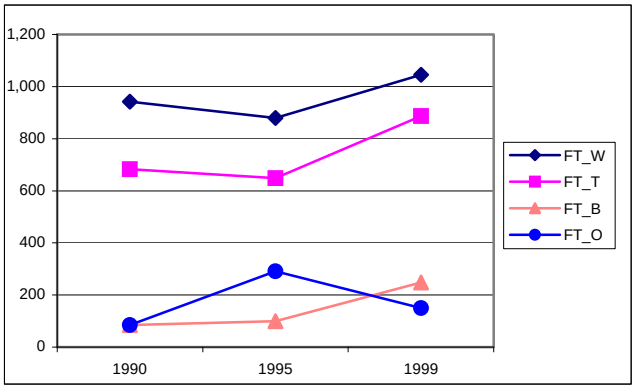


Figure 2. LCC Historical Part-time Enrollment

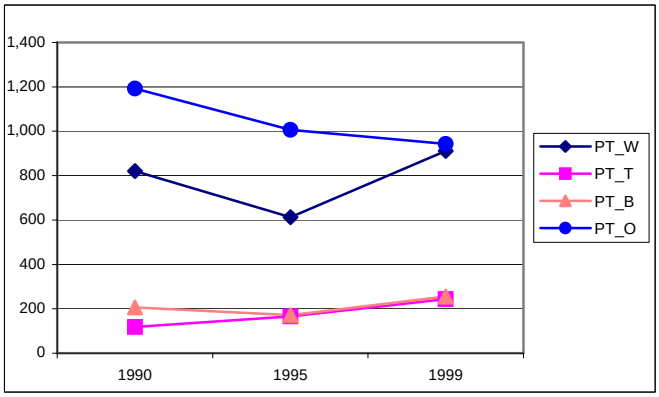


Table 1. Lower Columbia College Enrollment by Student Type and Year.

Student Type	1990	1995	1999	1990-1995 Change	1995-1999 Change	1990-1999 Change
FT, Workforce	942	879	1,045	-6.7%	18.9%	10.9%
FT, Transfer	683	648	887	-5.1%	36.9%	29.9%
FT, Basic Skills	85	99	248	16.5%	150.5%	191.8%
FT, Other	85	291	150	242.4%	-48.5%	76.5%
PT, Workforce	820	613	911	-25.2%	48.6%	11.1%
PT, Transfer	118	166	244	40.7%	47.0%	106.8%
PT, Basic Skills	206	172	255	-16.5%	48.3%	23.8%
PT, Other	1,192	1,006	943	-15.6%	-6.3%	-20.9%
Full-time Total	1,795	1,917	2,330	6.8%	21.5%	29.8%
Part-time Total	2,336	1,957	2,353	-16.2%	20.2%	0.7%
Total	4,131	3,874	4,683	-6.2%	20.9%	13.4%

Based on our reconstruction of the LCC service area's population, and consistent with historic college enrollments, we estimate that the service area's population increased from 85,704 in

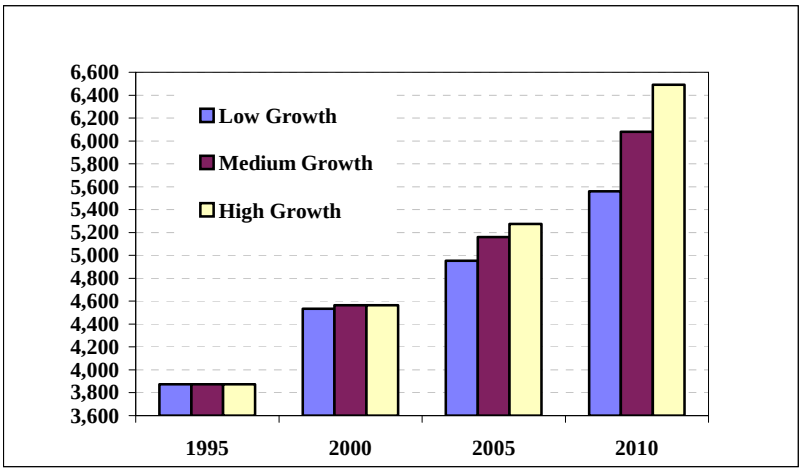
1990 to 99,468 in 1999, an annual average increase of 1.6 percent. Growth from 1990 to 1995 and from 1995 to 1999 was similar with average annual rates of 1.6% and 1.7% respectively.

Studies made by planners from the State, County, City, and Regional agencies suggest that recent population and housing growth in the area that the LCC Service Area encompasses will continue to increase at a modest or slightly slower rate.

Enrollment Forecast

Three growth scenarios (low, medium, and high) are assumed for these enrollment forecasts. The next section describes the assumptions made for each of these three scenarios. As Figure 3 illustrates, each growth scenario – low growth, medium (or current trends) growth, and high growth – predicts that LCC enrollment will increase over the forecast horizon. It should be emphasized that the model forecasts long-term school enrollment levels and will not necessarily be accurate on a year-to-year basis.

Figure 3. LCC Total Enrollment: Three Growth Scenarios



The amount of housing and population growth forecast for the LCC's service area will produce enrollment increases over the next decade. Under all three scenarios, growth in Full-time enrollment will be significantly higher than that of Part-time enrollment. In all three scenarios, the individual student types maintain the same position in relation to the others in the amount of growth they will experience. The order they maintain, ranked from highest to lowest growth, is: FT-Other, PT-Transfer, FT-Basic Skills, FT-Transfer, PT-Basic Skills, FT-Workforce, PT-Workforce, and PT-Other. Additionally, the only student type predicted to experience a decline in enrollment is PT-Other.

Tables 2, 3, and 4 below provide enrollment forecasts by student type for each of the three scenarios. Note that for each of them, very similar housing and population growth patterns for 1999 to 2000 were assumed; therefore, there is only slight a difference between the three scenarios in school enrollments for the year 2000. We assumed different housing and population growth levels for the 2000 to 2010 period, however, and this produces, more noticeably, differences in enrollment over the next ten years. Based on current trends, relatively little change in school enrollments next year can be expected. A more detailed table is located at the end of this report in Appendix 1.

