Texas Higher Education
COORDINATING BOARD

Credentials of Value: Community College Finance Model

TACC Funding Futures Regional Summit
January 10, 2025

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Data Management & Research

Credentials of Value: Setting the Stage

*The credentials that students earn must, at a minimum, **provide a positive return on investment**: The economic benefits exceed the costs to receive them, and students leave higher education better off financially than they would otherwise be.*

- Future conversations will consider non-economic value of credentials as well
- Slight methodological differences between COV for Talent Strong Texas outcomes and Community College Funding
  - Focus today is for CCF methodology

Credentials of Value:
Achieving Positive Return on Investment

Credentials of value provide a positive return on investments (ROI) to students. Starting FY25, community colleges will be eligible for performance funding for 2 tiers of Credentials of Value:

CREDENTIALS OF VALUE BASELINE

Institutions are funded for **all conferred credentials** in a program when a **typical graduate** earns cumulative wages greater than the median earnings of Texas high school graduates **and** recoups the net cost of attendance within 10 years of earning the credential

CREDENTIALS OF VALUE PREMIUM

Institutions receive premium funding for each student earning a **credential of value** who is projected to achieve a positive ROI at or before a target year when most students in comparable programs are projected to reach positive ROI

Credentials of Value:
16 Broad Program Areas by Degree Level

Broad Program Area	2-level CIP
Agriculture and natural resources	01 - Agriculture, agriculture operations, and related sciences; 03 - Natural resources and conservation
Architecture and engineering	04 - Architecture and related services; 14 – Engineering; 15 - Engineering technologies and engineering-related fields
Arts	50 - Visual and performing arts
Biology and life sciences	26 - Biological and biomedical sciences
Business	52 - Business, management, marketing, and related support services
Communications and journalism	09 - Communication, journalism, and related programs; 10 - Communications technologies/technicians and support services
Computers, statistics, and mathematics	11 - Computer and information sciences and support services; 27 - Mathematics and statistics
Education	13 – Education; 25 - Library science; and 30.99 - Multi/interdisciplinary studies
Health	51 - Health professions and related programs

Credentials of Value:
16 Broad Program Areas by Degree Level

Broad Program Area	2-level CIP
Humanities and liberal arts	05 - Area, ethnic, cultural, gender, and group studies; 16 - Foreign languages, literatures, and linguistics; 23 - English language and literature/letters; 24 - Liberal arts and sciences, general studies, and humanities; 30 - Multi/interdisciplinary studies; 38 - Philosophy and religious studies; 39 - Theology and religious studies; and 54 – History
Industrial arts, consumer services, and recreation	12 - Personal and culinary services; 19 - Family and consumer sciences/human sciences; 31 - Parks, recreation, leisure, and fitness studies; 46 - Construction trades; 47 - Mechanic and repair technologies/technicians; and 49 - Transportation and material moving
Law, public policy, and social work	22 - Legal professions and studies; 43 - Homeland security, law enforcement, firefighting, and related protective services; 44 - Public administration and social service professions
Physical sciences	40 - Physical sciences; 41 - Science technologies/technicians
Psychology	42 - Psychology
Social sciences	45 - Social sciences
Other	28: Reserve Officer Training Corps; 29: Military Technologies; 32: Basic Skills; 33: Citizenship Activities; 34: Health-related Knowledge and Skills; 35: Interpersonal and Social Skills; 36: Leisure and Recreational Activities; 37: Personal Awareness and Self-Improvement; 47: Mechanic and Repair Technologies/Technicians; 48: Precision Production; 53: High School/Secondary Diplomas and Certificates; and 60: Residency Programs

Credentials of Value:
Data Sources

Individual-level Data

Aggregate Data

Graduation, Enrollment, & Schedule Records

Sources: CBM009,CBM0C1 ,CBM0CS

Tuition

Source: IPEDS

Financial Aid

Source: FADS

Base Wage

Source: American Community Survey 5-year sample (2014-2018)

Graduate Earnings

Source: Texas Workforce Commission UI wage records

COV Baseline Methodology

Credentials of Value Baseline: RULE §13.556(b)(2)

(A) A program demonstrates a positive return on investment when the majority of students statewide completing the credential, within a program area, are expected to accrue earnings greater than the cumulative median earnings of Texas high school graduates who do not hold additional credentials, plus recouping the net cost of attendance within ten years after earning the credential.

