Funding for Short-Term Credentials in Colorado

Evidence on SB22-192

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This presentation includes preliminary results from an ongoing study that has not yet gone through RAND's peer review process. It should not be cited or distributed without the authors' permission.

Acknowledgments

COLORADO COMMUNITY COLLEGE SYSTEM

We thank the Colorado Community College System, especially Melissa Martin and Mike Macklin, for the funding and data provided for the project, and for their ongoing input on the research and report.

PARTICIPATING COLLEGES

We are grateful to the six grantee colleges for their participation in interviewees and implementation reports.

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Overview

- **Background and study approach**
- Findings
    - How did colleges distribute funding?
    - Who received funding?
   - What were the outcomes for participants?
- Discussion

Senate Bill 22-192 provided funding for short-term credentials

- Appropriated $1.8 million of pandemic relief funding to help students at public institutions of higher education earn non-degree credentials

- Awarded grants to six community colleges, which distributed the funding to spring, summer, and fall students with expenses before June 30, 2023

- Was intended to support credentials that "stack" to longer pathways and fill in-demand jobs

- Imposed few restrictions and allowed colleges flexibility to distribute the funding in different ways

Colorado is one of many states providing funding for short-term credentials

- 59 initiatives across 28 states, totaling $3.81 billion in investments

- States distributed funding for short-term credentials in different ways:
  - 27 initiatives provided financial aid directly to students
  - 15 initiatives provided funding to institutions to enhance student supports and/or cover tuition
  - 6 initiatives provided funding to institutions to build programs
  - 5 initiatives allocated formula funding to certificates
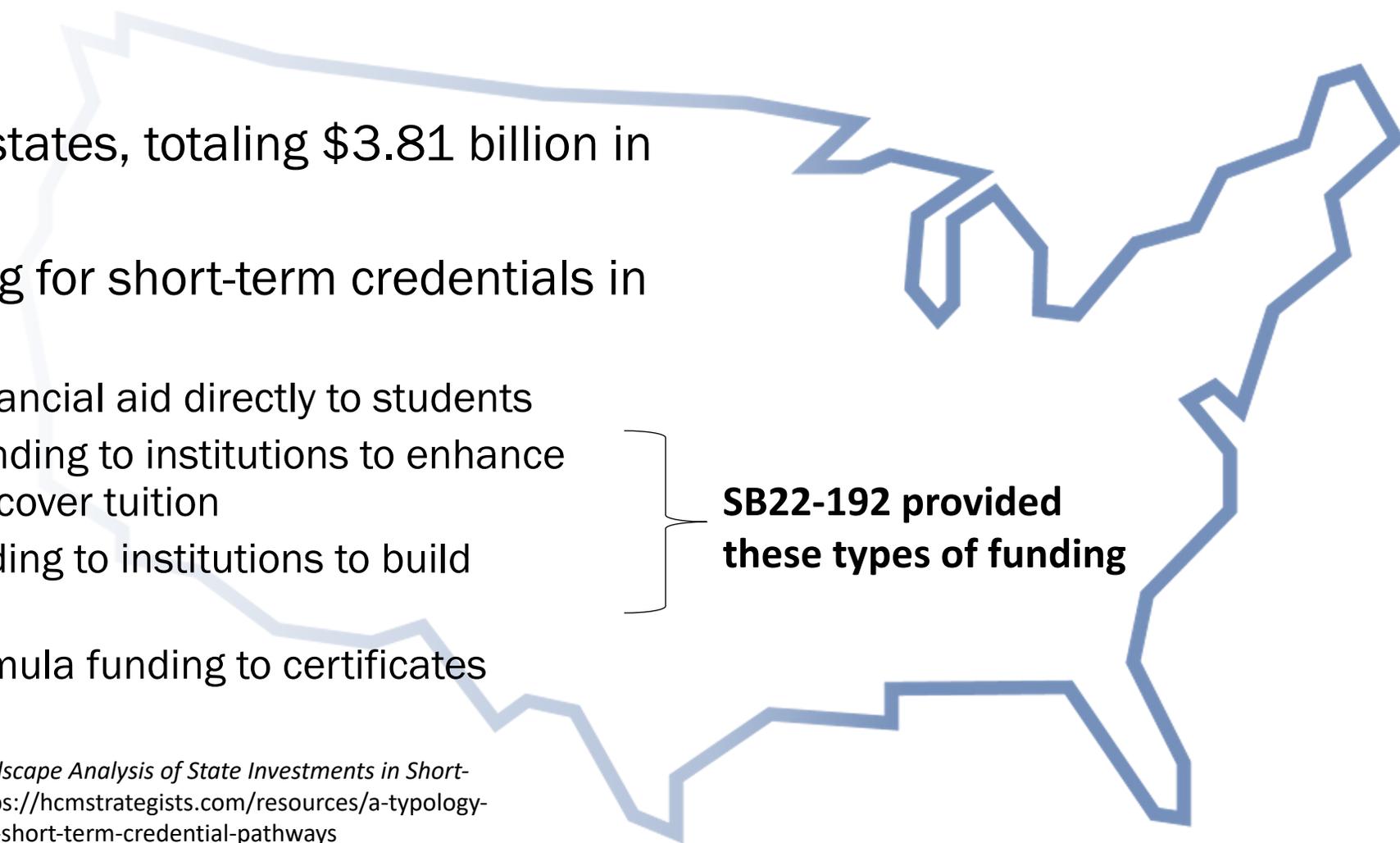
SB22-192 provided these types of funding

Source: Stephanie Murphy, *A Typology and Policy Landscape Analysis of State Investments in Short-term Credential Pathways*, HCM Strategists, 2023, https://hcmstrategists.com/resources/a-typology-and-policy-landscape-analysis-of-state-investments-in-short-term-credential-pathways

We partnered with the Colorado Community College System to build evidence in several areas

1. Understand variation in how colleges distributed funding

2. Describe which students received funding

3. Examine outcomes for students who received funding

Our descriptive approach draws on several data sources

DOCUMENT REVIEW

- State policy documents
- Narrative reports written by each college on program implementation

