

**INTERIM STATUS REPORT:
ASSESSMENT OF THE HIGHER EDUCATION NEEDS
SNOHOMISH, ISLAND, AND SKAGIT COUNTIES AREA**

**Submitted to:
The Higher Education Coordinating Board**

**by:
NBBJ and MGT of America, Inc.**



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I. EXECUTIVE SUMMARY OF WORK TO DATE

This Executive Summary describes the efforts completed to date of a higher education needs assessment for Snohomish, Island, and Skagit counties. The effort so far in this project has focused on identifying the educational needs, both in terms of enrollment and programs. The definition and description of alternative organizational models, assessing sites for possible educational resources to meet the identified educational need, and the identification of the costs and process for completing a master plan are scheduled for calendar year 2006.

Through a proviso in the 2005 Capital Budget (see Appendix A), the Washington State Legislature directed the Washington Higher Education Coordinating Board (HECB) to undertake a higher education needs assessment of a study area composed of Snohomish, Island and Skagit Counties. The study is commonly referred to as the SIS study. Specifically, Section 615 of Engrossed Substitute Senate Bill (ESSB) 6094 calls for the following four major areas of study:

1. Assess the higher education needs in Snohomish, Island, and Skagit Counties.
2. Evaluate alternative organizational models for meeting identified needs and recommend the type of institution(s) to be established.
3. Assess sites for establishment of an institution.
4. Identify costs and process for completing a master plan for higher education expansion in the study area.

The study process involves several ongoing and concurrent efforts in three major areas: 1) educational need/demand analyses and program analyses, 2) definition and description of alternative State responses to those needs, and 3) locale selection. To date, the majority of effort has been focused on identifying the need and demand for higher education in the study area and an analysis of the programs to be offered to address that need. In considering solutions to the needs of the study area, the HECB was directed to take into account population growth, higher education participation rates, economic demand and work force needs, and drive and commute times to existing higher education institutions.

The summary of the need and demand for higher education, described below, is contained in four areas: Forecast Demographics, Enrollment Projections, Program Needs Assessment, and Next Steps. Attached to the interim report are several appendices, including a glossary of terms, that amplify the material contained in the report and are available for those desiring more in depth understanding of the study's process and analysis.

A. Forecast Demographics

Forecast demographics provide the basis for understanding the potential enrollment projections for the SIS region.

- Overall, the SIS region's population is projected to increase 39.9% by the year 2025, or more than 340,500 people, for a total population of nearly 1.2 million.
- In 2005, 78.0% of the SIS region's population is in Snohomish County, dropping slightly to 77.8% by 2025.

- Although Skagit County is the area’s county with the largest forecast percentage increase 45.7% in population, Snohomish County will have the largest increase in the absolute number of people (262,500) over the next 20 years.
- The proportion of persons aged 65 and over is estimated to significantly increase over the next twenty years, particularly in Island County.
- Although there is a shift to older populations, a significant amount of the population is and will remain in the age groups 15 to 24 and 25 to 44.

B. Enrollment Projections

Enrollment projections estimate the future enrollment levels of residents of the SIS study area.

As directed in the study legislation, analysis of the regions participation rates in public higher education was conducted. Participation rates are the proportion of the population projected to enroll at the public universities and colleges.

- The higher education participation rates for the SIS counties are below the current statewide averages for participation at four-year public institutions.
- The higher education participation rates for Washington, as a whole, are below the national averages for participation at four-year public institutions.
- The participation rates for Washington’s Community and Technical Colleges is one of the highest in the country and well above the national average.

Initially, five alternative enrollment levels were developed for the public four-year institutions. These alternatives projected enrollment to the year 2025 and ranged from enrollment increases due to population growth alone (current participation rate) to enrollment levels that would occur if the region achieved the national 70th percentile in enrollment.

The desirability and feasibility of these alternatives was reviewed with the study’s Local Advisory Committee and Project Coordination Team. Based upon these discussions the HECB determined that an appropriate enrollment planning model would reflect area enrollments increasing to the state average by 2015 and to the national average by 2025. This model calls for the full-time equivalent (FTE) enrollment increases displayed in the Total Need table below.

Using these total need planning numbers, the analysis then estimated the amount of the projected need that could be met at the existing public institutions. The remainder, termed “unmet need” for the region, is summarized in the Unmet Need table below.

TOTAL NEED		
In FTEs		
Sector	2015	2025
Community/Technical Colleges	2,960	4,740
Four-Year Institutions	3,680	8,840

UNMET NEED		
In FTEs		
Sector	2015	2025
Community/Technical Colleges	2,960	4,740
Four-Year Institutions	2,920	6,970

In the tables above, the Community/Technical College enrollment numbers do not change between the Total Need table and the Unmet Need table. For the community/technical college sector, all total need was assumed to be unmet under current circumstances, and the accommodation of their unmet need, as well as the unmet need of the four-year sector, will be dealt with later in this study.

C. Program Needs Assessment

Program needs assessment identifies the program needs of the study region.

The qualitative methodology utilized a variety of sources and a broadly representative group of stakeholders. Stakeholder input was (and continues to be) collected through the use of the following techniques:

- a public Town Hall meeting conducted in each of the counties;
- interviews and focus groups with employers in each of the three counties;
- e-mailed surveys for employers unable to participate in face-to-face interviews and focus groups;
- focus groups with high school and college students; and
- interviews and focus groups with high school and college counselors and other appropriate high school and college staff members.

PROGRAM NEEDS

Program Needs	2-Year	4-Year
Anthropology		x
Biostatistics		x
Biotechnology/Medical Technology/Laboratory Techniques	x	x
Business/Finance/Marketing	x	x
Computer Science/Systems/Networks		x
Construction Trades (management, planning, trades)	x	
Counseling/Social Work		x
Education (K-12, bilingual, Special Education)		x
Education Administration		x
Engineering (aerospace, mechanical, civil)	x	x
Electrician/HVAC/Construction	x	
Allied Health	x	x
Hospital Administration		x
Hospitality		x
Law/Paralegal	x	x
Liberal Arts		x
Managers (operations, project)		x
Molecular Biology		x
Nursing	x	x
Planning (land use, city)		x
Public Safety (fire, police)	x	
Service Industry (retail)	x	

The program needs identified the demand for baccalaureate and graduate degrees in: Business/Accounting/Finance, Computer Science/Network/ Systems, Counselors/Social Work, Engineering, Hospitality, Nursing, Project/Operations Management, Planning, and Special Education Teachers; and post-high school through community/technical college associate degrees in: Construction Trades and Technologies, Public Safety, Business, Engineering Technologies, Paralegal, Nursing, and Allied Health.

In addition to the above program needs, the preferred educational delivery method to meet the needs of employees and/or future students was the traditional classroom. Hybrid and Web-based delivery were the next most likely methods to address needs. However, the strongest message from responses was that multiple delivery methods need to be used in order to provide the flexibility to meet the varied needs and preferences of potential students.

D. Next Steps

The ongoing project efforts (next steps) will utilize the enrollment demand and program need information for the efforts listed below.

- Continuing refinement of enrollment demand estimates and program needs.
- Identifying appropriate role and mission to meet enrollment demand and program needs.
- Evaluating alternative organizational models for meeting identified needs and recommending the type of institution(s) to be established.
- Assessing sites for establishment of an institution.
- Identifying costs and process for completing a master plan for higher education expansion in the study area.

II. PURPOSE & PROCESS

A. Policy Reference

Through a proviso in the 2005 Capital Budget, the Washington State Legislature directed the Washington Higher Education Coordinating Board (HECB, or the Agency) to undertake a higher education needs assessment of a study area composed of Snohomish, Island and Skagit Counties. Specifically, Section 615 of Engrossed Substitute Senate Bill (ESSB) 6094 calls for the following four major areas of study:

1. Assess the higher education needs in Snohomish, Island, and Skagit Counties.
2. Evaluate alternative organizational models for meeting identified needs and recommend the type of institution(s) to be established.
3. Assess sites for establishment of an institution.
4. Identify costs and process for completing a master plan for higher education expansion in the study area.

In considering solutions to the needs of the study area, the HECB was directed to take into account population growth, higher education participation rates, economic demand and work force needs, and drive and commute times to existing higher education institutions. ESSB 6094 also directs the HECB to work with a local advisory committee consisting of state and local elected officials; and business or education leaders. The role of this committee is to provide advice and input from a broad regional policy perspective about higher education needs. Additionally, ESSB 6094 directs the HECB to consult with representatives of the higher education community in conducting the needs assessment. The principal focus of the latter group, called the Project Coordination Team, is to provide “hands-on” expertise in identifying needs and evaluating alternatives to meet those needs. The membership of each group is included in Appendix C.

B. Study Determinants

A number of factors influence both the higher education needs of the three county area and the most appropriate and cost-effective methods, resources and settings for meeting those needs.

The identifications are rooted in the Legislature’s intent for a rigorous determination of the subject area’s existing services, and perceived deficits in services and programs and ways to reduce such deficits. Fundamentally important to those determinations are the SIS area forecast population and demographics over the next two decades.

Identifying the forecast unmet needs in a practical sense involves specific geographic areas and/or target populations for which investments in improved service delivery methods are most warranted. Central to that identification are the existing and planned services and practical existing enrollment capacities for the institutions that currently provide services to those areas and the target populations.

One significant aspect of considering alternative higher education service delivery methods (institutional roles and missions) is the use of technology in various forms of distance learning appropriate to the large three county area. Current practices in the three-county area and in use in other parts of the state and nation are to be defined in detail, understood,

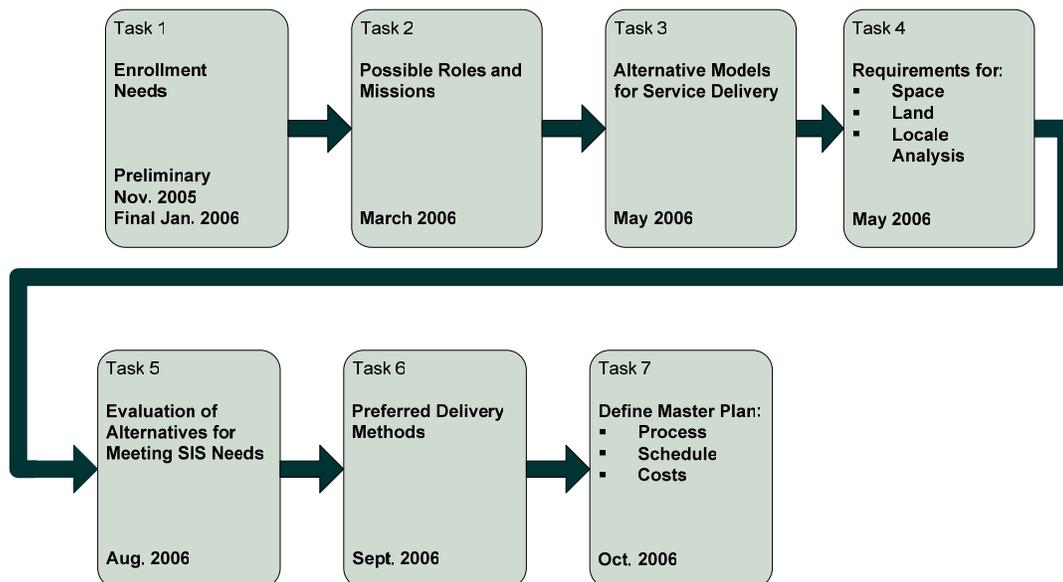
and considered for their utility and responsiveness to the identified populations. Similarly, organizational models (various potential institutional roles and missions) that hold promise for improving services will be identified and defined, including those currently in-place, those in use in similar geographically dispersed service areas around the nation, together with the “best practices” or benchmarks from comparable, access-challenged areas. Both the applicability of technologies and the organizational structures/governance will have much to say about the time-phased functional and space program requirements for any newly developed facilities.

The locale analysis will identify those geographic areas that hold promise for providing greatest convenience and least travel distances and times and therefore the least/ best environmental impact were they to accommodate new needed higher education facilities required to serve the forecast demands. Such locale/placement analyses typically draw much stakeholder/citizen and political interest and provide an opportunity to explore alternative development strategies including those that involve public and public-private sector partnering and cost sharing for needed capital improvements.

C. Study Process

The study process being employed to address the Legislature’s intent in this analysis involves several ongoing and concurrent efforts in three major areas: 1) educational need/demand analyses and program analyses, 2) definition and description of alternative State responses to those needs, and 3) locale selection. These major efforts are summarized in the following graphic of the study process. As summarized in the introductory materials, to date this study effort has addressed the first area of analysis, educational need/demand and program analysis as detailed in the following materials.