(B) This calculation of return on investment shall include students' opportunity cost, calculated as the difference between median earnings for Texas high school graduates and estimated median earnings for students while enrolled:

(i) Four years for baccalaureate degree holders;

(ii) Two years for associate degree holders; or

(iii) One year for holders of a Level 1 certificate, Level 2 certificate, Advanced Technical Certificate, or Continuing Education Certificate.

(C) The Coordinating Board shall calculate the expected return on investment for each program based on the most current data available to the agency for the funding year for each program or a comparable program.

Baseline Cohort

- **Graduates Included:**
  - Students who receive their undergraduate credentials (i.e., Baccalaureate, Associate, or Certificate) from either Texas public 2-year or 4-year institutions
- **Graduates Excluded:**
  - Students who receive their credentials at Texas private institutions
  - Students who transferred from out-of-state institutions to Texas institutions
  - Students who do not have a first time in college (FTIC) record
  - Students who continue their education beyond the first credential received
  - Students who previously earned a degree of the same level or higher

Credentials of Value:
Achieving Positive Return on Investment

INVESTMENT

TOTAL STUDENT INVESTMENT

+

OPPORTUNITY COST

Opportunity Cost *(foregone wages)*

+

COMPARISON WAGE

Base Comparison Wage

≤

CUMULATIVE EARNINGS

CUMULATIVE EARNINGS

Credentials of Value:
Achieving Positive Return on Investment

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TOTAL STUDENT INVESTMENT

+

OPPORTUNITY COST

Opportunity Cost *(foregone wages)*

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COMPARISON WAGE

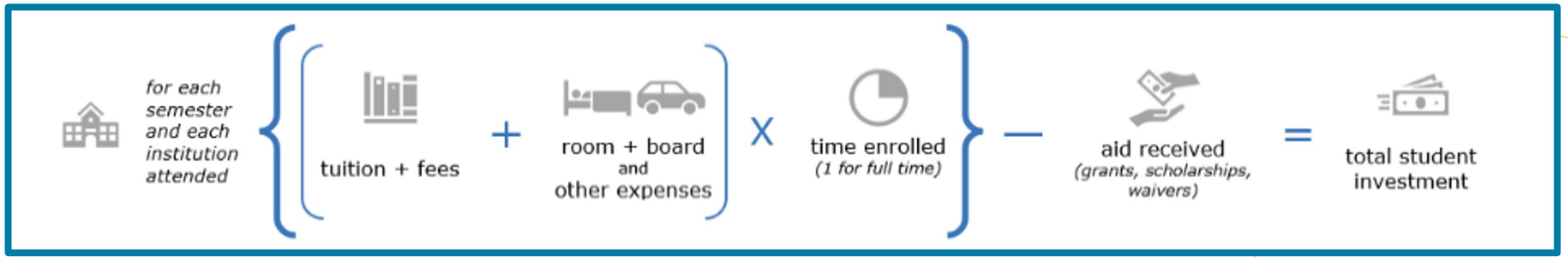
Base Comparison Wage

≤

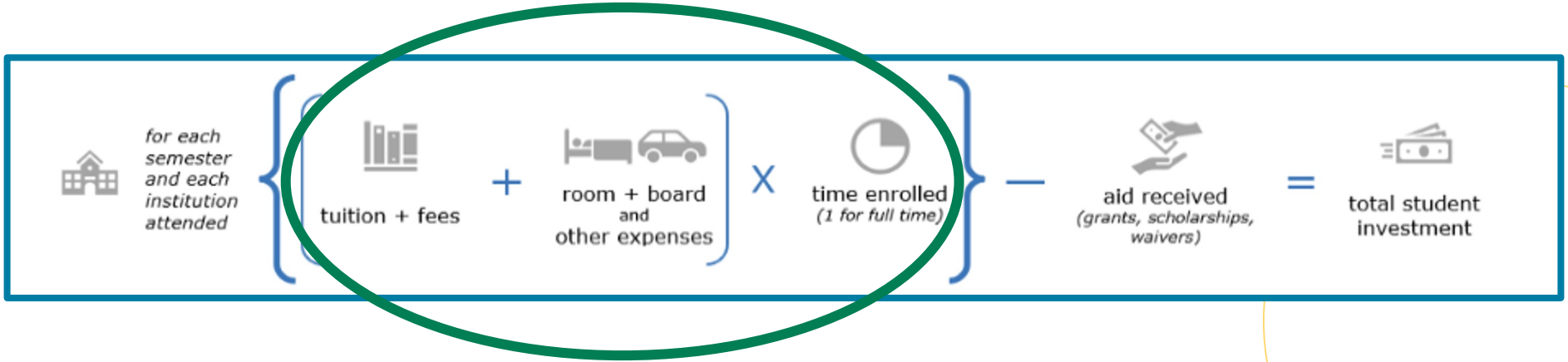
CUMULATIVE EARNINGS

CUMULATIVE EARNINGS

Total Student Investment

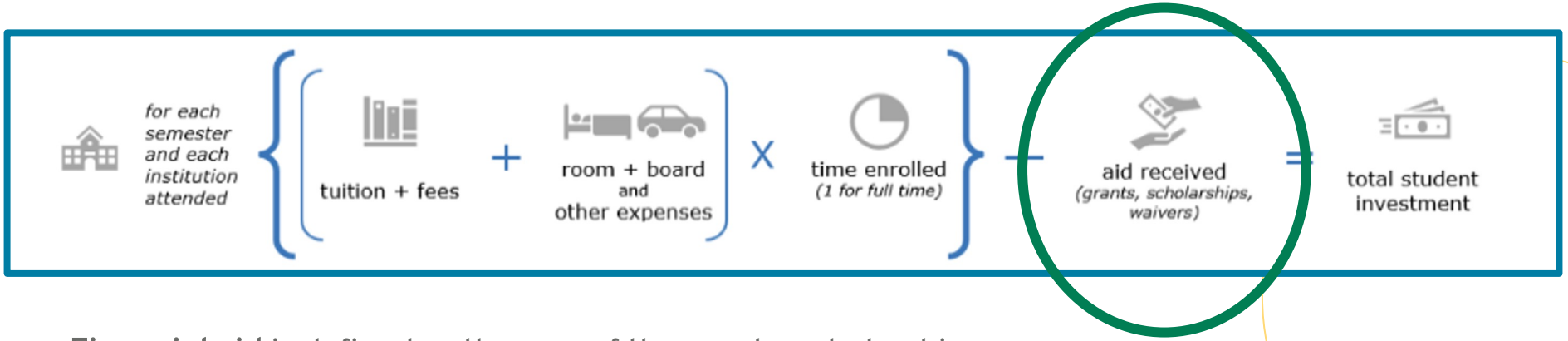


Total Student Investment: Net Cost of Attendance



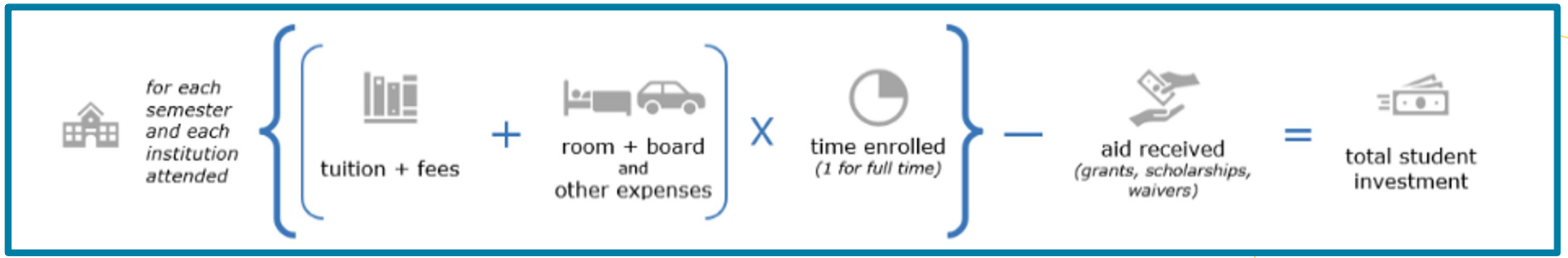
Net Cost of attendance (IPEDS) is defined as the total amount of the prorated cost of attendance during the student's academic progress toward completing the credential.