INTERVIEWS

- Interviews at each of the six participating colleges (1-3 participants per college)
- Interview with system leaders
- Interviews were transcribed, coded, and analyzed for themes

ADMINISTRATIVE DATA

- Colleges provided data on award recipients
  - Demographics, field of study, program or training completion, award amount
- CCCS provided additional data on students in credit-bearing programs
  - Details on program of study, completion (through Dec 2023), and enrollment in subsequent semesters (through spring 2024)
- Data had some important limitations
  - Data were for funding recipients only (no comparison group)
  - Employment data were almost entirely unavailable

We assessed the implementation of funding aid according to five key features

Feature	Description
Program eligibility	What kinds of programs and credentials could funding be used for?
Student eligibility	Are there income eligibility requirements or other restrictions on who can participate (e.g., prior credentials, academic progress)?
Award amount	What was the amount of funding provided?
Use of funding	Can funds be used for tuition and fees only or for other types of costs?
Application requirements	What processes and paperwork are required to access funding?

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At the state level, SB 22-192's parameters shaped how colleges could distribute funding

Feature	Description
Program eligibility	• Non-degree credential: Certificate, apprenticeship certificate, professional license, or industry certification • Stackable, identified in Talent Pipeline Report, and addresses critical job shortage • Where applicable, aligned with behavioral health, cybersecurity, software programming or developer, education, or health care
Student eligibility	• Low-income (attestation of economic loss) • Enrolled spring, summer, or fall with charges before June 30
Award amount	• No restrictions
Use of funding	• Tuition and fees • Certification and licensing exams • Books, supplies, and other expenses (e.g., transportation)
Application requirements	• Limited guidance on how attestation of economic loss was to be verified • No other application requirements for student or institution

Some colleges focused on specific programs, and some retained broader eligibility

BROADLY APPLIED ACROSS FIELDS

- College 1 and College 6 allowed individuals to use funding for all fields listed in legislation
- College 5 established a separate tiering system that was broad
  - Tier 1: Skilled trades with industry-recognized credentials
  - Tier 2: Training needed by specific employers with known skills gaps
  - Tier 3: Certificate programs that stack to degrees

TARGETED TO SPECIFIC FIELD(S)

- Health care and LPN (College 2 and College 1)
- Software bootcamps (College 2 and College 3)
- Construction trades (College 4)
- Nail technician (College 1)

Colleges that chose specific programs considered different factors

Programs with good labor market outcomes

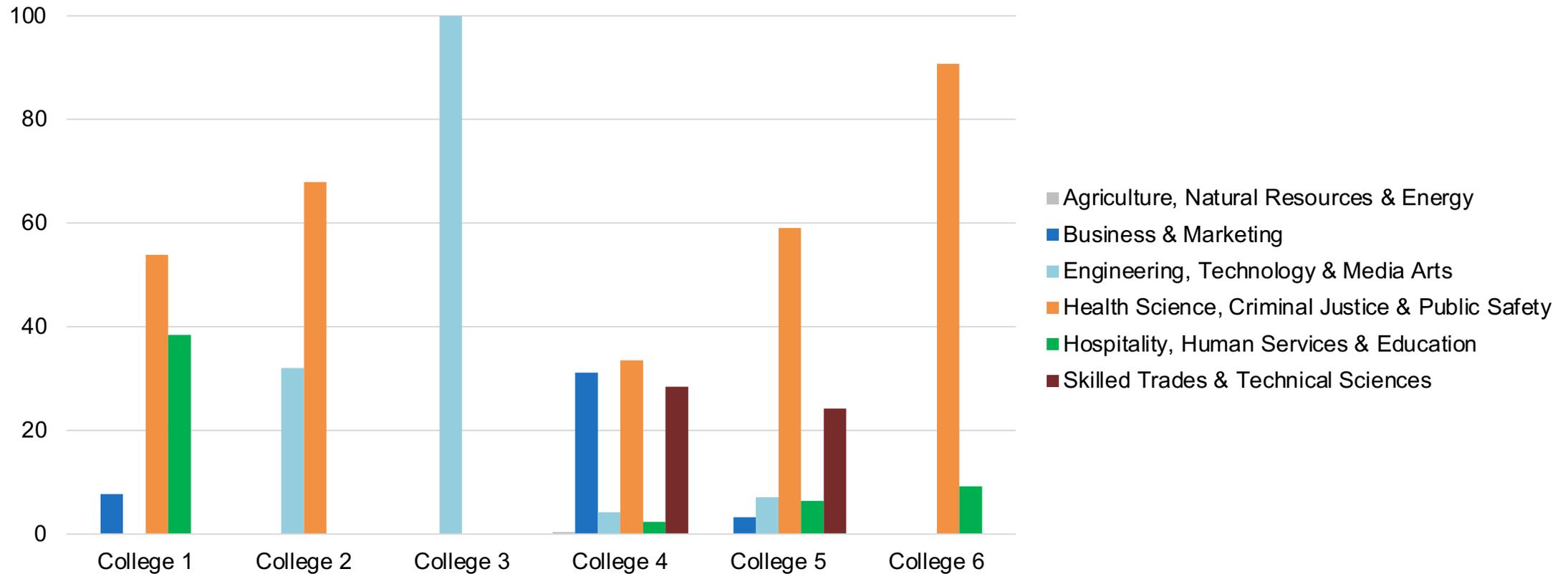Programs where existing capacity could readily be expanded

Programs with gaps in funding

Programs with a new industry partnership opportunity

Decisions about program eligibility were related to career fields

Percentage of Award Recipients by Career Cluster (N=836)

Legend:
- Agriculture, Natural Resources & Energy
- Business & Marketing
- Engineering, Technology & Media Arts
- Health Science, Criminal Justice & Public Safety
- Hospitality, Human Services & Education
- Skilled Trades & Technical Sciences

Excludes recipients whose college or career field was unknown

Decisions about program eligibility were related to credential type

Percentage of Award Recipients by Credential Type (N=752)

