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 2007, 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 2004, 2005 and 2006. 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. In 2005, we acquired 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. We purchase the Decision Research every other year as a cost containment measure. New Decision Research data were added to our analysis pool.
4. Conclusion

In this third 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 11.6%.
- Based on three-year trend data, Issaquah students enrolling in two-year colleges and technical schools as prepared for college-level programming in reading, writing and math as students from the cohort of comparable districts. The cohort average for students needing remedial classes is 46%; Issaquah’s average is 46%.
- 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.
- 2007 Issaquah graduates believe their teachers were effective instructors.
- 2007 Issaquah graduates report they are better prepared in reading and writing than they are in mathematics.

According to APTP 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 2004, 2005 and 2006, more than 80% 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 22.4% in 2004 to 27.9% in 2006.
SAT scores continue to significantly outpace the state and the nation. These high scores ensure that our students do not require remedial mathematics.

Mean SAT Math Scores

<table>
<thead>
<tr>
<th>Year</th>
<th>District</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>2006</td>
<td>569</td>
<td>532</td>
<td>518</td>
</tr>
<tr>
<td>2007</td>
<td>572</td>
<td>531</td>
<td>515</td>
</tr>
</tbody>
</table>

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 two years as a reliability check on the free, public resources used for annual reporting.)

Decision Research also allows us review data on “soft skills” necessary for success in post secondary pursuits. While our graduates report feeling very prepared in academics, they report varying degrees of preparedness in the “soft skills” areas. For example, 79% of graduates report that they were prepared to use research and study skills. Only 53% reported that they could evaluate national and world problems and issues. 81% reported that they were prepared in human relations skills.

Certification

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)
  - WSU remedial data for WA four year colleges
  - 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.
Data Limitations

- The information in this monitoring report is accessed from 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.
WASL Data
National Student Clearinghouse
Issaquah Students Enrolled by College/University Type
as of March 2008
Percent of Graduating Class

Class of 2004 Class of 2005 Class of 2006
2 Yr Public 2 Yr Private 4 Yr Public 4 Yr Private

8% 0% 0% 0%
13% 0% 12% 0%
12% 0% 12% 16%
12% 0% 0% 12%
Issaquah Students Enrolled in State vs. Enrolled Out of State
as of March 2008
Percent of Graduating Class

<table>
<thead>
<tr>
<th>Class</th>
<th>In State</th>
<th>Out of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 2004</td>
<td>46%</td>
<td>15%</td>
</tr>
<tr>
<td>Class of 2005</td>
<td>49%</td>
<td>17%</td>
</tr>
<tr>
<td>Class of 2006</td>
<td>53%</td>
<td>16%</td>
</tr>
</tbody>
</table>
Issaquah Graduates of Postsecondary Institutions
as of March 2008

<table>
<thead>
<tr>
<th>Class</th>
<th>Percent of Graduating Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class of 2002</td>
<td>47%</td>
</tr>
<tr>
<td>Class of 2003</td>
<td>38%</td>
</tr>
<tr>
<td>Class of 2004</td>
<td>10%</td>
</tr>
<tr>
<td>Class of 2005</td>
<td>5%</td>
</tr>
<tr>
<td>Class of 2006</td>
<td>6%</td>
</tr>
</tbody>
</table>
Washington State Board for Community and Technical Colleges (WA SBCTC)
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

**Class of 2006**
377 Students / 36% of Graduating Class
<table>
<thead>
<tr>
<th></th>
<th>03</th>
<th>04</th>
<th>05</th>
<th>06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedial Reading</td>
<td>11</td>
<td>21</td>
<td>21</td>
<td>12</td>
</tr>
<tr>
<td>Remedial Writing</td>
<td>44</td>
<td>57</td>
<td>56</td>
<td>46</td>
</tr>
<tr>
<td>Remedial Math</td>
<td>98</td>
<td>121</td>
<td>119</td>
<td>97</td>
</tr>
</tbody>
</table>
Remedial (Pre-College) Courses
of Students Going Straight from HS to CTC

![Bar chart showing the percentage of students in different classes taking remedial courses in Reading, Writing, and Math.]

- **Percent in Class of 2003**
  - Reading: 5%
  - Writing: 19%
  - Math: 43%

- **Percent in Class of 2004**
  - Reading: 6%
  - Writing: 17%
  - Math: 37%

- **Percent in Class of 2005**
  - Reading: 6%
  - Writing: 17%
  - Math: 36%

- **Percent in Class of 2006**
  - Reading: 5%
  - Writing: 18%
  - Math: 34%
Remedial Course Enrollment for Those Entering CTC
1-2 Years After HS

Reading
- Percent in Class of 2003 N=146
  - 3
- Percent in Class of 2004 N=76
  - 6
- Percent in Class of 2005 N=100
  - 0

Writing
- Percent in Class of 2003 N=146
  - 3
- Percent in Class of 2004 N=76
  - 1
- Percent in Class of 2005 N=100
  - 6
- Percent in Class of 2006 N=135
  - 3

Math
- Percent in Class of 2003 N=146
  - 18
- Percent in Class of 2004 N=76
  - 11
- Percent in Class of 2005 N=100
  - 17
- Percent in Class of 2006 N=135
  - 12
Academic Placement Testing Program (APTP)
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