FIGURE 1: SIS STUDY PROCESS



III. Preliminary Quantitative Needs Analysis - Enrollment Projections

The specific provisions of Section 615 of ESSH 6094 direct the HECB to include in the needs assessment study an analysis of the higher education participation rates in the three county area, and to assess the workforce training needs of the study area.

Meeting these provisions involves both a **quantitative** analysis of demographics and participation rates and associated enrollment demand projections for the three counties and a **qualitative** based survey of employer needs related to specific occupational categories and types of degrees.

Both analyses provide beginning points in the study. Specifically, the data from both the quantitative analysis of possible enrollment levels, and surveys of employer and resident perceptions of higher education program needs will help determine what types of higher education resources are needed in the study area, and then, what types of institutional models would be the most appropriate and cost-effective in meeting the projected need. Each of these alternatives will be defined, described and comparatively evaluated for their responsiveness to the HECB's master plan goal of increasing "degree-output" in needed areas.

A. Forecast Demographics

Snohomish, Island and Skagit County population counts (2005 and projected 2025 totals) were provided by the Office of Financial Management. In sum, the following observations are possible about the area's future demographics:

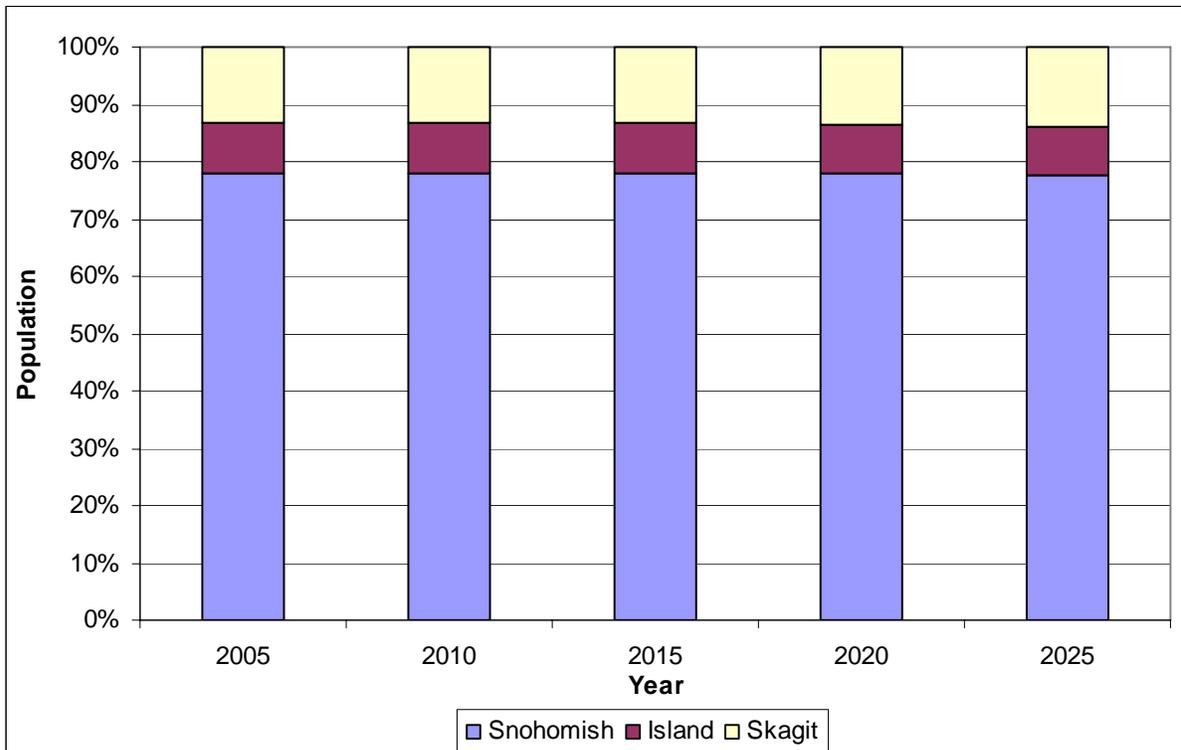
- Overall, the SIS region's population is projected to increase 39.9% by the year 2025, or more than 340,500 people.
- In 2005, 78.0% of the SIS region's population is in Snohomish County, dropping slightly to 77.8% by 2025.
- Over the next 20 years, Island County's percent of the region's population will drop slightly, while Skagit County's portion will increase to 13.8% from 13.2%.
- The proportion of persons aged 65 and over is estimated to significantly increase over the next twenty years, particularly in Island County.
- Although there is a shift to older populations, a significant amount of the population is and will remain in the age groups 15 to 24 and 25 to 44, see Appendix D.

TABLE 1: POPULATION INCREASE BY COUNTY, 2005 TO 2025

County	2005	2015	2025	% Change	Growth
Snohomish	666,735	793,720	929,314	39.4%	262,579
Island	74,738	87,416	101,079	35.2%	26,341
Skagit	113,136	135,717	164,797	45.7%	51,661
TOTAL	854,609	1,016,853	1,195,190	39.9%	340,581

Source: Washington Office of Financial Management, 2002 County Projections by Age

FIGURE 2: POPULATION BY COUNTY, 2005 TO 2025



Source: Washington Office of Financial Management

Although Skagit County is the area’s county with the largest forecast percentage increase 45.7% in population, Snohomish County will have the largest increase in the absolute number of people (262,500) over the next 20 years. The forecast demographics provided the basis for understanding the potential enrollment projections for the SIS region.

B. Enrollment Projections

One of the major components of this needs assessment is the projection of future enrollment levels of residents of the three counties. Future enrollment levels were estimated using a participation rate methodology.

The participation rate calculation is derived by dividing the number of students actually enrolled (headcount enrollment) by the total county population within each age range grouping. The resulting participation percentage is then applied to the estimated future populations (age range grouping specific) to identify a projection of future enrollment.

Although other methods can be used to estimate future enrollments, such as estimated high school graduates and rolling averages of high school students, the participation rate approach is generally applied because it captures the degree of post-secondary participation by each of the various age groupings that attend colleges and universities. In this way the participation rate projection accommodates older or other non-traditional students as well as those graduating from high school.

Enrollment is only one measure of “input.” The Higher Education Coordinating Board’s 2004 Master Plan recommended a significant change in how investments in higher education are planned, budgeted and subsequently prioritized. Specifically, the HECB calls upon the State to shift to an “output-based” model that centers policy and budgetary decisions upon degree awards within both the two-year and four-year sectors.

To that end, this study will integrate enrollment projections and the degree/training needs of the three counties into a “degree output” estimate. That estimate will be developed in close coordination with both the Local Advisory Committee (LAC) and the Project Coordination Team (PCT) and be defined within the context of state-wide degree needs and goals.

Five alternative enrollment scenarios for the public four-year institutions, described in Table 2 and depicted in Figure 3, were developed by the HECB in order to test the sensitivity of enrollment demand estimates to various levels of success in raising the three county area population’s participation in higher education. The enrollment alternatives yield a wide range of participation levels which are being refined and narrowed in consultation with the Project Coordination Team and the Local Advisory Committee. The enrollment alternatives incorporate county-specific participation rates within upper division and graduate/professional levels of four-year public enrollments as well as enrollment at the community and technical colleges, as listed in Exhibit D-4 in Appendix D.

Lower division enrollments at both the four-year public institution and community and technical college levels were projected for all scenarios using 2004 actual Washington State participation rates. This results in lower division enrollments being consistent across all of the alternatives. This consistency is possible because freshman and sophomore enrollments at the community and technical colleges and the four-year public colleges and universities in Washington already exceed the 70th percentile nationally. Given the success of that system, it is not anticipated that the participation rate for that level will materially change in the future.

TABLE 2: ENROLLMENT SCENARIOS

Alternative 1:	Maintain the current SIS participation rate through 2025.
Alternative 2:	Achieve the national average participation rate by 2015 and the 70th percentile participation rate by 2025.
Alternative 3:	Achieve the national average participation rate by 2015 and maintain that level through 2025.
Alternative 4:	Achieve the Washington state average participation rate by 2015 and the national average participation rate by 2025.
Alternative 5:	Achieve the Washington state average participation rate by 2015 and maintain that level through 2025.

As indicated, the first alternative assumes maintaining the current upper division and graduate/professional rate of participation in four-year public institutions, which simply reflects the effect a changing population will have on future enrollments. The other scenarios reflect not only population changes but also potential policy goals that increase the rate at which people attend public four-year higher education institutions, specifically for upper division (junior and senior) and graduate/professional programs.

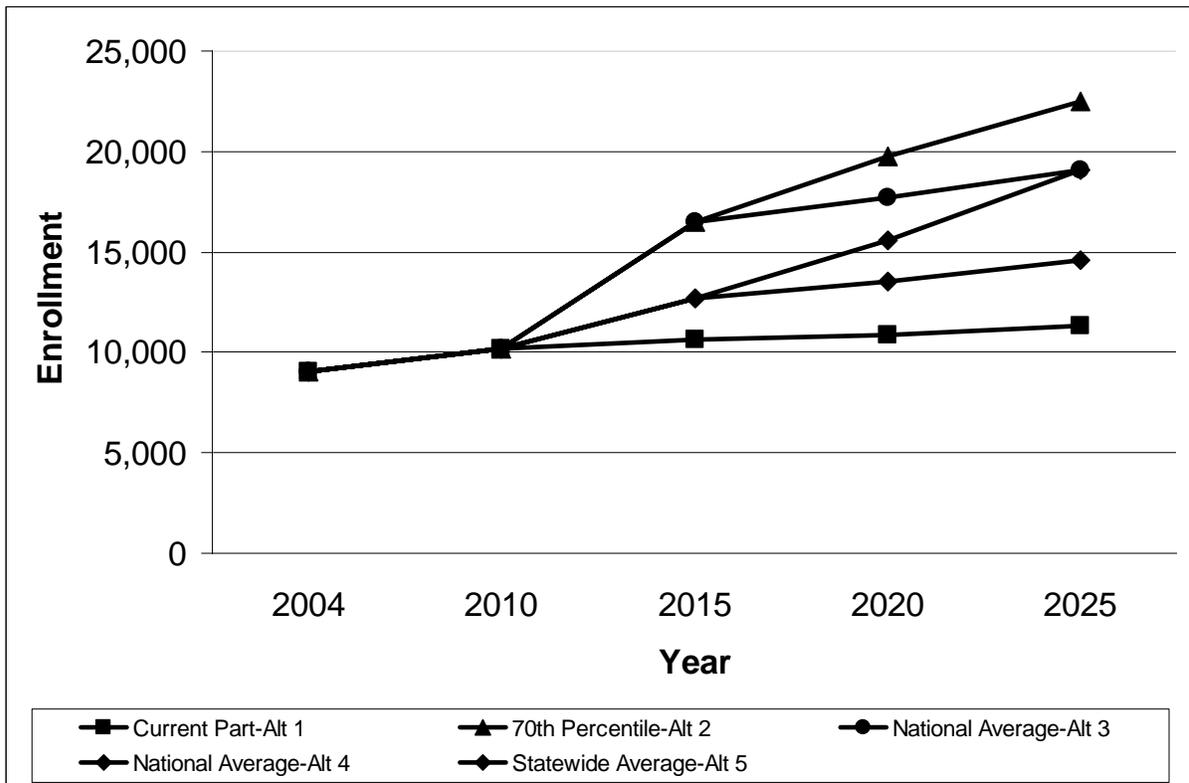
Applying the forecast population information to each of the enrollment alternatives defined above, yields the following enrollment projections for the three county area. A detailed description of the methodology is provided in Appendix D of this report.

