



COLORADO

Department of Education

Postsecondary and Workforce Readiness (PWR) Endorsed Diploma

Workgroup meeting #2

March 8, 2018



COLORADO

Department of
Higher Education

Agenda

- Check in/Networking until 10:00
- Introductions and recap of first meeting
- Presentation of additional data/information requested from first meeting
- Presentation of STEM Endorsement/Review of Biliteracy endorsement materials
- Lunch/Networking with colleagues
- Review of two samples and small group discussions
- How to access other stakeholders' input



Introductions

- **Please state:**
 - **Who you are**
 - **What organization you represent**
 - **Why this topic is important to you**



Recap from last meeting

- Statutory requirements- (Cap4k, SB 17-272)
- Higher education admissions guarantee
- Additional points in the CDE accountability framework
- Link to [Graduation Guidelines](#)
- Data presented that indicates probability of credential attainment
- Recommendation to the State Board of Education and the Colorado Commission for Higher Education



SB 08-212 (Cap 4 K)

- (a) TO MEET MINIMUM ACADEMIC QUALIFICATIONS FOR ADMISSION TO, AND TO BE ELIGIBLE, **SUBJECT TO ADDITIONAL INSTITUTIONAL REVIEW OF OTHER ADMISSION AND PLACEMENT QUALIFICATIONS**, FOR PLACEMENT INTO CREDIT-BEARING COURSES AT, ALL OPEN, MODIFIED OPEN, OR MODERATELY SELECTIVE PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN COLORADO; AND
- (b) TO RECEIVE PRIORITY CONSIDERATION, IN CONJUNCTION WITH ADDITIONAL ADMISSIONS CRITERIA, AND TO BE ELIGIBLE, **SUBJECT TO ADDITIONAL INSTITUTIONAL REVIEW OF OTHER ADMISSION AND PLACEMENT QUALIFICATIONS**, FOR PLACEMENT INTO CREDIT-BEARING COURSES, AT ALL OTHER PUBLIC INSTITUTIONS OF HIGHER EDUCATION IN COLORADO. THE ADDITIONAL ADMISSIONS CRITERIA SHALL BE DETERMINED BY EACH INSTITUTION OF HIGHER EDUCATION.



Data from the Colorado Department of Higher Education

Nichole Torpey-Saboe, CDHE

- Additional data that predicts credential attainment
 - What is the predicted probability of retention and completion, based on various predictors of college success?
 - High school GPA
 - ACT score
 - Concurrent enrollment
 - HEAR requirements



Data from the Colorado Department of Higher Education

- Probability of **retention** for students meeting HEAR requirements

Has taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	80%	88%	93%	96%	98%
ACT 20	82%	90%	94%	97%	98%
ACT 25	84%	91%	95%	97%	99%
ACT 30	86%	92%	96%	98%	99%
ACT 35	88%	93%	96%	98%	99%
Has not taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	71%	82%	89%	94%	97%
ACT 20	73%	84%	91%	95%	97%
ACT 25	76%	86%	92%	95%	98%
ACT 30	79%	87%	93%	96%	98%
ACT 35	81%	89%	94%	97%	98%



Data from the Colorado Department of Higher Education

- Probability of **retention** for students **not** meeting HEAR requirements

Has taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	74%	84%	91%	95%	97%
ACT 20	76%	86%	92%	96%	98%
ACT 25	79%	87%	93%	96%	98%
ACT 30	81%	89%	94%	97%	98%
ACT 35	83%	90%	95%	97%	98%
Has not taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	63%	76%	86%	92%	95%
ACT 20	66%	78%	87%	93%	96%
ACT 25	69%	81%	89%	94%	96%
ACT 30	72%	83%	90%	94%	97%
ACT 35	75%	85%	91%	95%	97%



Data from the Colorado Department of Higher Education

- High school GPA is the most powerful predictor of first year retention (approximately 20 percentage point difference between 2.0 and 4.0 GPA).
- Concurrent enrollment and ACT scores are also strong predictors of retention (approximately 10 percentage point difference for taking concurrent enrollment, or moving from ACT of 15 to ACT of 35).
- Meeting the HEAR requirements adds about 5 percentage points to the probability of first year retention after other factors are taken into account (likely a lot of overlap with above factors).



