

Washington State Board of Education

Transcript Analysis

January 14, 2009



Study Purpose

- Overall, to assess how well high schools are preparing students to succeed in postsecondary education, the workplace and citizenship.
- Specifically, to provide SBE with information regarding student course-taking patterns in relation to districts' current graduation requirements and new graduation requirements – CORE 24 – by analyzing a sample of transcripts from high schools across Washington state.

Sampling Procedure

- Stratified Random Sample
 - Districts were selected based on total enrollment for each county in Washington state.
 - All 39 counties had at least one district selected.
 - To ensure variance, we selected districts with higher math and science requirements, because there are fewer in the state.
 - Districts requiring the minimum number of math and science credits were then selected using a random number array.
 - We did not include schools that OSPI identified as home-based schools, learning centers, special education schools, technical skills centers, parent partnership schools, night schools and schools located in justice centers.
 - After eliminating these schools from the list, we selected high schools using a random number array.
 - 95 schools from the original sample participated; 5 schools were added as replacements.

Sample

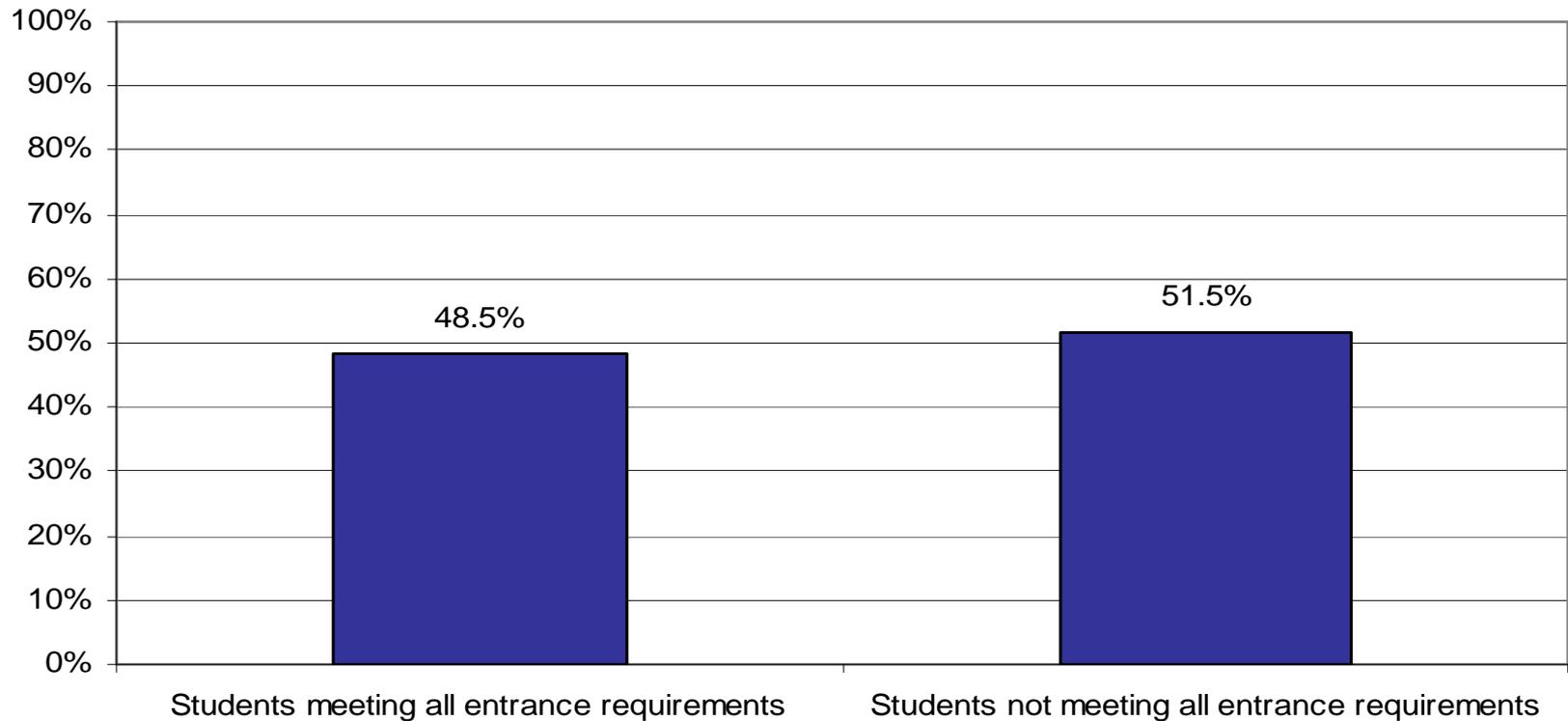
	Entire Population* (n = 504)	Student Sample (n = 100)
Enrollment	Mean = 637 (Range = 5 – 3142)	Mean = 787 (Range = 26 – 3142)
Free/Reduced Lunch	35%	34%
Amer Ind/Ala Native	3%	3%
Asian	8%	5%
Black	6%	4%
Hispanic	14%	13%
White	68%	75%

Transcript Analysis

- Transcripts (n = 14,875) were coded and analyzed to determine the percentage of students at each school meeting or exceeding minimum Higher Education Coordinating Board (HEC Board) college entrance requirements and CORE 24 requirements.
 - The minimum HEC Board requirements were used because they provide a standard, measureable metric of comparison in Washington state
 - College preparedness is a good measure of preparation for work readiness, particularly for those pursuing a certificate, apprenticeship or two-year college degree
- Additional coding was added to answer all the questions posed by SBE.