Legend:
- Associate or bachelor's degree
- For-credit certificate
- Noncredit certificate
- License or certification
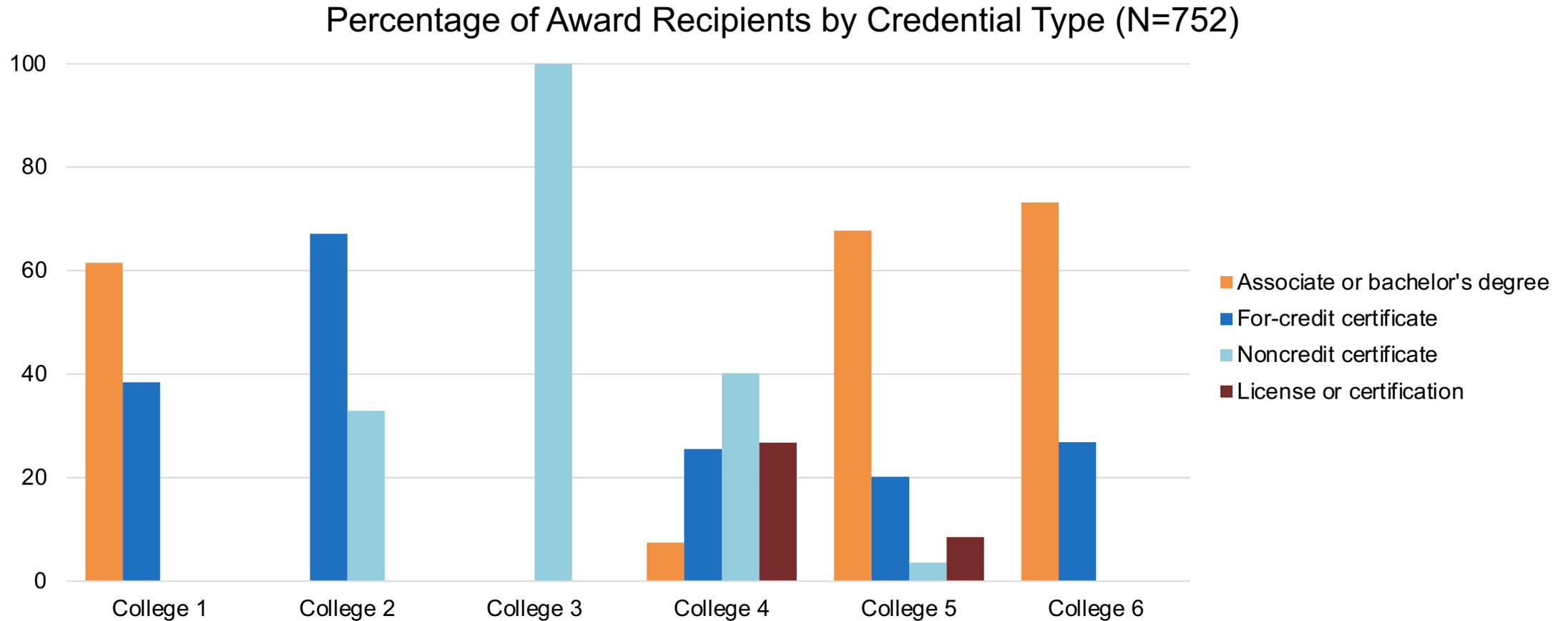
Excludes recipients whose college was unknown or whose credential type was unknown, undeclared, or non-degree seeking

Colleges used slightly different processes to assess student economic eligibility

▶ All colleges collected attestation of economic loss (required for pandemic relief funding)

▶ Software bootcamps administered a screening to ensure students had interest, commitment, and skills to succeed
 - College 3 also required bootcamp students to pay $500 of $10,000 total tuition

▶ College 4 and College 5 directed funding to programs for incarcerated individuals

▶ College 6 used a manual process to assess eligibility for a several funding opportunities and channel students

Many small-dollar grants were provided through the program

Percentage of Award Recipients by Award Amount (N=844)

Award amount (dollars per student)
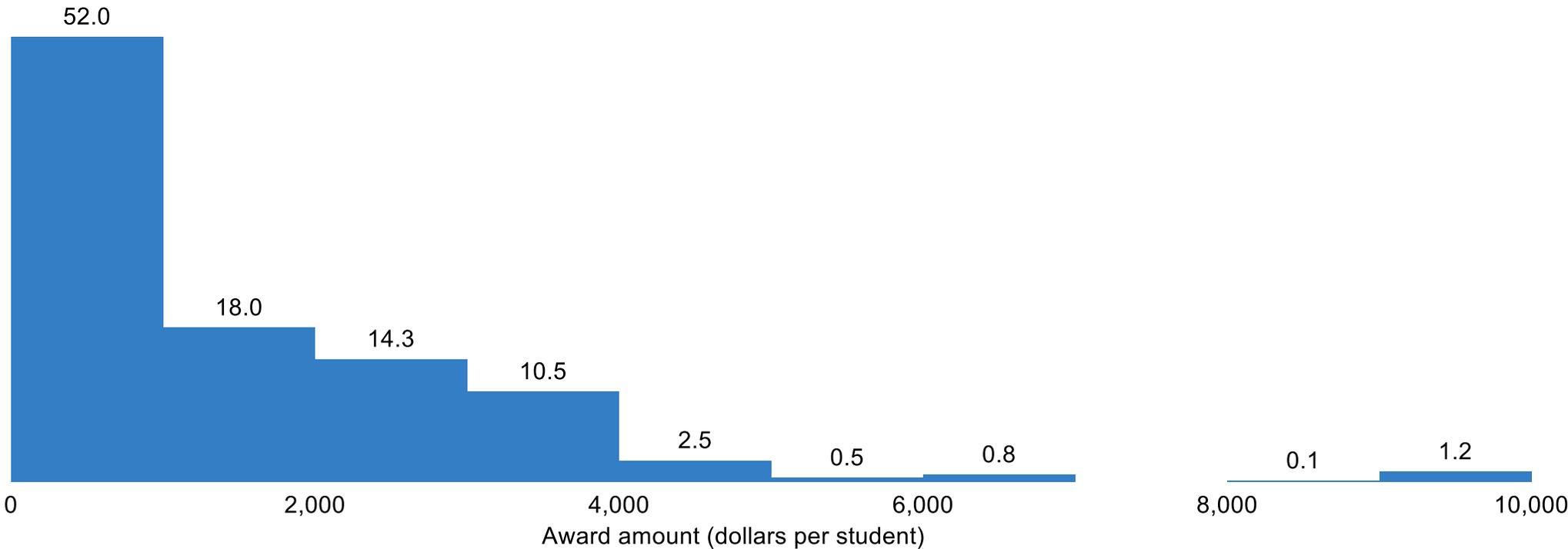
Grant amounts varied across colleges