The current trends (medium) growth assumption indicates that overall school enrollments will increase from 1999 levels of 4,683 to 6,080 in 2010, an increase of 1,397 students. Enrollment of Full-time students is predicted to increase from 2,330 to 3,413 during the same time period and for Part-time students, from 2,353 to 2,667. Between 1999 and 2010, the model forecasts for Full-time (FT) student types that there will be an increase of 214 students in FT-Workforce, 405 FT-Transfer students, 232 students in FT-Basic Skills, and 232 in FT-Other. For Part-time (PT) enrollment, it is forecast that an increase of 143 students in PT-Workforce will occur, as well as an increase of 263 PT-Transfer students, and 66 students in PT-Basic Skills. It is expected that there will be a decrease of 157 students enrolled in the PT-Other student type category. In the medium growth scenario, LCC total enrollment will increase by about 127 students per year from 1999 to 2010, at an average annual rate of 2.4 percent. Total Full-time enrollment will see a gain of 98 students per year, or an annual average growth rate of 3.5%. Part-time enrollment will grow more slowly at 1.1% per year, with an average of 29 additional students enrolling annually. The highest growth rates in enrollment of student types will be seen in the FT-Other, PT-Transfer, and FT Basic Skills categories at average annual rates of 8.5%, 6.7%, and 6.0% and an increase of students of 21, 24, and 21 respectively. The lowest rates of increase will be experienced by PT-Workforce with a 1.3% average annual rate that will add approximately 13 students per year and FT-Workforce, which has predicted average annual growth of 1.7%, or 19 students. A decrease in enrollment is expected to continue for the PT-Other students with an average annual decline of 1.7%.

Table 2. Medium Growth (Current Trends) Assumption

	1999	2000	2005	2010
Total	4,683	4,563	5,161	6,080
FT	2,330	2,339	2,791	3,413
PT	2,353	2,225	2,370	2,667
FT_W	1,045	1,012	1,112	1,259
FT_T	887	861	1,044	1,292
FT_B	248	238	342	480
FT_O	150	227	293	382
PT_W	911	830	921	1,054
PT_T	244	253	358	507
PT_B	255	239	276	321
PT_O	943	902	815	786

The low growth assumption forecasts slower enrollment increases for the LCC. **The low growth assumption suggests that overall school enrollment will increase from 1999 levels of 4,683 to 5,559 in 2010, an increase of 876 students.** Even if housing and population growth decreased to below current levels, there would still be a moderate increase in the service area's enrollments. In the low growth scenario, between the years 1999 to 2010, total school enrollment will increase by 80 students per year, at an average annual rate of 1.6%. Full-time enrollment will increase by 78 students per year, or at an annual average growth rate of 2.9%. Part-time enrollment will remain almost stable with an average annual increase of only1 student with an average growth rate of just a fraction of 1% per year. Of the student types, the highest average annual growth rates will be experienced by FT-Other at 7.8%, PT-Transfer at 5.6%, and FT-Basic Skills with a rate of 5.5%; all three student type categories will have an average annual gain of 19 students. The lowest increases will occur in the Workforce category for both Full-time and Part-time, with average rates of 1.3%, or 15 students and .6%, or 5 students per year respectively. The average annual growth rate of PT-Other enrollment will be –3.6%.

Table 3. Low Growth Assumption

	1999	2000	2005	2010
Total	4,683	4,535	4,953	5,559
FT	2,330	2,331	2,702	3,192
PT	2,353	2,204	2,251	2,367
FT_W	1,045	1,012	1,091	1,209
FT_T	887	856	997	1,175
FT_B	248	237	332	452
FT_O	150	226	283	355
PT_W	911	824	887	968
PT_T	244	252	341	454
PT_B	255	239	271	311
PT_O	943	889	752	634

What will happen if there is a more rapid level of population and housing growth than the local planners and the medium-growth scenario predict? **The high growth assumption indicates that overall school enrollments will increase from the 1999 level of 4,683 to 6,491 in 2010, an increase of 1,808 students.** If the high growth assumption were to occur, Full-time enrollment would increase by 1,357 students and Part-time enrollment by 450. Under the high growth scenario, LCC as a whole, during the period of 1999 to 2010 will see an average annual increase of 164 students, an average annual growth rate of 3.0%. Growth of Full-time enrollment will be at an average annual rate of 4.2 percent, or 123 students per year. Increases in Part-time attendance will be 41 students per year, an average rate of 1.6%. FT-Other will grow by a high average annual rate of 9.2% which will add 24 students per year, while PT-Other enrollment will decline at a annual rate of 1.4%, or by 12 students per year.

Table 4. High Growth Assumption

	1999	2000	2005	2010
Total	4,683	4,565	5,275	6,491
FT	2,330	2,341	2,854	3,687
PT	2,353	2,224	2,421	2,803
FT_W	1,045	1,013	1,135	1,363
FT_T	887	862	1,074	1,396
FT_B	248	238	345	514
FT_O	150	227	300	414
PT_W	911	831	939	1,103
PT_T	244	254	368	543
PT_B	255	239	280	345
PT_O	943	900	834	812

The difference between the low, medium, and high assumptions become more pronounced after a few years. In the immediate two or three years, there are relatively smaller differences between the three assumptions. Moreover, after a few years, it will become fairly apparent whether the Service Area's population resumes more rapid growth or continues somewhat lower recent growth levels.

Housing and Population Growth Assumptions

Housing during the past ten years has grown at slightly higher rate than population in the LCC service area. This pattern is expected to continue into the next decade. Because of the likelihood of young professionals, singles, and retirees, in addition to young families, moving into the area, the number of persons per household will decrease. This will cause the population to grow a bit slower than housing.

The housing and population growth rates in the current trends forecast were arrived at by extending the current trends of fertility, migration, and survival rates, and of the number of births in the service area over the forecast horizon.

To make the low and high growth forecasts, fertility, survival, and enrollment participation rates are held at the same levels as in the current trends forecast. The only adjustment that was made was to the rate of population and housing growth, which in turn, affects the migration rate. Growth rates for housing and population that were derived from information obtained from State, Regional, County, and City government planners, were adjusted. Each of the low and high growth scenarios assumes a different growth rate depending on what the planners suggested was the expected growth in the area during the next 10 years – an average annual rate of 1.4%. The low growth rate is approximately one-half percentage point lower (about 0.9 percent) than the average of what local and regional planners expect annually and the high growth rate is one-half percentage point higher (about 1.9 percent).

Current Trends (Medium Level) Forecast. Under the current trends assumption, it is anticipated that the LCC service area's population growth trend will maintain present levels until 2005 then to slightly increase to the year 2010, ending with an average annual growth rate about .1% greater than the present rate (or about 1.5 percent). It is predicted that 18,365 persons will be added to the LCC service area's population by 2010. The average annual increase for the service area's population from 1999 to 2010 is 1.7% under this assumption, or 1,836 persons per year.

