E-2: Academics and Foundations

Upon graduation, students will be academically prepared and **confident to pursue higher education or specialized career training**.

**Students will:**

2.1 think and solve problems using both creative and critical thinking skills;

2.2 read, write and speak the English language effectively for a wide range of purposes;

2.3 communicate effectively in oral and written form in another world language;

2.4 know and apply mathematics to a level of fluency that ensures a broad range of post-secondary opportunities and career choices;

2.5 use analytic and scientific principles to draw sound conclusions;

2.6 understand geography, natural resources, and their shaping effect on government, economics and social patterns;

2.7 understand the concept of community within the context of national and world history, comparative forms and influences of governments and major world religions;

2.8 apply academic skills to life situations.

**Interpretation**

**1. General Assumptions and Limitations**

A. This report is a companion to the baseline report of October 2006, built on the same assumptions. The October report focused primarily on the academic preparation of students within the K-12 learning continuum. This report focuses on the readiness of students to use their learning beyond the twelfth grade, expressed as students’ “confidence to pursue higher education or specialized career training.”

B. Conclusions regarding student achievement will be based, not on annual data reports, but on achievement trends (3 or more years of comparable data).

C. Data collection capability remains a limiting factor. As the District’s ability to collect data increases, our targets will also increase.
2. **Definition**

I interpret the *confidence of grade 12 students to pursue higher education or specialized career training* to mean high school graduation and entry into post-secondary education programs of choice without the need for remedial programming. For this system-wide result, the threshold of success shall be

- ISD students eligible for college-level math programming at a level 10% above the state average for those taking the APTP (baccalaureate). This means we will multiply the state average by 110% to establish our threshold of success.

- ISD students enrolling in community and technical schools will achieve at or below the comparable districts’ cohort average (Bellevue, Lake Washington, Northshore and Shoreline) for students needing remedial programs in reading, writing and math.

The state APTP data include those students who were required to take the math entrance requirement because they did not receive SAT or ACT scores high enough to waive the test (480 – 500) or who have not taken high school math courses of sufficient rigor (pre-calculus or higher). Consequently, the N for the APTP is small. Ten percent above the state average is a reasonable threshold for a small, potentially variable group.

The Community and Technical College database allows us to look at other district scores if we maintain their anonymity. The comparison of ISD to other comparable districts was accepted by the Board in the academic preparation report as a reasonable benchmark.

A limiting factor in the data analysis is that between 20-25% of students are not accounted for in any of the databases. The “unknown” factor results from the following conditions.

A. **Not all college-enrolled students can be tracked.** Approximately 20% of our students are not in the national and state databases. Issaquah School District does not collect social security numbers of students. This is a privacy protection. Therefore, matches in the national databases are based on first and last name, middle initial and date of birth. The state of Washington is implementing a unique student identifier process. As this system is developed, student tracking should become more consistent. In addition, as we eliminate inconsistencies in data entry, we will increase the match between our listed graduates and students in the data files of U.S. two- and four-year post-secondary schools.
B. Not all colleges and universities report. The national system tracks 91% of two- and four-year institutions of higher education in the U.S.

C. Many students making non-school choices immediately following high school cannot be tracked. This includes students joining the military, moving directly into jobs, or remaining in Special Education programs or transition services.

D. Post-secondary enrollments may not be continuous. Some students enter and exit post-secondary programs for personal and financial—not academic—reasons. These decisions may have no relationship to academic preparation, but will impact trend data.

3. Data Collection

In this report, we are using the data available from National Student Clearinghouse (a non-profit organization reporting on students enrolled in U.S. private and public two and four year colleges and universities.) Because data entry prior to our District’s Skyward conversion has been inconsistent across high schools, and because the matches are made on student names and birthdates, not unique student identifiers, the Clearinghouse is currently able to provide data on just 80% of District graduates for the years 2003, 2004, and 2005. The Clearinghouse provides data on:

- Where students enroll
- Majors selected
- Degrees completed
- Technical college certificates completed

In addition, it is useful to look at a set of data available on our students enrolled in Washington State community and technical colleges (WA-SBCTC) showing pre-college (remedial) course-taking in reading, writing and mathematics.

