

AN IMPLEMENTATION STUDY OF COLORADO'S GRADUATION GUIDELINES

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ABOUT ME

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- Former teacher



ABOUT CEI

Colorado Education Initiative (CEI)

- Non-profit that was formed by the Colorado Department of Education (CDE) in 2007
- Vision: every student in Colorado is prepared and unafraid to succeed in school, work, and life and ready to take on the challenges of today and tomorrow
- CEI has supported schools and districts in designing performance-based options pursuant to the guidelines for the past three years.



THE GRADUATION GUIDELINES

Before

- 178 school districts had 178 different policies in place.
- Exception: one semester of Civics

After

- There are still 178 different policies in place...but the Graduation Guidelines establishes a common meaning of a Colorado diploma for the first time.

INTRODUCTION

Concerning Guidelines for High School Graduation Act (2007)

- C.R.S. § 22-2-106 required the development of state high school Graduation Guidelines
- Each local Colorado school board has been tasked with establishing its own high school graduation requirements, called IKF policies, that meet or exceed the state-level graduation guidelines, align with state standards, and allow multiple, equally rigorous pathways to graduation

Why this study, why now?

- Fully impacting this year's graduating class (2022)
- CDE is a regulatory agency with authority that only extends so far; there are assumptions about how the policy is being implemented, but there was not a comprehensive picture of the landscape of graduation guidelines implementation or how it might impact students.

MENU OF OPTIONS

GRADUATION GUIDELINES | FACT SHEET

Menu of College and Career-Ready Demonstrations



High school graduation requirements are set by local school boards. They must align with the Colorado Graduation Guidelines, which are designed to help all students and families in Colorado plan for success after high school.

Local school boards and districts select from this menu to create a list of options that their students must use to show what they know of can do in order to graduate from high school. School districts may offer some or all of the state menu options, may raise a cut score on an included assessment and may add graduation requirements in other content areas.

Districts have the authority to provide accommodations to students in meeting the college and career demonstrations necessary to earn a standard high school diploma for: English learners, gifted students and students with disabilities.

Graduation Guidelines begin with the implementation of Individual Career and Academic Plans (ICAP); 21st Century Essential Skills; and Colorado Academic Standards for all content areas, including: one course in Civics, and by July 2023, one course that incorporates Genocide and Holocaust studies.

Students must demonstrate readiness for college and career based on at least one measure in Reading, Writing and Communicating, and one measure in Mathematics ¹.

MENU OF OPTIONS: This menu lists the minimum scores required.

ACCUPLACER

CLASSIC	Reading, Writing and Communicating 62 on Reading Comprehension OR 70 on Sentence Skills	Mathematics 61 on Elementary Algebra	ACCUPLACER is a computerized test that assesses reading, writing, math and computer skills. The results of the assessment, in conjunction with a student's academic background, goals and interests, are used by academic advisors and counselors to place students in college courses that match their skill levels.
NEXT GENERATION	Reading, Writing and Communicating 241 on Reading OR 236 on Sentence Writing	Mathematics 255 on Arithmetic (AR) OR 230 on Quantitative Reasoning, Algebra, and Statistics (QAS)	

ACT

Reading, Writing and Communicating 18 on ACT English	Mathematics 19 on ACT Math	ACT is a national college admissions exam. It measures four subjects – English, reading, math and science. The highest possible score for each subject is 36.
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ACT WorkKeys – National Career Readiness Certificate

Reading, Writing, Communicating, and Mathematics Bronze or higher	ACT WorkKeys is an assessment that tests students' job skills in applied reading, writing, mathematics and 21st century skills. Scores are based on job profiles that help employers select, hire, train, develop and retain a high-performance workforce. Students must score at the bronze level (a score of at least 3) in all three assessments- Applied Mathematics, Graphic Literacy and Workplace Documents - and they will earn the ACT's National Career Readiness Certificate.
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¹ In order to match the language in statute for Colorado Academic Standards, and to better reflect the skills necessary for success in life after high school, "English" and "Math" have been more clearly defined as, "Reading, Writing, and Communicating" and "Mathematics."