Percentage of Award Recipients by Award Amount (N=841)

College 1
Mean: $1,742

College 2
Mean: $3,201

College 3
Mean: $9,091

College 4
Mean: $868

College 5
Mean: $1,222

College 6
Mean: $2,232

Award amount (dollars per student)
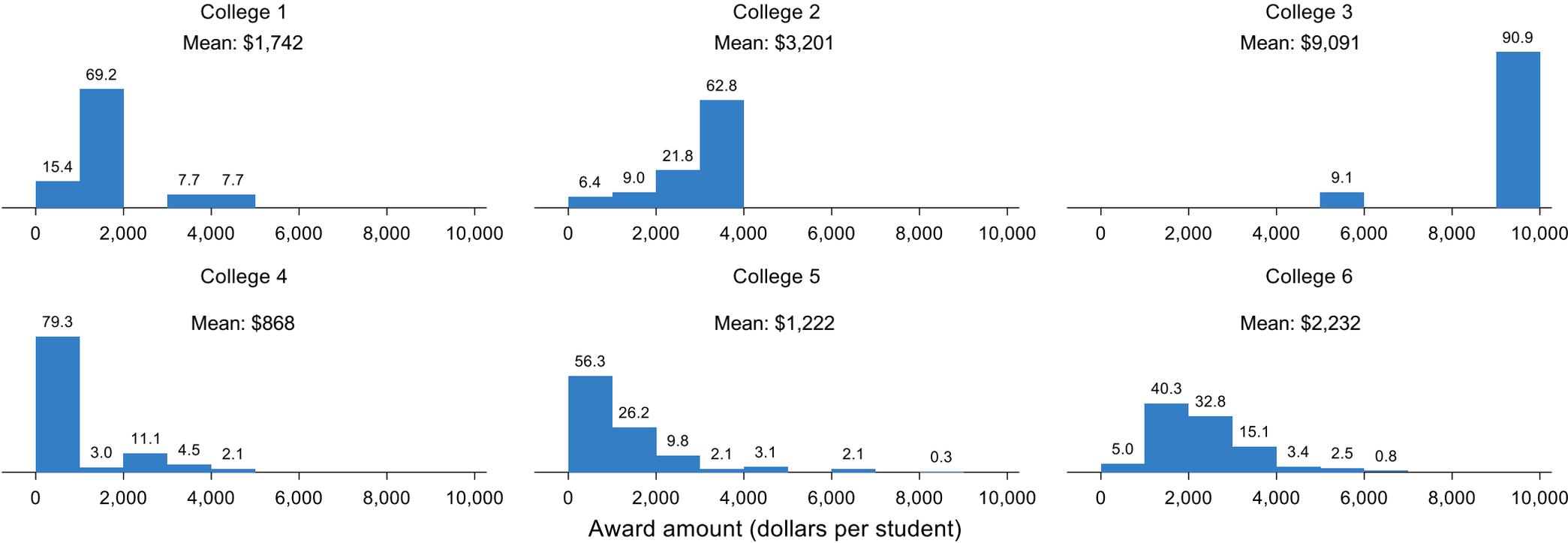
Excludes recipients whose college was unknown

Some colleges focused on tuition and unpaid balances and others covered broader costs

TUITION AND FEES ONLY

- College 3
- College 4 (included unpaid balances)
- College 6 (primarily unpaid balances)

OTHER COSTS

- College 2: Books and supplies
- College 1: Stipend for LPN clinical fees and travel, nail technician kits
- College 5: Testing and licensing fees

Colleges used slightly different processes to assess student economic eligibility

All colleges required attestation of economic loss

Colleges reached out in different ways to inform students and collect attestation:

- Post on website or learning management system
- Emails followed up by phone calls or chat messages
- Working with deans and instructors to reach students in person
- Software development bootcamps used social media

One college required documentation to back up attestation

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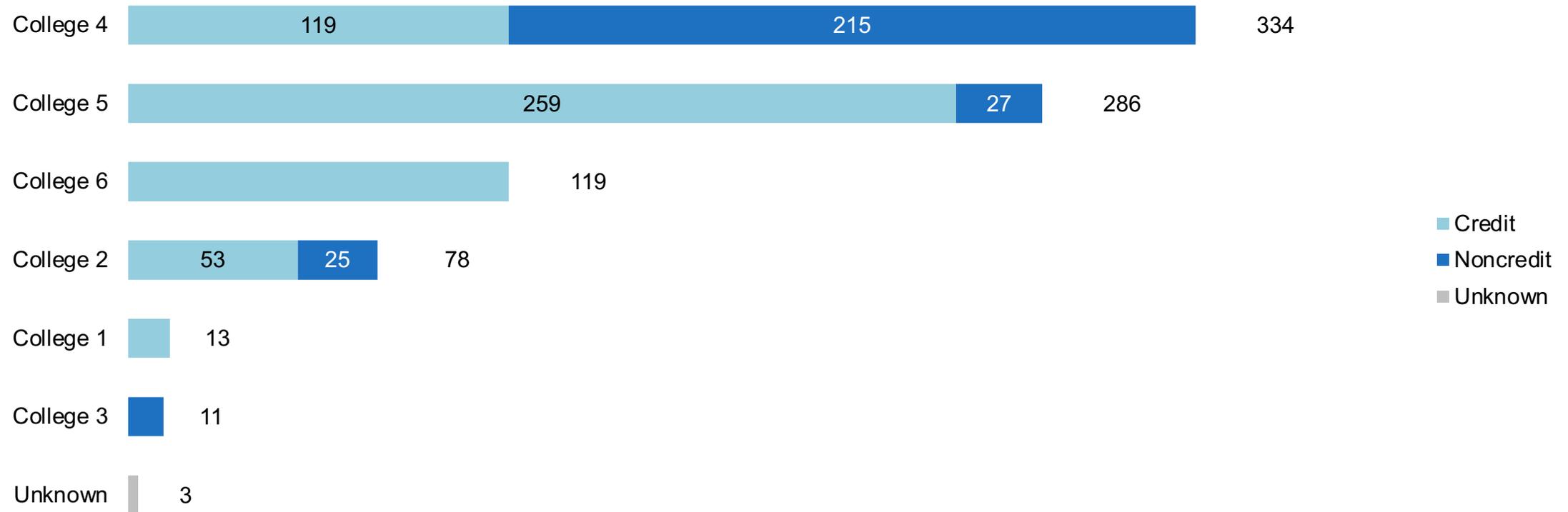
Overview