TABLE 3: HEADCOUNT ENROLLMENT PROJECTIONS

Alternatives: 4-Year Institutions	2004	2015	2025	Increase	% Change
Current Participation Rate (Alt 1)	9,025	10,650	11,290	2,265	25%
70th Percentile (Alt 2)	9,025	16,485	22,460	13,435	149%
National Average (Alt 3)	9,025	16,485	19,110	10,085	112%
National Average (Alt 4)	9,025	12,660	19,110	10,085	112%
Statewide Average (Alt 5)	9,025	12,660	14,595	5,570	62%
Community Colleges					
	24,250	28,700	31,365	7,115	29%

Source: MGT Analysis

FIGURE 3: ENROLLMENT PROJECTIONS BY ALTERNATIVE FOUR-YEAR PUBLIC INSTITUTIONS

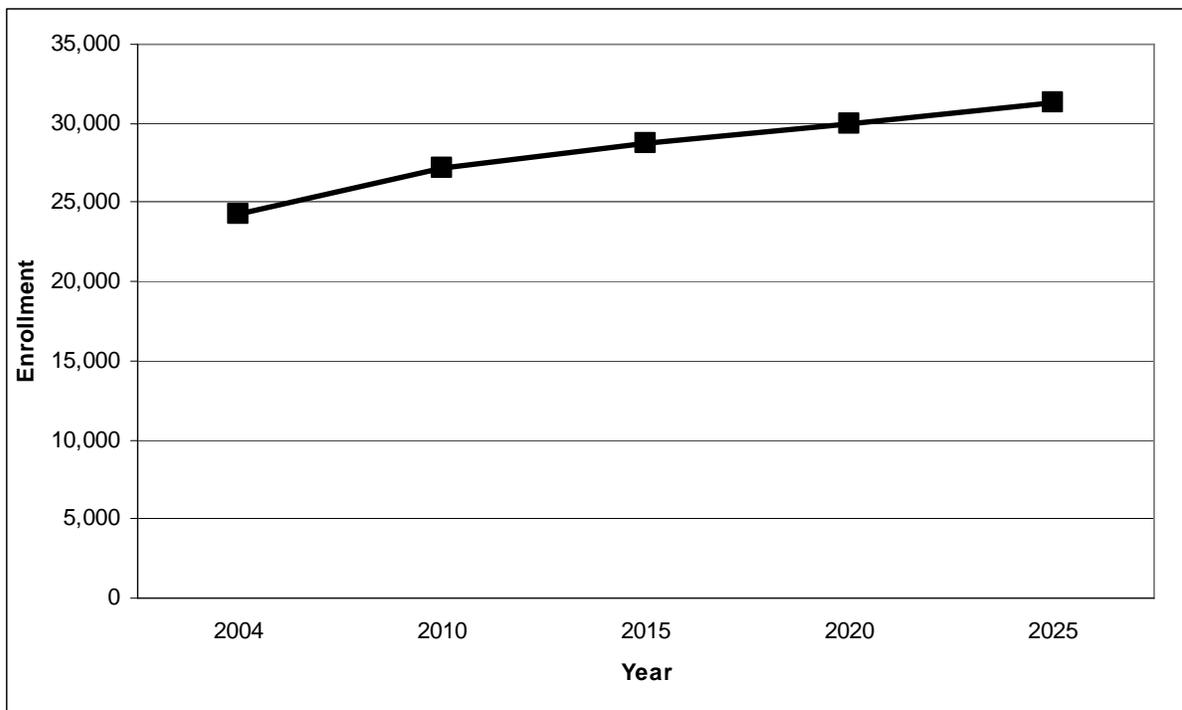


Source: MGT Analysis

Several observations are possible about these projections:

- If the status quo is maintained, i.e., the current participation rate is applied to the forecast population, an increase in public four year enrollment of 2,265 could be expected.
- Conversely, State actions to significantly increase participation in higher education by the residents of the three county area to the 70th percentile nationally, would yield an estimated enrollment increase of 13,435.
- Alternatives 3 and 4 both attain the national average participation rate (upper division and graduate/professional) in the year 2025 with an estimated enrollment increase of over 10,080 people with Alternative 4 involving deliberate progression to that national average.
- Alternative 5 attains the statewide average participation rate (upper division and graduate/professional) and projects an enrollment increase of 5,570 between 2004 and 2025.

**FIGURE 4: ENROLLMENT PROJECTIONS
TWO-YEAR PUBLIC INSTITUTIONS**



Source: MGT Analysis

A key element in the enrollment analysis is identifying “unmet” need of the study region. Existing institutions will accommodate some of the projected enrollment, if there is capacity within their institutional growth limits. In order to identify the projected needs of the three county area that cannot be met by the existing public institutions serving that populace this analysis determined the enrollment likely to be accommodated by existing institutions. The following table summarizes the institutional growth limits for each existing relevant institution and the enrollment spaces that could be available for students from the SIS study region. As indicated in Table 4, only a modest amount of the SIS forecast enrollment growth can be accommodated within the existing institutions given their existing capacities and the experienced pattern of enrollment of students from the SIS counties. Discussions subsequent to the preparation of these estimates suggest that some additional capacity might be available depending on institutional growth plans.

TABLE 4: INSTITUTIONAL GROWTH LIMITS (IN FTES)

Institution	FTE Enrollment			SIS Distribution	
	Growth Limit or Build-out Capacity	2004 Enrollment	Total Available	Current Participation, Statewide Average, National Average	70th Percentile
UW - Seattle	38,410	34,829	3,581	328	328
UW - Bothell	6,000	1,291	4,710	503	666
UW - Tacoma	5,901	1,690	4,211	108	145
WSU - Pullman	23,000	18,577	4,423	356	356
WSU - Spokane	N/A	1,207		0	0
WSU - Tri-Cities	1,799	660	1,139	2	2
WSU - Vancouver	3,645	1,340	2,305	9	9
CWU	9,819	9,182	637	68	68
EWU	11,175	9,666	1,509	47	47
Evergreen	5,000	4,272	728	23	23
WWU	12,500	12,123	377	66	66
Total	117,249	94,838	23,618	1,510	1,710

Source: Washington Higher Education Coordinating Board and MGT Analysis

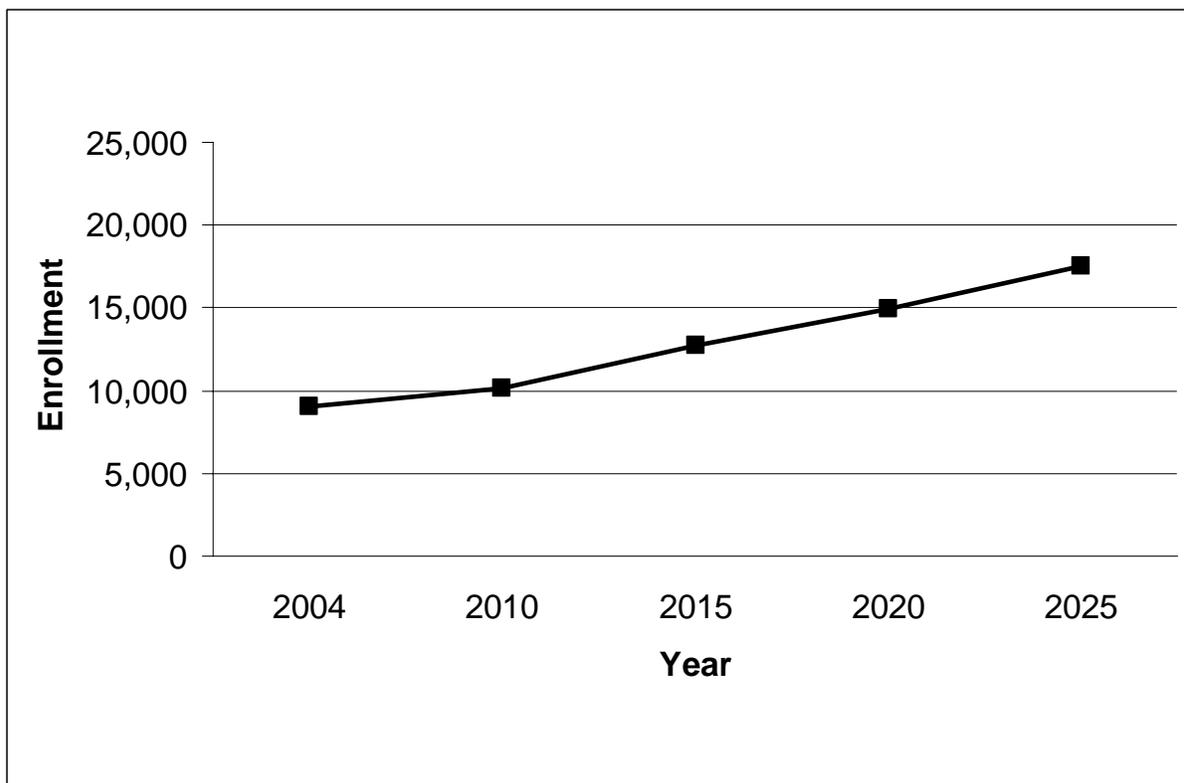
As was noted above, the range of enrollment alternatives was refined following consultation with and input from the Local Advisory Committee and the Project Coordination Team. Additional analyses were also conducted in response to questions raised in the review process. The results of this process produced the net unmet need forecast for the region by 2025 that are expressed in Table 5.

The most important element is the identification of the enrollment objective for the SIS region. The Local Advisory Committee felt strongly that an objective above the current statewide average was appropriate for upper division and graduate education since the state lags well behind national averages in participation at these levels. Therefore, an objective of attaining the statewide average participation rates by 2015 and the national average rates for these levels by 2025 was selected as the measure of overall need.

A second adjustment dealt with the calculation of the national average participation rate for graduate and professional education. The initial unmet need for this category appeared disproportionately high compared to that of the upper division level. Subsequent examination revealed that a large portion of Washington's national rank was related to non-resident student enrollments. This had the effect of increasing the difference between the SIS region rate for residents only and the national average. An adjustment was therefore made to recalculate the objective by adding the difference between Washington's national rank and the national average to the Washington state *resident* average. This produced a more realistic estimate of need for resident student enrollments and is reflected in Table 5. An examination of the upper division enrollment rates indicated no significant disparity so no adjustment was deemed to be necessary in that category.

Figure 5 below reflects the overall headcount enrollments for four-year public higher education estimated for the three county region through 2025 based on the enrollment objective identified by the HECB and supported by the Local Advisory Committee. If those objectives are met, it is estimated that 17,560 students from the region will be served compared with the 9,025 served in 2004.

**FIGURE 5: ENROLLMENT OBJECTIVE
FOUR-YEAR PUBLIC INSTITUTIONS
(HEADCOUNT ENROLLMENT)**



Source: MGT Analysis

The forecast full time equivalent (FTE) enrollments from the region that are not estimated to be accommodated within existing institutions is defined as “unmet need” and is summarized for each major enrollment level in Table 5. The first column represents the number of additional FTE student spaces estimated to be needed above current enrollment levels. The second column is the additional enrollment amount that can be expected to be accommodated by existing Washington public institutions, while the final column is the net unmet need as of 2025. The unmet need estimated for the three county region totals nearly 7,000 FTE students.

It should be noted that there are proposals pending that could reduce the net unmet need to a range of 6,100 to 6,200 FTE students. For example, the University of Washington-Bothell has submitted plans that indicate they could accommodate approximately 900 more FTE students than identified in the current unmet need calculations. These estimates will be the subject of further review during the study process.

TABLE 5: UNMET NEED IN 2025 (IN FTES)

4-Year Level	Total Regional Need	Accommodated Need	Net Unmet Need
Lower Division	803	372	431
Upper Division	5,036	895	4,141
Grad/Prof	2,639	243	2,397
4-Year Total	8,479	1,510	6,969
CTCs - Lower Division Net Unmet Need			4,740

Source: MGT Analysis

An analysis of the age distribution of the additional need in the three county region indicates that the distribution is very similar to the enrollment pattern throughout the state. The “traditional” age grouping for undergraduate students attending four-year institutions is 17 to 24 years of age. The enrollment pattern in the three county region at the lower division level is 98 percent in the 17 to 24 age category and 76 percent at the upper division level. As the table in Appendix J illustrates, when the estimated age distribution of SIS region students is compared to non-SIS students, there is a shift of only five percent of upper division enrollments to the “non-traditional” category (326 of 6,285). Therefore, while attention will definitely need to be given to the needs of older, place-bound students in developing alternatives to meeting needs, the great majority of the undergraduate need mirrors statewide patterns in the 17 to 24 age category. In the case of the community colleges, the future unmet need is also expected to reflect current overall age distributions.

In conclusion, the enrollment demand for higher education in the SIS region is strong and identifies significant unmet need. This latest analysis confirms the enrollment projections of previous studies regarding the higher education need of the area. As this study of the SIS region continues, estimates will continue to be refined as institutional plans are evaluated and decisions are reached on issues of program needs and role and mission considerations.

IV. Preliminary Qualitative Needs Analysis - Program Needs Analysis

A. Methodology

The qualitative analysis of post-secondary education needs for the Snohomish, Island, and Skagit area is an important element of the study as it suggests program areas from the perspectives of employers, students, counselors and the community. Qualitative data collection regarding two-year, four-year and graduate level education needs in the three counties is ongoing and will continue as needed through December and early January 2006. Triangulation, the convergence of information from multiple sources, is important in establishing validity in qualitative research. The qualitative methodology utilizes a variety of sources and a broadly representative group of stakeholders. Stakeholder input was collected through the use of the following techniques:

- a public Town Hall meeting conducted in each of the counties;
- interviews and focus groups with employers in each of the three counties;
- e-mailed surveys for employers unable to participate in face-to-face interviews and focus groups;
- focus groups with high school and college students; and
- interviews and focus groups with high school and college counselors and other appropriate high school and college staff members.