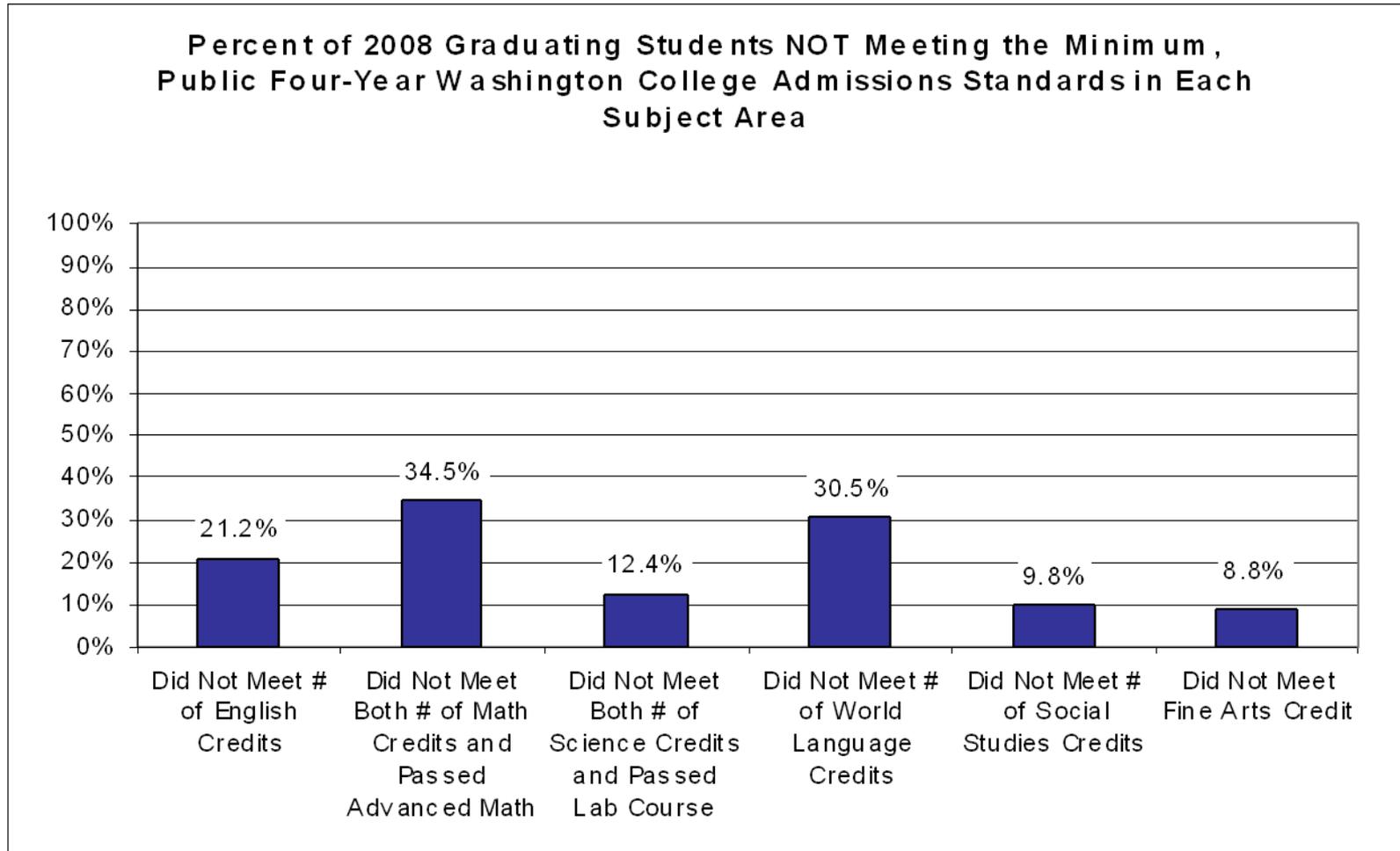
Percent of Students Meeting Current HEC Board Requirements*

Percent of 2008 Graduating Students Successfully Completing Courses That Meet the Minimum, Public Four-Year Washington College Admissions Standards



*For this study, minimum HEC Board requirements were used because they provide a standard, measureable metric of comparison in Washington state

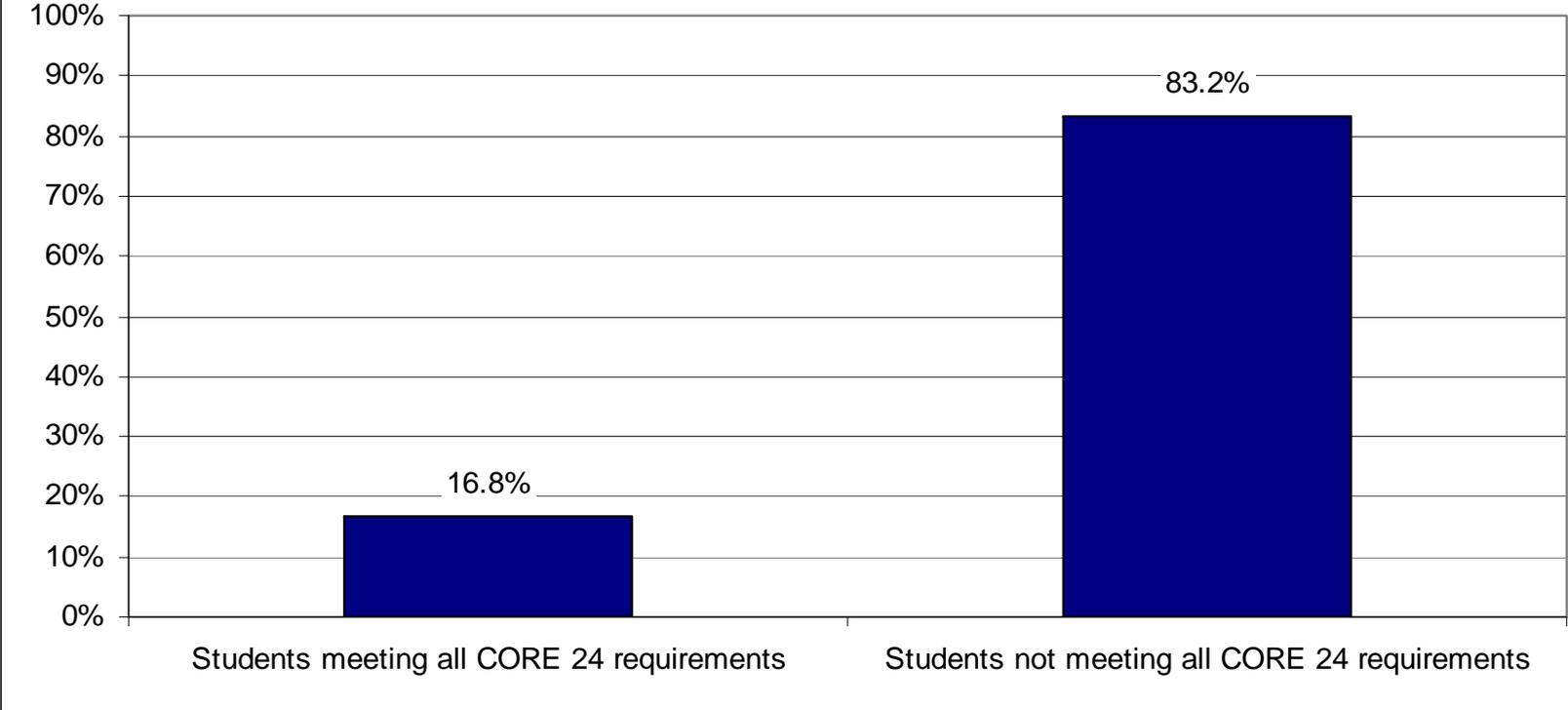
Percent of Students Not Meeting HEC Board Requirements* by Subject