- Background and study approach

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  - How did colleges distribute funding?

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- Discussion

More than half of participants came from two colleges

Number of Award Recipients by College (N=844)

Demographics largely mirrored the overall student populations

Percentage of Award Recipients by Race/Ethnicity (N=750)

Legend:
- ■ Award Recipients (dark blue)
- ■ Fall 2022 enrollees (light blue)

Race/Ethnicity	Award Recipients	Fall 2022 enrollees
White	43.9	65.1
Hispanic or Latino	43.6	27.2
Black or African American	6.1	2.7
Asian or Pacific Islander	4.1	4.0
American Indian or Alaskan Native	2.3	1.0
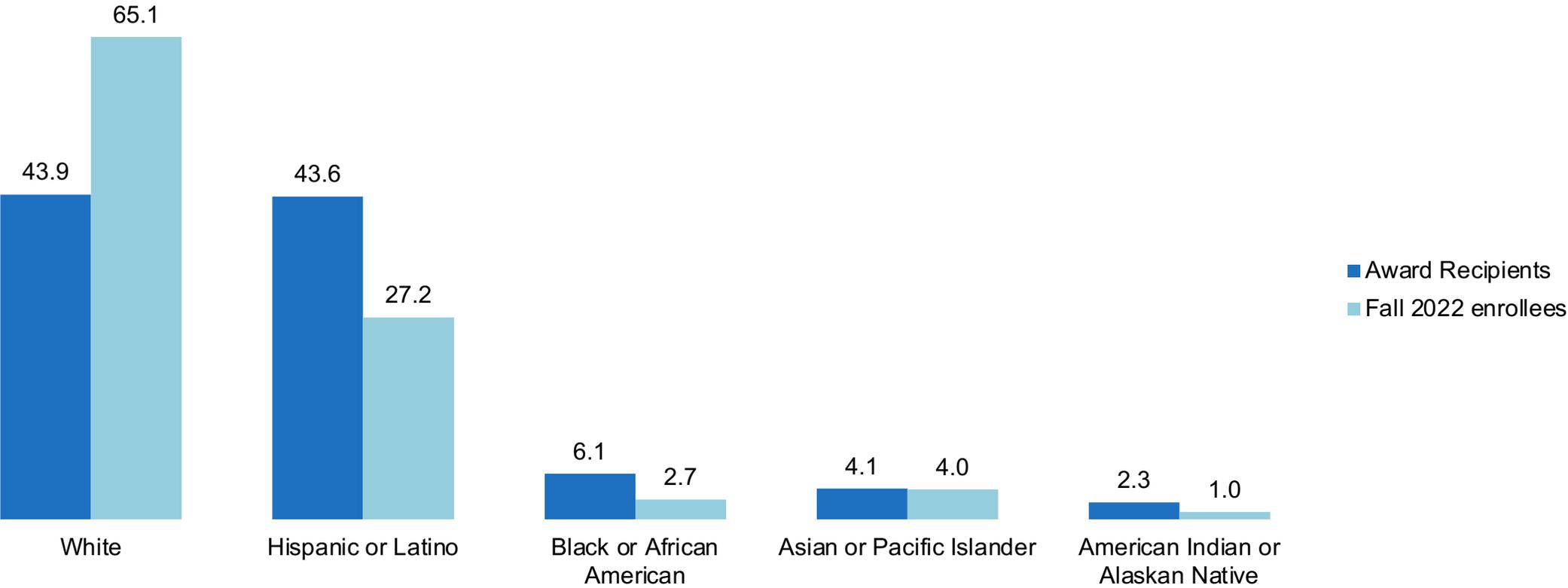
Excludes recipients whose race/ethnicity was unknown, two or more races or U.S. nonresident

Source: RAND analysis of Colorado Community College System data, spring-fall 2023 funding recipients and Integrated Postsecondary Education Data System data

22

Award recipients pursued a range of different credentials

Percentage of Award Recipients by Credential Type (N=844)