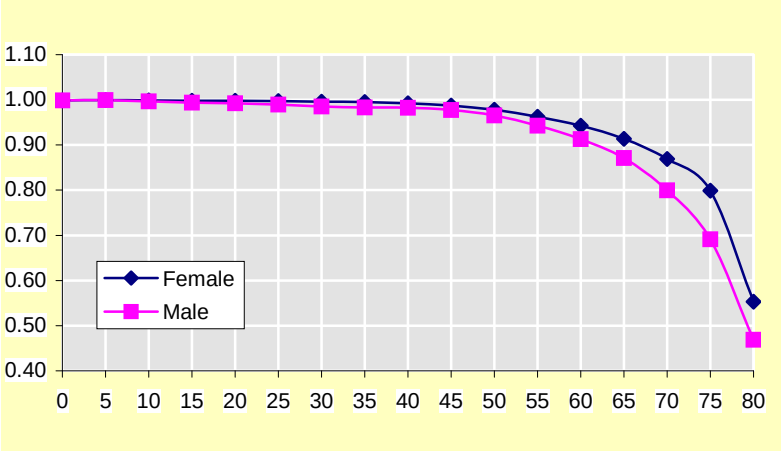
Low Forecast. For the low-level forecast, an assumption is made that growth will initially decrease, and then remain steady so that in 2010 the annual average rate will be .9%. Under this scenario, 10,321 persons will be added to the service area by 2010. If this should occur, the service area's population annual increase would be 1,032 persons.

High Forecast. For an assumption about higher growth, it is projected that there will be an average of 2,414 persons added each year to the Service Area. The growth trend under this assumption is that the growth rate will initially increase and then will remain stable until 2010. The average annual rate of increase is projected to be 2.2%. During the 10-year period it is expected that the population will increase by 24,140.

Should the future population and housing trends deviate significantly from the assumptions presented here, they will affect this forecast. Yet some components of population change are less sensitive to changes than others.

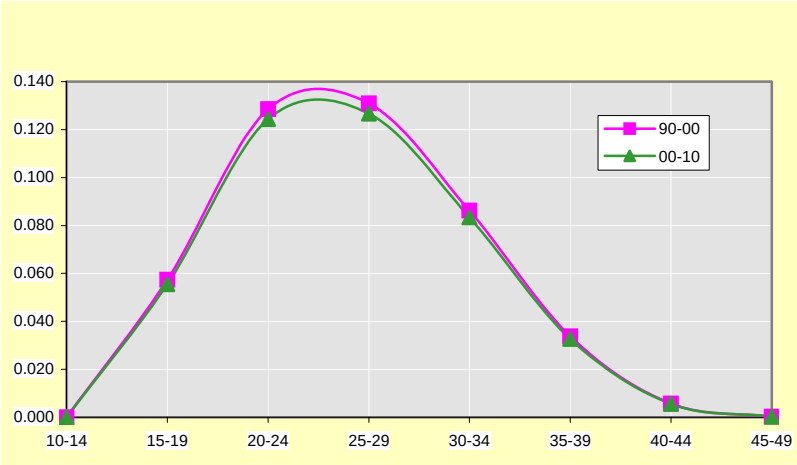
Survival rates reflect chances of a given population cohort to live till the next five-year period. They vary little over time, especially for the young ages. Almost all school-age children will survive to be included into the next cohort. But as age increases beyond this level, the chances of survival decreases. Since the rates are likely to remain stable during the projection period, 1990 rates for Washington were utilized in the model for each forecasting period. It is unlikely that changes in mortality will affect the LCC enrollment forecast for the years 2000 to 2010. The model uses the survival rates calculated from data provided by the Washington State Department of Health (Figure 4).

Figure 4. Survival Rates By Age and Sex, Washington, 1990.



Fertility rates tend to change more with time but are still rather stable. The model uses fertility rates that were adjusted for two different time periods from the 1990 State of Washington rates according to trends in the LCC Service Area (see Figure 5). The use of two sets of rates allows us to slightly decrease fertility rates for the LCC Service Area over the forecast period according to current fertility trends.

Figure 5. Age-Specific Fertility Rates Utilized in the Model.



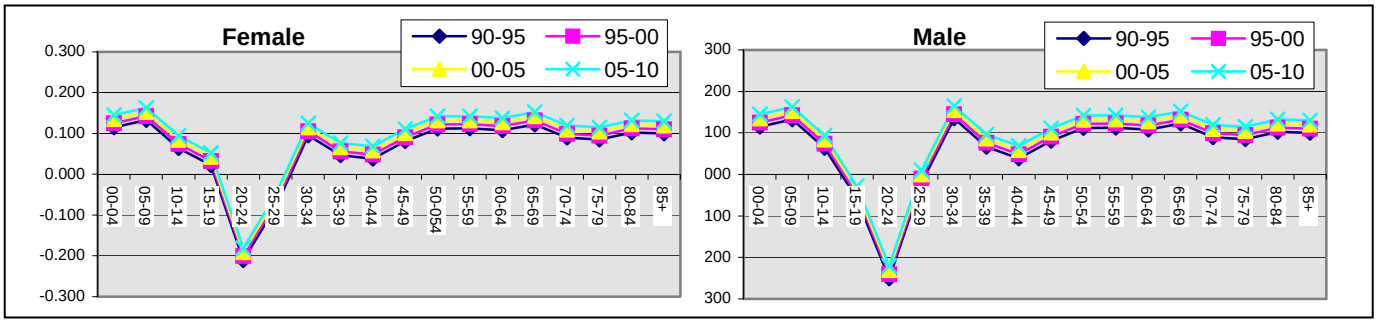
Of all assumptions, **migration rates** tend to be least certain, yet they have some likely upper and lower limits and are subject to a time lag. An initial estimate was made based on a comparison of the service area's 1980 and 1990 population by age groups. The historical net in-migration data for the service area's population was adjusted in order to predict adequately its population from

1990 to 1995. This adjustment ensures that the assumptions made about births, deaths, and migration correspond closely to actual changes in population from1990 to 1995.

Having made the adjustment we derive the migration pattern for LCC's service area shown below (Figure 6). In making the population forecast, this pattern remained about the same until 2010, however, increases were made to the migration rates of all age groups to account for some of the anticipated growth in the area. Figure 6 shows that there is net in-migration of families with children as well as a net in-migration for the elderly. There is a distinctive characteristic of net out-migration, however, for younger adults in the ages of 18 to 24 years. This trait is not unusual and reflects the movement out of the service area of younger persons to attend college elsewhere, to obtain jobs in other cities, or to serve in the Armed Forces. The usual trend is to then eventually return in their late 20s as the figure shows.

While migration rates were tested and produced a close fit with actual population changes for 1990-1995 and 1995-1999, a longer forecast horizon provides more chances for the rates to change in response to a number of factors. Such factors could include a recession that would increase out-migration and halt in-migration, or an accelerated economic growth that would bring in many new residents at a more rapid pace. However, in the absence of such major changes – an assumption reflected in the medium-growth scenario – the migration rates utilized are reasonably reliable, at least until the year 2010.