Menu of College and Career-Ready Demonstrations, Page 2

Advanced Placement

Reading, Writing and Communicating 2	Mathematics 2	AP exams test students' ability to perform at a college level. Districts choose which AP exams will fulfill this menu option. Scores range from 1 to 5 (highest).
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ASVAB

Reading, Writing, Communicating, and Mathematics 31 on the AFQT	The Armed Services Vocational Aptitude Battery (ASVAB) is a comprehensive test that helps determine students' eligibility and suitability for careers in the military. Students who score at least 31 on the AFQT are eligible for service (along with other standards that include physical condition and personal conduct). Students who take the ASVAB are not required to enlist in the military.
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Concurrent Enrollment

Reading, Writing and Communicating Passing grade per district and higher education policy	Mathematics Passing grade per district and higher education policy	Concurrent enrollment provides students the opportunity to enroll in postsecondary courses, simultaneously earning high school and college credit. School districts and institutions of higher education each determine passing grades for credit and concurrent enrollment. An eligible concurrent enrollment course is 1) the prerequisite directly prior to a credit-bearing course or 2) a credit-bearing course, and 3) governed by a district-level cooperative agreement or MOU. Districts choose which courses will fulfill the option.
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District Capstone

Reading, Writing and Communicating Individualized	Mathematics Individualized	A capstone is the culminating exhibition of a student's project or experience that demonstrates academic and intellectual learning. Capstone projects are district determined and often include a portfolio of a student's best work.
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Industry Certificate

Reading, Writing and Communicating Individualized	Mathematics Individualized	Industry certificates are credentials recognized by business and industry. They are district determined, measure a student's competency in an occupation, and they validate a knowledge base and skills that show mastery in a particular industry.
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International Baccalaureate (IB)

Reading, Writing and Communicating 4	Mathematics 4	IB exams assess students enrolled in the official IB Diploma Programme. Districts choose which IB exams will fulfill this option. Scores range from 1 to 7 (highest).
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SAT – Scores updated for SAT (2016)

Reading, Writing and Communicating 470	Mathematics 500	The SAT is a college entrance exam. The SAT includes sections on reading, writing and math. The highest possible score for each section is 800.
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Collaboratively developed, standards-based performance assessment

Reading, Writing and Communicating State-wide scoring criteria	Mathematics State-wide scoring criteria	For this option, students use an authentic application of Essential Skills for Postsecondary and Workforce Readiness, through the creation of a complex product or presentation.
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To what degree are district-level IKF policies consistent with the state requirements of Colorado's Graduation Guidelines?



How are districts approaching implementation of Colorado's Graduation Guidelines, and what factors led to these decisions?



To what degree have Colorado's Graduation Guidelines shifted practice in districts and schools?