A third set of data is derived from the Academic Placement Testing Program (APTP). These data show math placement of our graduates in four-year public universities in the State of Washington (Evergreen State College is not included). Some of the data from these three sources overlap.

The state databases are free to us. The national database (National Student Clearinghouse) is low cost. This year, we consulted a fourth database to verify or refute the data contained in our original resources. We purchased the services of Decision Research, a company specializing in graduate follow-up surveys. Several neighboring districts use Decision Research for their graduate follow-up work. Decision Research uses a stratified random sampling model which is statistically valid and reliable and, unlike the public resources, is customized for this District.
4. Conclusion

In this second cycle of data collection and reporting, we have areas in which three-year trend data is available on our graduates’ confidence to pursue higher education or specialized career training, and the internal consistency of record-keeping is improving. Still, the ability to track our students through external databases has not substantially increased, and conclusions are still difficult to draw because we continue to face a significant “unknown” factor; however, the data from Decision Research confirm our assumptions that:

- A majority of Issaquah graduates remain in state to continue their educational experiences.

- Issaquah students score significantly higher on College Board SAT math tests than state and national averages. These higher math scores mean that fewer students must take the math APTP tests, which are secondary screening devices, for placement in university courses.

- As a three-year average, Issaquah students enrolling at four-year institutions qualify for college-level math classes (pre-Calculus and beyond) at a level which exceeds the state average by 13.3%.

- Based on three-year trend data, Issaquah students enrolling in two-year colleges and technical schools are better prepared for college-level programming in reading, writing and math than students from the cohort of comparable districts. The cohort average for students needing remedial classes is 48%; Issaquah’s average is 47%.

- Data show and Decision Research reports confirm that Issaquah students are very well prepared in reading and writing for higher education or specialized career training.

- 2005 Issaquah graduates believe their teachers were effective instructors.

- 2005 Issaquah graduates report they are better prepared in reading and writing than they are in mathematics.

According to ATPT data, a three-year trend regarding mathematics placement of ISD graduates in this state’s four-year universities is heartening: of ISD graduates entering state universities in 2003, 2004 and 2005, more than 75% were placed in college level pre-calculus or higher level math courses each year. The number placed in Calculus or better has increased dramatically—from 18.7 in 2003 to 27.9 in 2005.

SAT scores continue to significantly outpace the state and the nation. These high scores ensure that our students do not require remedial mathematics.
In addition, Decision Research shows in general that Issaquah School District graduates who attend college feel very well prepared for their academic experiences. (It is our plan to purchase Decision Research data every three years as a reliability check on the free, public resources used for annual reporting.)

Issaquah School District Graduates Taking APTP
Enrollment in University Math Classes

<table>
<thead>
<tr>
<th>Year</th>
<th>Intermediate Algebra or Below</th>
<th>Pre-Calculus or Above</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>District</td>
<td>State</td>
</tr>
<tr>
<td>2003</td>
<td>24.7%</td>
<td>32.0%</td>
</tr>
<tr>
<td>2004</td>
<td>19.0%</td>
<td>30.9%</td>
</tr>
<tr>
<td>2005</td>
<td>24.1%</td>
<td>29.6%</td>
</tr>
<tr>
<td>3 Year Average</td>
<td>22.6%</td>
<td>30.8%</td>
</tr>
</tbody>
</table>

Mean SAT Scores

<table>
<thead>
<tr>
<th>Year</th>
<th>District</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>553</td>
<td>532</td>
<td>519</td>
</tr>
<tr>
<td>2004</td>
<td>555</td>
<td>531</td>
<td>518</td>
</tr>
<tr>
<td>2005</td>
<td>562</td>
<td>534</td>
<td>520</td>
</tr>
</tbody>
</table>

Based on my interpretation of the documentation above, I certify that the Issaquah School District is making reasonable progress toward that element of the Board’s Ends Policy E-2, Academics and Foundations, which is monitored here.
Ends Monitoring Report

- Review of Ends Statement
- Data
  - Washington Assessment of Student Learning (WASL)
  - National Student Clearinghouse (NSC)
  - Washington Board for Community and Technical Colleges (WA SBCTC)
  - Academic Placement Testing Program (APTP)
  - Decision Research
- What we have learned from the data review
E-2 Academics and Foundations

Upon graduation, students will be academically prepared and confident to pursue higher education or specialized career training.
Confident to Pursue
Higher Education or
Specialized Career Training

- First monitoring report
  School achievement status report
  October 2006

- Second monitoring report
  Preparation for higher education and technical schools
The National Perspective
The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.