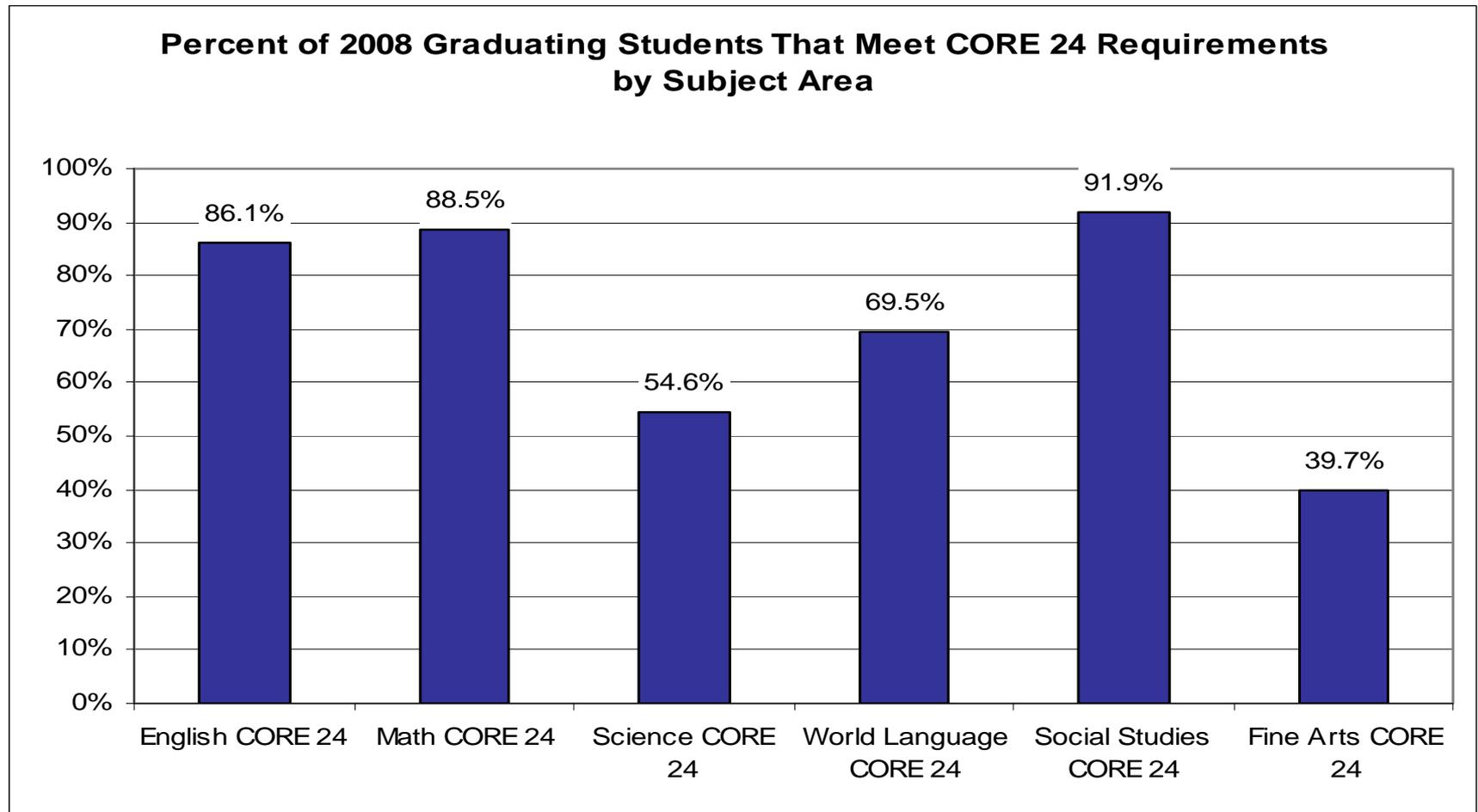
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Percent of Students Meeting CORE 24's Four-Year College Requirements