Total Student Investment: Financial Aid



Financial aid is defined as the sum of the grants, scholarships, and tuition waivers for each individual student from FAD records.

Total Student Investment



For the **baseline**, total student investment is aggregated, and the mean is used for each student by institution, level, and degree program area.

Credentials of Value:
Achieving Positive Return on Investment

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TOTAL STUDENT INVESTMENT

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OPPORTUNITY COST

Opportunity Cost *(foregone wages)*

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Base Comparison Wage

≤

CUMULATIVE EARNINGS

CUMULATIVE EARNINGS

Credentials of Value:
Opportunity Cost

- Defined as the **potential earnings** a graduate could have earned **during the time they were enrolled**
- **Median annual wage for Texas high school graduates ages 22-40** for each year enrolled
  - American Community Survey (ACS) data
- For the **baseline**, we use **program design** time to degree
  - Certificates: 1 year, Associates: 2 years, Bachelors: 4 years
- Subtract earnings while enrolled from potential earnings
  - TWC Wage data

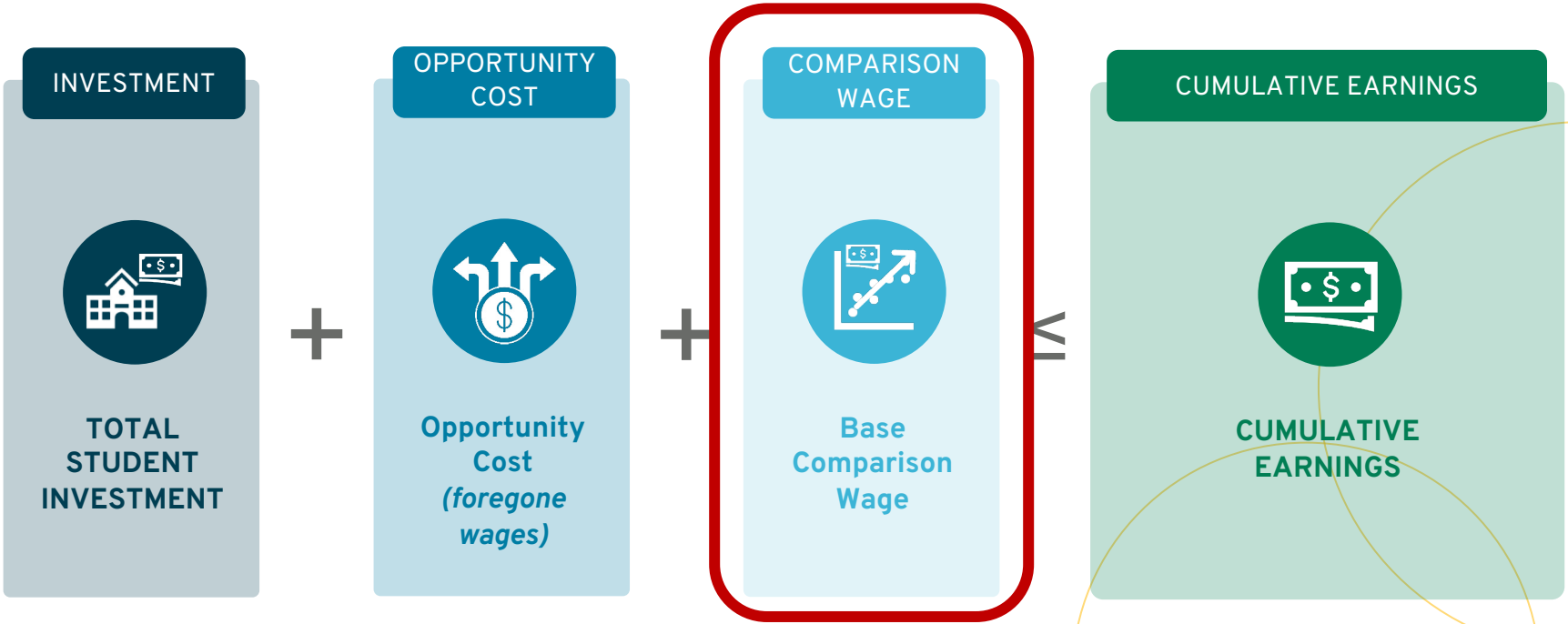
[potential earnings] - [earnings while enrolled] = opportunity cost