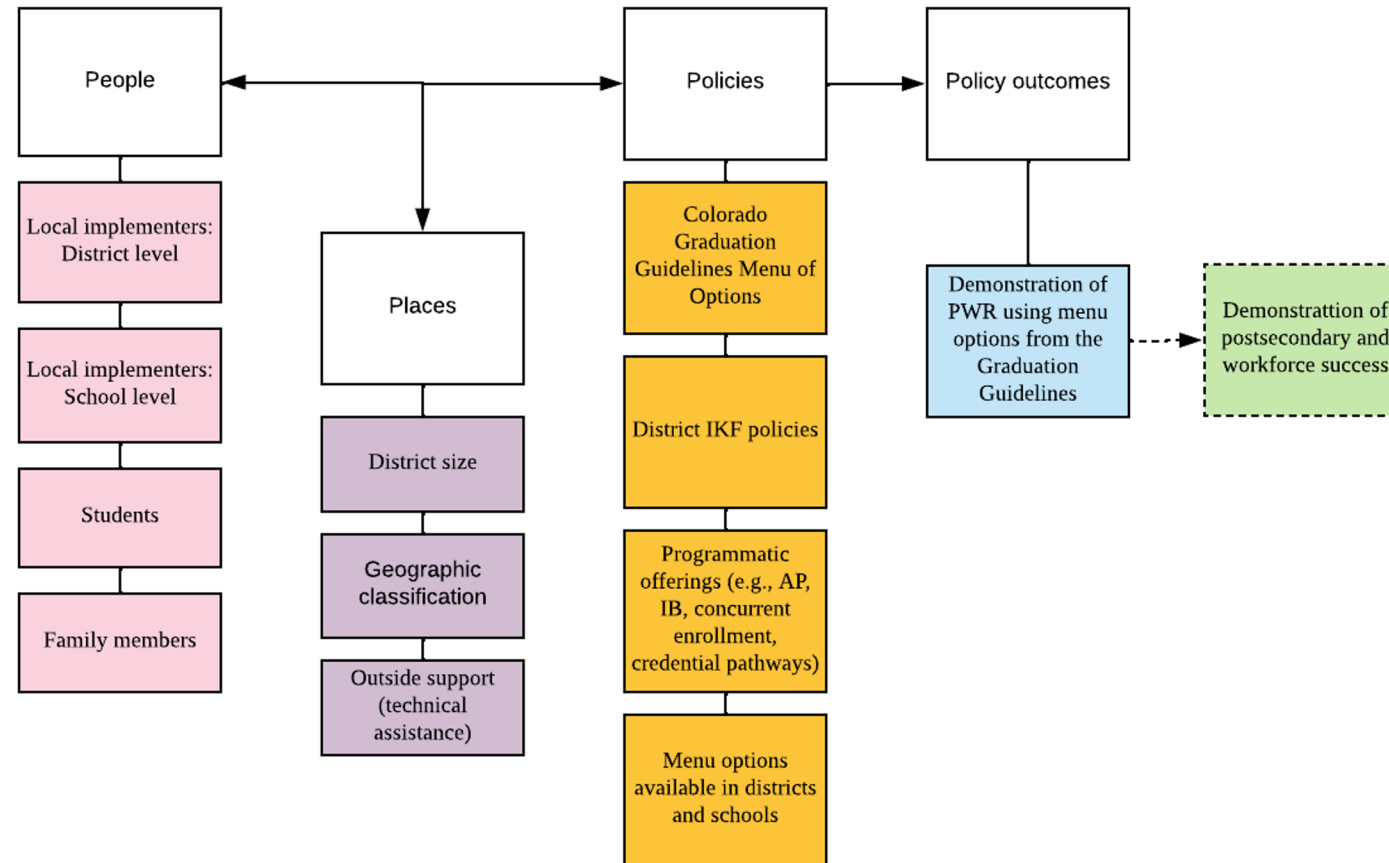
To what degree and how has support from external entities had an impact on district-level practice regarding the Graduation Guidelines?



How are districts considering impacts for students in different demographic categories as a result of implementation? Which students are expected to use which options?

RESEARCH QUESTIONS

CONCEPTUAL FRAMEWORK



Informed by Hogin's (2006) People, Places, Policies framework and Najam's (1995) 5Cs framework



ANALYTICAL FRAMEWORK

The theoretical lens of Critical Policy Analysis will be employed, which focuses on exposing inconsistencies between what policy says and what policy does.

Critical policy analysis has five main areas (Dien, Young, Welton, Mansfield, & Lee, 2014):

- (1) The exploration of policy roots and processes;
- (2) **The difference between what policy says and how it plays out in reality;**
- (3) The inequitable distribution of knowledge, power, and resources;
- (4) **How educational programs and policies reproduce inequities, regardless of intent; and**
- (5) **How individuals react (e.g., resistance or acceptance) to policies and their implementation.**

LITERATURE REVIEW: KEY RESULTS

Policy Implementation

- Policy implementation – **the execution of ideas in service of meeting goals and objectives** (Pressman & Vidalsky, 1973)
- Myriad stakeholders, organizations, processes and procedures, practices must work together (Stewart, Hodge, & Lester, 2008)
 - Interaction between people, places, and policies