Figure 6. Net Migration Rates by Age Group, 1990-2010: LCC Service Area



Enrollment Participation rates do not influence population components directly, but reflect how attractive LCC is to the public. Analyzing data on 1990-1999 enrollment and the service area's population by sex and age, led us to estimate that the overall enrollment participation rate for the LCC's Service Area has been at an average of a 0.060 level (see figure 7). This means that 6 out of 100 persons ages 15 and over attended LCC, either full, or part-time. The rate for student types PT-Other has had the highest average rate at 0.015 (1.5 attendees out of 100 persons), followed by a 0.013 rate for FT-Workforce. The lowest rate of 0.002 (2 of 1,000 persons) characterizes FT-Basic Skills students. To predict the enrollment participation rates in the future, the 1990-1999 trend of change in the enrollment participation rates was extended to 2010 (see figures 8 & 9). The same enrollment participation rates - by age, sex, PT and FT, and type of student - were used in all three growth scenarios.

Figure 7. Enrollment Participation Rates for LCC Total Enrollment: LCC Service Area, 1990-1999

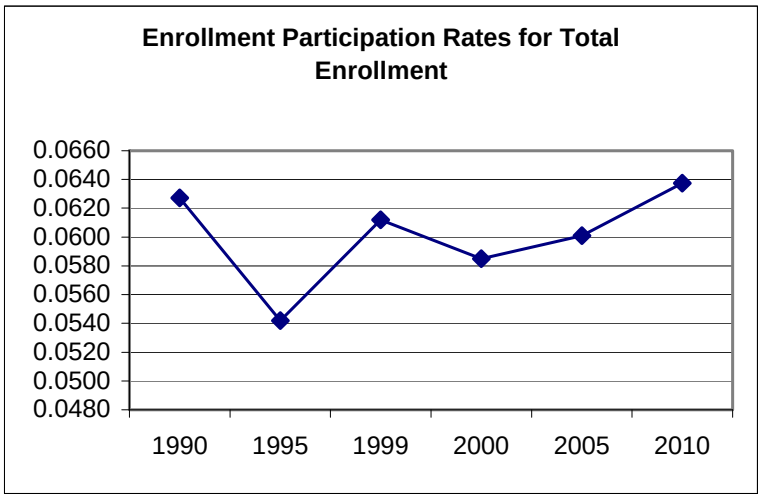


Figure 8.

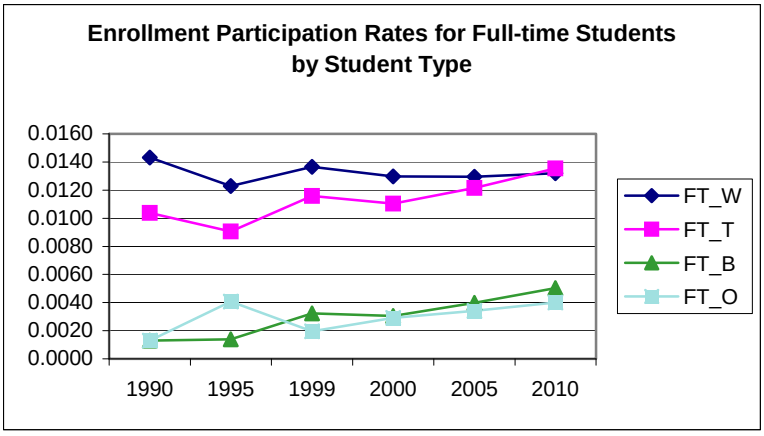
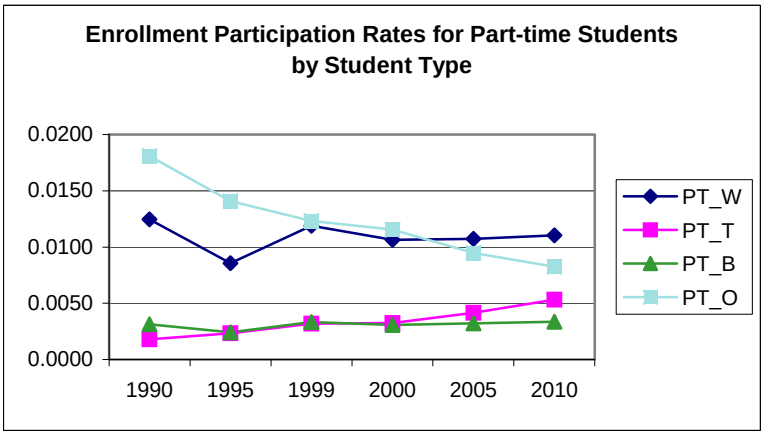


Figure 9.



Methods and Data

A Current Trends Model was developed to forecast LCC's enrollment from 2000-2010. This model uses two methods of forecasting, one for population and one for enrollment. The population forecast must be completed first in order to make the necessary calculations to forecast the enrollment.

Population Forecast. The method used in this study to forecast population in the LCC service area assumes that future populations are the outcome of the life events that occur in populations over time. These events are comprised of **births, deaths**, and relocations (**migrations**) into or out of the area. Thus, the service area population would grow when births outnumber deaths or more people move into the Service Area than leave it. These events occur more often in certain age groups, or cohorts, than in others. For example, people tend to move around the most when they are in their 20s and the elderly have lower chances than people in their 40s to survive over the next 5 years. Applying appropriate age and gender-specific rates of birth, death and migration to the existing population cohorts of the service area would produce its future population.

This method of forecasting population depends on the availability of accurate data on age and gender composition of the service area's population. The most precise information about population structure in an area is usually provided by the most recent Census of Population. The method used in the Current Trends model is also sensitive to the rates of life events that are applied to the known population cohorts. These rates are usually derived from known data such as those provided by the Census, and then modified to account for the most recent trends as well as the like future ones. Examples of such trends that may affect the future population of an area include the recent tendency among women of childbearing ages to delay having their first child, or a predisposition of young men (ages 20 to 24) to be more mobile than women in the same age cohort. After a decision is made about the plausibility of these trends to evolve in the study area, a set of assumptions is developed to address likely changes in the initial rates of life events. Since the existing population structure defines future population composition of the area, the method works best in the short and medium range.

The population data that the study used came from the 1990 Census of Population, County estimates and projections from Washington's Office of Financial Management; the Washington and Oregon Departments of Health provided information on fertility and mortality.

The initial population of the LCC Service Area was derived from the 1990 Census at the census-county level by age group and sex. The 1990 population data was then organized into five-year cohorts, such as 0 to 4 years, 5 to 9 years, and so on. Each of these cohorts was then "survived", or aged into the next cohort by the year 1995. "Surviving" the cohorts is accomplished by applying age- and sex-specific survival rates. These rates represent the proportion of population in each younger cohort that would survive during a given time period (such as 5 years between 1990 and 1995) to become the next older cohort. This process is repeated for each five-year interval between 1990 and 2010.