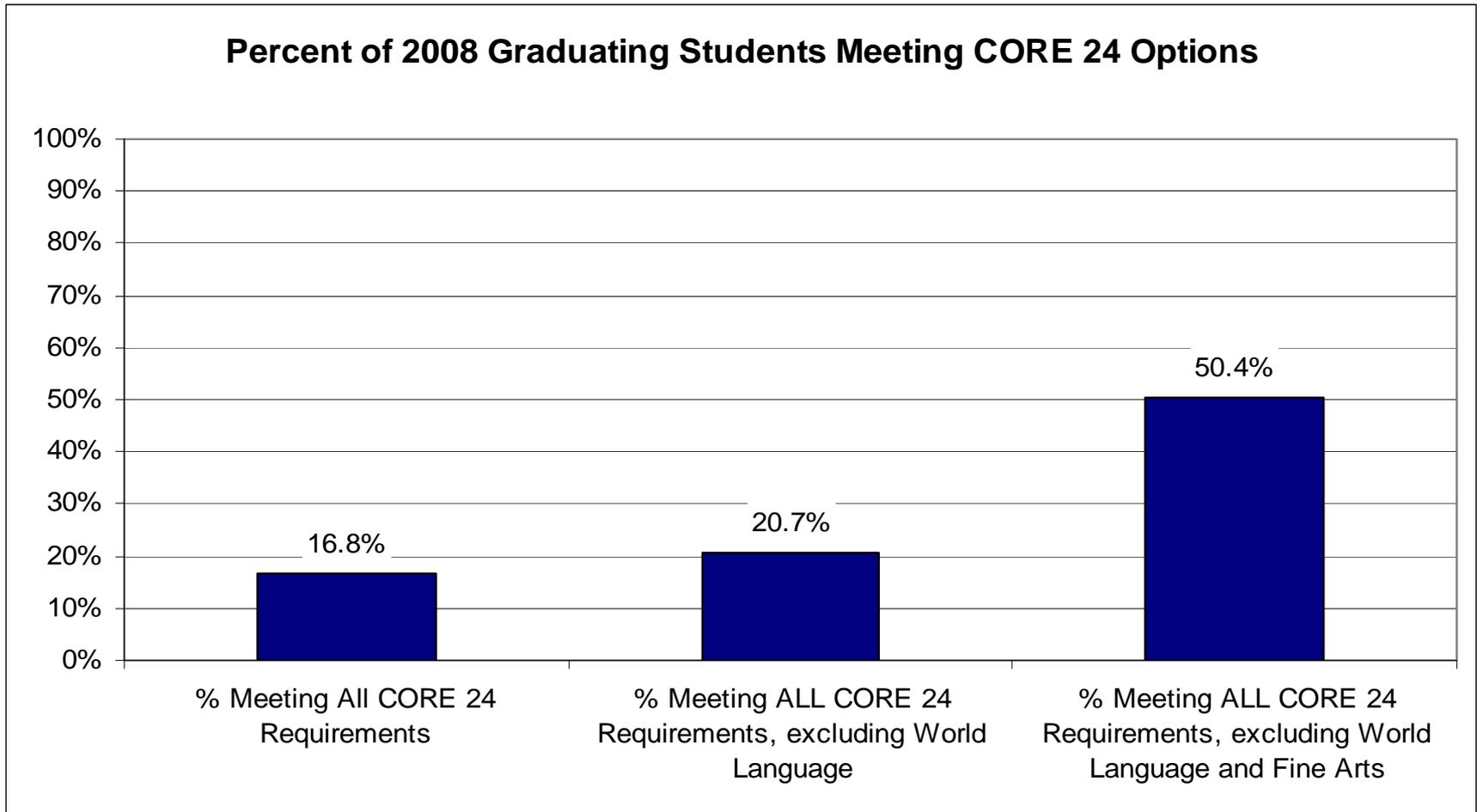
Percent of 2008 Graduating Students That Meet All CORE 24 Requirements



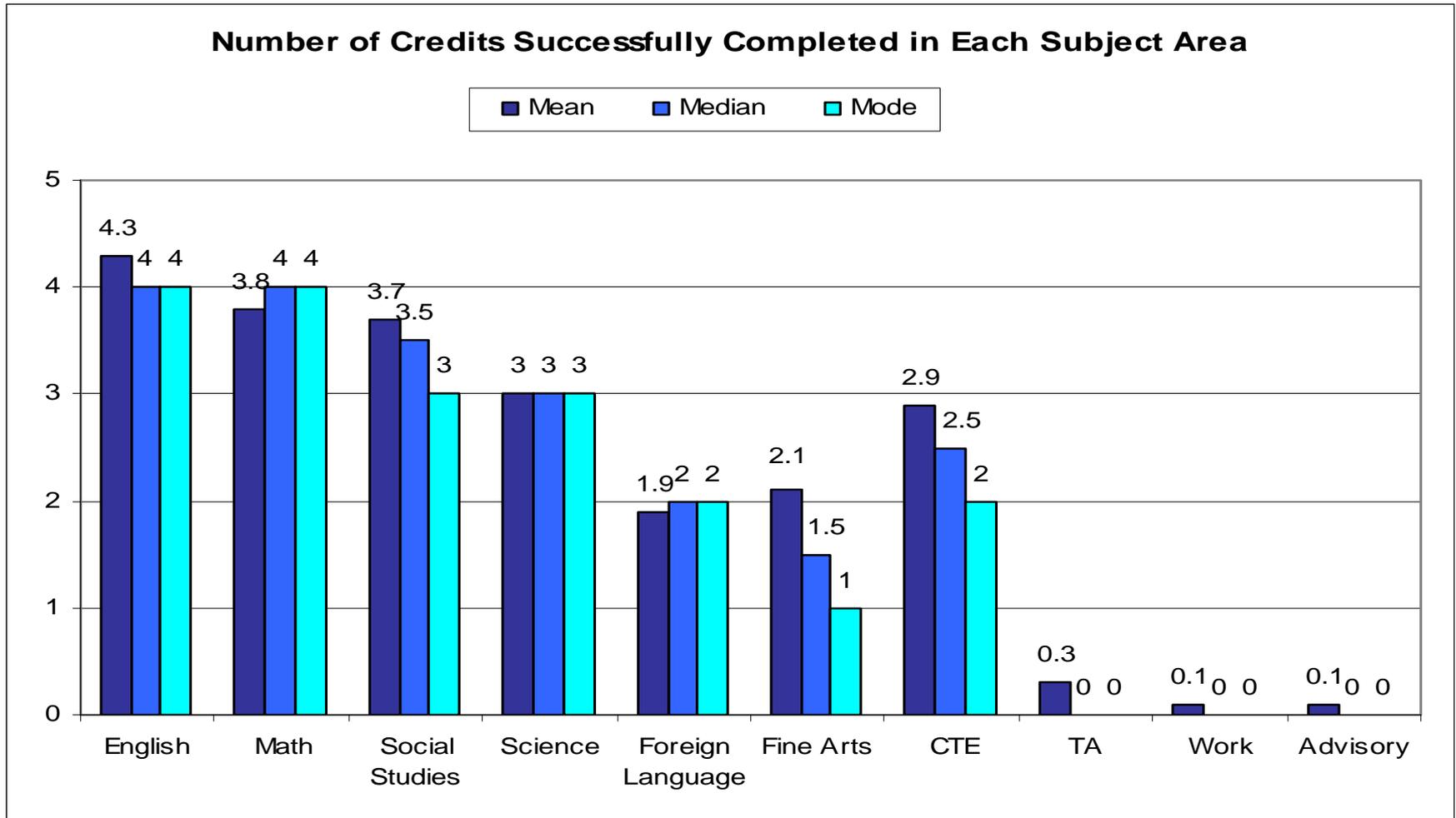
Percent of Students Meeting CORE 24 by Subject