Graduation Policy Reform

- Carnegie unit standard □ ESEA (1965) □ *A Nation at Risk* (1983) □ NCLB (2000) □ ESSA (2015)
 - Over time, there has been an intent to both improve achievement scores and work skills and ensure more uniformity in the types of courses students take (McDonnell, 1988).
 - The intent of graduation policy reform has had a central theme throughout its journey to the current state: **a consistent and evolving desire to better prepare students for the world they would face after exiting high school.**

Menu Options

- Each option type has **predictable equity gaps** (test-based, programmatic, and performance-based).
- Capstone can be a rigorous option allowing students to demonstrate skills in addition to traditional academic competencies (e.g., 21st century skills)

METHODOLOGY

(1) Policy analysis of
Colorado school
district IKF policies

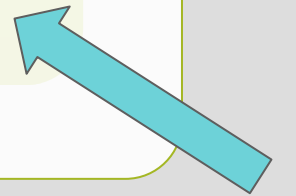
(2) Follow-up
interviews with districts
and schools

METHODOLOGY

(1) Policy analysis of
Colorado school
district IKF policies



(2) Follow-up
interviews with districts
and schools



Practices

FINDINGS

PART I: POLICY ANALYSIS

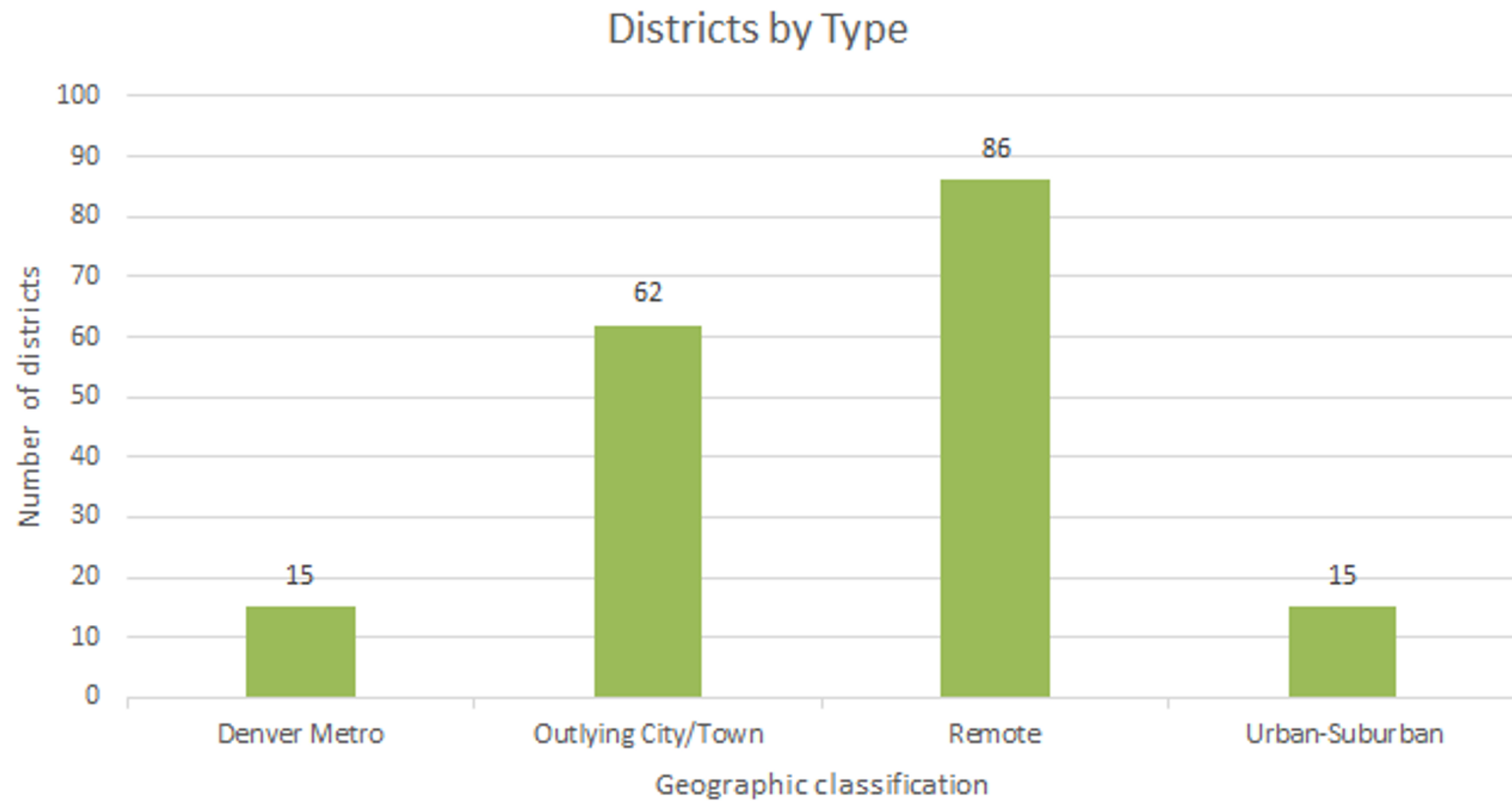
Data collection:

- Located 177 out of 178 high school graduation policies (IKF policies) through a search of publicly available websites (n=148) and follow-up emails and calls (n=29).
- Gathered state-level policy and guidance documents from CDE website.

Analysis:

- Clarified state requirements and intent for the guidelines through careful reading of C.R.S. § 22-2-106 and additional guidance from CDE.
- Coded IKF policies for their component parts using a priori codes; added codes based on emerging patterns (e.g., increased cut scores, additional options)

Colorado District Demographic Data



Colorado District Demographic Data

Geographic classification	Number of districts	Demographics
Denver Metro	15	<ul style="list-style-type: none">• FRL percentage range of 17% to 90%• Student count range of 1,359 to 92,112• Minority percentage range of 27% to 91%
Outlying City/Town	62	<ul style="list-style-type: none">• FRL percentage range of 4% to 90%• Student count range of 68 to 7,313• Minority percentage range of 8% to 91%
Remote	86	<ul style="list-style-type: none">• FRL percentage range of 33% to 59%• Student count range of 48 to 471• Minority percentage range of 3% to 59%
Urban-Suburban	15	<ul style="list-style-type: none">• FRL percentage range of 17% to 90%• Student count range of 1,441 to 30,754• Minority percentage range of 19% to 84%

RESULTS

	Count (n=178)	Percentage (rounded to nearest whole percentage)	Notes
Graduation requirements policy (IKF, IKF-R, IKF-E, Student Handbook) located	177	99%	Seat time requirements for all 177
Graduation policy includes Graduation Guidelines	164	92%	
Graduation policy does not include Graduation Guidelines	13	7%	8 Remote, 4 Outlying City/Town
Graduation requirements policy not located	1	.01%	Remote

FOUR PROFILES

Approach	Notes
Adopted full menu	
Adopted partial menu	Most common option: Concurrent Enrollment Least common option: Performance Assessment
Added menu options	Examples include: English and math classes, IEP Language, NWEA, MAPS, PSAT
Adopted 1 option	Capstone in every case

FOUR PROFILES BY TYPE

Approach	Count (total n=164)	Percentage (rounded to nearest whole percentage; n=164)	By Geographic Classification
Adopted full menu	51	31%	Denver Metro: 7 Outlying City/Town: 18 Remote: 20 Urban-Suburban: 6
Adopted partial menu	89	50%	Denver Metro: 5 Outlying City/Town: 32 Remote: 47 Urban-Suburban: 6
Added menu options	20	11%	Denver Metro: 2 Outlying City/Town: 6 Remote: 7 Urban-Suburban: 3
Adopted 1 option	5	3%	Denver Metro: 1 Outlying City/Town: 2 Remote: 2 Urban-Suburban: 0