Data from the Colorado Department of Higher Education

- Probability of **completion** for students meeting HEAR requirements

Has taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	14%	26%	43%	62%	78%
ACT 20	16%	29%	47%	66%	81%
ACT 25	18%	32%	50%	69%	83%
ACT 30	20%	35%	54%	72%	85%
ACT 35	22%	38%	57%	74%	86%
Has not taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	14%	25%	42%	62%	78%
ACT 20	15%	28%	46%	65%	80%
ACT 25	17%	31%	49%	68%	82%
ACT 30	19%	34%	53%	71%	84%
ACT 35	21%	37%	56%	74%	86%



Data from the Colorado Department of Higher Education

- Probability of **completion** for students **not** meeting HEAR requirements

Has taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	11%	21%	37%	56%	73%
ACT 20	12%	24%	40%	59%	76%
ACT 25	14%	26%	43%	63%	78%
ACT 30	16%	29%	47%	66%	81%
ACT 35	18%	32%	50%	69%	83%
Has not taken concurrent enrollment	2.0 GPA	2.5 GPA	3.0 GPA	3.5 GPA	4.0 GPA
ACT 15	11%	21%	36%	55%	73%
ACT 20	12%	23%	39%	58%	75%
ACT 25	14%	25%	43%	62%	78%
ACT 30	15%	28%	46%	65%	80%
ACT 35	17%	31%	50%	68%	82%



Data from the Colorado Department of Higher Education

- High school GPA is by far the most powerful predictor of postsecondary completion.
- ACT scores, meeting HEAR requirements, and having taken concurrent enrollment each predict a smaller increase in likelihood of postsecondary completion.
- A combination of all of the above factors yields the highest predicted probability of postsecondary completion.



Mid-50% ranges for Colorado public colleges and universities

Institution	High School GPA Mid-50% GPA range of admitted students (4.0 scale - includes weighted GPAs)	ACT Mid-50% ACT range of admitted students (composite scores)	SAT* Taken March 2016 & After Mid-50% SAT range of admitted students (Evidenced Based Reading & Writing + Math)
Adams State University	2.80 - 3.60	17 - 22	950 - 1140
Colorado Mesa University	2.70 - 3.62	18 - 24	1010 - 1180
Colorado School of Mines	3.74 - 4.00	29 - 33	1340 - 1470
Colorado State University Fort Collins	3.31 - 3.97	23 - 28	1130 - 1310
Colorado State University Global	2.80 - 3.60	18 - 23	980 - 1160
Colorado State University Pueblo	2.92 - 3.75	19 - 24	980 - 1160
Fort Lewis College	3.02 - 3.71	19 - 25	1030 - 1200
Metropolitan State University of Denver	2.61 - 3.41	18 - 23	1010 - 1200
University of Colorado Boulder	3.40 - 4.00	25 - 31	1180 - 1370
University of Colorado Colorado Springs	3.14 - 3.86	21 - 26	1090 - 1280
University of Colorado Denver	3.20 - 3.92	21 - 27	1090 - 1280
University of Northern Colorado	3.00 - 3.78	19 - 25	1050 - 1240
Western State Colorado University	2.78 - 3.64	19 - 25	1010 - 1190



