

Using Strategic Scheduling to Improve CCR in Washington State

WASA/AWSP Conference Presentation 2022-23

The background of the slide is a blurred image of a blue graduation cap with a gold tassel. A white rectangular box is centered on the slide, containing the title and text. A small white horizontal bar is visible in the top left corner.

PROJECT VISION

Every student is given the opportunity to maximize their potential; to make informed choices between viable and meaningful next steps about their education and future.

“

Treated as a technical process, master scheduling formalizes inequities.

The schedule can perpetuate disparities in access to rigorous and rich coursework and experienced educators.”

About Time: Master Scheduling Inequity from the Center for Public Research and Leadership of Columbia University

ABL'S STATEWIDE PARTNERSHIPS

SUPPORTING RCW 28A.320.195

Academic Acceleration Policy for High School Students



OSPI



| | | |
|-----------------|-----------------|-------------|
| Camas | Oak Harbor | Spokane |
| Cashmere | Sedro-Woolley | Sumner |
| Cheney | Kelso | Tacoma |
| College Place | Lake Stevens | Toutle Lake |
| Everett | Longview | Tumwater |
| Evergreen | Mead | Vancouver |
| Federal Way | Moses Lake | Washougal |
| Franklin Pierce | Nine Mile Falls | Winlock |
| Granite Falls | North Thurston | |
| Highline | Northshore | |



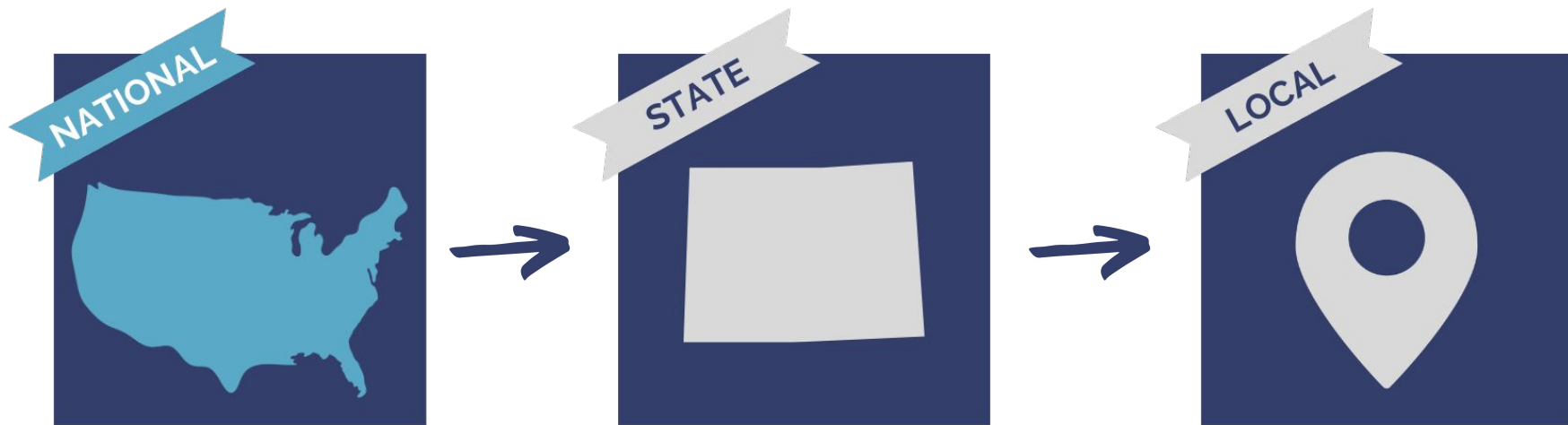
29

Districts

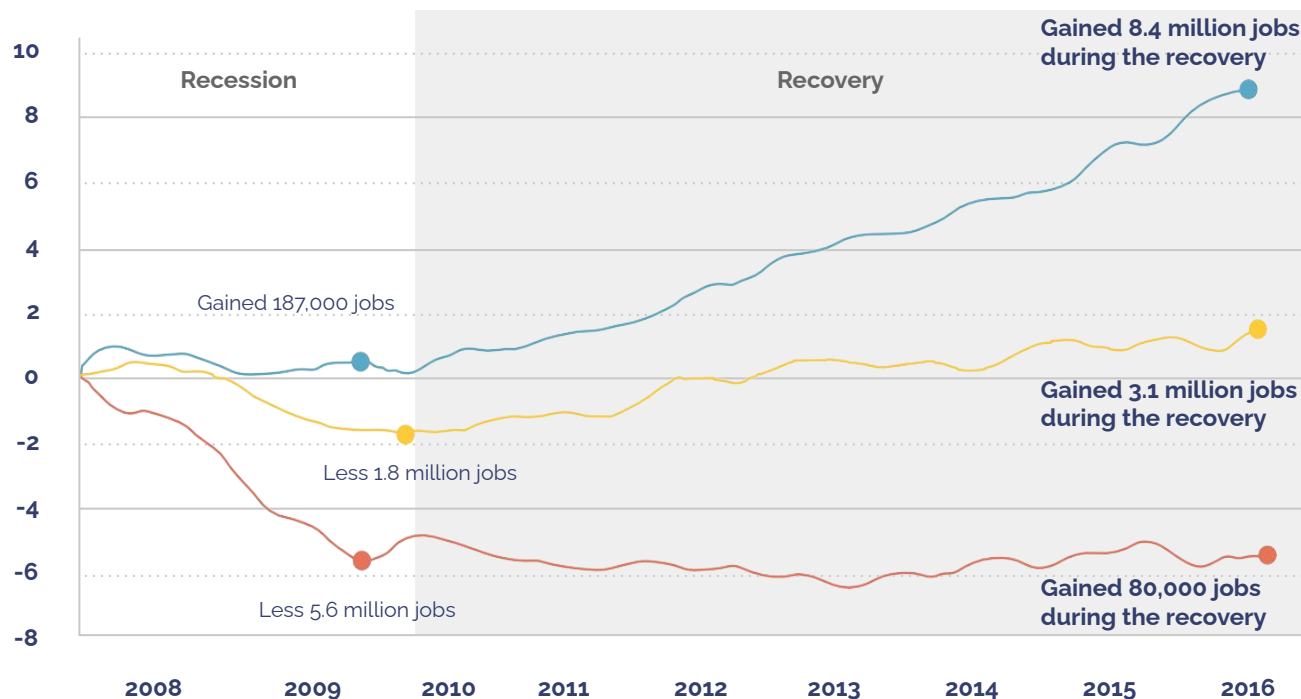
51K

Transcripts

CCR: LEADING WITH “THE WHY?”



Impact of the Great Recession on US Job Market and Degree Attainment



+4500%

Jobs requiring a bachelor's degree or higher

+172%

Jobs requiring an associate's degree or some college

+1.4%

Jobs requiring a high school diploma or less



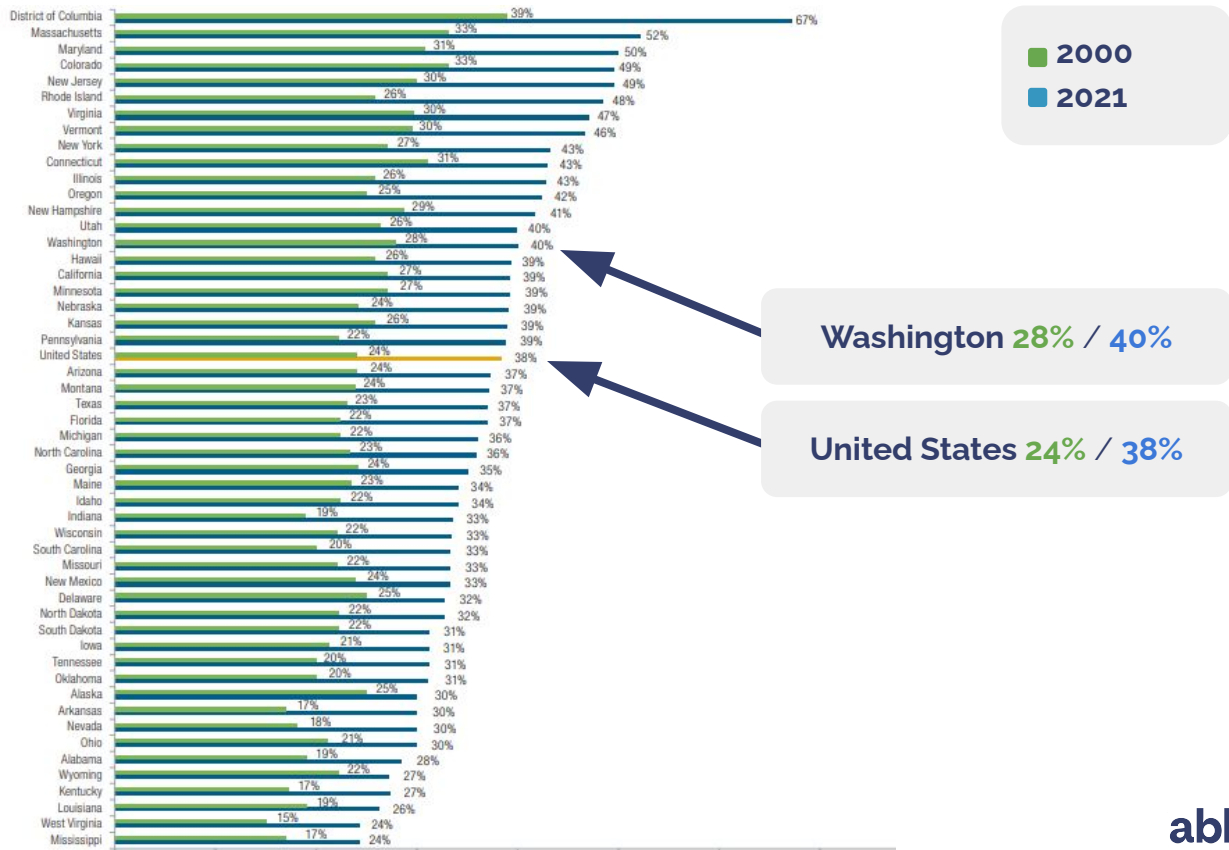
2 out 3 jobs available today require
post-secondary education

CCR: LEADING WITH “THE WHY?”