<table>
<thead>
<tr>
<th></th>
<th>District</th>
<th>State</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>553</td>
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</tr>
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<td>2004</td>
<td>555</td>
<td>531</td>
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</tr>
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<td>2005</td>
<td>562</td>
<td>524</td>
<td>520</td>
</tr>
<tr>
<td>2006</td>
<td>569</td>
<td>531</td>
<td>518</td>
</tr>
<tr>
<td>2007</td>
<td>572</td>
<td>531</td>
<td>515</td>
</tr>
</tbody>
</table>

**Change**

+19    -1    -4
<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Taking SAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>72.6%</td>
</tr>
<tr>
<td>2004</td>
<td>66.3%</td>
</tr>
<tr>
<td>2005</td>
<td>71.2%</td>
</tr>
<tr>
<td>2006</td>
<td>75.3%</td>
</tr>
<tr>
<td>2007</td>
<td>78.9%</td>
</tr>
</tbody>
</table>
Issaquah Math Placement at WA Public Four-Year Institutions
2003
Percent of Students by Course

<table>
<thead>
<tr>
<th>Course</th>
<th>District (N=150)</th>
<th>State (N=4801)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Algebra or Below</td>
<td>24.7%</td>
<td>32.0%</td>
</tr>
<tr>
<td>College Level/Pre-Calculus</td>
<td>56.7%</td>
<td>46.8%</td>
</tr>
<tr>
<td>Calculus or Above</td>
<td>18.7%</td>
<td>20.5%</td>
</tr>
</tbody>
</table>
Issaquah Math Placement at WA Public Four-Year Institutions
2004
Percent of Students by Course

<table>
<thead>
<tr>
<th>Course</th>
<th>District (N=147)</th>
<th>State (N=4684)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Algebra or Below</td>
<td>19.0%</td>
<td>30.90%</td>
</tr>
<tr>
<td>College Level/Pre-Calculus</td>
<td>58.5%</td>
<td>49.50%</td>
</tr>
<tr>
<td>Calculus or Above</td>
<td>22.4%</td>
<td>17.40%</td>
</tr>
</tbody>
</table>
Issaquah Math Placement at WA Public Four-Year Institutions
2005
Percent of Students by Course

<table>
<thead>
<tr>
<th>Course</th>
<th>District (N=141)</th>
<th>State (N=4616)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intermediate Algebra or Below</td>
<td>24.1%</td>
<td>29.6%</td>
</tr>
<tr>
<td>College Level/Pre-Calculus</td>
<td>51.3%</td>
<td>48.1%</td>
</tr>
<tr>
<td>Calculus or Above</td>
<td>27.9%</td>
<td>19.2%</td>
</tr>
</tbody>
</table>

Legend:
- District (N=141)
- State (N=4616)
Issaquah Math Placement at WA Public Four-Year Institutions
2006
Percent of Students by Course

Intermediate Algebra or Below
- District (N=111): 15.3%
- State (N=4023): 31.3%

College Level/Pre-Calculus
- District (N=111): 56.8%
- State (N=4023): 51.6%

Calculus or Above
- District (N=111): 27.9%
- State (N=4023): 17.0%
Issaquah Math Placement at WA 4-Year Institutions
2007
Percent of Students by Course

- Intermediate Algebra or Below: District (N=120) - 17.5%, State (N=4397) - 30.5%
- College Level/Pre-Calculus: District (N=120) - 53.3%, State (N=4397) - 52.3%
- Calculus or Above: District (N=120) - 29.2%, State (N=4397) - 17.2%
WSU Remedial Data
WA State 4 Year Colleges
2003-05
## Totals 2003-05

<table>
<thead>
<tr>
<th></th>
<th>Enrolled</th>
<th>Remedial English</th>
<th>Remedial Math</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>District</td>
<td>299</td>
<td>12</td>
<td>9</td>
<td>5.4%</td>
</tr>
<tr>
<td>State</td>
<td>10,566</td>
<td>441</td>
<td>969</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

2006 data available May 30, 2008
Decision Research
Graduating Class of 2007

- Survey returned by 324 students
- 37% are employed full or part-time, 74% of those are also continuing their education
- 87% are continuing their education, most within Washington state
- Most useful high school subject: English, Math, Science
- Now wish they had taken more: Science and unspecified AP courses
Graduating Class of 2007

- 44% of grads who had not decided on a career field at graduation have now done so
- Of those who had, 19% have now changed their minds
- 85% participated in extra-curricular activities in high school
- 83% felt their teachers were effective instructors
Graduating Class of 2007

- 82% report being very prepared in reading and writing
- 67% report being very prepared in mathematics
- 87% report being very prepared in using proper spoken English
- 79% report being very prepared in using research and study skills
Graduating Class of 2007

- 53% report being prepared to evaluate national & world problems & issues
- 78% report being knowledgeable about avoiding drug and alcohol abuse
- 81% report being prepared in human relations skills
- 60% report being prepared as informed consumers
- 53% report being prepared in job-seeking skills
What have we learned from this data analysis?

- A majority of Issaquah graduates remain in Washington State to continue their educational experiences.
- Issaquah students enrolling in CTC are in need of remedial classes at the same rates as 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 significantly higher than state averages.
- In general, Issaquah students feel very prepared for post graduate academic experiences.
- Issaquah graduates report varying degrees of preparedness in “soft skills” areas: a high of 79% in research & study skills to a low of 53% in evaluating national and world issues.
What may we clarify for you?