During each five-year interval, a certain number of live births occur to the women in childbearing ages. To calculate the number of newly born residents of the Service Area, age-specific fertility rates were applied to the numbers of women in childbearing cohorts (15 to 19, 20 to 24, and so on till 45 years and over). Fertility rates indicate how many children women in a given age group are likely to have during each five-year period. Once born, the children become subjects to survival rates and are "moved" through the system like all the other cohorts.

The most difficult part is an estimate of the in- and out-migration for the area. In reality, since little reliable data are available to study in- and out-migration, one works with net migration rates, or the balance between in- and out-migration. Net migration can be calculated if the population is known at the beginning and the end of a time period, as well as the number of births and deaths. Net migration is positive when more people move into the area than leave it; it is negative if the opposite is true. Net migration rates used in the Current Trends model can be interpreted as the number of people who are added to (or subtracted from) a given cohort per each 100 persons due to migration over a given period of time (in this case, five years). The initial net migration rates for the model were derived from the 1980 and 1990 population cohorts of Cowlitz and Wahkiakum Counties, and births and deaths that occurred during 1980-1990. The

rates were then modified in the model to fit recent trends for the Service Area. The net migration rates used to forecast the Service Area's population in 2000-2010 were further modified to reflect the most likely future migration patterns; these migration patterns are greatly influenced by housing growth in the area, both current and forecasted. When making the final adjustments to the net migration rates, consideration was given to what local planners predict will happen in the area. This study shows that migration is and will remain the major force behind the rates of population and enrollment growth in the Service Area.

Enrollment Forecast.

To forecast enrollment, the historical enrollment participation rates must first be calculated using historical enrollment figures, and the service area's past population for the same years. The participation rates are calculated for male and female 5-year age groups by student type. A trend of the historical enrollment participation rates is made and extended into the future for the next 10 years. This trend yields projected enrollment by gender, age group, and student type by applying the projected participation rates to the projected population. Projected enrollment depends not only on the projected participation rates, but also on the service areas projected population. The participation rates applied to higher or lower population will result in higher or lower enrollment figures.

Accessing historical enrollment data is pertinent in using the method of forecasting enrollment in the Current Trends Model. From this data, the number of persons, male and female, in 5-year age groups, and enrolled by student type must be extracted so that participation rates for age groups, gender, and student type may be derived. Lower Columbia College furnished past and current enrollment data. The Service Area's population, by age and gender is also required to calculate the participation rates.

It is apparent that the longer the time span of the forecast, the more difficult it is to make a decision about the rates and assumptions. Thus, it is crucial to have recent population and enrollment data that would allow testing, or adjusting, the assumptions used in the model. LCC's historical enrollment helped us to adjust original migration rates so that a better fit between actual and predicted population figures could be achieved. Enrollment projections depend on

projected population of the Service Area, as well as predicted enrollment participation rates.

Appendix 1

Forecast Tables

Current Trends (Medium Growth) Enrollment Forecast by Student Type, 2000-2010

Lower Columbia College

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	1,012	1,031	1,051	1,071	1,091	1,112	1,140	1,169	1,198	1,228	1,259
FT_T	861	895	930	967	1,005	1,044	1,090	1,137	1,187	1,238	1,292
FT_B	238	256	275	296	318	342	366	391	419	448	480
FT_O	227	239	252	265	279	293	309	326	344	363	382
PT_W	830	848	865	884	902	921	946	972	999	1,026	1,054
PT_T	253	271	291	312	334	358	384	411	441	473	507
PT_B	239	246	253	261	268	276	285	293	302	311	321
PT_O	902	884	866	849	832	815	809	803	797	792	786
FT	2,339	2,422	2,508	2,598	2,693	2,791	2,905	3,023	3,147	3,277	3,413
PT	2,225	2,249	2,276	2,305	2,336	2,370	2,423	2,480	2,539	2,601	2,667
Total	4,563	4,671	4,784	4,903	5,029	5,161	5,328	5,503	5,686	5,878	6,080

Low Growth Enrollment Forecast by Student Type, 2000-2010

Lower Columbia College

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	1,012	1,027	1,042	1,058	1,074	1,091	1,113	1,137	1,160	1,185	1,209
FT_T	856	882	910	938	967	997	1,030	1,065	1,100	1,137	1,175
FT_B	237	254	272	290	311	332	353	376	400	425	452
FT_O	226	236	247	258	270	283	296	310	324	339	355
PT_W	824	837	849	862	874	887	903	919	935	952	968
PT_T	252	268	284	302	321	341	361	382	405	428	454
PT_B	239	245	251	258	264	271	279	287	295	303	311
PT_O	889	860	831	804	777	752	727	702	679	656	634
FT	2,331	2,399	2,471	2,545	2,622	2,702	2,793	2,887	2,984	3,086	3,192
PT	2,204	2,209	2,216	2,225	2,237	2,251	2,269	2,290	2,313	2,339	2,367
Total	4,535	4,608	4,686	4,770	4,859	4,953	5,062	5,176	5,297	5,425	5,559

High Growth Enrollment Forecast by Student Type, 2000-2010

Lower Columbia College

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	1,013	1,037	1,060	1,085	1,110	1,135	1,177	1,221	1,267	1,314	1,363
FT_T	862	901	942	984	1,028	1,074	1,132	1,193	1,257	1,325	1,396
FT_B	238	256	276	297	320	345	374	405	438	474	514
FT_O	227	240	254	268	283	300	320	341	364	388	414
PT_W	831	851	872	894	916	939	969	1,001	1,034	1,068	1,103
PT_T	254	273	294	317	341	368	398	430	465	502	543
PT_B	239	247	255	263	272	280	292	304	317	331	345
PT_O	900	887	873	860	847	834	830	826	821	817	812
FT	2,341	2,434	2,532	2,634	2,741	2,854	3,003	3,160	3,326	3,502	3,687
PT	2,224	2,258	2,295	2,334	2,376	2,421	2,489	2,561	2,637	2,718	2,803
Total	4,565	4,692	4,827	4,968	5,118	5,275	5,492	5,721	5,963	6,220	6,491

Total Population by Age Groups for Lower Columbia College Service Area, 1990-2010

Current Trends (Medium Growth) Forecast

	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
1990	6,550	6,671	6,631	6,073	4,954	6,051	6,779	6,924	6,460	5,133	4,147	3,747	3,844	3,674	3,018	2,360	1,589	1,099	85,704
1995	7,296	7,410	7,094	6,491	4,649	4,683	6,700	7,094	7,112	6,894	5,607	4,482	3,955	4,004	3,578	2,741	1,958	1,545	93,295
2000	6,967	8,327	7,954	7,016	5,039	4,440	5,237	7,078	7,357	7,659	7,598	6,115	4,773	4,155	3,933	3,282	2,294	2,030	101,255
2005	6,858	8,021	9,022	7,950	5,516	4,857	5,008	5,585	7,411	7,997	8,518	8,360	6,571	5,058	4,117	3,635	2,774	2,528	109,786
2010	7,496	7,964	8,770	9,110	6,331	5,372	5,525	5,390	5,900	8,129	8,972	9,455	9,064	7,027	5,056	3,838	3,093	3,129	119,620