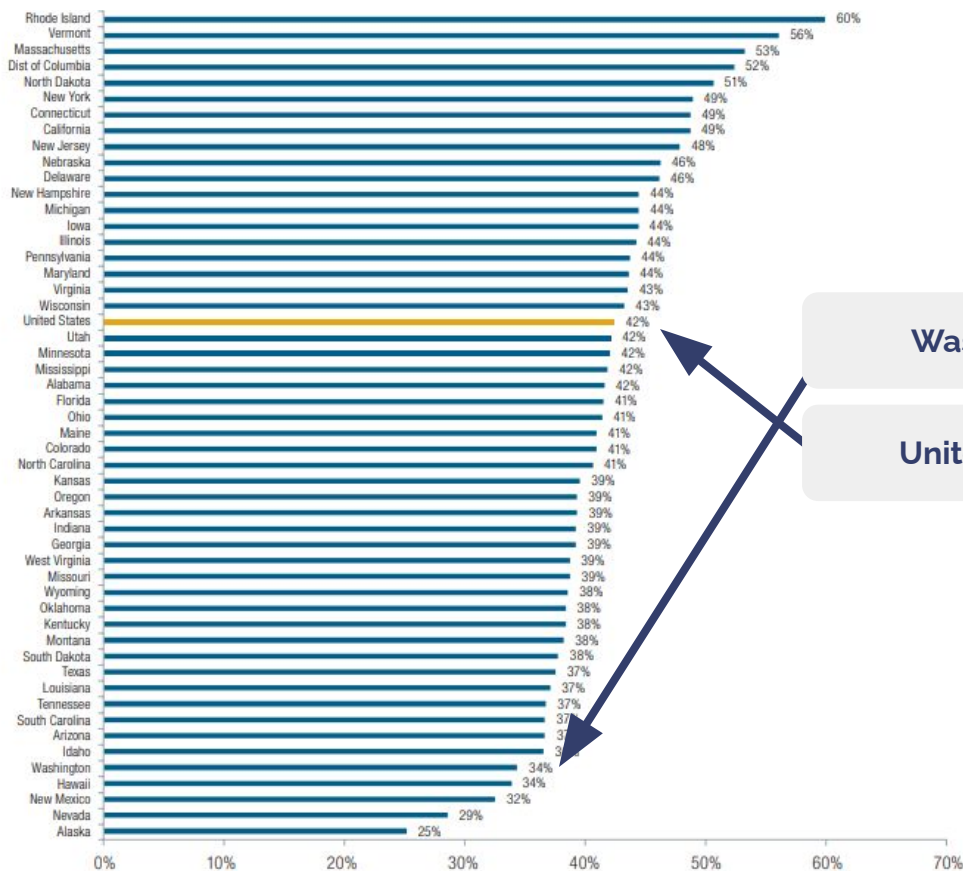
EQUITY INDICATOR: Adults with a Bachelor's Degree

Percentage of adults
ages 25+ with a
bachelor's degree or
higher
2000 and 2021



EQUITY INDICATOR: Direct Enrollment

Percentage of ages
18-24 enrolled in
degree-granting
postsecondary
institutions by state
2019



Washington 34%

United States 42%

STATE SUMMARY

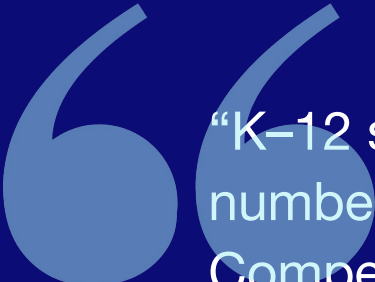
| WASHINGTON STATE | STATE RANKING | STATE AVERAGE | NATIONAL AVERAGE |
|--|---------------|---------------|------------------|
| Adults with a Bachelor's or higher | 15 | 40% | 38% |
| 18-24 year olds enrolled in higher education | 47 | 34% | 42% |
| Low income students higher education participation rates | 44 | 22% | 30% |
| Hispanic Student Enrollment in higher education | 36 | 26% | 37% |
| Black student enrollment in higher education | 36 | 28% | 37% |

Insert Menti Polling questions here



“The impact of a high school curriculum of high academic intensity...is far more pronounced—and positively—for African-American and Latino students than any other pre-college indicator of academic resources.”

Clifford Adelman - “Answers in The Toolbox Revisited”



“K–12 schools and districts should work to increase the number of students who take rigorous courses.....

Compelling evidence also shows that providing access to advanced coursework by screening all students—rather than just admitting those who volunteer to take, or are enrolled by their parents in, more rigorous classes—can identify and prepare more students with the potential to succeed, especially students of color.”

Matthew Chingos - Urban Institute

Insert Menti Polling questions here

STUDENT A: How would you rate the overall intensity of this transcript?

TOTAL GPA 3.15

TOTAL CREDITS EARNED 200

| | | CTE 50 credits | ENGLISH 40 credits | SOC. STUDIES 30 credits | MATH 40 credits | SCIENCE 30 credits | WORLD LANG. 10 credits | ELE. |
|------------|----|------------------------------|-----------------------|----------------------------|-------------------------------|-------------------------------|---------------------------|--------------------------------|
| 9th Grade | T1 | | ENGLISH 9 B- 5 | WORLD HISTORY B+ 5 | ALGEBRA I C- 5 | PHYSICAL SCIENCE C 5 | SPANISH 100 C+ 5 | ARTS PE HEALTH ELECTIVES |
| | T2 | CAD LAB B+ 5 | ENGLISH 9 B 5 | WORLD HISTORY A- 5 | ALGEBRA I C 5 | PHYSICAL SCIENCE B 5 | SPANISH 100 C+ 5 | |
| 10th Grade | T1 | ANIMATION TECHNOLOGY A- 5 | ENGLISH 10 A 5 | | GEOMETRY B+ 5 | ENVIRONMENTAL SCIENCE B 5 | | |
| | T2 | FINAN A 5 | ANIMA TION A- 5 | | GEOMETRY C 5 | ENVIRONMENTAL SCIENCE C+ 5 | | |
| 11th Grade | T1 | BUSINESS LAW A 5 | ENGLISH 11 A- 5 | US HISTORY 11 A- 5 | ALGEBRA II B 5 | CHEM COMMUNITY C+ 5 | | |
| | T2 | PHOTOGRAPHY B 5 | ENGLISH 11 A 5 | US HISTORY 11 A 5 | ALGEBRA II B 5 | CHEM COMMUNITY C 5 | | |
| 12th Grade | T1 | INTR ENGIN A 5 | INTRO TO ROB A 5 | JOURNALISM C 5 | CONT NATL/WORLD ISSUES A 5 | MATH FOR SAT C- 5 | | |
| | T2 | MS OFFICE A 5 | INTRO TO ROB B+ 5 | JOURNALISM B- 5 | CONT NATL/WORLD ISSUES A 5 | MATH FOR SAT C 5 | | |

Low
Intensity

1

2

3

4

5

High
Intensity

STUDENT B: How would you rate the overall intensity of this transcript?