FOUR PROFILES BY CLASSIFICATION

Classification	Full Menu	Partial Menu	Additional Options	One Option	Total
Denver Metro	7	5	3	1	15
Outlying City/Town	18	32	6	2	58
Remote	20	47	7	2	75
Urban-Suburban	6	5	4	0	15
Total	51	89	20	5	164

TYPES OF MENU OPTIONS

Test-based options	Programmatic options	Performance-based options
<ul style="list-style-type: none">• Accuplacer• ACT• ACT WorkKeys• ASVAB• SAT	<ul style="list-style-type: none">• Advanced Placement (AP)• International Baccalaureate (IB)• Industry Certificate• Concurrent Enrollment	<ul style="list-style-type: none">• District Capstone• Collaboratively developed, standards-based performance assessment

MENU OF OPTIONS

Test-based options	Number of districts (n = 158)	Percentage
Accuplacer	153	96%
ACT	155	97%
ACT WorkKeys	127	80%
ASVAB	154	97%
SAT*	156	97%
Total districts with a test-based option	158	100%

*Note: 44 districts have not updated SAT benchmark scores, all Outlying City/Town and Remote.

MENU OF OPTIONS

Programmatic options	Number of districts (n = 158)	Percentage
Advanced Placement	141	89%
International Baccalaureate	91	57%
Industry Certificate	135	85%
Concurrent Enrollment	156	99%
Total districts with a programmatic option*	158	100%

*Note: All districts with a test-based option also have a programmatic option.

MENU OF OPTIONS

Performance-based options	Number of districts (out of 152)	Percentage
District Capstone	152	94%
Collaboratively developed, standards-based performance assessment*	61	37%
Total districts with a performance- based option	152	94%

*Note: Performance Based Assessment is the least adopted menu option.

ADDITIONAL FINDINGS: MENU OPTIONS

Out of the 164 districts with identified GG alignment:

- Approximately $\frac{1}{4}$ of districts have adopted additional graduation requirements beyond the menu and credit requirements (n = 46), most often this is ICAP (n = 29) and Community Service (n = 26); other additional requirements include CTE credits, senior projects
- SAT and Concurrent Enrollment are tied as the most adopted option (n = 156). Concurrent Enrollment has the most variation in allowable score *in policy* (e.g., “passing”, D-, C-, C, B)
- 3 districts have increased cut scores from the CDE menu

ADDITIONAL FINDINGS: CREDIT REQUIREMENTS

Out of the 177 districts with identified seat time requirements:

- Seat time requirements range from 14.5 to 32 traditional Carnegie units
- Most common credit requirement is 26 (n = 55)
- Average credit requirement is 25.5
- Most common core credit minimum requirement is: 4 units of English, 4 units of math, 3 units of Social Studies, 3 units of Science
- 46 districts have multiple pathways (16 of these have 2 pathway options: honors/college and general)

Note: 16 districts have credit systems that are not calculated on an annual Carnegie unit basis. These districts' requirements were converted for this analysis.

OVERALL FINDINGS (PART ONE)

- The vast majority of districts have policies in place that comply with state requirements.
- A small number of districts do not have policies in place that include the graduation guidelines requirement, but this does not necessarily mean that local practice in these places is not being implemented in accordance with the policy.
- Every policy included course requirements, most with patterns that match traditional college entrance requirements.

PART 2: DISTRICT- AND SCHOOL-LEVEL

Data collection:

- Based on identification of common approaches to implementing the graduation guidelines (n=4), interviewed district and school level staff in four districts that are representative of each implementation type and the four primary geographic contexts of districts in the state.
 - I conducted interviews in three of the four districts; another researcher conducted interviews in the fourth district due to its close relationship to CEI.