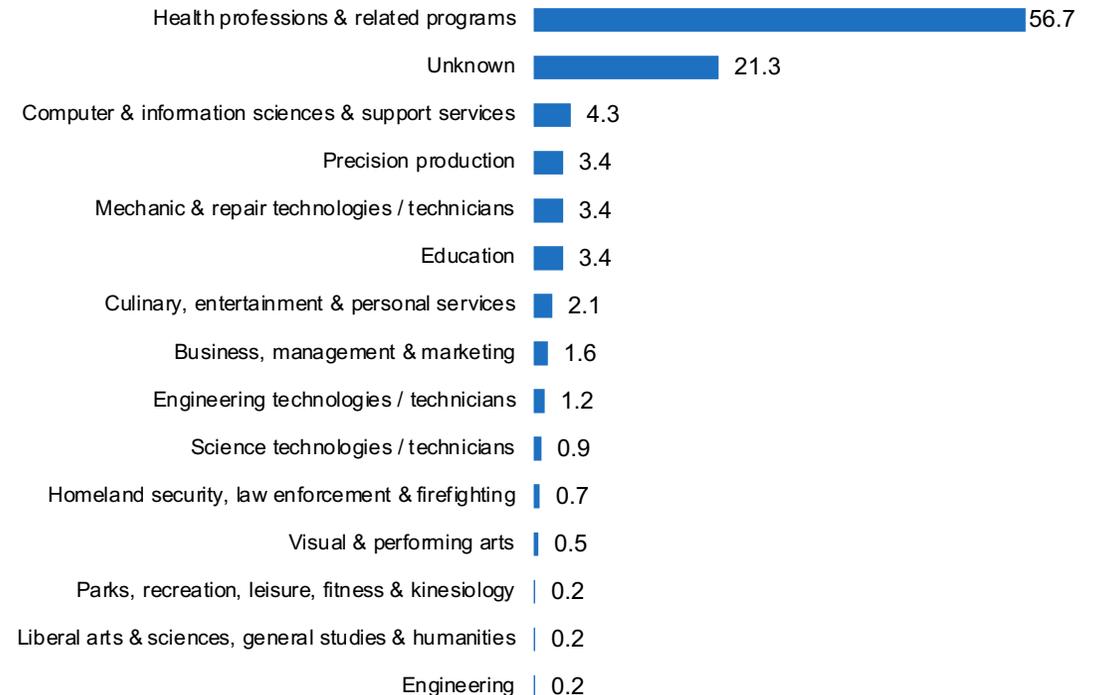| Credential Type	Percentage
Associate degree	30.6
Non-credit certificate	20.5
For-credit short certificate	20.0
License or certification	12.4
Unknown	9.1
For-credit long certificate	5.3
Undeclared or non-degree seeking	1.5
Bachelor's degree	0.5
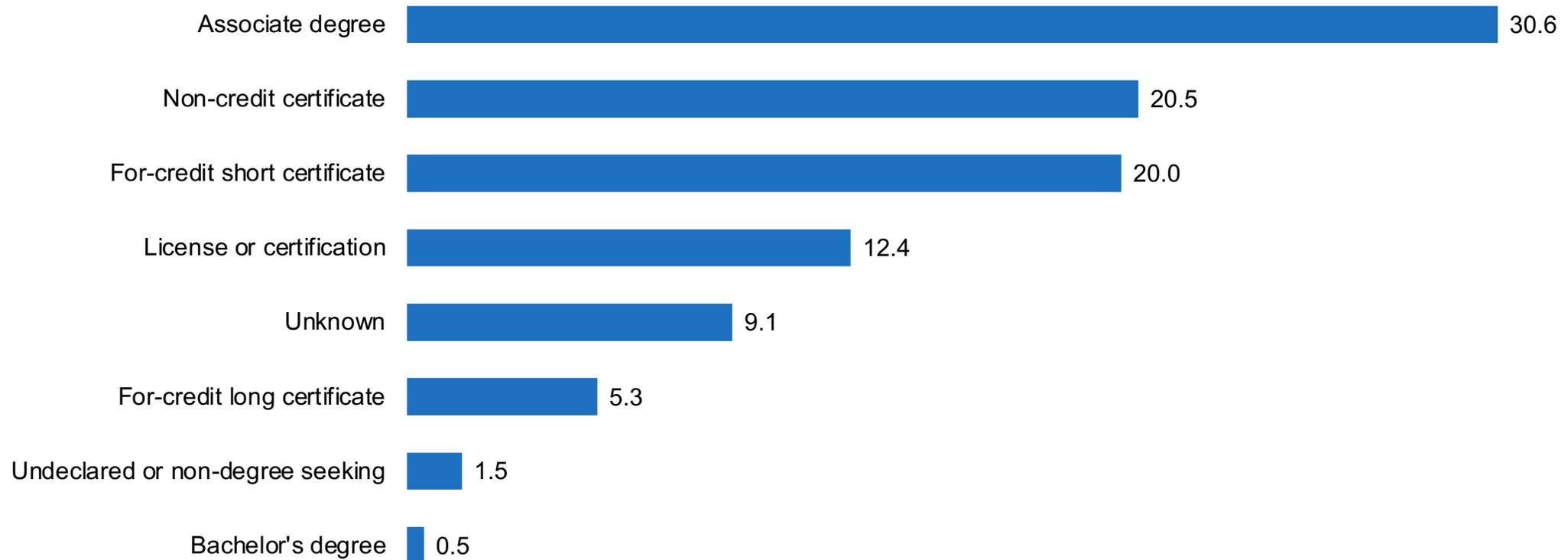
Health care programs accounted for more than half of the award recipients

Percentage of Award Recipients by Career Field (N=844)

Career Field	Percentage
Health Science, Criminal Justice & Public Safety	52.8
Skilled Trades & Technical Sciences	19.3
Business & Marketing	13.5
Engineering, Technology & Media Arts	8.3
Hospitality, Human Services & Education	5.0
Unknown	1.0
Agriculture, Natural Resources & Energy	0.1
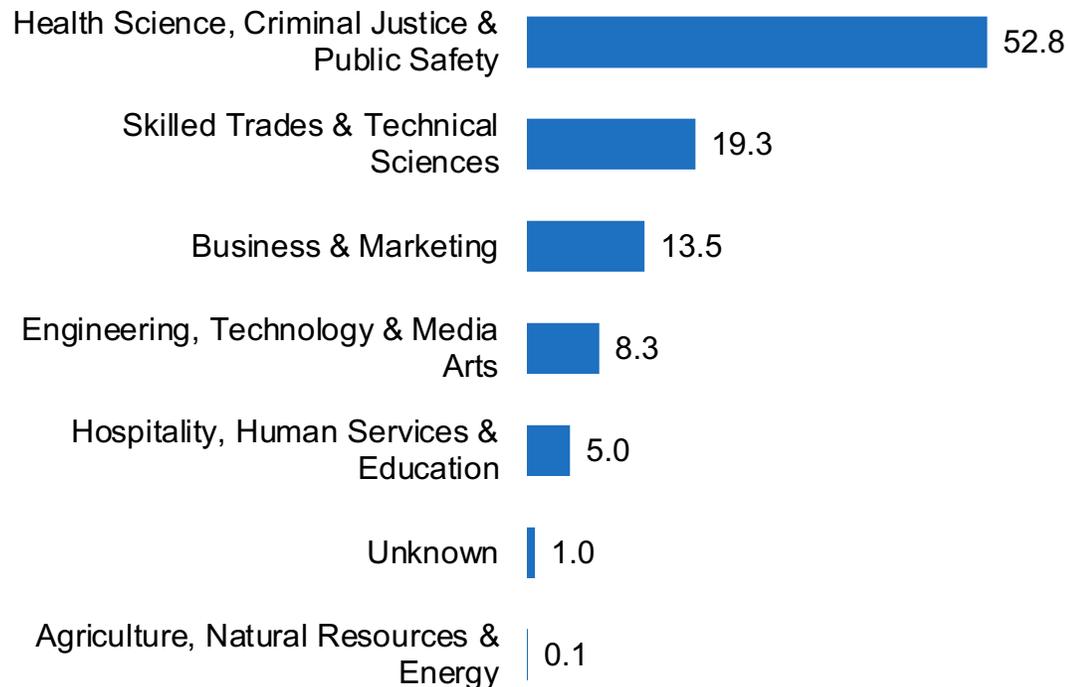
Percentage of For-Credit Award Recipients by CIP Code (N = 563)