TOTAL GPA 3.07

TOTAL CREDITS EARNED 225

| | | CTE 35 credits | ENGLISH 40 credits | SOC. STUDIES 30 credits | MATH 50 credits | SCIENCE 40 credits | WORLD LANG. 30 credits | ELE. |
|------------|----|--|-----------------------------------|----------------------------|-------------------------------------|-----------------------------------|---------------------------|--------------------------------|
| 9th Grade | T1 | | ENGLISH 9 B+ 5 | WORLD HISTORY B 5 | ALGEBRA I A- 5 | PHYSICAL SCIENCE A- 5 | SPANISH 100 B 5 | ARTS PE HEALTH ELECTIVES |
| | T2 | VIDEO PRODUCTION A 5 | ENGLISH 9 B 5 | WORLD HISTORY B 5 | ALGEBRA I A 5 | PHYSICAL SCIENCE B 5 | SPANISH 100 B- 5 | |
| 10th Grade | T1 | COMP GRAPH A- 5 INTRO TO BUS B+ 5 | ENGLISH 10 B+ 5 | | GEOMETRY B 5 | BIOLOGY B 5 | SPANISH 200 B+ 5 | |
| | T2 | FOOD AND NUTRITION A- 5 | ENGLISH 10 C+ 5 | | GEOMETRY B 5 | BIOLOGY C+ 5 | SPANISH 200 B 5 | |
| 11th Grade | T1 | | ENGLISH 11 B 5 | US HISTORY 11 B- 5 | ALGEBRA II/TRIG D+ 5 | (ENVS & 101) INTRODUCTION B- 5 | SPANISH 300 C 5 | |
| | T2 | BUSINESS MANAGEMENT B+ 5 | ENGLISH 11 A 5 | US HISTORY 11 B+ 5 | ALGEBRA II/TRIG C 5 | (ENVS & 101) INTRODUCTION B 5 | SPANISH 300 B 5 | |
| 12th Grade | T1 | PERSONAL FINANCE B+ 5 | (ENGL & 101) ENGLISH A- 10 | AP GOVPOL US B 5 | AP STAT C+ 5 PRE CALC A- 5 | CHEMISTRY A- 5 | | |
| | T2 | INDEPENDENT LIVING B+ 5 | (ENGL & 111) INTRODUCTION B 10 | AP GOVPOL US C+ 5 | AP STAT C 5 PRE CALC B 5 | CHEMISTRY C+ 5 | | |

Low
Intensity

1

2

3

4

5

High
Intensity

STUDENT A: How would you rate the overall intensity of this transcript?

TOTAL GPA 3.15

TOTAL CREDITS EARNED 200

GPA: 3.15

| GPA: 3.15 | | | | 50 credits | ENGLISH | 40 credits | SOC. STUDIES | 30 credits | MATH | 40 credits | SCIENCE | 30 credits | WORLD LANG. | 10 credits | ELE. |
|------------|----|---------------------------|--|------------|-------------------|--|---------------|------------------------|------------|--------------|-----------------------|-----------------------|---------------------------------------|------------|--------------------------------|
| 9th Grade | T1 | | | | ENGLISH 9 | B- 5 | WORLD HISTORY | B+ 5 | ALGEBRA I | C- 5 | PHYSICAL SCIENCE | C 5 | SPANISH 100 | C+ 5 | ARTS PE HEALTH ELECTIVES |
| | T2 | CAD LAB 5 | | | ENGLISH 9 | B 5 | WORLD HISTORY | A- 5 | ALGEBRA I | C 5 | PHYSICAL SCIENCE | B 5 | SPANISH 100 | C+ 5 | |
| 10th Grade | T1 | ANIMATION TECHNOLOGY 5 | | | ENGLISH 10 | No dual credit, honors, or AP coursework in the humanities | | | GEOMETRY | B+ 5 | ENVIRONMENTAL SCIENCE | B 5 | | | |
| | T2 | FINAN A 5 | | | ANIMA TION 5 | | | | ENGLISH 10 | GEOMETRY | C 5 | ENVIRONMENTAL SCIENCE | C+ 5 | | |
| 11th Grade | T1 | BUSINESS LAW 5 | | | ENGLISH 11 | A- 5 | US HISTORY 11 | A- 5 | ALGEBRA II | B 5 | CHEM COMMUNITY | C+ 5 | Took the minimum, with no persistence | | |
| | T2 | PHOTOGRAPHY 5 | | | ENGLISH 11 | A 5 | US HISTORY 11 | A 5 | ALGEBRA II | B 5 | CHEM COMMUNITY | C 5 | | | |
| 12th Grade | T1 | INTR ENGIN A 5 | | | INTRO TO ROB 5 | JOURNALISM | C 5 | CONT NATL/WORLD ISSUES | A 5 | MATH FOR SAT | C- 5 | | | | |
| | T2 | MS OFFICE A 5 | | | INTRO TO ROB 5 | JOURNALISM | B- 5 | CONT NATL/WORLD ISSUES | A 5 | MATH FOR SAT | C 5 | | | | |

STUDENT B: How would you rate the overall intensity of this transcript?

TOTAL GPA 3.07

TOTAL CREDITS EARNED 225

GPA: 3.07

35
credits

ENGLISH

40
credits

SOC. STUDIES

30
credits

MATH

50
credits

SCIENCE

40
credits

WORLD LANG.

30
credits

ELE.