CORE 24 Options



Student Course Taking Patterns

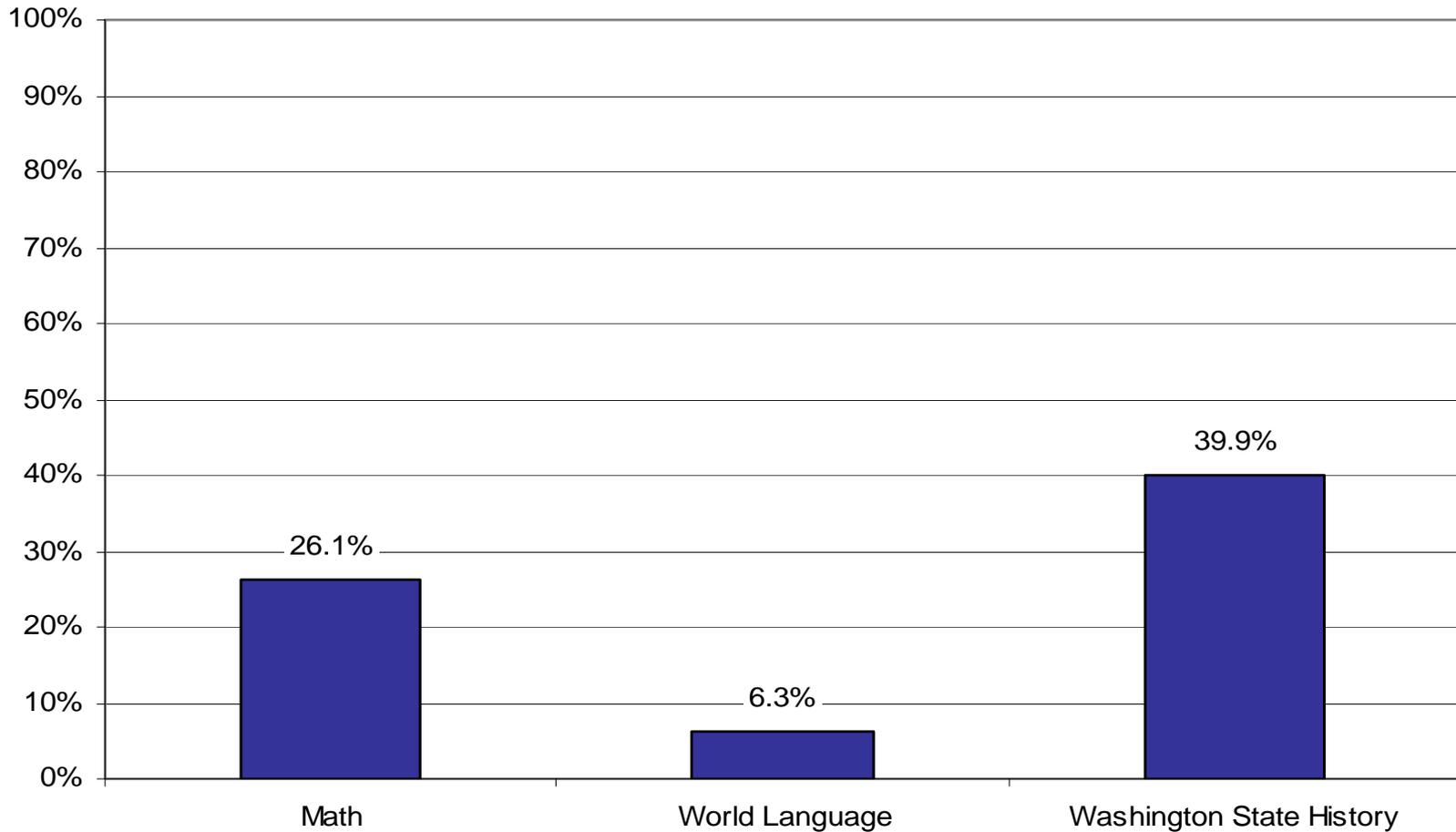


What does this mean?

- A closer look at:
 - Middle school course taking patterns
 - High school course taking patterns
 - The senior year
 - Failure rates

Middle School Courses

Percent of Students Completing Courses in Prior to 9th Grade



High School Courses by Subject

- English
 - 86.4% meet CORE 24 requirements
 - 78.8% meet current HEC Board requirements
 - 21.2% did not meet minimum HEC Board course requirements
 - 13.9% took fewer than 4 English credits, largely because districts did not require 4 credits
 - 7.3% of the students took 4 credits of English, but credits included multiple elective English courses
 - Newspaper, debate, drama as English, journalism, and silent reading for multiple credits
 - Repeating classes for multiple credits

High School Courses by Subject

- Math

- 88.5% meet CORE 24 requirements
- 65.5% meet minimum HEC Board requirements
- 34.5% did not meet minimum HEC Board course requirements
 - 11.5% took fewer than 3 credits of math
 - 23.0% took 3 or more credits, but the courses include pre-algebra, math support labs, segmented math, applied math, business math, or algebra expanded over a two year period.
 - » 13.4% of students took segmented math or PAS math, which likely increased the total number of credits students take in math

High School Courses by Subject

- Social Studies
 - 91.9% met CORE 24 requirements
 - 90.2% met minimum HEC Board requirements
 - 9.8% did not meet minimum HEC Board course requirements
 - 8.8% took fewer than 3 credits of social studies, largely because districts did not require 3 credits
 - 1% took social studies courses that did not match HEC Board requirements
 - » E.g. basic courses taken by special education students

High School Courses by Subject

- Science
 - 54.6% met CORE 24 requirements (3 credits with 2 labs)
 - 87.6% met minimum HEC Board course requirements (2 credits with 1 lab)
 - 12.4% did not meet minimum HEC Board course requirements
 - 5.9% took fewer than 2 credits of science
 - 6.5% took classes that were not clearly defined as a laboratory or that were cross-credited with Career and Technical Education (CTE) courses