Merit scholarships

Selection of Resident Freshmen Scholarships

IHE	Scholarship	Amount	Eligibility Requirements	Other Details
CSU	Colorado Merit Scholarship	\$1000 a year for four years	3.6 - 3.69 GPA and 1310 - 1340 SAT	
CU Boulder	President James H. Baker Award	\$10,000 total, (\$2,500 per year)	3.8 - 3.89 GPA and 30 ACT or 1370 SAT	
Mesa	Academic Achievement	\$1250 a year for four years	3.2 GPA and 1120 SAT and top 20% of class	Meet minimum subject scores
MSU Denver	RaiseMe Micro Scholarships	\$1000 a year for four years	3.25 GPA (no test score requirement)	
UNC	Bear Scholarship	\$2000 a year for four years	3.0 GPA and 1020 SAT	
WSCU	Advantage Award	\$2000 a year for four years	3.0 - 3.49 GPA and 1110 - 1120 SAT	



Data from the Colorado Department of Higher Education

- Table 1 – College-Ready Assessments and Cut Scores from the state Developmental Education Policy

Assessment Test	English Comp I (GT-CO1): Introductory Writing) Cut Score*	CTE & Quantitative Reasoning Math Cut Score*
New SAT (taken March 2016 and later)	470 Evidence-Based Reading and Writing	500 Math Section
Old SAT	430 Critical Reading	460
ACT	18	19
Classic Accuplacer	80 Reading Comprehension and/or 95 Sentence Skills	61-85 Elementary Algebra



ACCUPLACER cut scores for placement into college-level coursework

ACCUPLACER - English			
Institution	Sentence Skills	Reading Comprehension	College Placement
Colorado Mountain College - Placement Testing Reference Guide	70	62	CCR 093 College-level comp & reading Studio D CCR 094 College-level comp & reading Studio 121
	95	85	Eng 121
Community College of Aurora - Self Assessment	70	62	CCR 094 Studio 121 and ENG 121 Eng Comp 1
	95	80	ENG 122
Community College of Denver - Options to Demonstrate College Readiness	95	80	ENG 121 *With lower scores on ACCUPLACER, Students may be able to take CCR 094 with ENG 121
Front Range CC - Academic Placement	70	(Essay)	CCR 093 Studio D or CCR094 Studio 121
	95	(Essay)	ENG 121
Lamar Community College - Placement Testing	70	62	CCR 094 Studio 121 and ENG 121 Eng Comp 1
	95	80	ENG 121
Pikes Peak Community College - Placement Score Matrix	70 and/or	62	CCR 094 Studio 121 AND Eng 121 Eng Comp
	95 and	80	ENG 121 English Composition ENG 131 Technical Writing



ACCUPLACER - Math

Institution	Elementary Algebra	College Placement
Colorado Mountain College - Placement Testing Reference Guide	61	MAT 108 Technical Math MAT 120 Math for Liberal Arts Mat 135 Intro to Statistics MAT 155 Integrated MATH
	85	MAT 121: College Algebra
Community College of Aurora - Self Assessment	61	MAT050 & MAT101 - Quantitative Literacy and Enhanced Support MAT055 & MAT101 - Algebraic Literacy and Enhanced Support MAT103 - Clinical Calculations MAT107 - Career Math
Community College of Denver - Options to Demonstrate College Readiness	61	MAT 120/135
	85	MAT 121
Front Range CC - Academic Placement	61	Mat 055 Algebraic Literacy
	80	Mat 121 College Algebra with MAT 093 Mat 123 Finite Math with MAT 093
	85	MAT 121: College Algebra
Lamar Community College - Placement Testing	61	MAT 103: Math for Clinical Calculations MAT 107: Career Math MAT 108: Technical Math MAT 112: Financial Math MAT 120: Math for Liberal Arts
	85	MAT 121: College Algebra
Pikes Peak Community College - Placement Score Matrix	61	Non Algebra Math Pathway MAT 103: Math for Clinical Calculations MAT 107: Career Math MAT 109: Geometry MAT 112: Financial Math MAT 120: Math for Liberal Arts MAT 155: Integrated Math I or MAT 156: IM II MAT 135: Intro to Statistics (3) with MAT 179
	85	Algebra and Calculus Math Pathway MAT 121: College Algebra