9th Grade

T1

ENGLISH 9

B+

5

WORLD HISTORY

B

5

ALGEBRA I

A-

5

PHYSICAL SCIENCE

A-

5

SPANISH 100

B

5

T2

VIDEO
PRODUCTION

A

5

ENGLISH 9

B

5

WORLD HISTORY

B

5

ALGEBRA I

A

5

PHYSICAL SCIENCE

B

5

SPANISH 100

B-

5

10th Grade

T1

COMP
GRAPH

A-

5

INTRO
TO BUS

B+

5

ENGLISH 10

B+

5

Creative
scheduling
enabled 5
years of
math

GEOMETRY

B

5

BIOLOGY

B

5

SPANISH 200

B+

5

T2

FOOD AND
NUTRITION

A-

5

ENGLISH 10

C+

5

GEOMETRY

B

5

BIOLOGY

C+

5

SPANISH 200

B

5

11th Grade

T1

ENGLISH 11

B

5

US HISTORY 11

B-

5

ALGEBRA II/TRIG

D+

5

(ENVS & 101)
INTRODUCTION

B-

5

SPANISH 300

C

5

T2

BUSINESS
MANAGEMENT

B+

5

ENGLISH 11

A

5

US HISTORY 11

B+

5

ALGEBRA II/TRIG

C

5

(ENVS & 101)
INTRODUCTION

B

5

SPANISH 300

B

5

12th Grade

PERSONAL
FINANCE

B+

5

(ENGL & 101)
ENGLISH

A-

10

AP GOVPOL US

B

5

AP
STAT

C+

5

PRE
CALC

A-

5

CHEMISTRY

A-

5

INDEPENDENT
LIVING

B+

5

(ENGL & 111)
INTRODUCTION

B

10

AP GOVPOL US

C+

5

AP
STAT

C

5

PRE
CALC

B

5

CHEMISTRY

C+

5

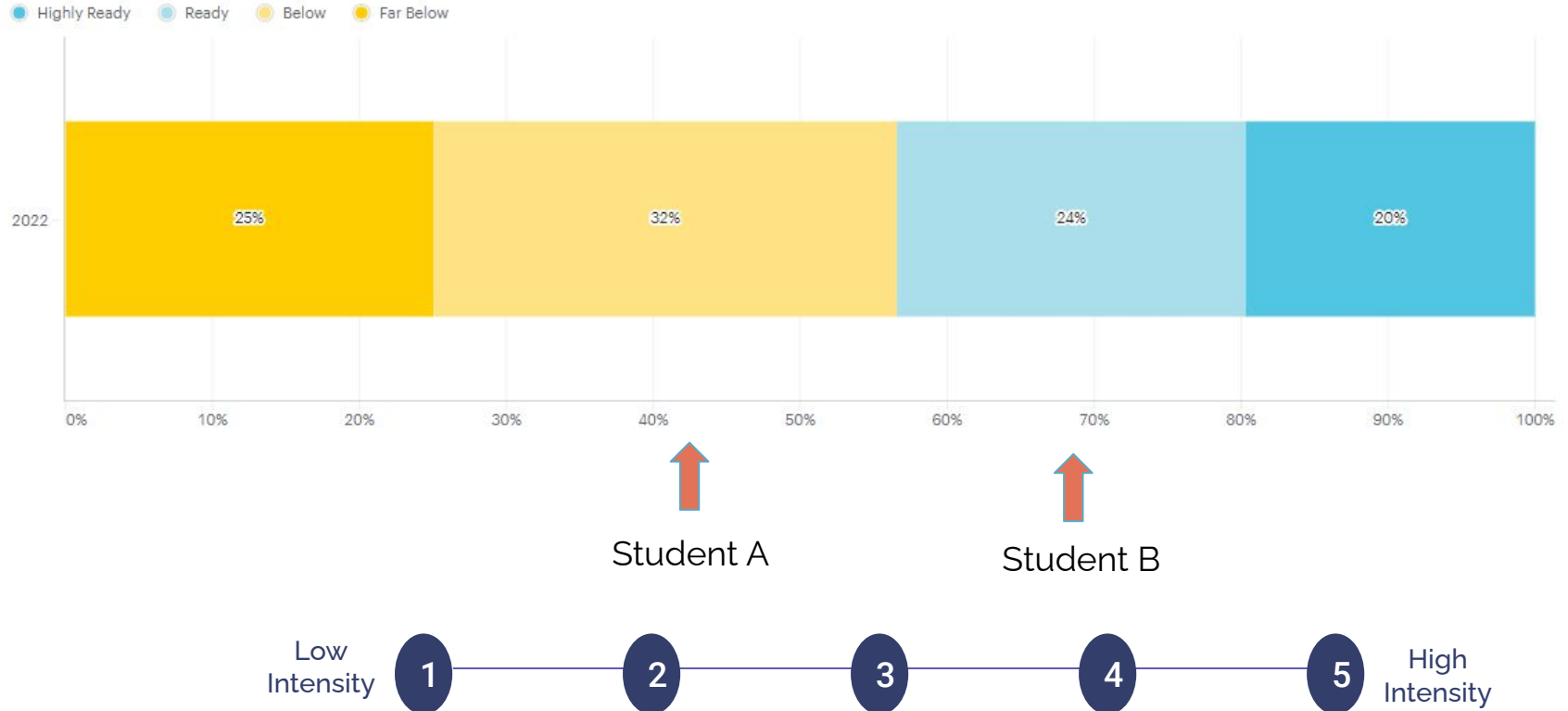
ARTS | PE | HEALTH | ELECTIVES

Student took
a meaningful
senior year

Dual Credit and AP in the
Humanities

Took additional years of
Science and WL

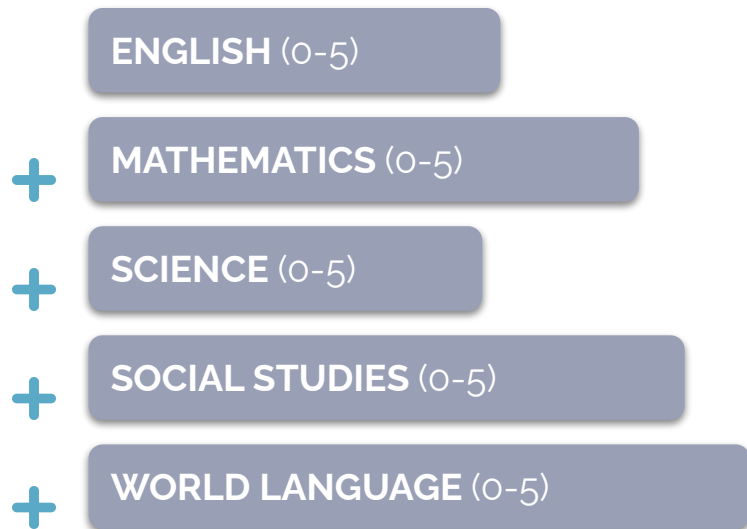
ABL/AWSP CLASS OF 2022 TRANSCRIPT ANALYSIS DATA



ACADEMIC INTENSITY MEASURE (AIM)

AIM is a **composite measure** of the level of difficulty or **intensity** associated with students' high school **coursework**.

A student's AIM score is highly predictive of their college readiness – which is measured by enrollment in college and persistence beyond the first year.



OVERALL AIM SCORE (0-25)

AIM Scores are based on measurements of persistence and advanced coursework, and evaluated across the school to measure equity.

AIM IN ABL ANALYTICS

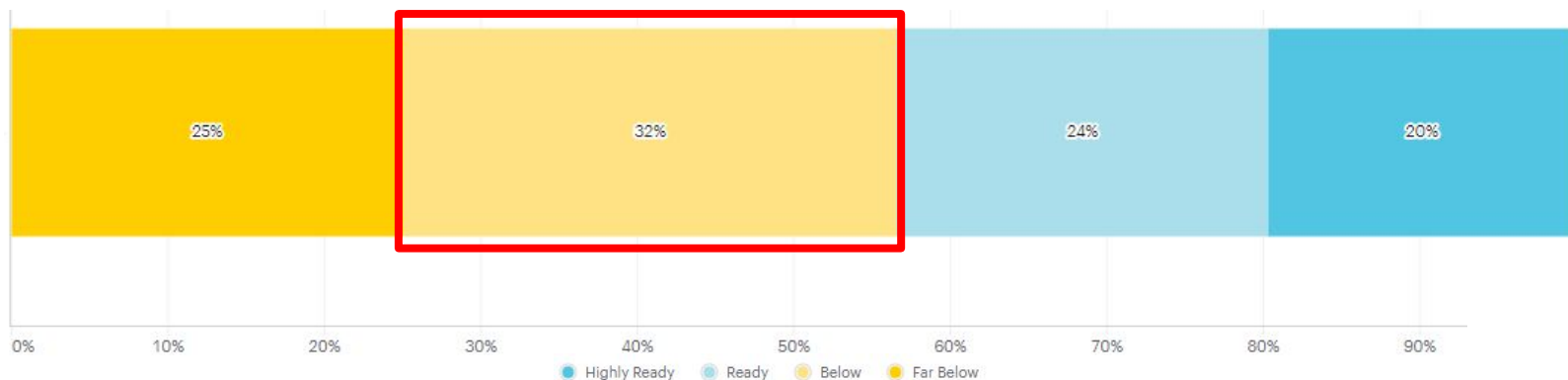


An AIM score of 10 is considered the minimum required to be college ready

Course Intensity Data

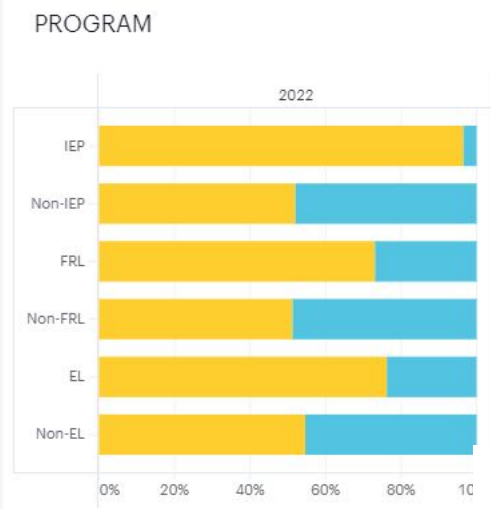
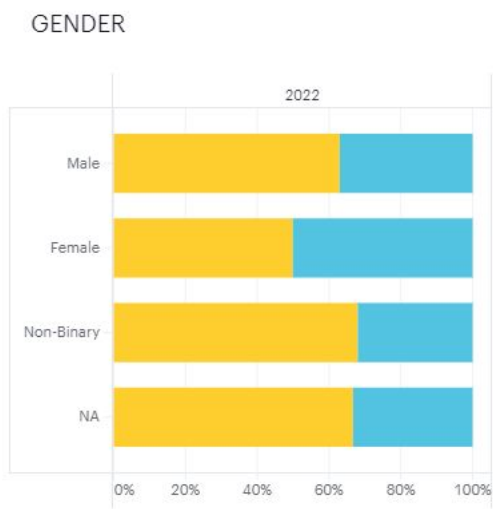
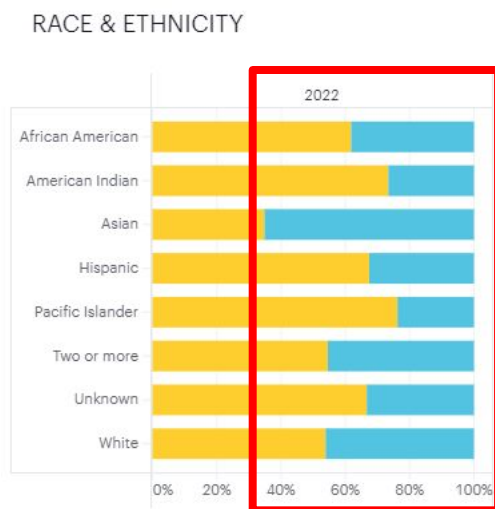
Course Intensity: Overall

Almost 1/3 of students are leaving high school on the cusp of postsecondary readiness. Less than half of students complete intense patterns of coursework.



Course Intensity: Overall by Student Groups

There are large disparities in coursetaking by student groups. Students are leaving



Course Intensity: Overall by Subject

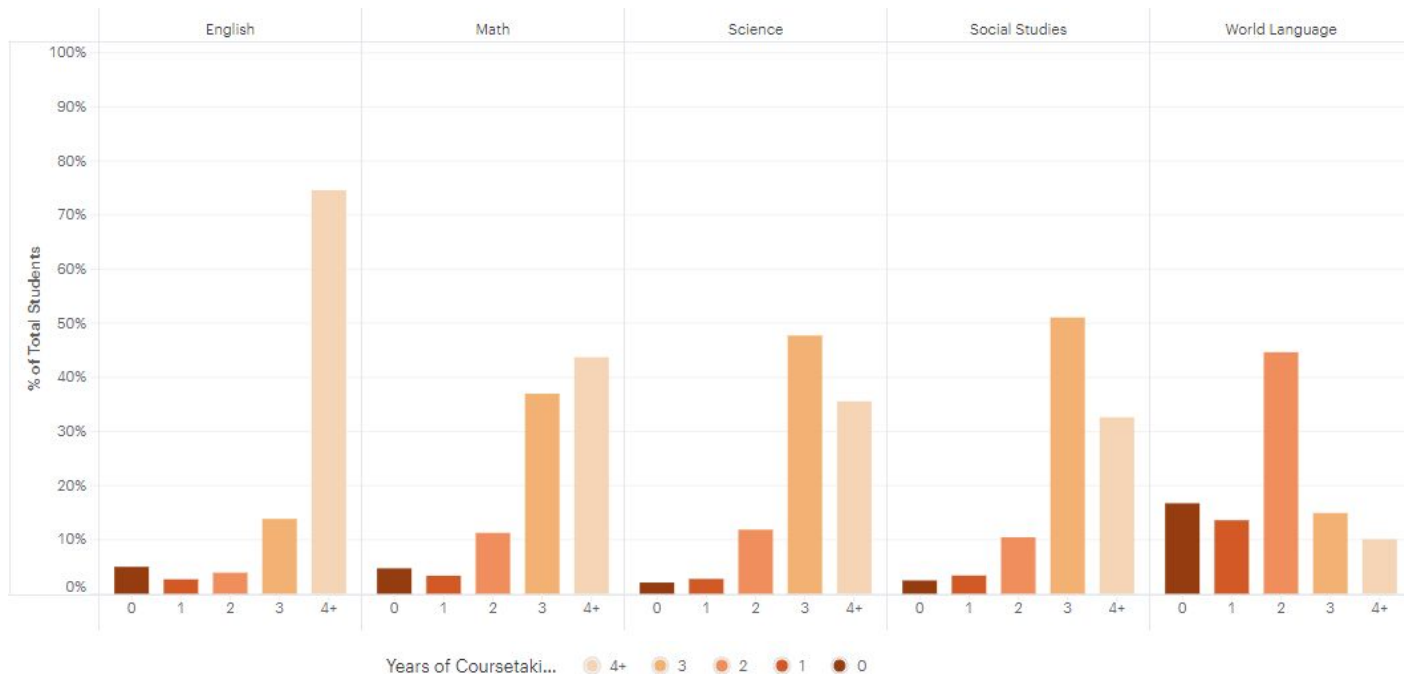
Strengths: Science, English and Social Studies