Low Growth Forecast

	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
1990	6,550	6,671	6,631	6,073	4,954	6,051	6,779	6,924	6,460	5,133	4,147	3,747	3,844	3,674	3,018	2,360	1,589	1,099	85,704
1995	7,296	7,410	7,094	6,491	4,649	4,683	6,700	7,094	7,112	6,894	5,607	4,482	3,955	4,004	3,578	2,741	1,958	1,545	93,295
2000	6,967	8,327	7,954	7,016	5,039	4,440	5,237	7,078	7,357	7,659	7,598	6,115	4,773	4,155	3,933	3,282	2,294	2,030	101,255
2005	6,858	8,021	9,022	7,950	5,516	4,857	5,008	5,585	7,411	7,997	8,518	8,360	6,571	5,058	4,117	3,635	2,774	2,528	109,786
2010	7,496	7,964	8,770	9,110	6,331	5,372	5,525	5,390	5,900	8,129	8,972	9,455	9,064	7,027	5,056	3,838	3,093	3,129	119,620

High Growth Forecast

	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
1990	6,550	6,671	6,631	6,073	4,954	6,051	6,779	6,924	6,460	5,133	4,147	3,747	3,844	3,674	3,018	2,360	1,589	1,099	85,704
1995	7,296	7,410	7,094	6,491	4,649	4,683	6,700	7,094	7,112	6,894	5,607	4,482	3,955	4,004	3,578	2,741	1,958	1,545	93,295
2000	6,933	8,374	7,997	7,038	5,055	4,415	5,142	7,062	7,358	7,697	7,734	6,227	4,822	4,157	3,949	3,314	2,313	2,063	101,650
2005	6,794	7,888	9,381	8,263	5,667	4,989	4,913	5,131	7,400	8,083	8,821	9,265	7,299	5,388	4,165	3,750	2,947	2,714	112,858
2010	8,671	8,126	7,359	9,841	7,095	5,693	6,672	6,430	4,108	7,934	8,611	8,295	10,699	9,482	6,572	3,740	3,003	3,458	125,790

Appendix 2

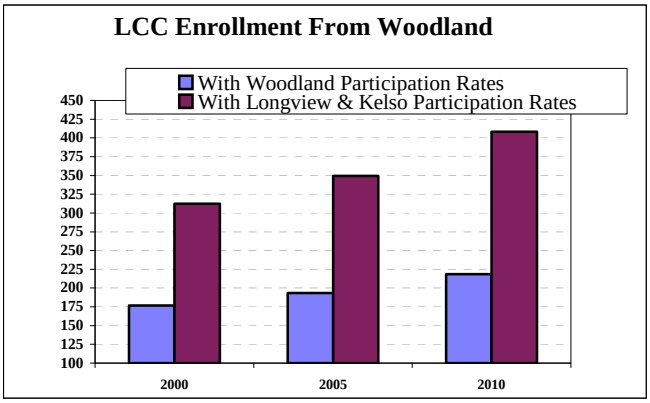
“What If…” Scenarios

The following two scenarios assume the same population and housing growth as the Current Trends forecast. These scenarios involve adjusting the enrollment participation rates for different population groups.

What if the City of Woodland had comparable enrollment participation rates to Longview and Kelso?

The average of the LCC enrollment participation rates for Longview and Kelso was applied to Woodland's projected population to determine what would happen to total enrollment and to enrollment for all student types if Woodland were to have comparable rates (see Chart below). Longview and Kelso both have higher enrollment participation rates than Woodland, however, the average of Longview's and Kelso's rates is higher than the whole Service Area's rates for some student types, but lower for others. In all instances except for the Part-time Basic Skills student type, Woodland's enrollment participation rates are **lower** than the rates for the Service Area, as well as the average rates of Longview and Kelso. Consequently, LCC's enrollment for all student types but one experienced an increase under this scenario. Part-time Basic Skills enrollment decreased (see enrollment tables below).

Under this scenario, LCC's enrollment of students residing in Woodland is increased for all student types except Part-time Basic Skills students.



LCC Projected Enrollment from Woodland Based on the Continuation of Current Trends

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	15	15	16	16	16	16	17	17	17	18	18
FT_T	13	13	14	14	15	16	16	17	18	18	19
FT_B	6	7	7	8	8	9	10	10	11	12	13
FT_O	0	1	1	1	1	0	1	1	1	1	0
PT_W	26	27	27	28	28	29	30	30	31	32	33
PT_T	2	2	3	3	3	3	3	4	4	4	5
PT_B	77	79	81	84	86	88	90	93	96	98	101
PT_O	36	35	35	34	33	32	32	32	31	31	31
FT	35	37	38	39	41	41	44	45	47	49	50
PT	142	144	146	148	150	152	155	159	162	165	169
Total	177	181	184	187	191	193	199	204	209	214	219

LCC Projected Enrollment from Woodland Using Longview and Kelso Enrollment Participation Rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	67	68	70	71	72	73	75	76	78	80	82
FT_T	60	62	64	66	69	71	74	77	80	84	87
FT_B	20	22	23	25	27	29	30	33	35	37	40
FT_O	17	17	18	19	20	21	22	23	24	26	27
PT_W	50	51	52	53	54	54	56	57	59	60	62
PT_T	20	21	23	24	26	28	30	32	34	36	39
PT_B	13	13	13	14	14	14	15	15	16	16	17
PT_O	66	65	63	62	61	59	59	58	57	57	56
FT	164	169	175	181	187	194	201	209	217	226	235
PT	149	150	151	153	154	156	159	162	166	169	173
Total	312	319	326	333	341	349	360	371	383	395	408

Difference in LCC's Projected Enrollment Due to Woodland's Change of Participation Rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	52	53	54	55	56	57	58	59	61	62	63
FT_T	47	48	50	52	54	56	58	60	63	65	68
FT_B	14	15	16	17	18	19	21	22	24	25	27
FT_O	17	16	17	18	19	21	21	22	23	25	27
PT_W	23	24	24	25	25	26	26	27	28	28	29
PT_T	18	19	20	21	23	25	26	28	30	32	34
PT_B	-65	-66	-68	-70	-72	-74	-76	-78	-80	-82	-84
PT_O	30	29	29	28	27	27	27	26	26	26	26
FT	129	132	137	142	147	153	158	164	170	177	185
PT	6	6	5	4	4	3	3	4	4	4	4
Total	136	138	142	146	150	156	161	167	174	181	190