Additional methods used in the study include the review of reports from other recently conducted research regarding post-secondary education needs for the three-county area (see Appendix I for a list of previous studies). Those studies' findings are used to provide an even more robust body of information, and additional information with which to compare and contrast data gathered in this study.

B. Occupational Preparation Needs

A total of 85 employers have been contacted in order to request their input regarding projected hiring needs, and the educational preparation those employees will require. More than thirty interviews and focus groups have been completed. The following detailed matrices in Table 6 summarize their responses regarding the types and levels of preparation employers anticipate their employees will need.

When data collection is complete, program needs will be grouped according to the broader and commonly used Classification of Instructional Program (CIP) categories. This initial information, however, provides a broad array of the specific occupational preparation needs identified by respondents. In some program needs assessments, the identified need is narrow and represents a single thread of needed programs, e.g., science and technology programs. But, as indicated by the information collected to date and detailed in Table 6, a broad range of program need has been identified, indicating a demand for a comprehensive set of programs.

TABLE 6: PROGRAM NEED BY COUNTY, BY LEVEL *

4-year & Graduate	<i>Snohomish</i>	<i>Island</i>	<i>Skagit</i>
Accounting/Budget/Finance/Fiscal	X	X	X
Aerospace Engineering	X	x	x
Anthropology			X
Biostatistics	x		
Biotechnology/Medical Technology	x		
Business Administration	X	X	X
Computer Science / IT / Network	X	x	x
Counselors/Social Workers	X	X	X
Education – Support Staff	x	x	x
Educational Administration			X
Engineering – Civil / Mechanical	X	x	x
Healthcare and Allied Health	x	x	x
Hospital Administration			X
Hospitality			x
K-12 Teachers	x	x	x
Law			x
Managers-Operations/Project	X		
Marketing	X		x
Molecular Biology	x		
Planning (Land Use, Local Government)	X		X
Registered Nurses with B.S.	X	x	X
Special Education Teachers	X	X	X
Systems Engineers	X		

Post H.S to 2-year	<i>Snohomish</i>	<i>Island</i>	<i>Skagit</i>
Accounting / Bookkeeping	x	x	x
Aircraft Mechanics	x		
Biotechnology/Laboratory Techniques	x		
Construction Trades (Management, Planning, Trades)	x	x	x
Drafting / CAD-CAM	x		
Electricians/Mechanics/HVAC/ Construction	x	x	x
Lab Technology	x		
Nursing - (RN)	X	X	X
Paralegal			x
Public Safety (Fire & Police)	x	x	x
Service Industry	x	x	x
Teachers - Supervisors - Support	x		

Source: MGT Analysis

* *Bold X's indicate programs or areas with strong interest.*

The program needs displayed in Table 6 above present a broad array of education requirements. The relative magnitude of these needs has been indicated through the use of light or bold X's, with the bold indicating programs or areas with strong interest. Those programs mentioned most often, across all groups and throughout the study area, were:

- Business/Finance/Marketing,
- Engineering (Aerospace, Civil, Mechanical),
- Computer Science/Information Technology/Network Administration,
- Counseling/Social Work,
- K-12 Education (Middle & High School Teachers, Bilingual Teachers, Special Education),
- Nursing,
- Allied Health, and
- Service Industry (retail).

C. Town Hall Meetings

During key portions of the study, Town Hall meetings will occur to provide opportunities for public input. The first group of meetings to discuss the preliminary demographic analysis and the perceived higher education needs was held on the following dates and times.

- November 15 – Skagit Valley College, Mt. Vernon
- November 16 – Skagit valley College, Oak Harbor
- November 17 – Marysville-Pilchuck High School, Marysville

The meeting format included introductions and comments detailing the study purpose and context, an overview of the preliminary findings to date and an opportunity for the participants to ask questions on the overview. At that point the groups broke into small break-out groups, discussed the following questions and reported back to the group at large. The small groups responded to the following questions:

- What are the values of postsecondary education to you?
- What is your purpose in pursuing postsecondary education?
- Other than the absence of programs, what other challenges make it difficult for those in the county to pursue higher education?
- What delivery method/methods of higher education course delivery is preferred or required – traditional classroom, distance learning, web-based, CD-ROM or a hybrid?
- What are the strengths and weaknesses of the educational opportunities in the county after high school?
- What are the postsecondary education program needs (or degree programs)? At what level are they needed – community & technical college, four-year or graduate level?

While each meeting followed the same format, there were some specific differences in each. Overall:

- Skagit County session had limited public participation.

- Skagit Valley Community College faculty was well represented and active participants.
- Very thoughtful session.
- Turnout in Island County was low due to lack of news coverage.
- Valuable feedback was received on the special nature of this geographic area from the legislative perspective.
- Snohomish County had the best turnout following newspaper articles on the development of a four-year institution and public service advertisements on Seattle radio stations regarding the town hall meeting.
- Many attendees have already concluded that a regional university is needed for Snohomish County.
- Few students or prospective students attended the meeting.
- Greater focus is needed on meeting the needs of employers and economic vitality.

Common themes emerged in each session around the values and purpose of higher education and the preferred delivery method. The value of higher education in creating good citizens and supporting the cultural and economic vitality of a region was noted in each session. All agreed that the major purposes for pursuing higher education were to increase employment opportunities, provide for a better quality of life for self and family and the intrinsic value that learning brings to one's life and the community at large. All three groups agreed that a combination of delivery methods is required to serve the broad spectrum of needs in each county.

Input on the strengths and weaknesses of postsecondary opportunities and program needs reflected the unique circumstances of each county. That input for Snohomish and Skagit counties is summarized below. (The low citizen turnout in Island County limited the collection of strengths and weaknesses.)

Skagit County

- Positive – Good access to community college system.
- Negative – Difficulties in commuting to WWU (Western Washington University) from Stanwood and south of Mount Vernon.
- Negative – Huge geographic area without much baccalaureate opportunity.

Snohomish County

- Positive – Great postsecondary opportunities except in terms of high tech.
- Positive – Great community college opportunities except the area between Everett and Mt. Vernon.
- Positive – College without walls.
- Positive – NSIS facility (higher education facility in Everett) with capabilities built in.
- Positive – UWB/CCC (University of Washington-Bothell Campus and Cascadia Community College) is very strong, but not very big yet.
- Negative – Lack of funding affects choices.

- Negative – WWU (Western Washington University) and UW (University of Washington) higher standards limit opportunities.
- Negative – Graduate opportunities limited and far away.
- Negative – Bulk of county population is close to Seattle.
- Negative – More focus needed on high demand fields, especially math and science.
- Negative – Math and science pipeline is challenged so technical programs have shortages.
- Negative – Lack of transportation network.

Program Needs –The program needs information contained below was gleaned from the town hall discussions. In some cases, the information validated what was collected via interviews, focus groups, and surveys. In other cases the information collected was new. However, it is noteworthy that across all counties there was an identified strong common core of program needs.

Skagit County

- Four year nursing and whole allied health field.
- K-12 bilingual teachers.
- Four-year TEASL (Teaching English as a second language) degree.
- Special Education.
- Programs that can easily transfer for military members and dependents.
- Graduate programs.
- Business/Management—service industry growth.

Snohomish County

- Four-year and graduate programs.
- Allied health.
- Special Education.
- Graduate programs for working students.
- Math and science teachers (all levels).
- Small and specialized programs operating periodically.
- Poly-tech and high tech.
- Certification programs, specifically to meet federal requirements.
- Advanced engineering.
- Vocational training.
- Programs that complement SIS region economic.

Island County

Although the program needs of Island County were similar to that of the other counties in the study area, a number of distinct and unique challenges, opportunities, and special needs were noted.

- Wide geographic dispersion and isolation from the rest of the SIS study area.
- Three separate and distinct regions in the county.
- Limited travel routes leads to traffic and congestion issues.
- The mobility of military families and unique needs of transferring from institution to institution.
- Existing Oak Harbor facility may have untapped potential. which has been affected by funding priorities of the main campus.
- San Juan County is part of the Island service area and has very similar characteristics, but is not part of the same community college district.

D. Findings: Barriers to Post-Secondary Education

During the interview process, one of the questions dealt with barriers to post-secondary education. While employers identified the lack of access to a desired or needed program as a major barrier to the pursuit of post-secondary education, the following impediments and challenges also were frequently mentioned:

- Lack of child care.
- Lack of transportation.
- Affordability and/or lack of financial aid.
- Limited capacity of Washington colleges and universities.
- Lack of flexibility (i.e., class meeting schedule, state residency requirement, or inability to receive academic credit for experience, training, institutes and workshops).
- Lingering perception among some that higher education is not needed in order to be successful.
- Cultural constraints providing limited role models and motivation for pursuing higher education.

During ongoing data collection, community members, students and counselors also will be asked to identify barriers to higher education. Once consolidated, the barriers information will be used in the development and evaluation of alternative organizational models.

E. Findings: Delivery Systems

Various methods are used to provide, or deliver, instruction. One of the questions asked of students and employers dealt with different types of delivery systems that could be utilized to provide educational program services. Employers and students were asked which methods for delivering education they believed would be most effective in meeting their own and their employees' education needs. The following delivery systems were identified:

- Web-based,
- Interactive voice/video,

- Hybrid (distance and traditional classroom),
- Traditional classroom,
- Video tape,
- Self-paced program, and
- Scheduled pace, tied to semesters.

Based on the information received to date, the traditional classroom was rated the highest overall in ability to meet the needs of employees and/or future students. Hybrid and Web-based delivery were next most likely to address needs. The strongest message from their responses was that multiple delivery methods need to be used in order to provide the flexibility to meet the varied needs and preferences of potential students.

V. Next Steps

Throughout the remainder of this study effort, the HECB will continue to refine the estimates of demand and unmet needs and to collect program needs, barriers and delivery systems information. The refined estimates of unmet need will be used to define, describe and comparatively evaluate appropriate role and mission and alternative State responses to SIS area needs. The program needs information will be used to formulate the types of programs and disciplines that could potentially be offered to address the higher education needs of the study area. The barriers and delivery systems information will be used in the development and evaluation of alternative organizational models. The existing committees that are providing assistance to HECB are centrally important in that definitional work as is the public, hence the commitment to continued substantive public outreach efforts throughout the SIS area.

APPENDICES

APPENDIX A

**APPENDIX A:
LEGISLATION DIRECTING THE STUDY**

***NEW SECTION. Sec. 615 FOR THE HIGHER EDUCATION COORDINATING BOARD**

Snohomish, Skagit, and Island County Higher Education Needs Assessment (06-2-850)

The appropriation in this section is subject to the following conditions and limitations:

- (1) The higher education coordinating board is directed to assess the higher education needs in Snohomish, Skagit, and Island counties and recommend to the legislature solutions to the higher education needs. Solutions that the board should consider include, but should not be limited to, establishment of new institutions, expansion of existing institutions, and colocation of institutions. In conducting its assessment, the board shall take into account but not be limited to the following: Population growth, higher education participation rates, economic demand and work force needs, and drive and commute times to existing higher education institutions.
- (2) The board may contract for an assessment of sites to meet higher education needs in the counties.
- (3) In conducting the assessment and siting study, the higher education coordinating board shall consult with the state board for community and technical colleges, the workforce training and education coordinating board, the North Snohomish, Island, and Skagit higher education consortium, and the existing research and comprehensive institutions.
- (4) ~~The advisory committee on higher education created pursuant to chapter . . . (Engrossed Second Substitute Senate Bill No. 5441 (studying early learning, K-12, and higher education)), Laws of 2005 shall serve as a steering committee and direct the board in the conduct of the assessment and siting study.~~
- (5) The board shall assemble a local advisory committee to assist in the conduct of the assessment and siting study. The committee shall include: (a) The Snohomish county executive; (b) three members of the house of representatives, including two from the majority party and one from the minority party, appointed by the speaker of the house of representatives; (c) three members of the senate, including two from the majority party and one from the minority party, appointed by the president of the senate; and (d) six education or business leaders, two each from Snohomish, Island, and Skagit counties.
- (6) The recommendations to the legislature shall include, but are not limited to: (a) The type of institution or institutions to be established; (b) a business and operations plan for the institution if a new institution is recommended; (c) potential sites for establishment of an institution; (d) identification of site acquisition costs; and (e) identification of costs and a process for completing a master plan for higher education expansion.
- (7) The board shall provide an interim report to the legislature and the governor by January 15, 2006, and a final report by December 1, 2006.