Areas of Growth: Math and World Languages

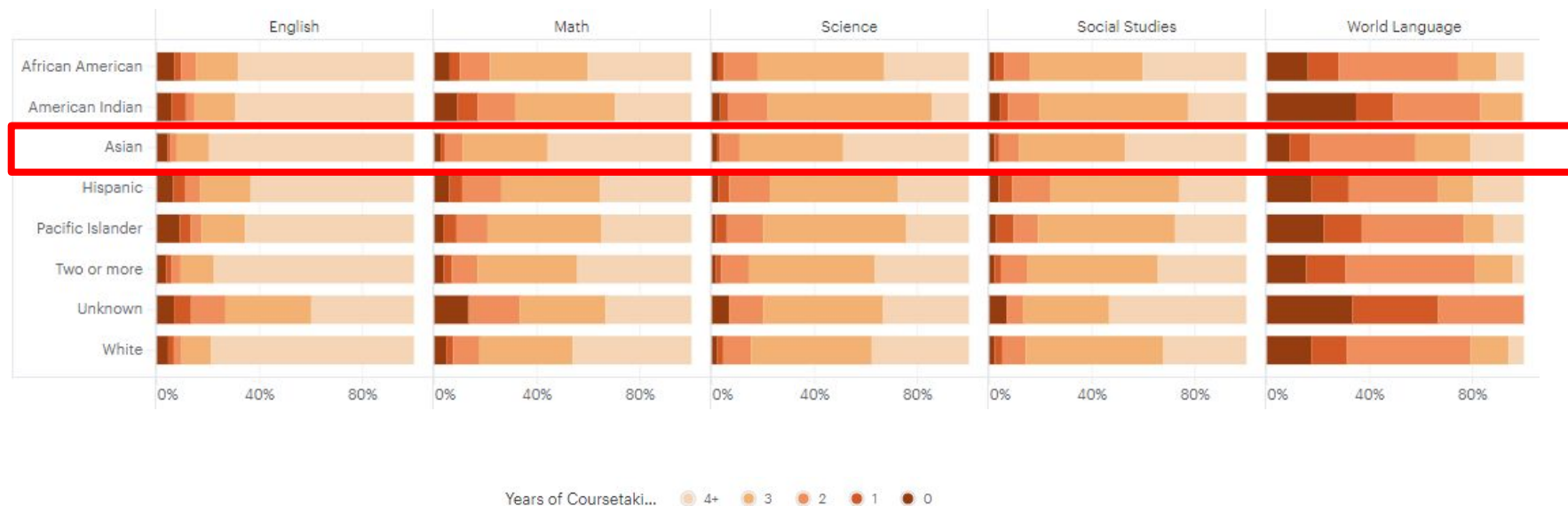


Course Intensity: Subject Persistence

Students can increase course intensity by going beyond the minimum graduation requirements



“Electives” mean very different things to different student groups which is resulting in much different postsecondary momentum



Successful completion of advanced coursework also varies tremendously by student groups



METHODOLOGICAL NOTES & SECTION BIBLIOGRAPHY

- Methodological Notes:
 - Cumulative GPA is measured using an unweighted methodology.
 - Weighting is not applied to grade point averages because course intensity is measured in a separate construct - academic intensity. Weighting GPA in this section would have the effect of weighting course intensity twice.
- Bibliography
 - **How Well Does High School Grade Point Average Predict College Performance by Student Urbanicity and Timing of College Entry?**
https://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2017250.pdf
 - **Validity of High-School Grades in Predicting Student Success Beyond The Freshman Year: High-School Record vs. Standardized Tests as Indicators of Four-Year College Outcomes (Berkeley Center for Studies in High Education)**
<http://www.cshe.berkeley.edu/publications/validity-high-school-grades-predicting-student-success-beyond-freshman-year-high-school>

The study finds that high-school grade point average (HSGPA) is consistently the best predictor not only of freshman grades in college, the outcome indicator most often employed in predictive-validity studies, but of four-year college outcomes as well.
 - **High School GPAs and ACT Scores as Predictors of College Completion: Examining Assumptions About Consistency Across High Schools**
<https://journals.sagepub.com/doi/10.3102/0013189X20902110>

Career Readiness Insights

DESIGNING CAREER PATHWAYS & PROGRAMS

1

In-Demand: The pathway leads to significant job openings now and into the future. A region or state can determine that through a combination of looking at volume of jobs regionally or statewide, annual openings, and growth projections.

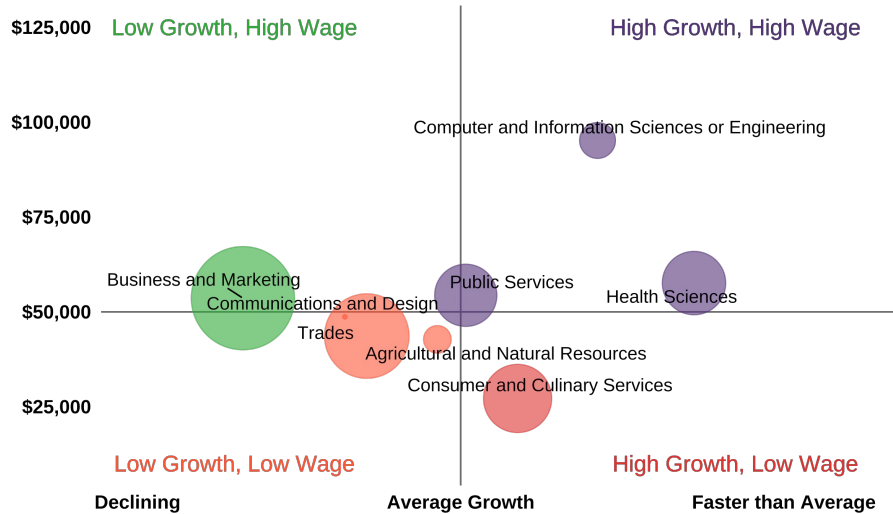
2

High Wage: The median wages for the occupations that the pathway is preparing students for are at or exceed the living wage in that state.

3

Opportunities to Advance and Upskill: The pathway presents the opportunity for students to move beyond the high school program into an aligned postsecondary program in that field of study.