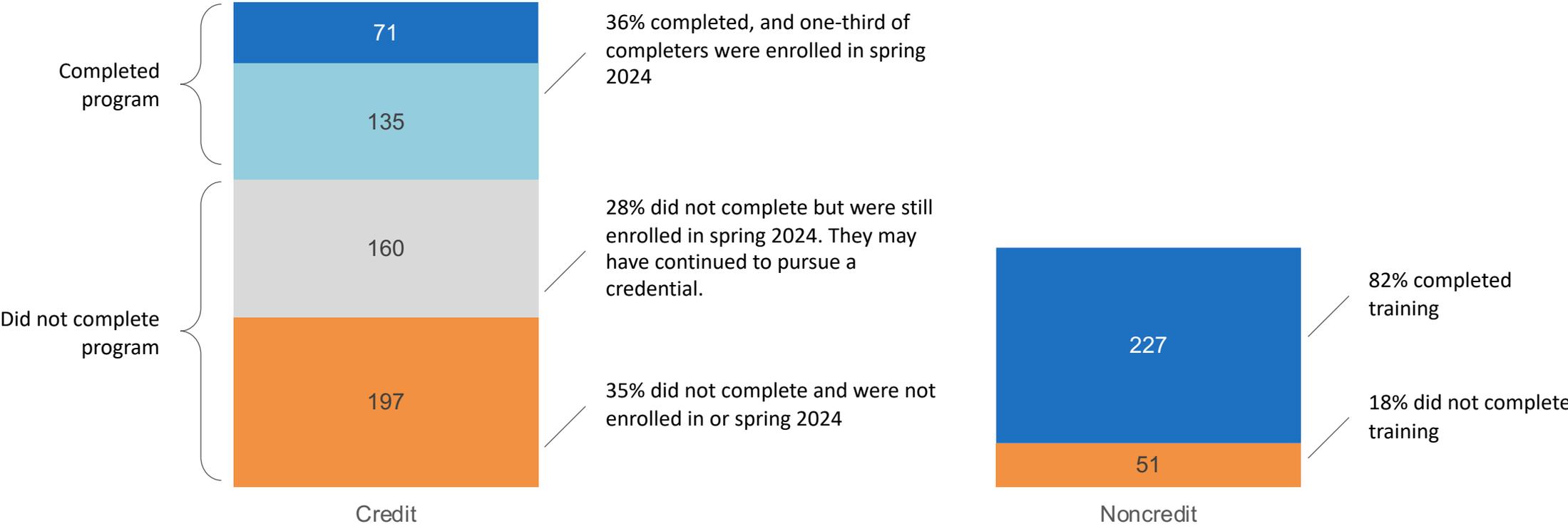| CIP Code	Percentage
Health professions & related programs	56.7
Unknown	21.3
Computer & information sciences & support services	4.3
Precision production	3.4
Mechanic & repair technologies / technicians	3.4
Education	3.4
Culinary, entertainment & personal services	2.1
Business, management & marketing	1.6
Engineering technologies / technicians	1.2
Science technologies / technicians	0.9
Homeland security, law enforcement & firefighting	0.7
Visual & performing arts	0.5
Parks, recreation, leisure, fitness & kinesiology	0.2
Liberal arts & sciences, general studies & humanities	0.2
Engineering	0.2

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Most had completed programs or were still enrolled in credit-bearing programs after June 30, 2023

Number of Award Recipients by Program or Training Completion (N=841)

Completed program
- 71
- 135

36% completed, and one-third of completers were enrolled in spring 2024

Did not complete program
- 160
- 197

28% did not complete but were still enrolled in spring 2024. They may have continued to pursue a credential.

35% did not complete and were not enrolled in or spring 2024

Credit

Noncredit
- 227
- 51

82% completed training

18% did not complete training

Excludes recipients whose college was unknown

We were unable to estimate the impacts of the program

IMPACT = CHANGE IN OUTCOMES <u>CAUSED</u> BY GRANT

IMPACT = (OUTCOMES THAT FUNDING RECIPIENTS EXPERIENCED) – (OUTCOMES THAT FUNDING RECIPIENTS WOULD HAVE EXPERIENCED WITHOUT A GRANT)

TO MEASURE IMPACT WE NEED

- Data on non-participants in similar programs who did not receive funds (e.g., students from prior years, ineligible programs, other colleges)
  - Individual characteristics
  - Outcomes (e.g., completion, employment)
- An experimental or quasi-experimental approach that ensures comparison students are similar to grant recipients