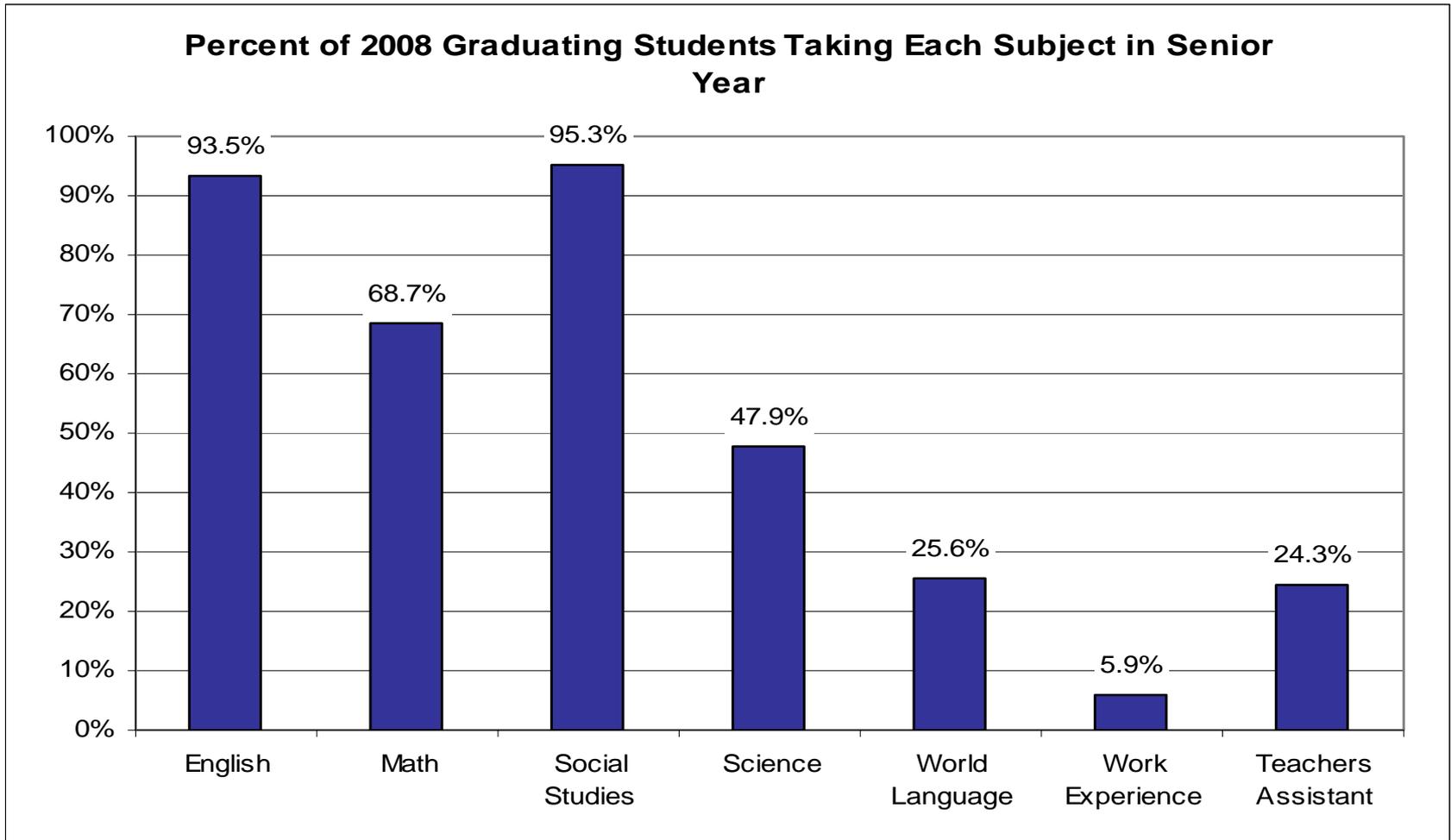
High School Courses by Subject

- World Language
 - 69.5% met CORE 24 requirements and minimum HEC Board course requirements
 - 30.5% did not meet minimum HEC Board course requirements
 - 13.3% took NO world language credits
 - 4.2% took less than 1 credit of world language
 - 13.0% took at least 1 credit of world language, but less than 2 credits

High School Courses by Subject

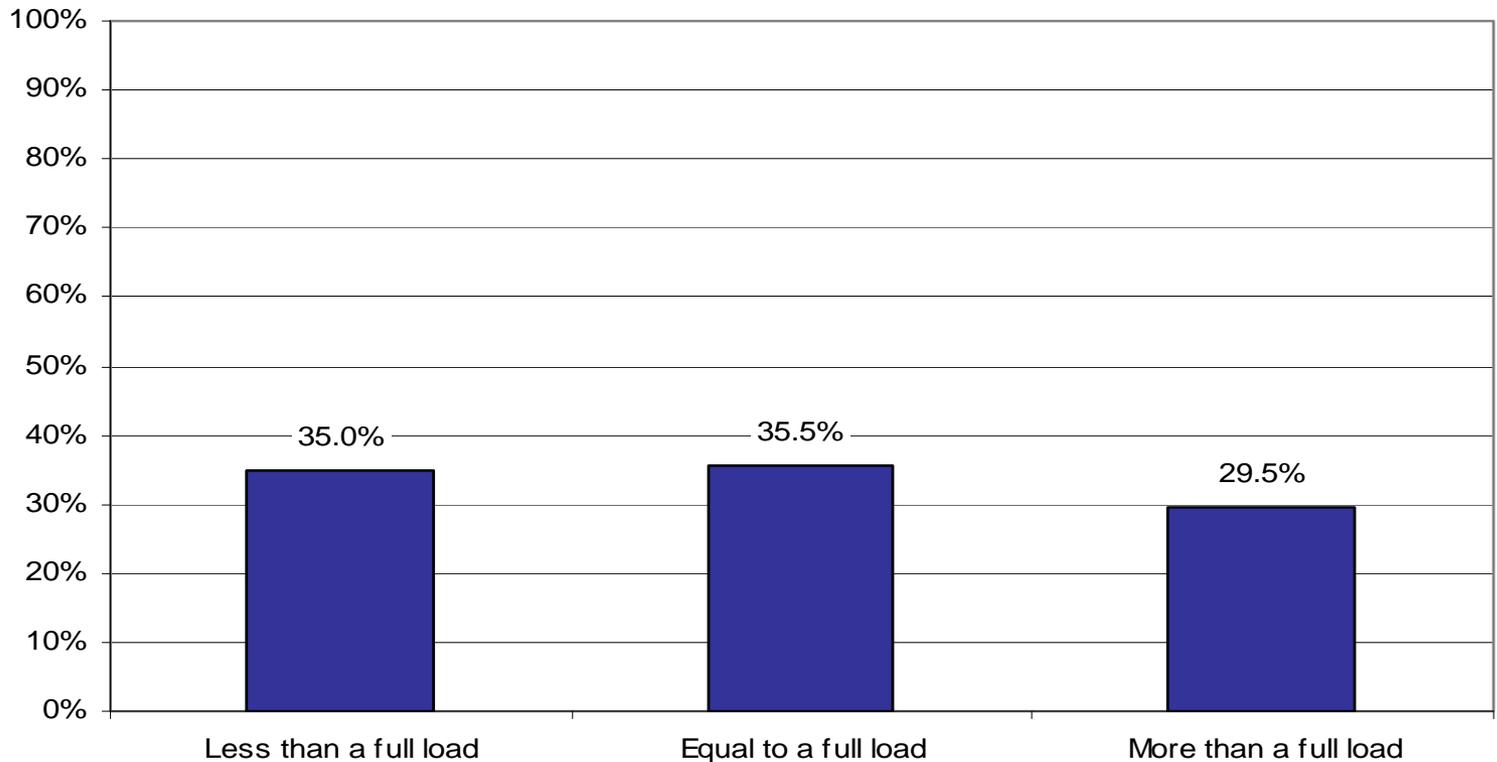
- Fine Art
 - 39.7% met CORE 24 requirements (2 fine arts credits)
 - 91.2% met minimum HEC Board course requirements (1 fine arts credit)
 - 8.8% did not meet minimum HEC Board course requirements
 - 3.9% took less than a half credit
 - Generally higher achieving students had the fine arts classes waived.