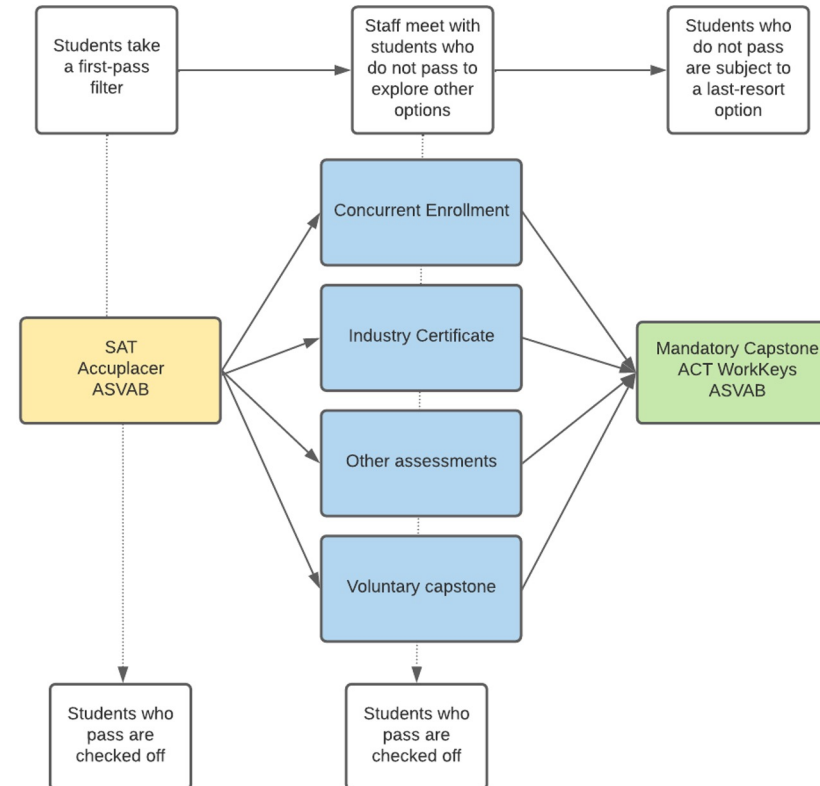
Analysis:

- Employed thematic analysis to code interviews.
- Coded in three rounds: (a) with a priori codes, (b) with reorganized root codes and additional child codes that emerged from the first round, and (c) with codes specific to critical policy analysis.

IMPLEMENTATION PATTERN

In the three multiple-option districts, there is a clear pattern of implementation.

In addition, regardless of approach, district and school staff indicated that the graduation guidelines requirement would not have an impact on graduation rates. Students who are at risk of not graduating due to graduation guidelines are the same students who have not met course and/or other requirements.



DISTRICT CAPSTONE: TWO NARRATIVES

Most rigorous option

Capstone allows students to demonstrate mastery of 21st century skills and readiness to graduate

Least rigorous option

Capstone is a passthrough option for students who do not achieve cut scores on tests



SHIFTS IN PRACTICE & EXTERNAL SUPPORTS

- Implementation of the guidelines has caused some shifts in districts and schools: resequencing courses, modifying bell schedules, and increasing coordination across schools and other external organizations such institutions of higher education.
- Impact on instruction has been limited and is most often related to implementing the District Capstone option.
- Districts have accessed implementation support from CDE and CEI, which has been helpful in building infrastructure to realize the guidelines. However, districts derived more value on supports they accessed from each other regarding specific practices of interest such as data systems and tracking.

IMPACTS ON STUDENTS

POSITIVE IMPACTS	NEGATIVE IMPACTS
<ul style="list-style-type: none">• There are increased course offerings and programs such as industry certificates and expanded concurrent enrollment options.• The guidelines support the offering of multiple pathways to students.• The narrative about what students should do after they graduate high school has shifted from a “college for all” mentality to one that embraces the many different directions students can take such as directly entering the workforce or engaging in more training in a trade.	<ul style="list-style-type: none">• Historic inequities persist and are being reproduced through the graduation guidelines policy.• Students who are traditionally unsuccessful on standardized tests are particularly impacted, as they are likely to be forced to engage in experiences like test preparation or a capstone course in order to graduate.