Alvin Toffler
A National Perspective:
The Age of Universal College Education

- 75% of high school graduates get some postsecondary education within two years of receiving their diplomas.

- Nearly 90% say they hope to attend college.

- A college degree today means what a high school diploma meant a hundred years ago. It is the passport to most careers.

Greater Expectations,
American Association of Colleges and Universities (AACU)
The work before us

- Most K-12 and post-secondary education systems have not met teenagers’ heightened aspirations with sufficient and well-targeted resources to help all students prepare well for college.

- Not enough students are well-prepared (as evidenced by high college remediation rates).

- Simply graduating from high school does not ensure that a student will be ready for college level.

Betraying the College Dream,
The Stanford Bridge Project
Issaquah Data Portfolio Analysis

- Improve achievement
- Strengthen rigor
- Close the achievement gap

- Joint examination of student work
- Build consistent, coherent curriculum
WASL Math Trend Data
(Percent of Students at Standard)
Data Limitations

- The information in this monitoring report is accessed from four different databases which have different purposes.

- Each of the databases gathers data in different ways.

- The Washington State K-20 system does not have common, unique student identifiers.
Therefore…

our learning from these data is based on patterns and general trends observed.
National Student Clearinghouse

- Non-profit established by the higher education community in 1993
- Central repository for collection and exchange of enrollment, degree and certificate records (StudentTracker)
- 75 million student records
- Over 2800 colleges, enrolling 91% of U.S. college students
Issaquah Students Enrolled at Graduation vs. Enrolled as of November 2006

- Class of 2003: 83% Enrolled at Graduation, 57% Enrolled as of November 06
- Class of 2004: 80% Enrolled at Graduation, 63% Enrolled as of November 06
- Class of 2005: 82% Enrolled at Graduation, 70% Enrolled as of November 06
Issaquah Students Enrolled in State vs. Enrolled Out of State as of November 2006

- Class of 2003:
  - In State: 74%
  - Out of State: 26%

- Class of 2004:
  - In State: 78%
  - Out of State: 22%

- Class of 2005:
  - In State: 77%
  - Out of State: 23%
Issaquah Graduates of Postsecondary Institutions
(as of November 2006)

Class of 2002: 31%
Class of 2003: 18%
Class of 2004: 19%
Class of 2005: 19%
The State Board for Community and Technical Colleges (WA SBCTC)

- The State Board for Community and Technical Colleges
  - nine members
  - geographic balance
  - representation of labor, business, women, and racial and ethnic minorities
  - at least one member from business and one from labor
  - two from eastern Washington
  - citizens and residents of the state

- The State Board is required to provide “general supervision and control over the state system of community and technical colleges”.
ISD Students Going Straight to CTC after High School

**Class of 2003:**
229 Students / 26% of Graduating Class

**Class of 2004:**
327 Students / 37% of Graduating Class

**Class of 2005**
331 Students/ 32% of Graduating Class
<table>
<thead>
<tr>
<th>Course</th>
<th>03</th>
<th>04</th>
<th>05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedial Reading</td>
<td>11</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Remedial Writing</td>
<td>44</td>
<td>57</td>
<td>56</td>
</tr>
<tr>
<td>Remedial Math</td>
<td>98</td>
<td>121</td>
<td>119</td>
</tr>
</tbody>
</table>
Community College Remedial Rates in "Any Course" by Comparable District

- District A
  - Percent in Class of 2003: 47
  - Percent in Class of 2004: 46
  - Percent in Class of 2005: 44
  - Average: 45

- District B
  - Percent in Class of 2003: 46
  - Percent in Class of 2004: 46
  - Percent in Class of 2005: 45
  - Average: 45

- District C
  - Percent in Class of 2003: 50
  - Percent in Class of 2004: 50
  - Percent in Class of 2005: 50
  - Average: 50

- District D
  - Percent in Class of 2003: 50
  - Percent in Class of 2004: 51
  - Percent in Class of 2005: 53
  - Average: 51

