# Washington's 2008 Graduates: Course-Taking, Graduation Requirements, and Free/Reduced Lunch 

## Analyses show all schools will need to address specific content areas when graduation requirements increase. Small differences associated with poverty level will present challenges to some schools.

The Washington State Board of Education (SBE) is revising high school graduation requirements to better prepare students for career, postsecondary education, and citizenship. The proposed Core 24 graduation requirements framework, approved in July 2008 with implementation contingent on funding, is more rigorous than current Washington State graduation requirements, and in some content areas equivalent to or more rigorous than the minimum college admission standards set by the Washington Higher Education Coordinating (HEC) Board. Table 1 summarizes graduation requirements, including notation about course levels.

Table 1.
Comparison of Washington State High School
Graduation Requirements with Four-year Public
College Admission Requirements

| Subject | 2008 State <br> Minimum <br> Graduation <br> Reqs. | 2008 <br> HEC <br> Board <br> Reqs. | Core 24 <br> Default <br> Reqs. |
| :--- | :--- | :--- | :--- |
| English | 3 | $4^{*}$ | 4 |
| Math | 2 | $3^{* *}$ | 3 |
| Science | $2 * * *$ | $2^{* * *}$ | 3 |
| Social Studies | 2.5 | 3 | 3 |
| Arts | 1 | 1 | 2 |
| World Language | 0 | $2^{* * * *}$ | 2 |
| Career <br> Concentration | 1 | 0 | 3 |
| Health \& Fitness | 2 | 0 | 2 |
| Electives | 5.5 | 0 | 2 |
| Total | 19 | 15 | 24 |

[^0]Note: The Core 24 default college and career ready requirements align with the Higher Education Coordinating Board minimum college admissions requirements. Some students may choose an alternative Core 24 pathway.

Prior to proposing new requirements, the SBE commissioned a transcript study. Researchers from The BERC Group examined course-taking patterns for 14,875 students who graduated in 2008 from 100 schools in 100 districts across Washington. This research brief, with an emphasis on school level poverty, is one in a series of research briefs. The analyses compared schools with Low, Medium, and High poverty, with percentage of students receiving free or reduced lunch ( $\mathrm{F} / \mathrm{RL}$ ) support as an indicator of school-level poverty (see Table 2). More information about the study can be obtained at http://www.sbe.wa.gov/documents/SBETranscriptSt udy2008_FINAL.pdf.

This study was conducted to provide a baseline of information that would inform the SBE's graduation requirements initiative. The proposed Core 24 requirements were not in place for the class of 2008, and students were not trying to meet these requirements.

Table 2.
Definitions of F/RL Comparison Groups with Numbers of Schools and Students

| F/R Lunch | Low | Medium | High |
| :--- | :---: | :---: | :---: |
| Percentage | $0 \%-29 \%$ | $30 \%-49 \%$ | $50 \%-100 \%$ |
| Schools (N) | 43 | 37 | 20 |
| Students (N) | 9341 | 3062 | 2472 |

Figure 1 shows higher percentages of students met HEC Board than Core 24 requirements for all three groups. Students of Low F/RL schools met requirements in higher numbers. This was most noticeable for HEC Board requirements, with the Low group $16 \%$ to $17 \%$ higher than the other groups. There was no difference between the Medium and High groups. Differences among groups for Core 24 requirements were much smaller, although there was a mild inverse relationship between school poverty level and percentage of students meeting criteria. In other words, students from schools with higher F/RL rates tended to meet the Core 24 requirements at a slightly higher rate than students from schools with lower F/RL rates.


Figure 1. Percentage of 2008 Graduates Meeting HEC Board Minimum Admissions and Core 24 Default College and Career Ready Requirements by School-Level Free and Reduced Lunch

Figure 2 shows percentages of graduates meeting HEC board criteria by subject area. The largest disparities occurred in English, math, and world language. Although the Medium and High groups differed by no more than $5 \%$, the Low group exceeded the Medium group by $12 \%$ to $15 \%$ and the High group by $8 \%$ to $12 \%$. In science, there was a mild inverse relationship between school poverty and percentage of students meeting criteria, with the maximum difference (8\%) between the High and Low groups. The effects of poverty were less apparent in social studies and fine arts, with less than $6 \%$ difference among the groups.

Among the subjects where the proposed Core 24 requirements differed from HEC Board requirements, the percentages of students meeting science and fine arts requirements were inversely related to FR/L, with maximum group differences of $11 \%$ and $6 \%$, respectively (see Figure 3). Career concentration showed a very different pattern, with higher levels of FR/L associated with more students meeting criteria.

Fewer students in the higher levels of FR/L met the health and fitness requirement.


Figure 2. Percentage of 2008 Graduates Meeting HEC Board Subject Requirements by School-Level Free and Reduced Lunch


Figure 3. Percentage of 2008 Graduates Meeting CORE 24 Subject Requirements by School-Level Free and Reduced lunch Note. Although the SBE's definition of career concentration is more broad than occupational education and career and technical education (CTE), only occupational education and career and technical education (CTE) courses were analyzed to address the career concentration requirement.

Additional analyses (see Table 3) show students of Low FR/L schools are more likely to earn middle school math and world language credits and to take an AP or IB course. Running Start courses did not differ among groups.

Table 3.
Middle School and Advanced Credits by F/RL Group

|  | Low | Medium | High |
| :--- | :---: | :---: | :---: |
| MS math credits | $28 \%$ | $22 \%$ | $23 \%$ |
| MS world lang credits | $9 \%$ | $1 \%$ | $3 \%$ |
| AP/IB* | $37 \%$ | $31 \%$ | $31 \%$ |
| Running Start* | $14 \%$ | $13 \%$ | $11 \%$ |

*At least one course
These data show that, in most subjects, differences among Low, Medium, and High poverty schools are smaller than differences among subject areas. Most schools, regardless of poverty level, will need to address all subject areas as graduation requirements rise.


[^0]:    *Including 3 credits of literature
    **Algebra I, II, and geometry or Integrated Mathematics I, II, III
    *** Including at least 1 credit of laboratory science (2 labs in 2010)
    ****Including 2 credits of the same world language