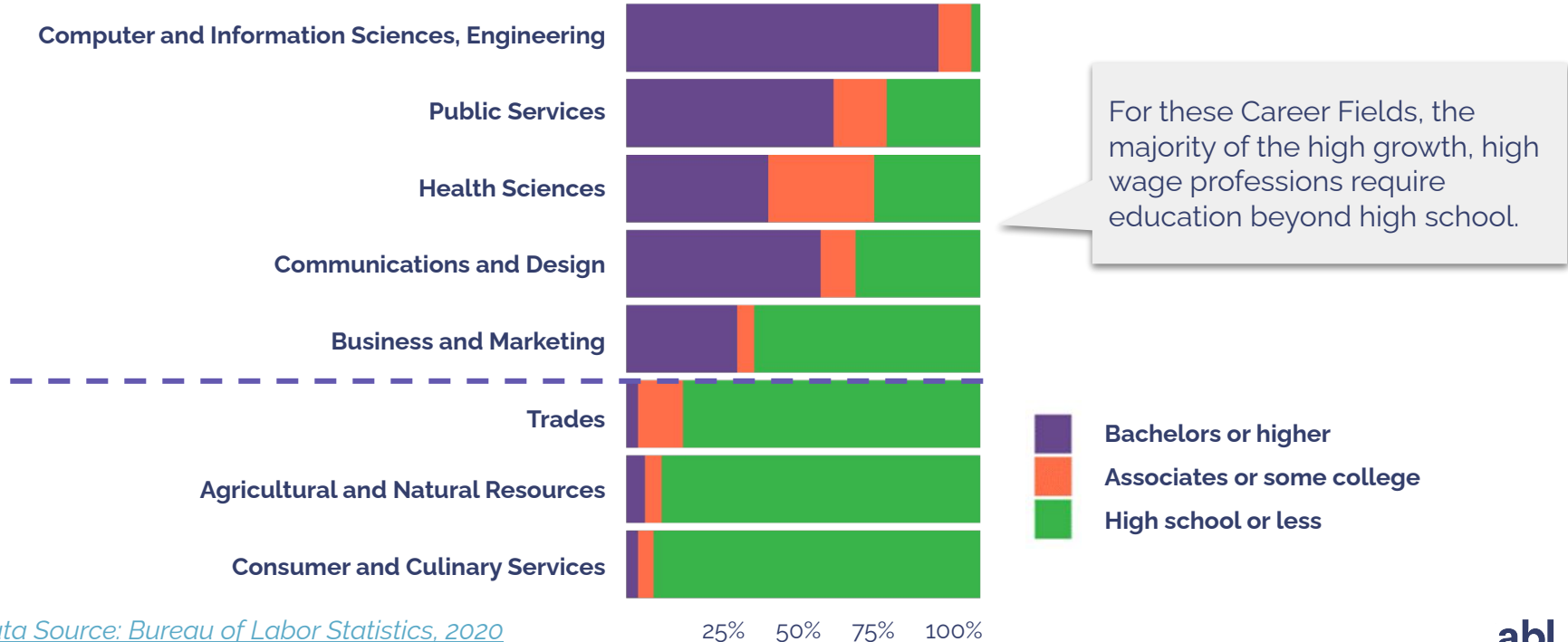
CAREER READINESS: NATIONAL CONTEXT



High growth, high wage jobs are concentrated in Computer and IT Sciences, Health Sciences, and Public Service. The majority of professions in these career fields **require advanced education**.

REQUIRED EDUCATION BY CAREER FIELD

ABL ANALYSIS OF BLS JOBS BY CAREER FIELD ENTRY LEVEL REQUIRED EDUCATION



CAREER READINESS RECOMMENDATIONS

1

PROVIDE ALL STUDENTS WITH A STRONG ACADEMIC CORE

Pathways should keep student options open and ensure that students are prepared for postsecondary education if necessary for entry into high wage jobs

2

FOCUS ON DEPTH OVER BREADTH

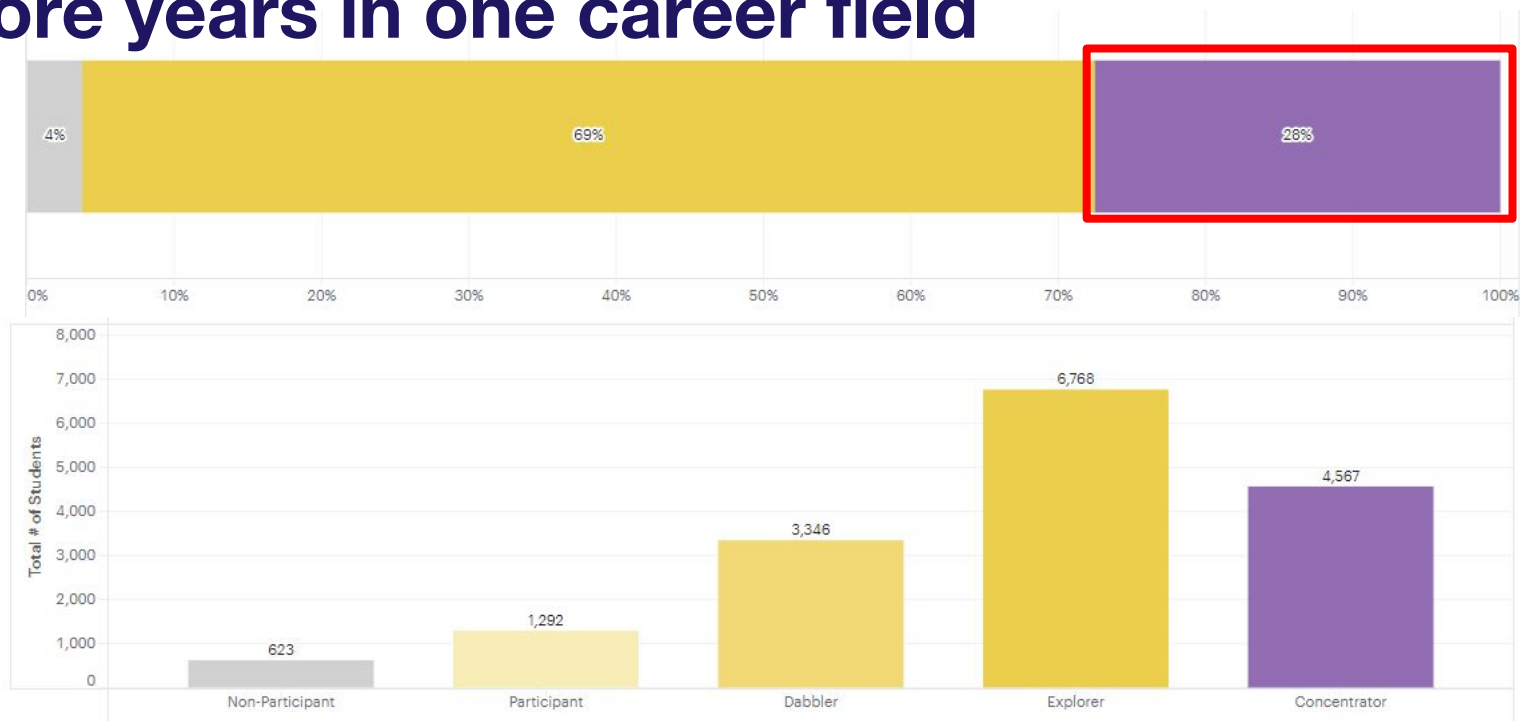
Build sequential pathways where students take **three or more courses** in HS that are rigorous and progressive and use middle school for broad exploration

3

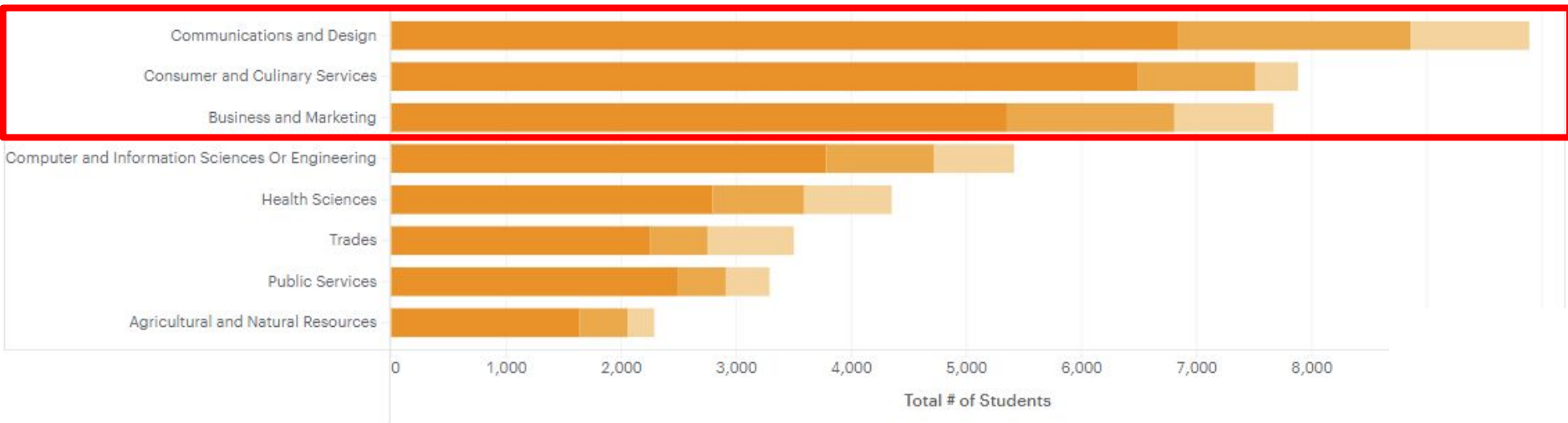
BUILD IN POSTSECONDARY CREDITS, CERTIFICATIONS, AND WORK BASED LEARNING

Create opportunities for students to accelerate towards degree completion and employment opportunities

Less than 1/3 of students are completing 3 or more years in one career field



**The most popular career fields are the following:
Communication & Design, Consumer and
Culinary Services, and Business and Marketing**



CTE Coursetaking patterns vary considerably across student groups – in particular the career field that has the highest growth/wage projections