Appropriation:

Education Construction Account—State	\$500,000
Prior Biennia (Expenditures)	\$0
Future Biennia (Projected Costs)	<u>\$0</u>
TOTAL	\$500,000

**Sec. 615 was partially vetoed. See message at end of chapter.*

Veto Message

Section 615(4), page 137, Higher Education Coordinating Board was vetoed by the Governor as follows:

"Section 615(4) requires the advisory committee on higher education created in E2SB 5441 (Comprehensive Education Study) to serve as a steering committee to direct the Board in the conduct of a higher education needs assessment and siting study for Snohomish, Skagit, and Island counties. Under current statute, the Board has authority to conduct these assessments. I am directing the Board to consult with the advisory committee created in E2SB 5441 so that the advisory committee may consider the Board's findings and recommendations as it considers the higher education needs of the entire state."

APPENDIX B

APPENDIX B: GLOSSARY OF TERMS

Term	Definition
Academic Program	An instructional program leading toward an associate's, bachelor's, master's, doctor's, or first-professional degree or resulting in credits that can be applied to one of these degrees.
Allied Health	The term allied health is used to identify a cluster of health professions and covers as many as 100 occupational titles, exclusive of physicians, nurses, and a handful of other specialized health occupations. Allied health includes cardiovascular technicians, dental hygienists, diagnostic sonographers, opticians, respiratory therapists, trainers (fitness and athletic), and radiologic technicians.
Bachelor's Degree	An award (baccalaureate or equivalent degree, as determined by the Secretary, U.S. Department of Education) that normally requires at least 4 but not more than 5 years of full-time equivalent college-level work. This includes all bachelor's degrees conferred in a 5-year cooperative (work-study) program. A cooperative plan provides for alternate class attendance and employment in business, industry, or government; thus, it allows students to combine actual work experience with their college studies. Also includes bachelor's degrees in which the normal four years of work are completed in three years.
Branch Institution	A campus or site of an educational institution that is not temporary, is located in a community beyond a reasonable commuting distance from its parent institution, and offers full programs of study, not just courses.
Classification of Instructional Programs (CIP)	A taxonomic coding scheme that contains titles and descriptions of primarily postsecondary instructional programs. It was developed to facilitate the U.S. Department of Education, National Center for Education Statistics' (NCES) collection and reporting of postsecondary degree completions by major field of study using standard classifications that capture the majority of reportable program activity
Credit	Recognition of attendance or performance in an instructional activity (course or program) that can be applied by a recipient toward the requirements for a degree, diploma, certificate, or other formal award.

Credit for Life Experiences	Credit earned by students for what they have learned through independent study, noncredit adult courses, work experience, portfolio demonstration, previous licensure or certification, or completion of other learning opportunities (military, government, or professional). Credit may also be awarded through a credit by examination program.
Doctor's Degree	The highest award a student can earn for graduate study. The doctor's degree classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Doctor of Philosophy degree in any field such as agronomy, food technology, education, engineering, public administration, ophthalmology, or radiology.
Enrollment	The number of individual students ---i.e., headcount – for the fall quarter (or semester) of an academic year.
Extension Centers	Sites or centers outside the confines of the parent institution where courses are offered that are part of an organized program at the parent institution. The sites are not considered to be temporary, but may be rented or made available to the institution at no cost by another institution or an organization, agency, or firm.
Fields of Study	<p>Programs are organized by CIP categories.</p> <ul style="list-style-type: none"> – Agriculture and Natural Resources – Architecture – Business – Computer Science – Engineering and Related Technologies – Arts and Letters – Education – Health – Law – Sciences – Social Sciences – Trades – Other
First Professional	Students and programs beyond the baccalaureate level that relate directly to the following disciplines: Chiropractic (D.C. or D.C.M), Pharmacy,(D.Par.), Dentistry (D.D.S. or D.M.D.), Podiatry (Pod.D. or D.P.), Medicine (M.D.), Veterinary Medicine (D.V.M.), Optometry (O.D.), Law (L.L.B., J.D.), Osteopathic Medicine (D.O.), Theology (M.Div. or H.H.L. or B.D.).

FTE: Full-Time Equivalent	This equivalent is calculated by taking the total credit hours at a university/college and dividing by the normal full-time credit-hour load. In Washington, the normal load is 15 credit hours for undergraduates, and 10 credit hours for graduate students.
Full-Time/Part-Time Enrollment	A full-time undergraduate is considered “full-time” when enrolled for 12 or more credits per semester/quarter. A full-time graduate student is enrolled for 9 or more credits. These definitions apply to headcount enrollment at four-year institutions. At community/technical colleges, full-time enrollment (state-supported) is 10 or more credits.
Graduate	Classification that relates to post-baccalaureate students and programs, e.g., Masters and Doctoral students and programs.
Institutional Growth Limit	The enrollment capacity of an institution, based on a number of factors including institutional physical capacity, institutional philosophy, local government restrictions, e.g., traffic flow or parking, etc.
Lower Division	Classification that relates to freshman and sophomore students and programs.
Master’s Degree	An award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor’s degree.
Participation Rate	This calculation compares enrollment to population. Specifically, the rate is calculated by dividing the number of persons enrolled for a specific age group by the population of that same age group. As an example, the number of 17 year olds is divided by the total population of 17 year olds. The result is the participation rate for the 17 year old population, or the rate in which 17 year olds enroll (participate) in higher education. The participation rate can be used for single-year-of-age, age groupings, or an eligible population such as the total population 17 and above. When comparing participation rates nationally, the total eligible population is used due to the difficulty in obtaining comparable single-year-of-age or age grouping enrollment information.
Postsecondary Education	The provision of a formal instructional program whose curriculum is designed primarily for students who are beyond the compulsory age for high school. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes a vocational and adult basic education programs.

Public Institution A postsecondary educational institution operated by publicly elected or appointed school officials in which the program and activities are under the control of these officials and which is supported primarily by public funds.

Retention Rate A measure of the rate at which students persist in their educational program at an institution, expressed as a percentage. For four-year institutions, this is the percentage of first-time bachelors (or equivalent) degree-seeking undergraduates from the previous fall who are again enrolled in the current fall. For all other institutions this is the percentage of first-time degree/certificate-seeking students from the previous fall who either re-enrolled or successfully completed their program by the current fall.

Two-Year Institution A postsecondary institution that offers programs of at least 2 but less than 4 years duration. Includes occupational and vocational schools with programs of at least 1800 hours and academic institutions with programs of less than 4 years. Does not include bachelor's degree-granting institutions where the baccalaureate program can be completed in 3 years.

Undergraduate A student enrolled in a 4- or 5-year bachelor's degree program, an associate's degree program, or a vocational or technical program below the baccalaureate.

Unmet Need An enrollment need that is not met or projected to not be met by existing or planned institutional capacity.

Upper Division Classification that relates to junior and senior students and programs

Sources: National Center for Education Statistics, Washington Higher Education Coordinating Board, MGT of America, Inc.

APPENDIX C

APPENDIX C: MEMBERSHIP ROSTERS

SIS Local Advisory Committee

Jean Berkey

[Alternate Senator (D)]
38th Legislative District

Ken Dahlstedt

Skagit County Commissioner

Hans Dunshee

Representative (D)
44th Legislative District

Sharon Hart

Executive Director
Island County Economic Development
Council (CTC)

Mary Margaret Haugen

Senator (D)
10th Legislative District

Rosemary McAuliffe

Senator (D)
1st Legislative District

Carol Nelson

President and CEO
Cascade Bank

Aaron Reardon

Snohomish County Executive

Dave Schmidt

Senator (R)
44th Legislative District

Mike Sells

Representative (D)
38th Legislative District

Mike Shelton

Chairman
Island County Commissioners

Ray Stephanson

Mayor of Everett

Chris Strow

Representative (R)
10th Legislative District

Don Wick

Executive Director
Economic Development Association
of Skagit County

SIS Project Coordination Team

Barbara Audley
Executive Director
Extended Education and Summer
Programs
Western Washington University

Margaret Badgley
Assistant to the Provost
Central Washington University

Dr. Earl Gibbons
Vice Provost
International Educational Outreach
Eastern Washington University

Christine Kerlin
Associate Dean
Admissions/Registration
Everett Community College

Rob McDaniel
Associate Dean
University Partnerships
Washington State University

Dr. Larry Nyland
Superintendent
Marysville School District

Dr. Steven G. Olswang
Interim Chancellor
University of Washington/Bothell

Chris Reykdal
Director of Administrative Services
State Board for Community and
Technical Colleges

George Smith
Vice President of Student Services
Edmonds Community College

Madeleine Thompson
Policy Analyst
Workforce Training and Education
Coordinating Board

Dr. Gary Tollefson
President
Skagit Valley College

Marc Webster
Budget Assistant
Office of Financial Management

APPENDIX D

APPENDIX D: ENROLLMENT METHODOLOGY AND PROJECTIONS

The quantitative aspect of the needs assessment phase of this study centers around four key elements:

1. The projections of the 17 and older population for Snohomish, Island, and Skagit Counties;
2. Current higher education participation rates for students from each of these counties based on their Fall, 2004 enrollment and;
3. Participation rate goals provided by the Higher Education Coordinating Board.
4. The estimated amount of added enrollment that existing institutions can or likely will accommodate from the study region.

The following sections provide detailed information on each of these important elements.

Population Projections

The population projections for Snohomish, Island, and Skagit (SIS) counties reflect considerable similarity to those used the last time that the higher education needs of the area were studied. As then, the projections were obtained from the Office of Financial Management (OFM).

As Exhibit D-1 below indicates, the counties are projected to grow to nearly 1.2 million in total population by the year 2025. In 2020, the counties are expected to reach 1,107,413. This compares to a previous study of the SIS region in 1996 that forecasted a region population of 1,096,454.

**EXHIBIT D-1
POPULATION PROJECTIONS BY COUNTY**

Population 1996 Forecast	2005	2010	2015	2020	2025
Snohomish	660,683	719,915	783,067	836,993	-
Island	80,982	86,171	99,970	106,649	-
Skagit	114,635	125,508	137,714	152,812	-
<i>Total</i>	<i>856,300</i>	<i>931,594</i>	<i>1,020,751</i>	<i>1,096,454</i>	<i>-</i>
Population 2002 Forecast	2005	2010	2015	2020	2025
Snohomish	666,735	728,957	793,720	862,599	929,314
Island	74,738	80,650	87,416	94,365	101,079
Skagit	113,136	123,807	135,717	150,449	164,797
<i>Total</i>	<i>854,609</i>	<i>933,414</i>	<i>1,016,853</i>	<i>1,107,413</i>	<i>1,195,190</i>

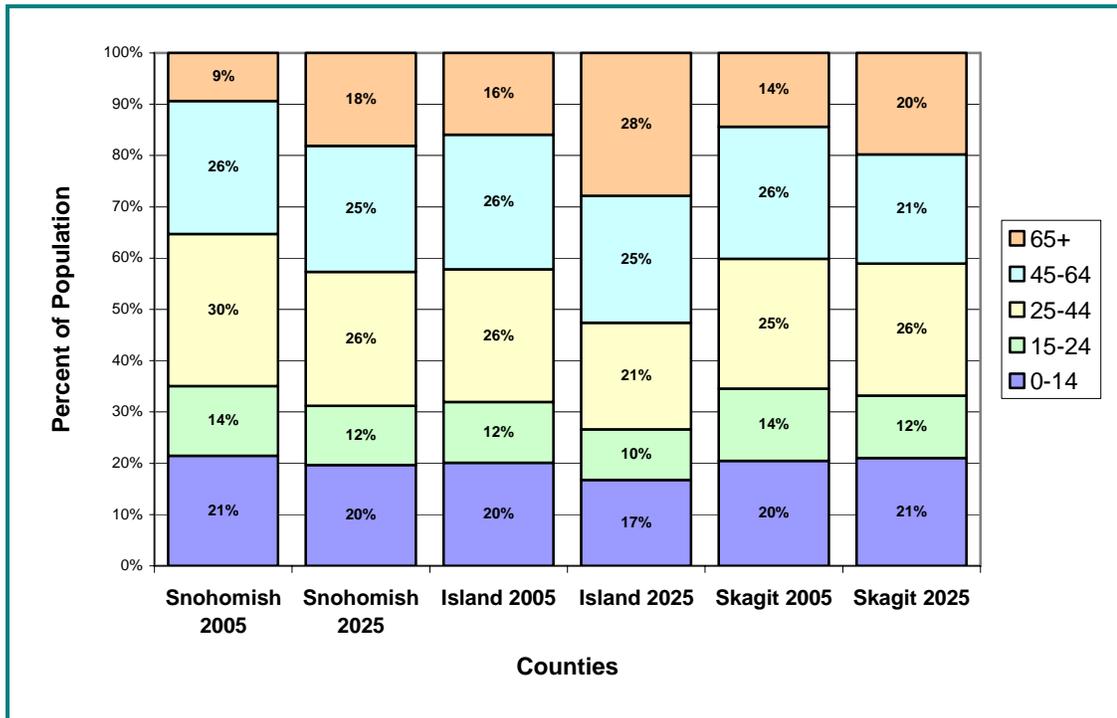
Exhibit D-2 compares the population projections forecasted to the year 2025. As the exhibit indicates, the total population for the study region is forecast to grow by nearly 40 percent by 2025 with the largest percentage increase occurring in Skagit County, followed by Snohomish County then Island County.