Postsecondary Readiness = Workforce Readiness

Source	College Ready	Career Ready
<p>Is College Readiness the Same as Career Readiness?</p> <p>- Carol Gerwin, Jobs for the Future - David Conley, Policy Analyst University of Oregon, Consultant</p> <p>Education Week, July 13, 2016</p>	<p>College readiness and career readiness require many--but not all--of the same skills. Both are essential for equity.</p> <p>It is critical to rely on multiple measures, in order to provide a better gauge of both college and career readiness</p>	<p>Career Readiness, the ability not just to enter into but to advance through a career over time.</p> <ul style="list-style-type: none"> - requires most of the same foundational academic knowledge and learning skills as college readiness, AND - requires program-specific foundational knowledge. <p>The reality of today's economy is that ... jobs that used to require no more than a high school diploma now require postsecondary education that leads, at least, to a certificate.</p>



Postsecondary Readiness = Workforce Readiness

Source	College Ready	Career Ready
<p>Redefining Ready!</p> <p>School Superintendents Association https://www.redefiningready.org/</p>	<p>Students are College Ready if they meet either academic indicators OR standardized testing measures:</p> <p>Academic Indicators GPA 2.8 out of 4.0 and one or more of the following academic indicators:</p> <ul style="list-style-type: none"> - Advanced Placement Exam (3+) - Advanced Placement Course (A, B or C) - Dual Credit College English a/o Math (A, B or C) - College Developmental/Remedial English and/or Math (A, B or C) - Algebra II (A, B or C) - International Baccalaureate Exam (4+) <p>Standardized Testing Benchmarks SAT Math (530) Reading and Writing (480) ACT English (18) Reading (22)</p> <p>Additional Factors => college success</p> <ul style="list-style-type: none"> - Earning As, Bs, Cs - FAFSA completion - Enrollment in career pathway course sequence - College academic advising - Participation in college bound bridge programs - Senior year math class - Completion of a math class after Algebra II 	<p>Students are Career Ready if they have identified a career interest AND meet two of the behavioral and experiential benchmarks listed below:</p> <p>Career Cluster</p> <ul style="list-style-type: none"> - Identify Career Interest <p>Behavioral and experiential benchmarks</p> <ul style="list-style-type: none"> - 90% Attendance - 25 hours of Community Service - Workplace Learning Experience - Industry Credential - Dual Credit Career Pathway Course - Two or more organized Co-Curricular activities <p>ASVAB</p> <p>In addition to the benchmarks listed above, students entering the military upon graduation must meet the passing scores on the Armed Services Vocational Aptitude Battery (ASVAB) for each branch of the military.</p>



Meet minimum local graduation requirements at a high level of proficiency

Successfully complete a coherent sequence of at least 4 STEM courses as determined at the local level, with a 3.5 GPA or higher, which courses are in addition to the minimum local requirements

JOINTLY DRAFTED

Demonstrate proficiency in mathematics by

- 28 (+) on ACT (math portion)
- 600 (+) on SAT
- 5 (+) on IB
- 4 (+) on AP Mathematics
- 100 (+) on Accuplacer
- 85 (+) on the Armed Services Vocational Aptitude Battery Test

Successfully complete a final capstone project. To successfully complete a final capstone project, the student must achieve a high proficiency level of mastery, as set by the LEA, for each of the competencies