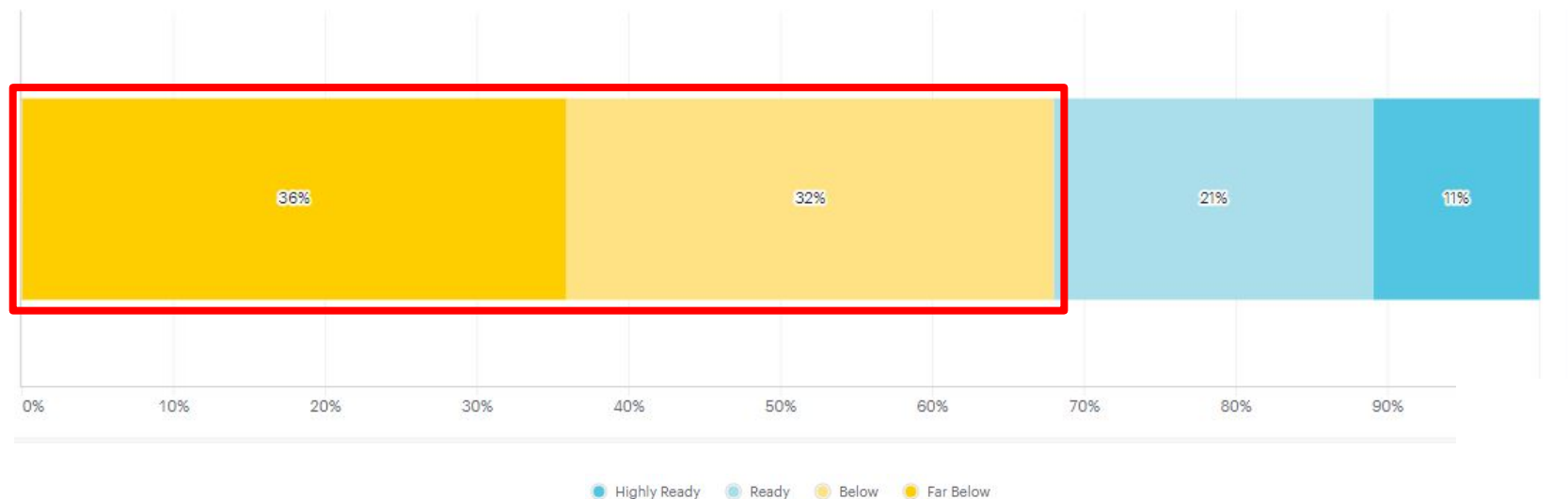
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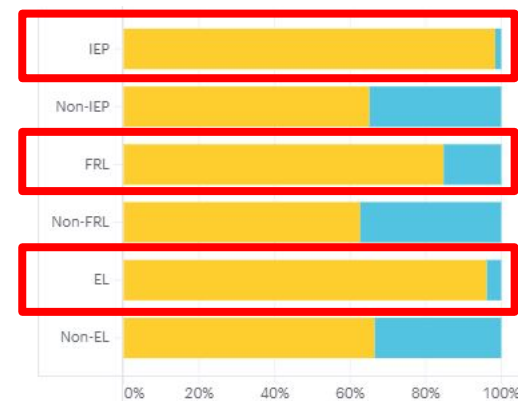
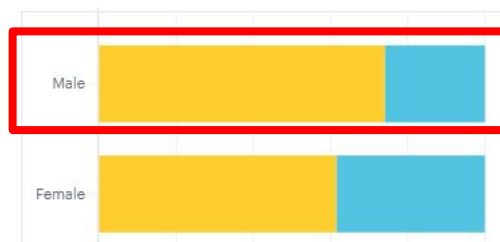
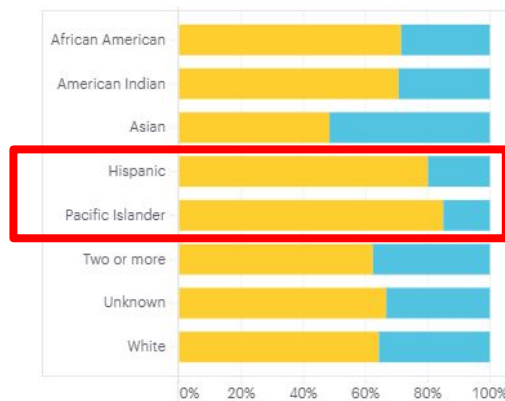
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<https://journals.sagepub.com/doi/10.3102/0013189X20902110>

Rural Schools Insights

Opportunity to improve CCR by focusing on the over 2/3 of students on the cusp of college readiness

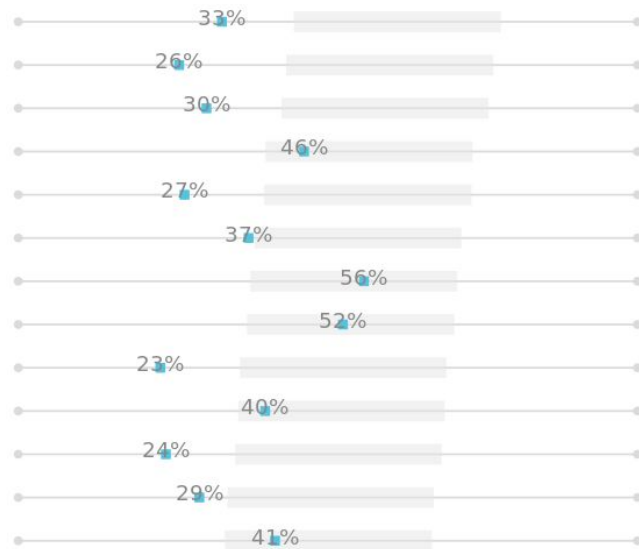


Some student groups are far less likely to complete intense high school coursework than their peers



Course Intensity: Rural Schools

In general, it is far less likely for rural schools in our sample to have students complete intense coursework

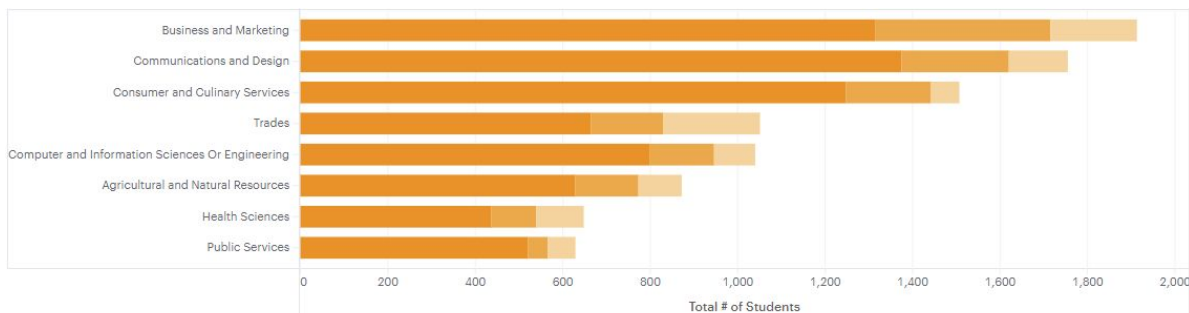
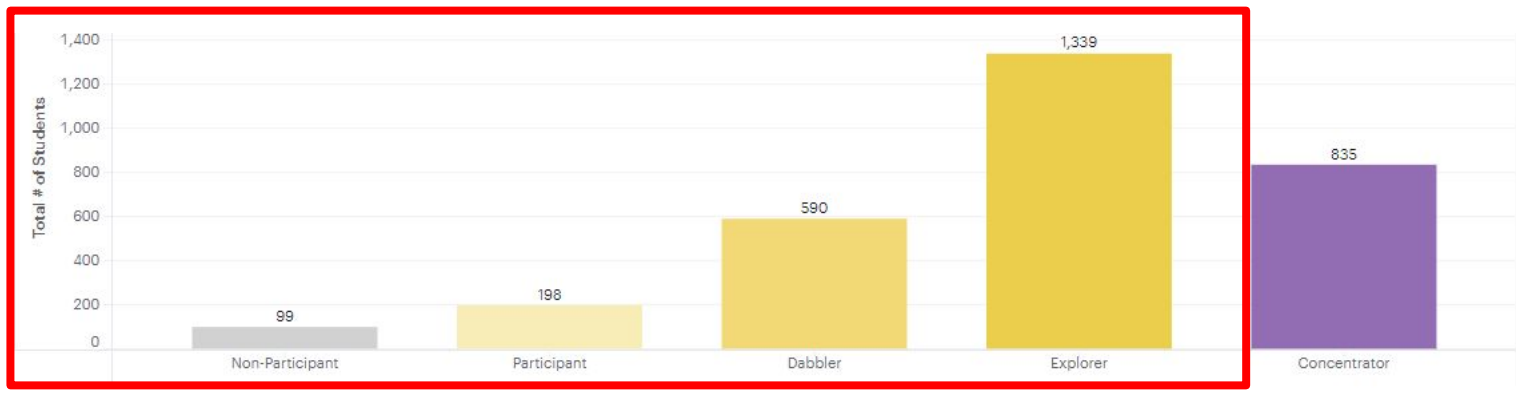


Percentage meeting AIM benchmark

Percentage of students with Academic Intensity ≥ 10

Typical range for similar schools

Students in rural schools tend not to be concentrators in one career field



Recommendations for Rural Schools

- 1) Use your size to your advantage**
- 2) Add more dual credit opportunities and consider making this the default for students**
- 3) Move beyond high school graduation requirements**
- 4) Couple in-depth rigorous CTE with a strong academic core**