The Senior Year



The Senior Year

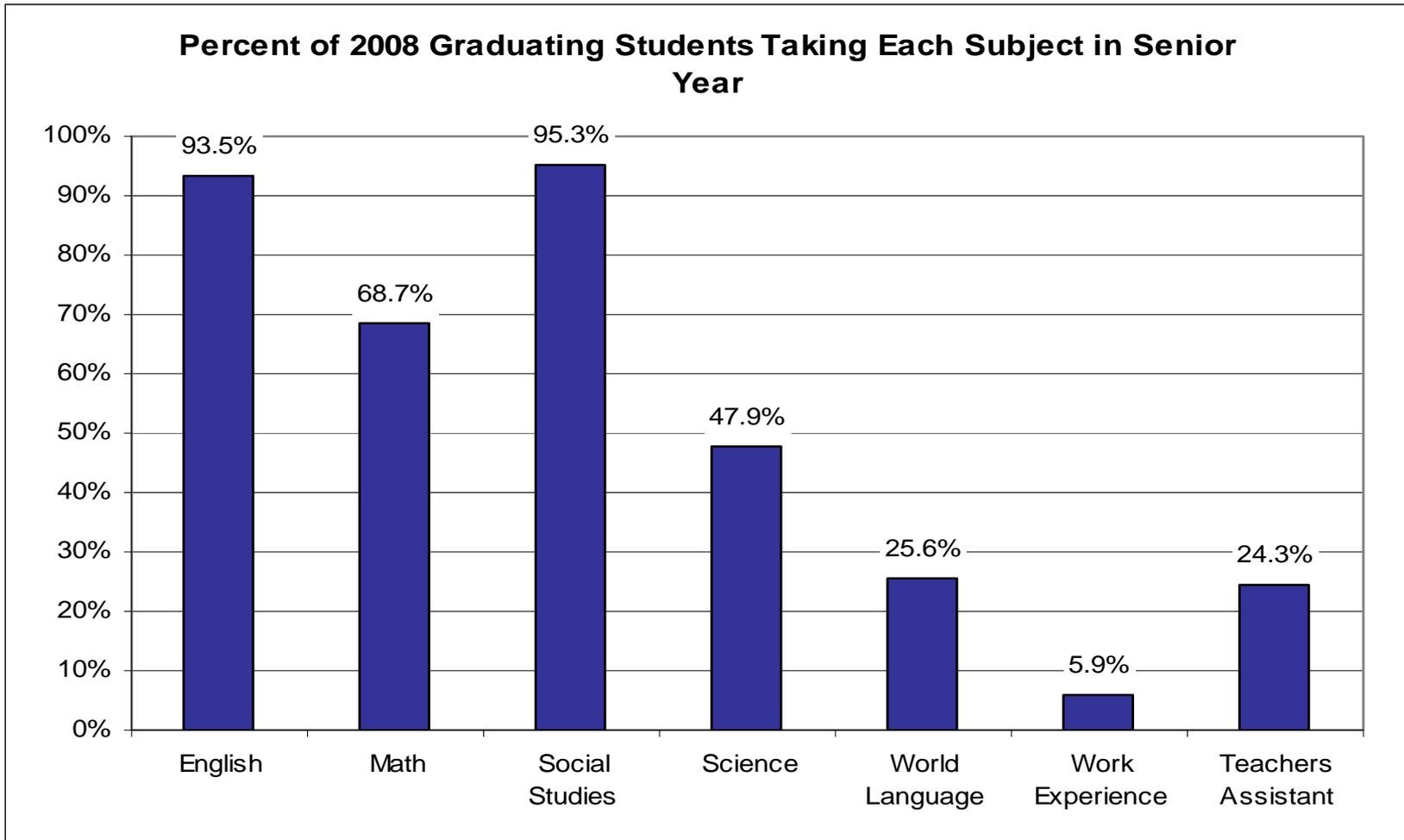
Percent of 2008 Graduating Students Taking Less Than, Equal To, or a Full Load of Classes



The Senior Year

- Students taking less than a full load
 - Had the fewest failed classes of the three groups
 - Had the highest GPA of the three groups
- Students taking more than a full load
 - 26.7% failed 2 or more classes
 - 23.2% enrolled in Running Start
 - Many took additional electives, particularly in the fine arts