**EXHIBIT D-2
POPULATION PROJECTIONS BY COUNTY**

County	Population Projections			
	2005	2015	2025	% Change
Snohomish	666,735	793,720	929,314	39.4%
Island	74,738	87,416	101,079	35.2%
Skagit	113,136	135,717	164,797	45.7%
TOTAL	854,609	1,016,853	1,195,190	39.9%

The current distribution of population by major age grouping is displayed in Exhibit D-3 along with the forecasted population distribution for 2025. Two elements are of significant interest. First, the larger proportion of the 25-44 age group population in Snohomish County (typically termed “working age”), and second, the growing proportion of persons aged 65 and over that is estimated to occur over the next twenty years. The latter parallels national trends and is of particular importance in estimating future higher education enrollments since the participation of older age groups in higher education is substantially less than younger age cohorts.

**EXHIBIT D-3
POPULATION DISTRIBUTIONS BY AGE CATEGORY AND COUNTY**



The data provided by OFM included historical population (actual) by single year of age through age 29 and in five year increments of older age groups and population projections through 2025 in five years of age increments, e.g., 15 through 19, 20 through 24, etc. Since the population most applicable to higher education is aged 17 and above, it was necessary to separate the 17 through 19 year old group. This was done by applying the 15 year historical average percentage of 17, 18 and 19 year olds of the 15 through 19 age group. This process allows the alignment of the population data with the actual enrollment data for the purpose of forecasting future enrollment from the three counties.

Enrollment Projections

The methodology used in this study to project future enrollment is termed “participation rate methodology”. Although other methods, such as estimated high school graduates and rolling averages of high school students, are sometimes used in forecasting higher education enrollments, the participation rate approach is preferable in that it captures the degree of post-secondary participation by the various age groups that attend colleges and universities. In this way the participation rate forecast accommodates older, non-traditional students as well as those just out of high school.

Participation rate methodology projects future enrollment based on current participation rates and can be used to incorporate enrollment goals based on levels of participation deemed appropriate by policy makers. The participation rate calculation is relatively straightforward in that the number of students enrolled (headcount enrollment) of a certain age cohort is divided by the population for that age cohort. Policy makers often compare participation rates among states. In order to obtain comparable information, the calculations of national participation rates are based on the total number of students enrolled divided by the portion of the population age 17 and above. This method of calculating national participation rates produces comparable numbers across states and nationally, but are fairly gross in nature.

The participation rate calculations for Washington are more precise and calculate participation by single-year-of-age. This means the enrollment by age is compared to the population for that same age year, e.g., number of 18 year olds enrolled divided by the total Washington population of 18 year olds. The participation rates are calculated separately for each education level (lower division, upper division, and graduate/professional) and by sector (community colleges and 4-year public institutions. For this study, the enrollment counts apply to state-fund eligible enrollments and do not include students enrolled in self-funded continuing education, community service or contract programs.

Both OFM and the State Board for Community and Technical Colleges (SBCTC) provided the actual enrollment data. The data consisted of Fall, 2004 enrollments for each of the three counties by single year of age up through age 29 and in five year increments thereafter. The OFM data covered enrollments in Washington’s public four-year institutions from each county and by lower division, upper division, and graduate/professional enrollment categories. The information provided by the SBCTC included enrollment data by county for the study region. The single year of age data were then aggregated into the 17 to 19, 20-24, 25-29, etc., categories to match the population projections as discussed previously above.

The assumptions associated with the calculations used in the enrollment projections were:

- Out-of-state enrollment remains in proportion with current patterns,
- Economic conditions do not seriously impact enrollment, and
- Institutional programming remains relatively constant over time.

Five alternative scenarios were provided to the consulting team regarding the enrollment projections for the three counties in the study region. The five alternative scenarios apply to upper division and graduate enrollments. The scenarios were:

Enrollment Scenarios	
Alternative 1:	Maintaining the current participation rate through 2025,
Alternative 2:	Achieving the national average participation rate by 2015 and the 70 th percentile participation rate by 2025.
Alternative 3:	Achieving the national average participation rate by 2015 and maintaining that level through 2025.
Alternative 4:	Achieving the Washington state average participation rate by 2015 and the national average participation rate by 2025.
Alternative 5:	Achieving the Washington state average participation rate by 2015 and maintaining that level through 2025.

Source: Washington Higher Education Coordinating Board

Lower division enrollments at the 4-year public institution level and community college enrollments through 2025 were projected using 2004 actual participation rates since freshman and sophomore enrollments in Washington exceed the 70th percentile nationally. Exhibit D-4 compares the 1998 national average (and 70th percentile) and Washington participation rates of 17 and older population at the community colleges and at the upper division and graduate/professional levels. As the table indicates, Washington lagged significantly behind national averages in 1998, the most recent year a complete set of national data are available.

**EXHIBIT D-4
POPULATION WITH AN AGE OF 17 AND ABOVE PARTICIPATION RATES
AT 4 YR PUBLIC INSTITUTIONS: 1998**

Level	WA	National Average	70 th Percentile
Upper Division	.97%	1.12%	1.39%
Grade/Professional	.36%	.48%	.57%

Within the state of Washington, the participation rates for the SIS counties are below the current statewide averages for participation at four-year public institutions.

The exhibit below, Exhibit D-5, displays the four-year public institution participation rate for each of the three counties and the statewide average.

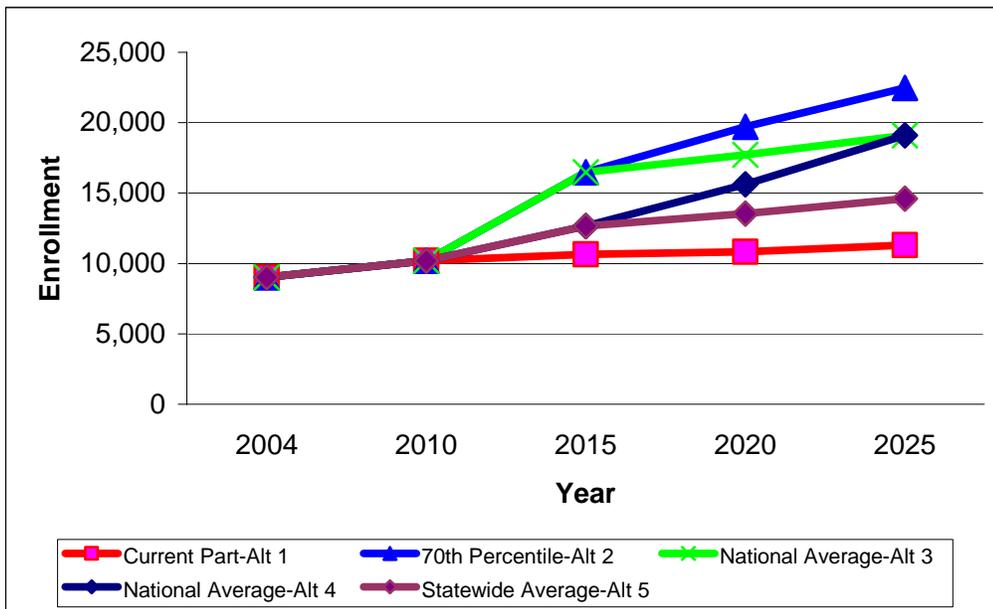
**EXHIBIT D-5
PARTICIPATION RATES FOR SNOHOMISH, ISLAND, AND SKAGIT COUNTIES
FOUR-YEAR PUBLIC INSTITUTIONS**

County	FALL 1990		FALL 1994		FALL 1998		FALL 2002		FALL 2004	
	Participation Rate	State Ranking								
Skagit	1.583	16	1.41	19	1.37	24	1.48	21	1.47	18
Snohomish	1.363	23	1.32	20	1.35	25	1.46	22	1.41	22
Island	1.287	25	1.17	27	1.09	36	1.14	33	1.16	32
Washington Average	1.878		1.76		1.75		1.70		1.69	

Source: Washington Office of Financial Management

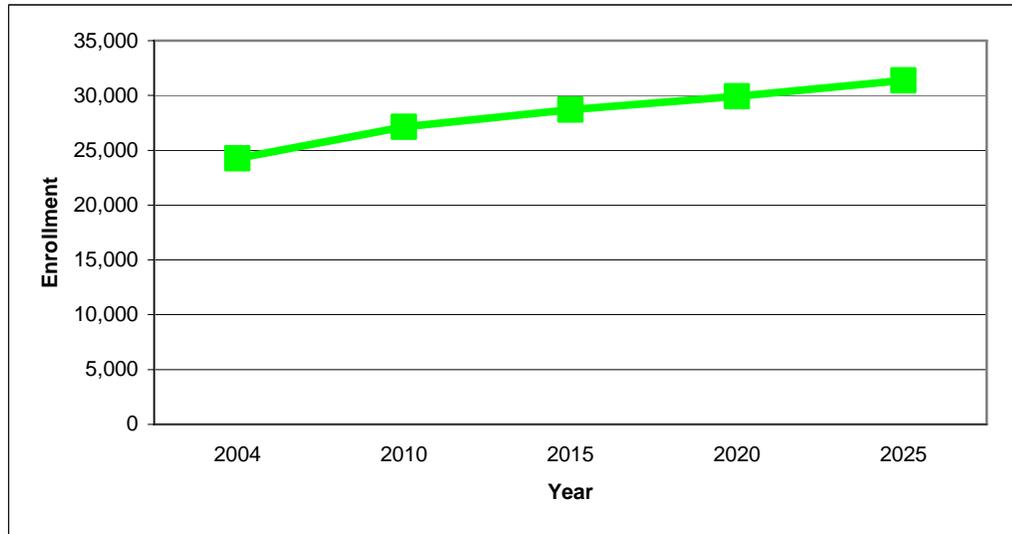
The results of the analysis for each enrollment scenario, in terms of gross headcount enrollment projected for each of the future five year increments through 2025, are expressed in Figures 1 and 2 below. Figure 1 displays the four-year public institution enrollment increases. Figure 2 displays the enrollment projections for the Community and Technical Colleges.

**FIGURE 1
ENROLLMENT PROJECTIONS BASED ON FIVE ALTERNATIVE SCENARIOS
FOUR-YEAR PUBLIC INSTITUTIONS**



Source: MGT Analysis

**FIGURE 2
ENROLLMENT PROJECTIONS BASED ON CURRENT PARTICIPATION LEVEL
COMMUNITY AND TECHNICAL COLLEGES**



Source: MGT Analysis

The charts above reflect the gross headcount enrollment based on the five alternative scenarios. In the sections below, these numbers will be converted to full-time equivalent (FTE) students and the accommodation of projected enrollments by existing four year public institutions will be factored in. However, based on the projected headcount for the study region, is safe to assume there will be a substantial net unmet need in the three county region.

The steps used to reach these conclusions are outlined in the following sections.

Enrollment Projection Methodology

OFM population projections for Snohomish, Island and Skagit counties by age category through 2025 were applied to the 2004 public higher education participation rates of these counties for lower division, upper division and graduate education for two and four year institutions. This produced the estimated head count enrollments for each five year period for the various categories at current participation rates for each age group. Due to the shifting in the composition of the population over the next 20 years, enrollment projections by age grouping were developed, which produced a more accurate projection than aggregating the participation rate into the total persons 17 and above.

At the upper division and graduate levels, the increased enrollment needed to reach the following levels was calculated for each five year interval though 2025. The criteria for calculating the enrollment levels were:

- a. Washington state-wide average participation rate;

- b. National average as of the most recent year statistics are available (1998);
- c. 70th percentile national participation rate, and
- d. Current participation rate.

Exhibit D-6 indicates the fall term headcount enrollment resulting from these calculations for the years 2005, 2015 and 2025 with 2005 calculated at the current participation rates in all cases. [Note: these figures are displayed on Figures 1 and 2 above.

**EXHIBIT D-6
ESTIMATED SIS FALL TERM HEADCOUNT ENROLLMENT**

4-Year Institutions	2004	2005	2015	2025	Increase
Current Part	9,026	9,350	10,651	11,291	2,265
Statewide Average	9,026	9,350	12,660	14,595	5,569
National Average	9,026	9,350	12,660	19,108	10,082
70th Percentile	9,026	9,350	16,485	22,460	13,434
Community Colleges					
	24,252	25,013	28,699	31,365	7,113

Source: MGT Analysis

The above calculations served as the basis for the five growth alternatives for the four-year public institution enrollment forecast and follows the guidance provided by the Higher Education Coordinating Board discussed in a previous section. The 2004 enrollments and the enrollment projections for 2015 and 2025 for these alternatives are shown in Exhibit D-7.