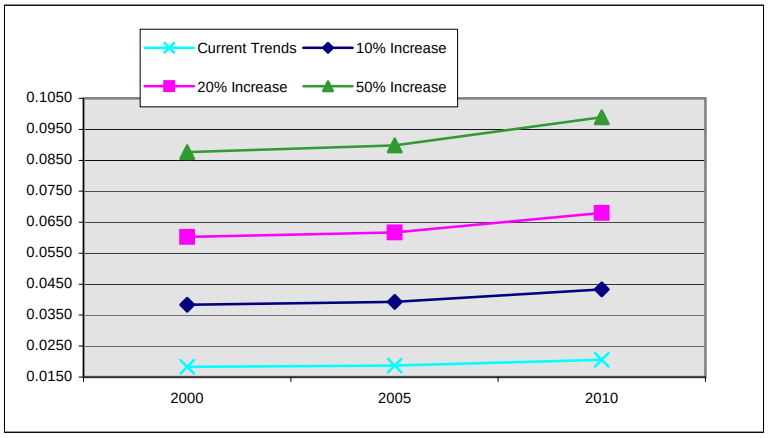
Note: These differences also reflect change in LCC's total enrollment by student type, not just LCC enrollment from Woodland

What would happen if the participation rate of seniors in the LCC Service Area were to increase by 10%, by 20%, or by 50%?

This scenario offers a look at what would happen to LCC enrollment if the senior participation rates based on current trends were to increase by 10%, by 20%, or by 50%. This change of rates is projected over the forecast period. The participation rate for all persons 60 years old and over is presently .022, which means that in the LCC service area, of the population of those 60 years old and over, there are approximately 2 LCC students for every 100 persons. Not surprisingly, it is much lower than the participation rate for the whole college age population (those 15 years and older) which is currently .061, or 6 LCC students per 100 persons older than 15 in the LCC area.

To forecast LCC senior enrollment by applying higher senior participation rates, three levels of increase (10%, 20%, and 50%) were made to the current trends senior participation rates in each 5-year age group over 60 years old for each student type. The sum of LCC enrollment of all senior age groups for each student type was taken to yield the total senior enrollment by student type.

LCC Senior Participation Rates



LCC Senior Enrollments with Senior Participation Rates Based on Current Trends

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	11	13	15	17	19	22	25	29	32	36	41
FT_T	0	0	0	0	0	0	0	0	0	0	0
FT_B	4	4	4	5	5	6	6	7	8	8	9
FT_O	4	4	5	5	6	6	7	8	9	10	11
PT_W	58	65	73	82	92	104	115	126	139	154	170
PT_T	4	5	5	6	6	7	8	9	10	11	12
PT_B	6	6	7	8	9	11	12	13	15	17	19
PT_O	287	291	295	298	302	306	320	334	349	365	381
FT	18	21	24	27	30	34	38	43	48	54	61
PT	355	367	380	395	410	428	454	483	513	546	582
Total	374	388	404	421	441	462	493	526	562	601	643

LCC Senior Enrollments with a 10% Increase in Senior Participation Rates

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
FT_W	12	14	16	19	21	25	28	31	35	40	45
FT_T	1	1	1	1	1	1	0	0	0	0	0
FT_B	4	4	5	5	6	6	7	8	8	9	10
FT_O	4	4	5	6	6	7	8	9	10	11	12
PT_W	64	72	81	91	102	114	126	139	153	169	187
PT_T	5	5	6	6	7	8	9	10	11	12	14
PT_B	6	7	8	9	10	12	13	15	16	18	20
PT_O	316	320	324	328	332	336	352	367	384	401	419
FT	20	24	27	30	34	38	42	47	53	60	67
PT	391	404	418	434	451	470	500	531	565	601	640

Total	411	428	445	464	486	508	542	578	618	661	707

Difference in LCC's Projected Enrollment Due to a 10% Increase in Senior Participation Rates

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
FT_W	1	1	1	2	2	2	3	3	3	4	4
FT_T	0	0	0	0	0	0	0	0	0	0	0
FT_B	0	0	0	0	1	1	1	1	1	1	1
FT_O	0	0	0	1	1	1	1	1	1	1	1
PT_W	6	7	7	8	9	10	11	13	14	15	17
PT_T	0	0	1	1	1	1	1	1	1	1	1
PT_B	1	1	1	1	1	1	1	1	1	2	2
PT_O	29	29	29	30	30	31	32	33	35	36	38
FT	1	1	1	2	3	3	5	5	5	6	6
PT	36	37	38	39	41	43	45	48	51	55	58
Total	37	38	39	41	44	46	50	53	56	61	64

Note: These differences also reflect change in LCC's total enrollment by student type, not just LCC Senior enrollment.

LCC Senior Enrollments with a 20% Increase in Senior Participation Rates

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
FT_W	13	15	18	20	23	27	30	34	39	44	49
FT_T	0	0	0	0	0	0	0	0	0	0	0
FT_B	4	5	5	6	6	7	7	8	9	10	11
FT_O	4	5	5	6	7	8	8	9	10	12	13
PT_W	70	78	88	99	111	125	137	152	167	185	204
PT_T	5	6	6	7	8	9	10	11	12	13	15
PT_B	7	8	9	10	11	13	14	16	18	20	22
PT_O	345	349	354	358	362	367	383	401	419	438	457
FT	22	25	28	32	36	41	46	52	58	65	73

PT	426	441	457	474	492	513	545	579	616	656	698
Total	448	466	485	506	529	554	591	631	674	721	771

Difference in LCC's Projected Enrollment Due to a 20% Increase in Senior Participation Rates

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
FT_W	2	3	3	3	4	4	5	6	6	7	8
FT_T	0	0	0	0	0	0	0	0	0	0	0
FT_B	1	1	1	1	1	1	1	1	2	2	2
FT_O	1	1	1	1	1	1	1	2	2	2	2
PT_W	12	13	15	16	18	21	23	25	28	31	34
PT_T	1	1	1	1	1	1	2	2	2	2	2
PT_B	1	1	1	2	2	2	2	3	3	3	4
PT_O	57	58	59	60	60	61	64	67	70	73	76
FT	1	1	1	2	6	7	5	5	10	6	12
PT	71	73	76	79	82	86	91	97	103	109	116
Total	72	74	77	81	88	92	96	102	112	115	129

Note: These differences also reflect change in LCC's total enrollment by student type, not just LCC Senior enrollment.