- Issaquah
  - Percent in Class of 2003: 45
  - Percent in Class of 2004: 44
  - Percent in Class of 2005: 47
  - Average: 45
Remedial (Pre-College) Courses of Students Going Straight from HS to CTC

<table>
<thead>
<tr>
<th>Year</th>
<th>Reading</th>
<th>Writing</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 2003</td>
<td>5</td>
<td>19</td>
<td>43</td>
</tr>
<tr>
<td>Class of 2004</td>
<td>6</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>Class of 2005</td>
<td>6</td>
<td>17</td>
<td>36</td>
</tr>
</tbody>
</table>
The Academic Placement Testing Program (APTP) is a cooperative program for the state’s four-year public universities, excluding Evergreen State College.

Intermediate and advanced math placement tests are administered to students who plan to enroll in first year mathematics courses at:

- Central Washington University
- Eastern Washington University
- University of Washington
- Washington State University
- Western Washington University
Math Testing Waiver Requirements

- CWU- SAT 500 or above depending upon course
- EWU- AP Calculus score of 3 or higher
- UW- AP Calculus score of 2 or higher
- WSU- SAT 500-530 depending upon course
- WWU- SAT 480 or higher depending on course; AP Calculus exam
### Mean SAT Math Scores

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<td>534</td>
<td>520</td>
</tr>
</tbody>
</table>
Percent of Issaquah Graduates Taking SAT

- 2003  72.6%
- 2004  66.3%
- 2005  71.2%
Issaquah Math Placement at WA Public Four-Year Institutions
2003
Percent of Students by Course

- Intermediate Algebra or Below:
  - District (N=150): 24.7%
  - State (N=4801): 32.0%

- College Level/Pre-Calculus:
  - District (N=150): 56.7%
  - State (N=4801): 46.8%

- Calculus or Above:
  - District (N=150): 18.7%
  - State (N=4801): 20.5%
Issaquah Math Placement at WA Public Four-Year Institutions
2004
Percent of Students by Course

- Intermediate Algebra or Below: 19.0% (District) vs. 30.90% (State)
- College Level/Pre-Calculus: 58.5% (District) vs. 49.50% (State)
- Calculus or Above: 22.4% (District) vs. 17.40% (State)
Issaquah Math Placement at WA Public Four-Year Institutions
2005
Percent of Students by Course

Intermediate Algebra or Below
- District (N=141): 24.1%
- State (N=4616): 29.6%

College Level/Pre-Calculus
- District (N=141): 48.1%
- State (N=4616): 51.3%

Calculus or Above
- District (N=141): 27.9%
- State (N=4616): 19.2%
Decision Research

- A research company from Santa Barbara
- Used by many neighboring districts
- Specializes in graduate follow-up surveys based on a demographic sample (TRACE System)
- Probes areas (such as most useful high school course) not addressed by the other research sources
Decision Research

- Used by nearly 1000 graduating classes in 24 states
- Uses a three-factor stratified random sampling model
- Survey response rates average 85%
- Statistically valid and reliable
Graduating Class of 2005

- 40% are employed full or part-time, 74% of those are also continuing their education
- 86% are continuing their education, most within Washington state
- Most useful high school subject: English, Math, Science
- Now wish they had taken more: Science, Math, Marketing, English
Graduating Class of 2005

- 51% of grads who had not decided on a career field at graduation have now done so
- Of those who had, 21% have now changed their minds
- 89% participated in extra-curricular activities in high school
- 84% felt their teachers were effective instructors
Graduating Class of 2005

- 87% report being very prepared in reading and writing
- 68% report being very prepared in mathematics
- 93% report being very prepared in using proper spoken English
- 80% report being very prepared in using research and study skills
What have we learned from this data analysis?

- A majority of Issaquah graduates remain in Washington State to continue their educational experiences.
- Fewer Issaquah students enrolling in CTC are in need of remedial classes than the cohort of comparable districts.
- Fewer Issaquah students attend lower level math classes at the university level than the state average.
- More Issaquah students attend college level math classes than the state average.
What have we learned from this data analysis?

- Issaquah students enter advanced university math courses at rates near or higher than state averages.
- In general, Issaquah students feel very prepared for post graduate academic experiences.
What may we clarify for you?