**EXHIBIT D-7
SIS HEADCOUNT ENROLLMENT FOR THE FIVE ALTERNATIVES**

4-Year Institutions	2004	2015	2025	Increase
Current Part (Alt 1)	9,026	10,651	11,291	2,265
70th Percentile (Alt 2)	9,026	16,485	22,460	13,434
National Average (Alt 3)	9,026	16,485	19,108	10,082
National Average (Alt 4)	9,026	12,660	19,108	10,082
Statewide Average (Alt 5)	9,026	12,660	14,595	5,569
Community Colleges				
	24,252	28,699	31,365	7,113

Source: MGT Analysis

The projected headcount enrollment was converted to full time equivalents (FTE) using experienced conversion rates. The conversion rates were developed based on data provided by OFM for both fall term and average annual enrollments. The determination of FTEs uses the following process.

The total number of undergraduate credit hours are divided by 15 quarter or semester hours to calculate fall FTE. Graduate level credit hours are divided by 10. Average annual FTE is calculated for semester institutions by adding fall and spring terms FTE and dividing by 2, while for quarter

institutions three terms FTE, fall, winter, and spring, are added together and then divided by 3. Community and Technical Colleges are similar to the quarter institutions but summer is included with the other terms, but that total is still divided by 3.

The FTE calculations were individually made by undergraduate and graduate/professional levels since the conversion rates vary significantly. Exhibit D-8 summarizes the enrollment projections after the conversion to fall FTE.

**EXHIBIT D-8
SIS ENROLLMENT PROJECTIONS BY 2025
IN FULL- TIME EQUIVALENTS**

4-Year Institutions	2004	2015	2025	Increase
Current Part (Alt 1)	8,582	10,130	10,740	2,158
70th Percentile (Alt 2)	8,582	16,234	22,148	13,566
National Average (Alt 3)	8,582	16,234	18,833	10,251
National Average (Alt 4)	8,582	12,156	18,833	10,251
Statewide Average (Alt 5)	8,582	12,156	14,023	5,441
Community Colleges	16,160	19,124	20,900	4,740

Source: MGT Analysis

Unmet Need Calculations

A key element in the analysis of projected enrollment is identifying “unmet” need. Existing institutions will accommodate some of the projected enrollment, if there is capacity within their institutional growth limits. In other words, some of the projected enrollment will be handled by existing institutions, but there will be a portion of the projected enrollment that cannot, or likely will not, be accommodated by existing institutions. In order to identify the projected enrollment that will not be accommodated by existing institutions, it was necessary to make a number of calculations.

The first set of calculations analyzed the current enrollment patterns of students in order to determine which public institutions in Washington were attended by students from each of the counties in the study region, by levels of attendance (e.g., lower & upper division and graduate). These data were provided by OFM and are summarized by the institutions providing the majority of service to the region by level of student in Exhibit D-9.

**EXHIBIT D-9
PERCENTAGE OF 2004 SIS ENROLLMENT AT WASHINGTON
FOUR YEAR PUBLIC INSTITUTIONS**

Level	WWU	UW-Seattle	UW-Bothell	CWU	WSU	All Other
Lower Div	26%	36%	0%	11%	20%	7%
Upper Div	26%	32%	7%	13%	15%	7%
Grad/Prof	14%	52%	6%	2%	11%	13%

Source: Washington Office of Financial Management

These proportions are significant in that they indicate the attendance preferences of the students in the SIS region and are a likely indicator of where students would prefer to go in the future.

The next step was to compare the estimates of gross need to the growth limits of the Washington public four year institutions that serve the three counties. Growth limit information was provided by the HECB. For the four-year public institutions, the difference between existing enrollment and total institutional growth limits is 23,618 FTE (See Exhibit D-10). However, not all these spaces are available to students from the SIS region. Rather, this is the additional number of students the four-year public institutions in Washington could enroll, regardless of their source (in-state or out-of-state) and level (lower & upper division and graduate/professional).

In order to determine the number of students from the SIS region that could be accommodated within the growth limits, the first task was to identify difference between Fall 2004 enrollment and the growth limit for each institution and then distribute that unused capacity lower division, upper division and graduate/professional levels, based on each institution's Fall 2004 enrollment pattern. For example, if Western Washington University enrolled 56 percent of its students at the upper division, it was assumed that 56 percent of the unused institutional capacity would be used for students at that level. Second, the extent of students from the three county region enrolling at that level at each institution was calculated. Continuing to use Western as an example, 18 percent of upper division students at Western were from the SIS region. At Western, the difference between existing enrollment and the growth limit is 377 FTE students of which 56 percent or 210 spaces were estimated to be at the upper division level. Based on the SIS county share of 18 percent, it was concluded that 38 upper division spaces would likely be available to SIS students. This process was completed at each level for each public four-year institution in the state, resulting in the spaces likely to be available to students from Snohomish, Island and Skagit Counties in the future.

The final element of this process of calculating net unmet need was to determine if students from the SIS region would actually use those spaces. In other words, even if an institution had spaces it would likely make available to SIS students, would students actually use them. In the case of two institutions, the UW branches in Tacoma and Bothell, applying the 2004 patterns of SIS attendance at Washington institutions indicates that not all of the likely spaces available to SIS students would be used. In these cases, the likely attendance patterns were used in the unmet need calculations. Tables D-10 and D-11 summarize the likely contribution of existing institutions to meeting the gross need identified in the enrollment projections for 2025 and the resulting

net unmet need. In the case of the Community and Technical College enrollment, all additional need was assumed to be unmet under current circumstances. The method of accommodating the identified need of the Community and Technical Colleges as well as the unmet need calculations for the four-year public institutions will be dealt with in a latter phase of this study.

**EXHIBIT D-10
INSTITUTIONAL GROWTH LIMITS**

Institution	FTE Enrollment			SIS Distribution	
	Growth Limit or Build-out Capacity	2004 Enrol.	Total Available	Current Participation, Statewide Average, National Average	70th Percentile
UW - Seattle	38,410	34,829	3,581	328	328
UW - Bothell	6,000	1,291	4,710	503	666
UW - Tacoma	5,901	1,690	4,211	108	145
WSU - Pullman	23,000	18,577	4,423	356	356
WSU - Spokane	N/A	1,207		0	0
WSU - Tri-Cities	1,799	660	1,139	2	2
WSU - Vancouver	3,645	1,340	2,305	9	9
CWU	9,819	9,182	637	68	68
EWU	11,175	9,666	1,509	47	47
TESC	5,000	4,272	728	23	23
WWU	12,500	12,123	377	66	66
Total	117,249	94,838	23,618	1,510	1,710

Source: Washington Higher Education Coordinating Board and MGT Analysis

**EXHIBIT D-11
UNMET NEED IN 2025**

4-Year Level	Current Participation (Alt 1)	70th Percentile (Alt 2)	Nat'l Average (Alt 3)	Nat'l Average (Alt 4)
Lower Division	431	431	431	431
Upper Division	261	6,295	4,141	4,141
Grad/Prof	-45	5,131	4,169	4,169
4-Year Total	647	11,856	8,741	8,741
CCs - Lower Division	4,740	4,740	4,740	4,740

Source: MGT Analysis

To summarize, the quantitative needs assessment phase of the study indicates that there is likely to be substantial unmet need in the three county region over the next twenty years, and that need is likely to continue growing beyond the study period due to the projected increased in the region's population. Depending on the enrollment alternative selected, the four-year institution unmet need for state fund eligible

enrollment could be substantial if the 70th percentile enrollment alternative is pursued or as small as 647 if nothing is done to increase the higher education participation rate of this region. Regardless of the enrollment option pursued, the Community and Technical Colleges will realize an additional fall enrollment of 4,740 FTE from the SIS region.

It is important to note however, that decisions later in the study process on role and mission and the type of organizational alternatives best suited to meet needs are likely to affect final estimates of enrollment. For example, one alternative could shift community college enrollments to lower-division four-year. Another alternative might shift some or the entire projected four-year lower division enrollment to the community colleges. However, for this stage in the study process, the numbers reflected above are justifiable and will be used in the discussions of role & mission and alternative solutions to deal with the projected unmet need of the study region.

APPENDIX E

**APPENDIX E:
EMPLOYERS DISCUSSION GUIDE**

**Projected Postsecondary Education Needs for Employees
Current to the Year 2020**

Name of interviewee: _____

1. Comment on the size and quality of the applicant pool that you generally draw from
2. Does your applicant pool draw mostly from:
 - Local
 - Regional
 - Statewide
 - National

[Breakdown the pool by percentage]

3. Please categorize your hiring needs, looking from now to the future (out to the year 2020) by educational level, identifying the percentage of new hires from each educational level. using
 - Below high school
 - High school diploma (or equivalent)
 - Some college, below an Associates Degree
 - Associates Degree
 - Baccalaureate Degree
 - Graduate Degree
4. What specific two-year degrees will your employees need from 2006 – 2020?
 - What programs?
 - What specific courses?

5. What specific four-year degrees will your employees need from 2006 – 2020?
 - What programs?
 - What specific courses?
6. What specific graduate degrees will your employees need between 2006 – 2020?
 - What programs?
 - What specific courses?
7. For employees with four-year or graduate degrees, what continuing education and professional development needs will they have?
 - What courses?
 - Seminars or workshops regarding development of what skill sets and knowledge?
8. Various methods are used to provide, or deliver, instruction. In your opinion, how effective would each of the following delivery methods be in meeting your employees' education needs? (Rate each on a scale of 1 through 5, with 1 being "least meets needs" and 5 "most meets needs.")

Delivery Systems

Web-based	1	2	3	4	5
Interactive voice/video	1	2	3	4	5
Hybrid (distance and traditional classroom)	1	2	3	4	5
Traditional classroom	1	2	3	4	5
Video Tape	1	2	3	4	5
Self-paced program	1	2	3	4	5
Scheduled pace, tied to semesters	1	2	3	4	5

9. Would your business be able to provide on-site space for a class meeting, either traditional or distance?

Yes _____

No _____

10. In discussions with colleagues or associates in organizations such as the Chamber of Commerce, Rotary, etc., what four-year and graduate programs are employers in this county saying their employees need?
 - What can you tell me about those comments in regard to the business or industry needing them?
 - What types of positions?
11. As an observer of business and professions across Washington State, what bachelors and graduate programs do you see as most needed in the future, whether related to your field or not?
12. Comments, i.e., elaborate on any of the areas above or provide any additional comments regarding higher education needs in the region.

APPENDIX F

**APPENDIX F:
STUDENT DISCUSSION GUIDE
HIGHER EDUCATION NEEDS ASSESSMENT OF
SNOHOMISH, ISLAND AND SKAGIT COUNTIES**

Facilitator: _____

Date: _____

County: _____

Location: _____

Time: _____

Number of Participants: _____

Brief description of participant demographics:

1. How would you describe your area?

- a) Urban
- b) Suburban
- c) Rural
- d) Very Remote

Education/Career Plans

2. What education/career plans are you currently pursuing or planning to pursue?

3. (*High school students only*) Do you plan to attend a community/technical college, 4-year college or university in this area, or will you be going elsewhere to further your education?

- Community/Technical College
- 4-year College
- University
- Going elsewhere (please specify type of institution)
- Reason(s) for choice(s)

4. (*Community College students only*) Do you plan to transfer to another institution? If yes, Where? When? Why are you choosing that institution? What is your program of study or area of interest?

5. What is your perception of the post high school education opportunities in this area? What are the strengths and weaknesses of the opportunities?

6. Which 2-year programs are in highest demand in this area?
 - What, if any, 2-year programs are needed, but not available
 - Within Snohomish/Island/Skagit County?

7. Which 4-year and graduate programs are in highest demand in this area?
 - What, if any, 4-year degree programs are needed, but not available within Snohomish/Island/Skagit County?

 - What, if any, graduate programs are needed, but not locally available within Snohomish/Island/Skagit County?

8. What other barriers...besides the absence of the program you want...make it difficult to pursue 2-year, 4-year or graduate degrees in Snohomish/Island/Skagit County?
 - Delivery methods
 - Scheduling
 - Location
 - Transportation

9. What method of higher education course delivery do you prefer? Please explain why?

- Classroom
- Distance
- Web based
- CD-ROM
- Other (please specify)

10. How do you think degree program interests and needs are likely to change over the next five years?

- 2-year degree programs or areas of emphasis
- 4-year degree programs?
- Graduate degree programs?