LCC Senior Enrollments with a 50% Increase in Senior Participation Rates

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
FT_W	17	19	22	25	29	34	38	43	48	55	62
FT_T	1	0	0	0	0	0	1	1	1	1	0
FT_B	6	6	7	7	8	8	9	10	11	12	14
FT_O	5	6	7	8	8	9	10	12	13	15	16
PT_W	87	98	110	123	139	156	172	190	209	231	255
PT_T	6	7	8	9	10	11	12	13	15	17	19
PT_B	9	10	11	12	14	16	18	20	22	25	28
PT_O	431	436	442	447	453	459	479	501	523	547	572
FT	22	31	35	40	45	51	59	66	74	83	92

PT	426	551	571	592	616	641	681	724	770	819	873
Total	448	582	606	632	661	693	740	790	844	902	964

Difference in LCC's Projected Enrollment Due to a 50% Increase in Senior Participation Rates

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
FT_W	6	6	7	8	10	11	13	14	16	18	21
FT_T	0	0	0	0	0	0	0	0	0	0	0
FT_B	2	2	2	2	3	3	3	3	4	4	5
FT_O	2	2	2	3	3	3	3	4	4	5	5
PT_W	29	33	37	41	46	52	57	63	70	77	85
PT_T	2	2	3	3	3	4	4	4	5	6	6
PT_B	3	3	4	4	5	5	6	7	7	8	9
PT_O	144	145	147	149	151	153	160	167	174	182	191
FT	1	1	1	2	15	17	5	5	24	6	31
PT	178	184	190	197	205	214	227	241	257	273	291
Total	179	185	191	199	220	231	232	246	281	279	321

Note: These differences also reflect change in LCC's total enrollment by student type, not just LCC Senior enrollment.

Appendix 3

Conversations with Local Planners

Conversations with Local Planners of the Cowlitz-Wahkiakum County Areas

Chuck Beyer, Wahkiakum County Planner
8/31/00
The average annual growth rate for 1995-2000, based on OFM's population estimates, is **1.1%** per year. Mr. Beyer feels that the rate will remain about the same in the next 10 years with hope for a slight increase. The only housing development in the works now is a 20-lot subdivision of SFRs.

Kent Anderson, Kelso City Planner
8/31/00
Growth has been stagnant for a while. OFM estimates average annual growth to be about **.1%** per year for 1995-2000, which Mr. Anderson agrees with. Many people whose houses were affected by the landslides moved out of town. What few subdivisions are being developed now in Kelso are all small in size – 30 or fewer SFRs. However, there is new zoning regarding infill that allows for higher density of lots and might have a positive affect on in-migration to Kelso. Currently, young families and professional people have been observed migrating in and acquiring higher-end housing.

David Crowe, Cowlitz County Planner
9/1/00
Growth will probably continue for the next 10 years as it has been in the last few years – **1 to 1.25%** annual increase. There has been a decrease in the average annual growth rate during the past decade from 1.7% during 1990-1995 to 1.2% during 1995-2000. Building activity and housing development is significantly less than last year (development of housing on short plats is down 25% of what is was last year). There are a few small subdivisions being developed in the county (all 30-50 units and under) and a 75-unit mobile home park in Kalama. What housing is built, however, is slow to sell. Mr. Crowe believes that a saturation point is being reached, and that nothing spectacular will happen to the County's growth in the near future. There has been a vigorous pro-growth effort put forth by the Ports of Kalama, Woodland, Longview and other economic development agencies in the area. There is still hope that the county's growth rate will

increase in the next 5 to 10 years because of its location along the I-5 corridor and because the development codes in Cowlitz are more lenient and building prices are less than Clark County's.

Robert Millspaw, Principal Planner, City of Longview
9/6/00
According to OFM's population estimates, the average annual growth rate in Longview was 1.2% during 1990-1995 and decreased to 0.5% during 1995-2000. Mr. Millspaw feels that population in Longview will probably start to increase, though, for two reasons. First, Longview is beginning to see some activity in undeveloped industrial areas that will provide family-wage manufacturing type jobs. Secondly, Longview continues will become more attractive because the housing market is 10-15% lower than in the Portland/Vancouver area. He sees this already happening in Kalama and Woodland where housing is also more affordable. Growth over the next 10 years will probably fluctuate but could average annually **1.25%** with the highest rates being in the 2nd half of the next decade. Mr. Millspaw feels that mostly young families (30+) will be moving to Longview. Currently, there are few housing developments underway. There is an 18 unit condo complex being constructed. There are some subdivisions on line with a total of 50 lots that will slowly be developed within the next year; by next summer about 10-15 of the lots should have homes (SFRs) on them.

Steve Langdon, Planner for the Cowlitz-Wahkiakum Council of Governments and the City of Woodland
9/6/00
The City of Cathlamet and the rest of Wahkiakum County have been experiencing little growth for the past decade. The geographic area and the population are small. The freeway is 25 miles away and the county has no natural gas line. There is not a lot to attract industry; logging has slowed, as have fishing and agriculture. There is nothing on the horizon to draw people to move to Wahkiakum County. However, there have been some empty nesters that have been moving there to retire and have been purchasing big lots with higher end housing. Housing is less expensive than in Longview and Kelso.

Average annual growth in Wahkiakum County the past decade has been about **1.8%** with rates being lower during the 2nd half than in the first half. Mr. Langdon foresees growth to hold steady at around 1% per year in the next 10 years.

Cowlitz County is the only county in the southwest region of the State not to be subject to a State mandated growth plan because of its slow growth (below 17% for the past decade).

Woodland's current sewer moratorium will be lifted in a year and will keep up with the housing demand. Hundreds of lots will likely be developed in the next few years. Woodland will have new Safeway store and new industry seems to always be attracted to the area. Most new housing are single-family residences of the entry-level type. This affordable housing has been attracting young families.

Don Mathison, Planner for the Cowlitz-Wahkiakum Council of Governments and the Cities of Kalama and Castle Rock
9/14/00
Kalama has had steady growth the past decade with an average annual rate of **4.9%** from 1995-2000. However, population is under 2,000, and currently, the sole housing program in Kalama consists of 9 high-end homes. In the past year only 14 new homes were built. Established families and retirees are moving in because of the high cost of housing that is being built. Growth in the city will be limited because of demands on services it has to provide to nearby county development; the annual growth rate is expected to slow to 2.4% over the next 10 years.

There are no current housing developments in Castle Rock with no firm plans for any to take place in the future. Castle Rock has experienced flat growth for at least the last decade.

The unincorporated area of Cowlitz County that surrounds Kalama has been experiencing growth double than that of the City. Because there are no growth management requirements (no zoning, no accountability of impact on resources), and services are supplied by the city of Kalama it is easy to develop there and the county encourages it. In this area, there is more of a mix of housing and the type of people who occupy it there, as housing is more affordable.

Mr. Mathison has observed that there are a number of people interested in continuing education that reside in this area.

Appendix 4

Student Residence Map