- **INQUIRY-BASED LEARNING**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY ASKING QUESTIONS AND DEFINING PROBLEMS
- **CREATIVE PROBLEM-SOLVING**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY DEVELOPING AND APPLYING SCIENTIFIC AND MATHEMATICAL MODELS TO EXPLAIN COMPLEX IDEAS AND SOLUTIONS
- **EXPERIMENTATION**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY PLANNING AND CARRYING OUT INVESTIGATIONS
- **CRITICAL THINKING**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY ANALYZING AND INTERPRETING DATA AND COMMUNICATING CONCLUSIONS
- **DEDUCTIVE AND INDUCTIVE REASONING**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY USING MATHEMATICS AND COMPUTATIONAL THINKING;
- **UNDERSTANDING OF ENGINEERING PRINCIPLES**, WHICH IS DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY CONSTRUCTING EXPLANATIONS AND DESIGNING SOLUTIONS
- **EFFECTIVE COMMUNICATION SKILLS**, WHICH ARE DEMONSTRATED THROUGH THE CAPSTONE PROJECT BY ENGAGING IN ARGUMENT FROM EVIDENCE



Biliteracy Endorsement

COLORADO DEPARTMENT OF EDUCATION

DIPLOMA ENDORSEMENT FOR BILITERACY

Minimum Requirements



According to SB 17-123 an LEA may grant a diploma endorsement of biliteracy to a graduating high school student who attains proficiency or higher in one or more world languages in addition to attaining proficiency or higher in English. To obtain a diploma endorsement for biliteracy, a graduating student must:

Demonstrate proficiency or higher in English by



Completing all of the English Language Arts (ELA) course work required for graduation with an overall grade point average of at least 3.0 in the required ELA courses **AND** one of the requirements listed below:

- Scoring a 470 or higher on the the SAT section of "Evidence-Based Reading and Writing"
- Scoring a 3 or higher on the AP Advanced Placement English Language and Composition or the AP English Literature and Composition Exam
- Scoring 4 or higher on the English A, English Literature A or English A1 of the IB International Baccalaureate Exams

AND

Demonstrate proficiency or higher in a World Language by



Completing the World Language (WL) portion of the diploma endorsement for biliteracy a student must complete **one of the requirements listed below:**

- Scoring 3 or higher on a World Language AP Advanced Placement test
- Scoring 4 or higher on a World Language IB International Baccalaureate test
- Successfully completing a 4-year high school course of study of a single World Language with an overall grade-point average of at least 3.0
- Achieving a passing score on nationally recognized test *

If WL AP test is not available:

- Achieving a passing score on a CDE identified summative test in WL that is comparable in rigor to the AP test

If CDE identified test is not available:

- LEA-created test or body of evidence that demonstrates knowledge of the WL

2017-2018

http://www.cde.state.co.us/cde_english/diploma_endorsementforbiliteracyminimumrequirements



Biliteracy Endorsement

COLORADO DEPARTMENT OF EDUCATION

DIPLOMA ENDORSEMENT FOR BILITERACY

Body of Evidence Criteria



Senate Bill 17-123 established requirements by which high school students may earn a diploma endorsement in biliteracy if they demonstrate proficiency in English and at least one World Language. The law allows for students to demonstrate proficiency through a body of evidence for districts and schools that do not have Advanced Placement or International Baccalaureate programs or district developed exams available for students to demonstrate proficiency. The law required the Colorado Department of Education to establish criteria for a body of evidence that students may use to demonstrate proficiency.

District Body of Evidence Criteria

For districts that do not have an Advanced Placement, International Baccalaureate or local assessment available, a district may use a body of evidence (BOE) criteria to meet the qualifications for the Diploma Endorsement for Biliteracy. The district criteria for a body of evidence MUST:

- Demonstrate proficiency in all domains of the language through: reading, writing, speaking and listening.
- Be comparable in rigor to an Advanced Placement Test.
- Be submitted to the CDE to be posted on the CDE website for the Diploma Endorsement for Biliteracy.

Districts also may consider district criteria for the body of evidence to include:

- Multiple modes of assessment to complete BOE - interpersonal, written text, assessment, presentation
- Student's proficiency in demonstrating social and academic language
- Using language in a real-world setting through community service
- Language Portfolios

Where can I learn more?