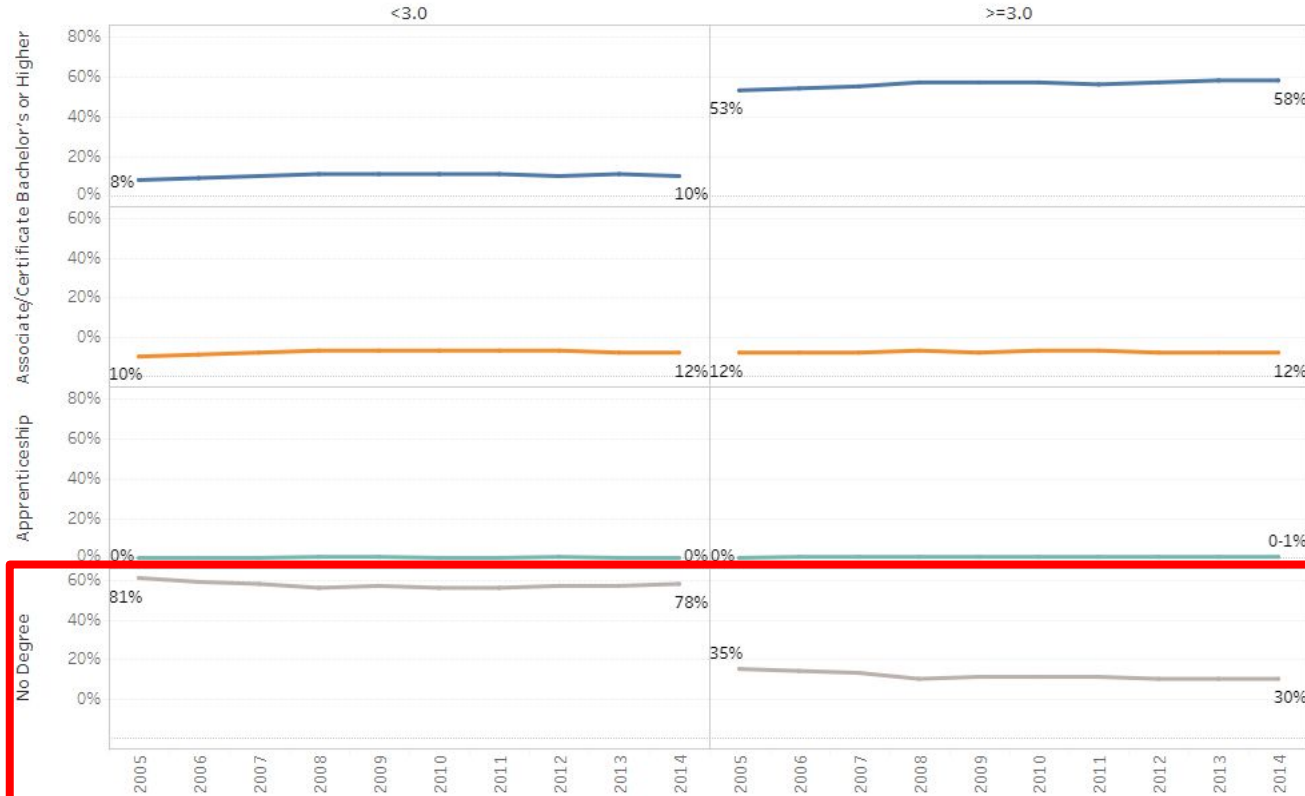
GPA Insights

College & Career Readiness

GPA: State Completion Rates

What is the highest postsecondary credential earned within 8 years of high school graduation?

Statewide || School: Statewide

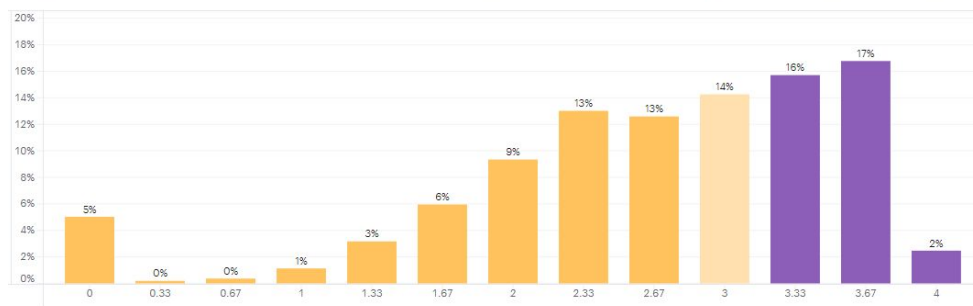
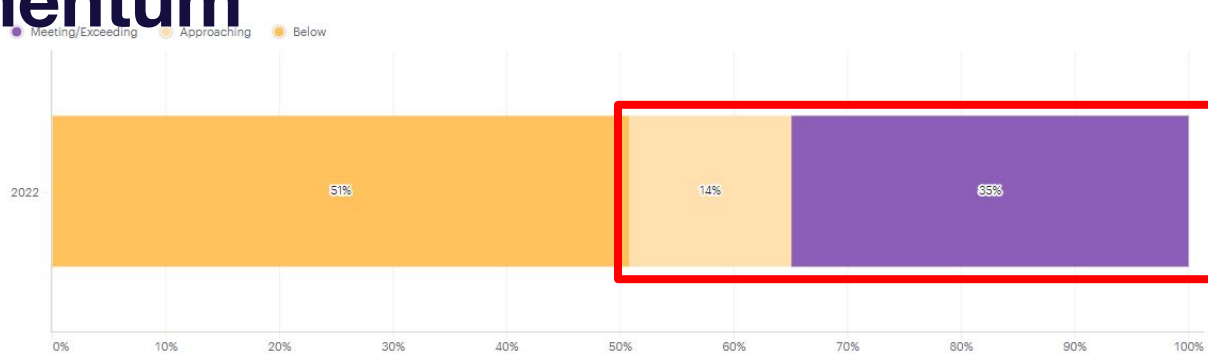


78% of state graduates below a 3.0 have no degree or credential 8 years after graduation

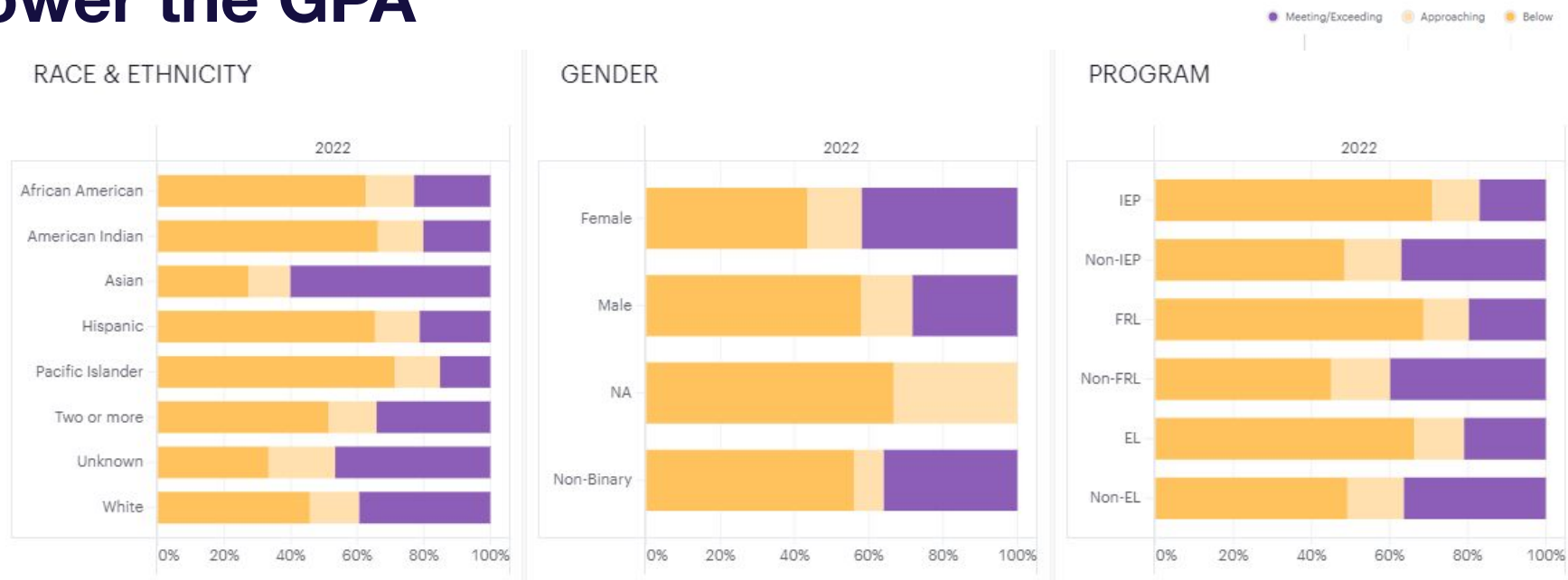
College & Career Readiness

GPA: Overall

About half of all graduates are leaving school below a 3.0 GPA and have lower postsecondary momentum



**There is wide variation in GPA by student group.
In general, the easier the course intensity the
lower the GPA**



Course Intensity & GPA Interaction

Two opportunities for immediate impact: Recruit students into high intensity coursework and support students already enrolled



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abl.