ALIGNMENT TO LITERATURE

Policy Implementation

- Implementation of the Graduation Guidelines has involved complex interactions between people, places, and policies

Historic Graduation Policy Reform

- The Graduation Guidelines created conditions for schools and districts to better prepare students for their postsecondary paths
 - Shifting narrative uncovered in this study – from “college for all” to valuing multiple pathways
- Course requirements in every district support recommendations going back to *A Nation at Risk* (1983)

Menu Options

- Historic inequities are being reproduced through implementation of the policy
- Capstone is being implemented as a rigorous option in limited cases

COMMUNICATION TO CEI

- “Heaven or Hell” scenario of the Graduation Guidelines: neither is true.
 - The realization of multiple, equally rigorous pathways to obtaining a high school diploma could have had ripple effects throughout systems and beyond – into higher education, the workforce, and local and global communities. Conversely, the guidelines elicited a great fear from many: that graduation rates could plummet, mostly impacting traditionally undeserved students.
- Change is possible, but size and context matter.
 - Leverage CEI’s core competency of “implementation experts” to invest in smaller systems with strong leadership that can continue to develop proof points for potential impact of the policy through capstone and performance assessment.
- Districts value networking and learning from each other.
 - Leverage CEI’s core competency of “statewide convener” to accelerate learnings across districts. There are valuable lessons to be learned across size and context.
- People are interested in how the Graduation Guidelines are coming to life.
 - Leverage CEI’s core competency of “thought leader” to broadly share findings of this study.

CONCLUSION

What questions do you have?

REFERENCES

- Braun, V. & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE Publications Ltd.
- Colorado Department of Education. (2020-a). *Postsecondary and workforce readiness*. <https://www.cde.state.co.us/postsecondary>
- Colorado Department of Education. (2020-b). *Graduation Guidelines: Background and history*. <https://www.cde.state.co.us/postsecondary/grad-background>
- Colorado Department of Education. (2020-c). *Graduation Guidelines*. <https://www.cde.state.co.us/postsecondary/graduationguidelines>
- Concerning Guidelines for High School Graduation, Col. Stat. § House Bill 07-1118 (2007).
- Creswell, J.W. & Miller, D.L. (2000). Determining validity in qualitative inquiry. *Theory Into Practice*, 39(3), 124-130. https://doi.org/10.1207/s15430421tip3903_2
- DeVos, B. (2020). *Key Policy Letters Signed by the Education Secretary or Deputy Secretary*. U.S. Department of Education. <https://www2.ed.gov/policy/elsec/guid/secletter/200903.html>
- Diem, S., Young, M. D., Welton, A. D., Mansfield, K. C., & Lee, P. (2014). The intellectual landscape of critical policy analysis. *International Journal of Qualitative Studies in Education*, 27(9), 1068-1090. <https://doi.org/10.1080/09518398.2014.916007>
- Every Student Succeeds Act, 20 U.S.C. § 6301 (2015). <https://www.congress.gov/bill/114th-congress/senate-bill/1177>
- Gibbs, G. R. (2018). *Analysing qualitative data* (2nd ed.). SAGE Publications Ltd. Honig, M. (2006). *New directions in education policy implementation*. State University of New York Press.
- Najam, A. (1995). *Learning from the literature on policy implementation: A synthesis perspective*. International Institute for Applied Systems Analysis. https://www.researchgate.net/publication/282816593_Learning_from_the_Literature_onPolicy_Implementation_A_Synthesis_Perspective
- No Child Left Behind (NCLB) Act of 2001, Pub. L. No. 107-110, § 101, Stat. 1425 (2002).
- Ritchie, J., Lewis, J., McNaughton Nicholls, C., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students & researchers* (2nd ed.). SAGE Publications Ltd.
- United States. (1983). *A nation at risk : The imperative for educational reform*. The National Commission on Excellence in Education.