We collected perspectives on student impacts from college leaders
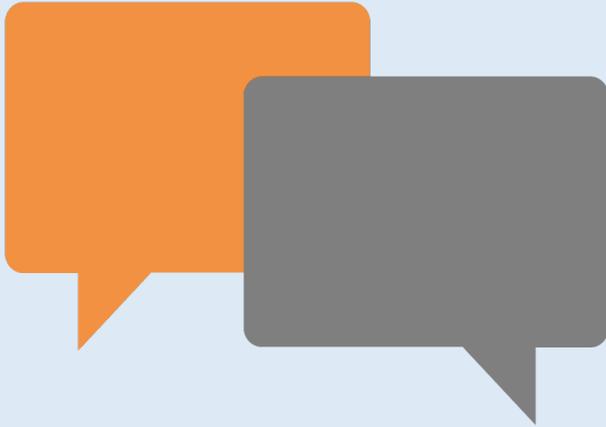
- Reducing tuition and fees helped students overcome barriers to education, including lack of transportation, child care, and internet

- Covering unpaid balances prevented stop-outs and helped students continue in their pathways without interruption

- Covering certification and licensing exams helped students test and become licensed more quickly

- Funding allowed one college to expand its existing prison education program, which stakeholders described as valuable

- Funding allowed one college to providing up-to-date, expensive training at an accessible price by partnering with a software bootcamp

With some assumptions, we could estimate net benefit from SB 22-192 awards

Average SB 22-192 award amount	$1,519
Number of recipients	844
Total cost of awards	$1,281,877
Administrative cost (as % of total award cost)	
Total cost of program	
Potential impact of SB 22-192 award	
Number of students who completed due to SB 22-192 award	
Average cost per completion	
Lifetime benefit of completion (current dollars, from literature)	
Net benefit per student (current dollars)	
Total net benefit (current dollars)	

These figures are pulled from CCCS data

With some assumptions, we could estimate net benefit from SB 22-192 awards

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Number of recipients	844
Total cost of awards	$1,281,877
Administrative cost (as % of total award cost)	10.0%
Total cost of program	$1,410,065
Potential impact of SB 22-192 award	1.8 pp increase
Number of students who completed due to SB 22-192 award	
Average cost per completion	
Lifetime benefit of completion (current dollars, from literature)	
Net benefit per student (current dollars)	
Total net benefit (current dollars)	

We pull statistics on administrative costs and potential impacts from the financial aid literature, under the assumption that financial aid for short-term-programs would be similar

*10% administrative cost based on the 5% institutional administrative cost cap for institutions participating in federal loan programs and assumption of additional 5% in administrative costs at state/system level. 1.8 percentage point increase in college completion rates from LaSota, Robin R., Joshua R. Polanin, Laura W. Perna, Melissa A. Rodgers, and Megan J. Austin, "Does Aid Matter? A Systematic Review and Meta-Analysis of the Effects of Grant Aid on College Student Outcomes," *Review of Educational Research, 2024*.

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Potential impact of SB 22-192 award	1.8 pp increase
Number of students who completed due to SB 22-192 award	15
Average cost per completion	$92,816
Lifetime benefit of completion (current dollars, from literature)	
Net benefit per student (current dollars)	
Total net benefit (current dollars)	

This allows us to estimate likely completions due to SB22-192 (i.e., estimated impact)

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Total cost of program	$1,410,065
Potential impact of SB 22-192 award	1.8 pp increase
Number of students who completed due to SB 22-192 award	15
Average cost per completion	$92,816
Lifetime benefit of completion (current dollars, from literature)	$240,000
Net benefit per student (current dollars)	
Total net benefit (current dollars)	

We use available statistics to estimate the lifetime benefits of certificates*

* Difference in lifetime earnings between an individual with "some college, no degree" and high school diploma only from Carnevale, Anthony P., Stephen J. Rose, and Andrew R. Hanson, *Certificates: Gateway to Gainful Employment and College Degrees*, Georgetown University Center on Education and the Workforce, June 2012, 2012.

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Potential impact of SB 22-192 award	1.8 pp increase
Number of students who completed due to SB 22-192 award	15
Average cost per completion	$92,816
Lifetime benefit of completion (current dollars, from literature)	$240,000
Net benefit per student (current dollars)	$147,184
Total net benefit (current dollars)	$2,236,015

← These assumptions give us a net benefit of ~$2.2M

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34

Our findings highlight several key takeaways

SB 22-192 provided limited restrictions on program features and allowed colleges significant flexibility to implement the program

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SB 22-192 provided limited restrictions on program features and allowed colleges significant flexibility to implement the program

CCCS and the colleges had limited time to distribute funding, requiring quick decisions based on immediate needs

Colleges implemented the program in varying ways

Feature	Description
Program eligibility	• Some allowed for a broad range of programs, others targeted a few programs • Health care accounted for most students, but IT and trades accounted for some • Credentials that students were earning ranged from industry credentials to credit certifications to associate's degrees
Student eligibility	• Colleges did not impose restrictions beyond those set in legislation and those colleges had in place for program entry • Recipient characteristics did not seem notably different from the student populations
Award amount	• There was wide variation in funding amounts that was tied to the costs of eligible programs
Use of funding	• Most colleges used funding for tuition and fees, some used funding for other costs
Application requirements	• Colleges varied somewhat in their processes for attestation of economic loss • Colleges otherwise added no application requirements

Our findings highlight several key takeaways

SB 22-192 provided limited restrictions on program features and allowed colleges significant flexibility to implement the program

CCCS and the colleges had limited time to distribute funding, requiring quick decisions based on immediate needs

We could not estimate impacts, but a notional cost-benefit analysis indicates that the program could have a net benefit of $2.2 million

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SB 22-192 provided limited restrictions on program features and allowed colleges significant flexibility to implement the program

CCCS and the colleges had limited time to distribute funding, requiring quick decisions based on immediate needs

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The tradeoffs inherent in the design of financial aid programs mean that CO should consider its goals for any future program and tailor the key features to attain these goals

Colorado should continue to build evidence and consider the design of a permanent program

Collect and assess data on current programs
- Strengthen data collection on noncredit students; collect more systematic data on program implementation across colleges and programs
- Engage in more rigorous research to determine impacts of funding and other initiatives

Consider more permanent financial supports
- Should the state have a financial aid option for short-term credential funding, or ongoing funding to colleges?

Think carefully about how to design and implement the next program
- Which features should be determined at the state or system level?
- What guidance should be provided to colleges to inform their decisions about program design?

Thank you!

Questions? Input?

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