- Lulu Buck, buck_l@cde.state.co.us
- http://www.cde.state.co.us/cde_english/high-school-diploma-endorsement-for-biliteracy



Biliteracy Endorsement

COLORADO DEPARTMENT OF EDUCATION

DIPLOMA ENDORSEMENT FOR BILITERACY

Assessment Criteria



Senate Bill 17-123 established requirements by which high school students may earn a diploma endorsement in biliteracy if they demonstrate proficiency in English and at least one World Language. The law required the Colorado Department of Education to establish assessment criteria for students to demonstrate proficiency. In addition to the option of using either Advanced Placement or International Baccalaureate World Language assessments, local education agencies may create an assessment for students to demonstrate proficiency. LEA developed assessment must meet these criteria.

The Assessment MUST:

- Be comparable in rigor to an Advanced Placement Test.
- Require the student to pass the test at the proficient level or higher
- Have a standardized process across a school or grade level.
- Assess all domains of the language through: reading, writing, speaking and listening
 - 50% must assess literacy – reading and writing
 - 50% must assess oral language – speaking and listening

Districts may consider the following format for meeting the assessment requirements:

Sample Exam Format

Section I - Multiple Choice — 65 Questions | 1 Hour, 30 Minutes | 50% of Exam Score

- Part A — 30 questions; 40 minutes
 - Interpretive Communication: Printed Texts
- Part B — 30 questions; 50 minutes
 - Interpretive Communication: Print and Audio Texts (combined)
 - Interpretive Communication: Audio Texts

Section II - Free Response — 4 Tasks | 1 Hour, 20 Minutes | 50% of Exam Score

- Part A — Written Tasks; 60 minutes
 - Interpersonal Writing: Email response (1 prompt; 15 minutes)
 - Presentational Writing: Persuasive essay (1 prompt; ~ 55 minutes total: 15 minutes to review materials plus 40 minutes to write)
- Part B — Spoken Responses; 20 minutes
 - Interpersonal Speaking: Conversation (5 prompts; 20 seconds for each response)
 - Presentational Speaking: Cultural evaluation (1 prompt; 4 minutes to prepare, 2 minutes to respond)



2017 - 2018



Lunch

- Please take 30 minutes to refresh, nourish, and connect with colleagues.



Two sample criteria for a PWR Endorsed Diploma

- Both derive from discussions in meeting #1
- Include scores on traditional measures that meet benchmarks set by testing agencies, postsecondary educational readiness standards, and/or data that predicts postsecondary success
 - Sample #1- Includes “buckets”
 - Sample #2- No buckets



Two sample criteria for a PWR Endorsed Diploma

Questions to consider

- Tracking?
- What to do about scores that are the same for both GG and PWR endorsement?
- Should concurrent enrollment include a grade requirement?
- Are all options equitable for all Colorado districts?
- Need for additional subject areas?
- Need for additional measures?
- Need for additional criteria?
- Can any of the measures be “district determined?”
- Can any additional criteria be “district determined?”



Small group discussions

- Please review the two samples and determine:
 - Does either meet our needs? If so, which one and why?
 - Similarly, which do you prefer and why?
- Attempt to answer the following questions:
 - Tracking?
 - What to do about scores that are the same for both GG and PWR endorsement?
 - Should concurrent enrollment include a grade requirement?
 - Are all options equitable for all Colorado districts?
 - Need for additional subject areas?
 - Need for additional measures?
 - Need for additional criteria?
 - Can any of the measures be “district determined?”
 - Can any additional criteria be “district determined?”



Small group discussions

- How do we have others review our work and make meaning of it?
- Who are our stakeholders?
- What questions would we want to ask them to get the most meaningful feedback?





THANK YOU SO MUCH!

HAVE A GREAT MARCH, AND WE WILL SEE YOU IN APRIL!

APRIL 19, 10:00-2:00- LOWRY CONFERENCE CENTER

ANDY, ROBIN, AND CARL