The Senior Year



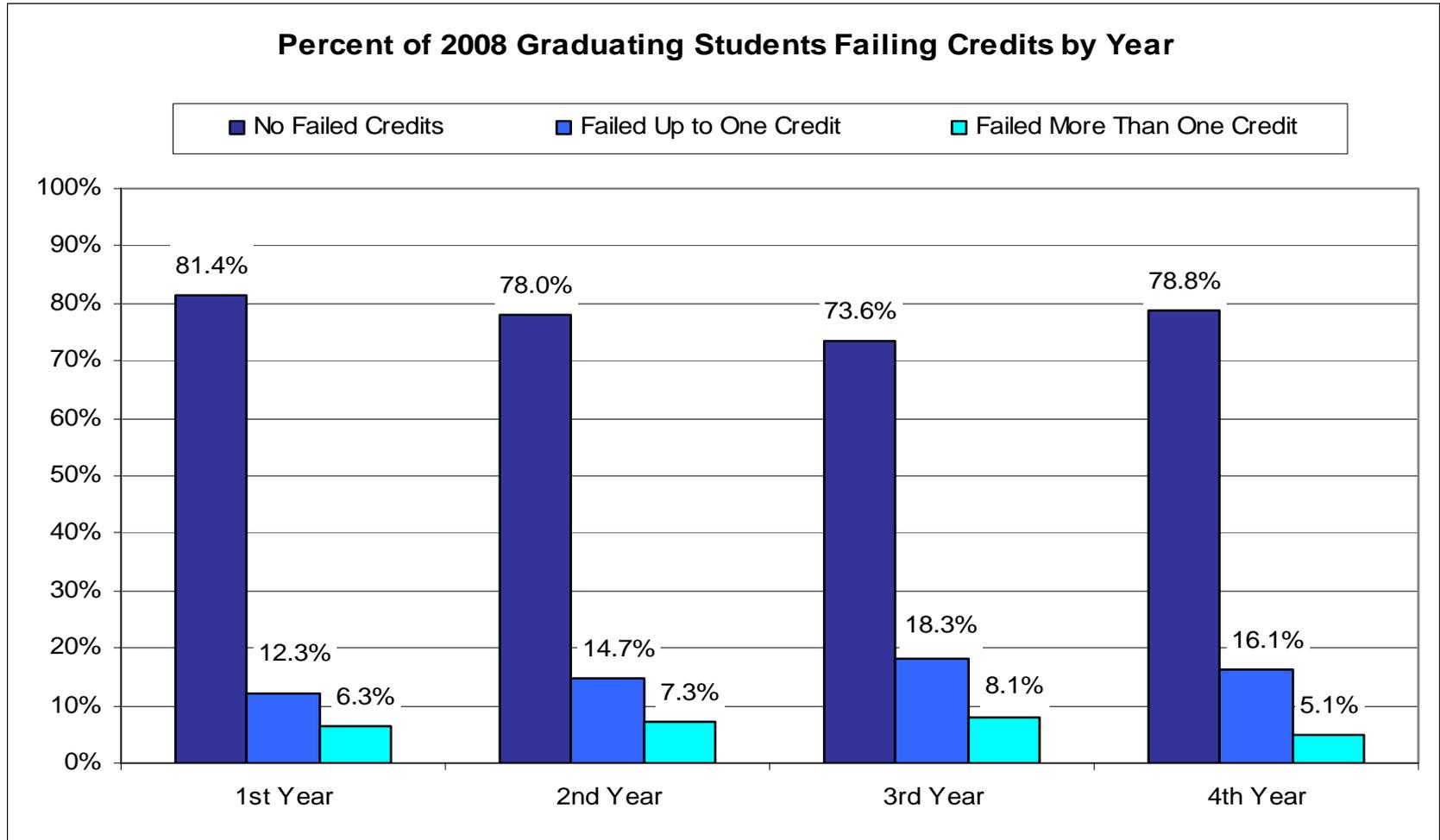
Additional Credits

- 23% of students received credit in one or more subject area for passing a particular section of the WASL
 - Students usually received .25 or .50 credits in English, math, or science for passing a portion of the WASL.

Failed Classes

- 47.3% of students failed credits throughout high school
- 21.0% failed two or more credits

Failed Classes



Failed Classes

- Additional analyses from a stratified random sample
 - Most common failed classes are in the core subject areas
 - 35.5% failed math
 - 26.4% failed English
 - 25.5% failed Social Studies
 - 22.4% failed science
 - 10.6% foreign language
 - 7.0% fine arts

Failed Classes

- Credit Retrieval
 - 40.0% did not make up the class because it was an elective or above minimum graduation requirements (e.g. foreign language or pre-calculus)
 - 32.3% took the class in a subsequent quarter, but graduated with fewer than the possible credits (e.g. 24 possible credits, but graduated with 23).
 - 9.7% repeated the class in a subsequent quarter, adding in a zero hour or after school class.
 - 7.0% participated in summer school
 - 5.5% took the class online

Implications

- Raising the number of credits alone does not ensure students will complete the courses necessary for admittance to college (minimum HEC Board Requirements) or to prepare them for an apprenticeship, certificate or two-year degree.
- Raising the number of credits does ensure there is room in students' schedules to complete the necessary course sequences, including additional coursework for students who need extra support.
- Requiring specific course levels is necessary to ensure students complete the college and work preparatory course sequences.
- High school graduation requirements must be considered in their totality across all subjects to ensure students are prepared for postsecondary education, the 21st century world of work, and citizenship.
 - In other words, aligning individual subject areas does not ensure students graduate prepared in all areas.

Implications

- As revisions to graduation requirements are implemented, it will be important to provide support to schools and students that will enable students to meet the requirements of more rigorous courses. This includes effective advising for planning course sequences in advance.
- If CORE 24 requirements are implemented as adopted, schools will need more support to offer all students additional courses in science, fine arts, and world languages, as these are the subject areas where the fewest students meet the requirements. Schools may require additional resources for staffing and materials.

Implications

- While high school graduation requirements focus on credits earned in the 9th through 12th grades, preparing for college and career must be a focus throughout all secondary education. Junior highs and middle schools must prepare students for high school, and vertical articulation is necessary for this to occur.
- Education pertaining to the evolving requirements for entering the workforce may be helpful for schools and their communities as they implement more rigorous expectations for students.