11. What new 2-year, 4-year or graduate degree program would you attend if it were offered in the area?

- 2-year program?
- 4-year program?
- Graduate program?

12. Do you have any other thoughts or concerns about 2-year, 4-year or graduate programs or opportunities available in Snohomish / Island / Skagit County?

APPENDIX G

**APPENDIX G:
LIST OF FIRMS AND EMPLOYERS CONTACTED**

<u>SNOHOMISH COUNTY</u>	
<u>Employer</u>	<u>City</u>
Berlex	Bothell
Cascade Bank	Everett
City of Everett	Everett
Cypress Semi Conductor	Lynnwood
ELDEC	Lynnwood
Everett Clinic	Everett
Everett Herald	Everett
Fluke Corp.	Everett
Frontier Bank	Everett
Goodrich Corp	Everett
ICOS	Bothell
Intermec	Everett
Kimberly Clark Corp.	Everett
Moss Adams	Everett
Northwest Composite	Marysville
NS Everett	Everett
Philips	Bothell
Port of Everett	Everett
Premera Blue Cross	Mountlake Terrace
Providence Medical Center	Everett
Seattle Genetics	Bothell
Snohomish County	Everett
State of Washington	Everett
Stevens Healthcare	Edmonds
The Boeing Co.	Everett
Verizon Northwest, Inc.	Everett
<u>Schools and Colleges</u>	
Bothell-Northshore School District	
Edmonds School District	
Everett School District	
Everett High School	
Marysville School District	
Marysville High School	
Mukilteo School District	
Edmonds Community College	
Everett Community College	

List of Firms and Employers Contacted

<u>ISLAND COUNTY</u>	
<u>Employer</u>	<u>City</u>
Careage of Whidbey	Coupeville
City of Oak Harbor	Oak Harbor
Home Depot	Oak Harbor
Island County'	Coupeville
Island Transit	Oak Harbor
Krieg Construction	Oak Harbor
NAS Whidbey	Oak Harbor
Nichols Bros Boat Builders	Freeland
Red Apple Markets	Coupeville
Service Alternatives for WA	Coupeville
Skagit Valley CC	Oak Harbor
Technical Services, Inc.	Oak Harbor
Upchurch Scientific	Oak Harbor
Wells Fargo Bank	Oak Harbor
Whidbey Gen Hosp	Coupeville
Whidbey Is. Bank	Oak Harbor
Whidbey Telecom	Langley
<u>Schools and Colleges</u>	
Coupeville School District	
Oak Harbor School District	
Oak Harbor High School	
South Whidbey School District	
Skagit Valley College	Whidbey Island Campus

List of Firms and Employers Contacted

SKAGIT COUNTY	
Employer	City
Alaska Ocean Seafood	Anacortes
Alf Christianson Seed Co.	Mount Vernon
American Tugs/Tomco Marine Group	La Conner
Chicago Title Company	Mount Vernon
Chrishaven Trees	Burlington
City of Anacortes	Anacortes
Costco Wholesale	Burlington
Dunlap Towing	La Conner
Fisher & Sons, Inc.	Burlington
Hexcel Corporation	Burlington
Holland Health Services, Inc.	Mount Vernon
Horizon Bank	Burlington
Integra Group	Anacortes
Janicki Logging & Construction	Sedro Woolley
Jill Rouw Associates	Mount Vernon
John Peth & Sons	Bow
KAPS Radio	Mount Vernon
Meyer Sign & Advertising	Mount Vernon
Olmstead Transportation Company	Mount Vernon
Peoples Bank	Mount Vernon
Port Gardner Timber Co/Bow Hill Mill	Burlington
Port of Anacortes	Anacortes
Port of Skagit County	Burlington
Shell Puget Sound Refinery	Anacortes
Skagit County	Mount Vernon
Skagit State Bank	Burlington
Skagit Valley Hospital	Mount Vernon
Skagit Valley Publishing Company	Mount Vernon
SKAT/Skagit Transit	Burlington
Team Corporation	Burlington
Valley Electric, Inc.	Mount Vernon
Washington Bulb Company	Mount Vernon
Williams & Nulle, PLLC	Mount Vernon
Schools and Colleges	
Mount Vernon School District	
Mount Vernon High School	
Skagit Valley College	Mount Vernon Campus

APPENDIX H

**APPENDIX H:
COUNTY DEMOGRAPHICS**

Snohomish County	
Area	1735.3 Square Miles
Population - 2005	666,735
% Population in Work Force (25-64)	56%
Population - 2025	929,314
% Population in Work Force (25-64)	51%
Population Increase 2005 to 2025	39.4%
Largest City	Everett
Primary Industries:	Aerospace Biotechnology/Medical Government/Military Manufacturing Services & Retail Trade
Other Demographic Info	
Caucasian / White	85.6%
Black	1.7%
Asian / Pacific Islander	6.1%
Am Indian / Aleut / Alaskan	1.4%
Other or Mixed Race	5.2%
Hispanic	4.7%
Unemployment Rate	4.60%
Educational Attainment	
% over 25 with BA	24.4%

Island County	
Area	212 Square Miles
Population - 2005	74,738
% Population in Work Force (25-64)	52%
Population - 2025	101,079
% Population in Work Force (25-64)	46%
Population Increase 2005 to 2025	35.2%
Largest City	Oak Harbor
Primary Industries:	Military Retail Services Tourism
Other Demographic Info	
Caucasian / White	87.2%
Black	2.4%
Asian / Pacific Islander	4.6%
Am Indian / Aleut / Alaskan	1.0%
Other or Mixed Race	4.8%
Hispanic	4.0%
Unemployment Rate	6.10%
Educational Attainment	
% over 25 with BA	27.0%

Skagit County	
Area	1735.3 Square Miles
Population - 2005	113,136
% Population in Work Force (25-64)	51%
Population - 2025	164,797
% Population in Work Force (25-64)	47%
Population Inc 2005 to 2025	45.7%
Largest City	Mount Vernon
Primary Industries:	Agriculture Construction Food Processing Government Manufacturing Services & Retail Trade
Other Demographic Info	
Caucasian / White	86.5%
Black	0.4%
Asian / Pacific Islander	1.7%
Am Indian / Aleut / Alaskan	1.9%
Other or Mixed Race	9.5%
Hispanic	11.2%
Unemployment Rate	5.60%
Educational Attainment	
% over 25 with BA	20.8%

APPENDIX I

**APPENDIX I:
RESOURCE LIST FOR
HIGHER EDUCATION NEEDS ASSESSMENT OF THE
SNOHOMISH, ISLAND AND SKAGIT COUNTIES AREA**

“A Report to the Legislature on Implementing High Skills, High Wages”

Washington State Workforce Training and Education Coordinating Board / June 2003 to July 2004

“Baccalaureate Capacity in Washington: SBCTC & COP Study Project”

Governor’s Education Summit / June 3, 2005

“Baccalaureate Enrollment Growth Needed to Meet Educational Needs of Technical Associate Degree Graduates”

WTECB & SBCTC: / April 2005

“Industry Skill Panels”

Washington State Workforce Training and Education Coordinating Board / 2005

“Our Changing Labor Force”

Workforce Training and Education Coordinating Board / October 2003

“Postsecondary Career & Technical Education Works”

Washington State Workforce Training and Education Coordinating Board

“Secondary Career & Technical Education Works”

Washington State Workforce Training and Education Coordinating Board

“Sloan Professional Science Masters (PSM): Degree Program Supply & Demand Study”

UW Educational Outreach / September 2005

“State and Regional Needs Assessment” (Draft)

Washington Higher Education Coordinating Board / September 2005

“Washington’s Economy”

Washington State Workforce Training and Education Coordinating Board / Jan. 2002
(revised 4/03)

“Washington State Employers’ Workforce Training Needs & Practices”

Washington State Workforce Training and Education Coordinating Board / 2004

“Washington State Employers’ Workforce Training Needs & Practice Survey, 2004: A Chart Book by Workforce Development Areas”

Washington State Workforce Training and Education Coordinating Board / August 2004

“Washington State Leader Interviews on Economic Development and Education Opportunities for Washington State Universities and Colleges”

University of Washington Educational Outreach / September 2005

“North Snohomish, Island, Skagit Counties Higher Education Consortium Facility Utilization & Program Delivery Plan – Final Report”

Washington Higher Education Coordinating Board, with NBBJ Architects / September 1998

“Evaluation of Higher Education and Work Force Training Needs and Program Delivery Alternatives for the North Snohomish, Island and Skagit County area of Washington State”

MGT of America / October 1996

Population Forecasts, Washington State Totals, By County

Washington State Office of Financial Management

Participation Rates, By Single Year of Age

Washington State Office of Financial Management

Community and Technical College Enrollments

State Board for Community and Technical Colleges

“NSIS Educational Market Needs Study”

University of Washington Extension /February 2004

“Washington State Branch Campus Study”

MGT of America, Inc. / 1989

“Washington Higher Education Degrees Program Demand Assessment Study”

University of Washington Educational Outreach / August 2005

APPENDIX J

APPENDIX J AGE DISTRIBUTION OF ESTIMATED UNMET NEED IN 2025

Age Groups	Snohomish County			Island County			Skagit County			ALL SIS COUNTIES				
	Lower Division	Upper Division	Graduate	Total	Lower Division	Upper Division	Graduate	Total	Lower Division	Upper Division	Graduate	Total	Lower Division	Upper Division
17, 18&19	74.9%	3.2%	0.0%	30.1%	78.1%	6.4%	0.0%	32.7%	76.0%	3.4%	0.0%	27.7%	75.2%	3.4%
20-24	23.4%	74.5%	30.5%	51.9%	19.8%	71.5%	20.6%	49.2%	21.5%	65.6%	23.7%	47.9%	22.9%	72.9%
17-24 Traditional College Age	98.3%	77.6%	30.5%	82.1%	97.9%	77.9%	20.6%	81.9%	97.5%	69.0%	23.7%	75.5%	98.2%	76.3%
25-29	0.7%	10.7%	31.8%	8.4%	0.9%	10.5%	43.2%	8.8%	1.4%	15.3%	42.0%	12.4%	0.8%	11.4%
30-34	0.5%	4.6%	15.6%	3.8%	0.4%	4.6%	13.7%	3.6%	0.0%	5.7%	10.7%	4.1%	0.4%	4.8%
35-39	0.1%	2.4%	5.7%	1.8%	0.4%	0.5%	2.5%	0.6%	0.3%	2.6%	13.8%	2.6%	0.2%	2.3%
40-44	0.1%	1.8%	6.1%	1.5%	0.4%	2.3%	14.4%	2.3%	0.3%	3.2%	0.0%	2.0%	0.2%	2.0%
45-49	0.2%	1.5%	3.9%	1.1%	0.0%	2.2%	2.6%	1.4%	0.2%	2.5%	5.0%	1.9%	0.2%	1.7%
50-54	0.1%	0.8%	3.8%	0.7%	0.0%	1.1%	0.0%	0.6%	0.0%	1.1%	1.0%	0.7%	0.1%	0.8%
55-59	0.0%	0.4%	2.3%	0.4%	0.0%	0.3%	2.9%	0.3%	0.0%	0.7%	2.3%	0.6%	0.0%	0.4%
60-64	0.0%	0.2%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	1.6%	0.2%	0.0%	0.1%
65+	0.0%	0.1%	0.0%	0.0%	0.0%	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
25 & above Place Bound	1.7%	22.4%	69.5%	17.9%	2.1%	22.1%	79.4%	18.1%	2.5%	31.0%	76.3%	24.5%	1.8%	23.7%

Age Groups	Total SIS	Percent	Non-SIS	Percent	SIS at Non SIS %	Difference from SIS
17, 18&19	213	3.4%	1,481	3.4%	213	-1
20-24	4,585	72.9%	29,672	67.8%	4,259	-326
25-29	715	11.4%	6,030	13.8%	866	151
30-34	300	4.8%	2,483	5.7%	356	56
35-39	147	2.3%	1,410	3.2%	202	55
40-44	129	2.0%	1,101	2.5%	158	29
45-49	105	1.7%	822	1.9%	118	13
50-54	53	0.8%	468	1.1%	67	14
55-59	26	0.4%	215	0.5%	31	5
60-64	8	0.1%	66	0.1%	9	2
65+	5	0.1%	44	0.1%	6	1
Total	6,285	100.0%	43,791	100.0%	6,285	0

Comparison of Age Distributions between Non SIS Counties and SIS - Upper Division Only		
Non-SIS Percentages	SIS Percentages	
17 to 24	71.1%	17 to 24
25 and +	28.9%	25 and +
17 to 24	71.1%	17 to 24
25 to 29	13.8%	25 to 29
30 and +	15.1%	30 and +
		76.3%
		23.7%
		76.3%
		11.4%
		12.3%