Credentials of Value:
Opportunity Cost Example

- For an Associate degree earner:

[*Base Wage* $26,184 **X** *Program Design Time to Degree* 2 years] **-** *Earnings while enrolled*

Credentials of Value:
Achieving Positive Return on Investment



Credentials of Value:
Base Comparison Wage

Median Annual HS Grad Wage		Years since Postsecondary Graduation
$26,184	X	10 years

- How much we **expect a person to make if they did not receive postsecondary credential**
  - Cumulative amount a HS grad is expected to make **over 10 years**
- **Median annual wage for Texas high school graduates ages 22-40** for each year enrolled
  - American Community Survey (ACS) data
- Base comparison wage is the same for everyone for each year

Cumulative Median Annual High School Wage (Base Comparison Wage)									
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
$26,184	$52,368	$78,552	$104,736	$130,920	$157,104	$183,288	$209,472	$235,656	$261,840

Credentials of Value:
Achieving Positive Return on Investment

INVESTMENT

TOTAL STUDENT INVESTMENT

+

OPPORTUNITY COST

Opportunity Cost *(foregone wages)*

+

COMPARISON WAGE

Base Comparison Wage

≤

CUMULATIVE EARNINGS

CUMULATIVE EARNINGS

Credentials of Value:
Annual Cumulative Earnings

Annual earnings each year for 10 years following completion of program. Wages are matched to each student by SSN using TWC wage records.

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Annual Earnings	$47,000	$49,000	$52,000	$56,000	$60,000	$62,000	$ 68,000	$70,000	$75,000	$78,000
Cumulative Annual Earnings	$47,000	$96,000	$148,000	$204,000	$ 264,000	$326,000	$394,000	$464,000	$539,000	$617,000

Does Student Achieve a Positive Return on Investment within 10 Years?

Is a Program a Credential of Value?

- Baseline methodology is calculated for each student in the state within a specified program area.
- If at least half of students achieve a positive return on investment within 10 years, the program is a credential of value.

Is a Program a Credential of Value?

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- **Example Program:**

Number of years since graduating	1	2	3	4	5	6	7	8	9	10
Total Students (statewide)	400	400	400	400	400	400	400	400	400	400
Students achieving positive ROI	15	20	50	90	250	280	300	310	340	380
Percentage	3.75%	5%	12.5%	22.5%	62.5%	70%	75%	77.5%	85%	95%
COV Baseline	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes

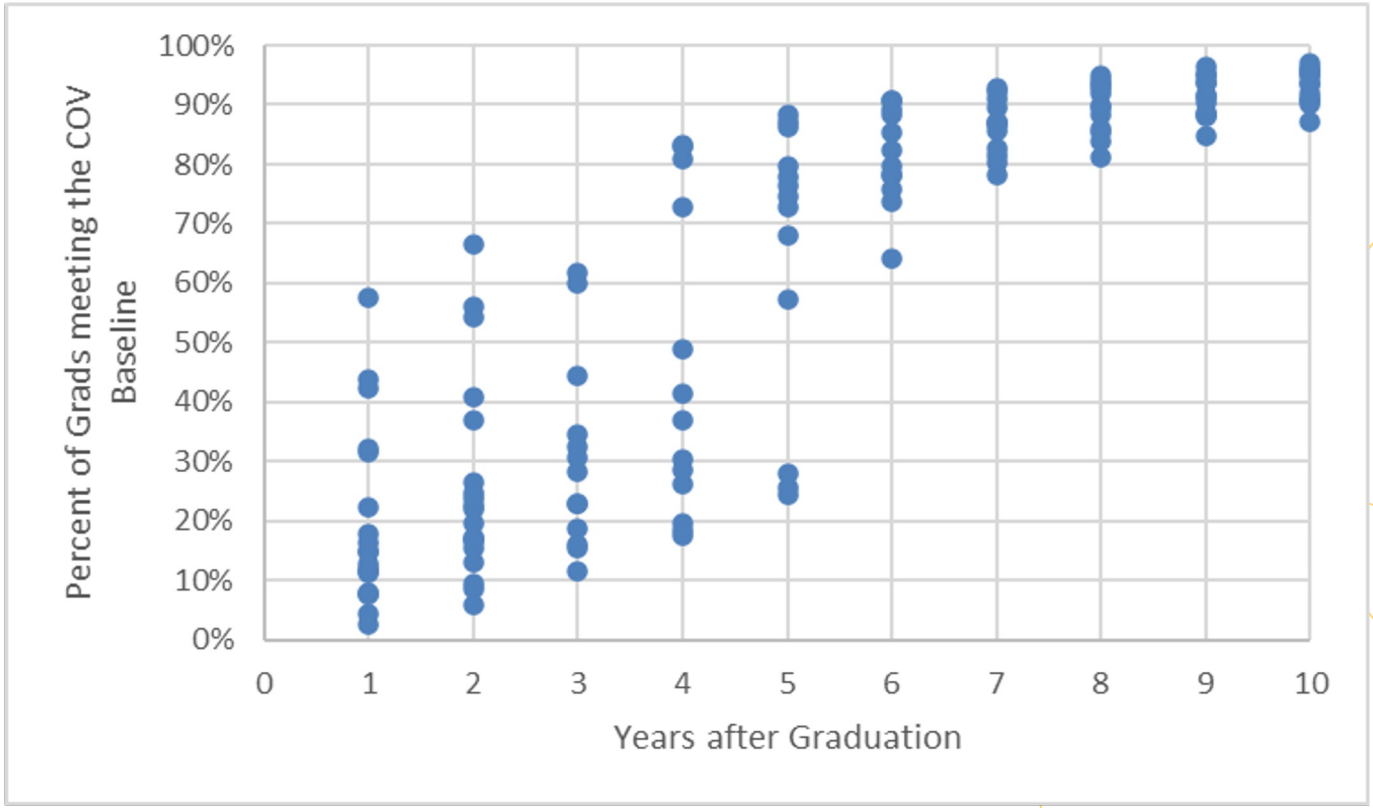
COV Premium Methodology

Credentials of Value Premium: RULE §13.556(c)

(1) The student completes the credential of value on or before the target year for completion that, for the majority of students who complete comparable programs, would enable the student to achieve a positive return on investment within the timeframe specified for the program as described in paragraph (2) of this subsection.

(2) For each program, the Coordinating Board shall calculate the year in which the majority of comparable programs would be projected to have the majority of their students achieve a positive return on investment.

Credentials of Value Premium
Determining Target Years



Credentials of Value:
Program Area Target Years

Degree Type	Program Area	Threshold Year
Associate	Agriculture and natural resources	5
Associate	Architecture and engineering	2
Associate	Arts	6
Associate	Biology and life sciences	5
Associate	Business	2
Associate	Communications and journalism	5
Associate	Computers, statistics, and mathematics	4
Associate	Education	4
Associate	Health	1
Associate	Humanities and liberal arts	4
Associate	Industrial arts, consumer services, and recreation	4
Associate	Legal services, public policy, and social work	1
Associate	Other	3
Associate	Physical sciences	2
Associate	Psychology	4
Associate	Social sciences	3
Bachelor's	Architecture and engineering	1
Bachelor's	Business	1
Bachelor's	Computers, statistics, and mathematics	**
Bachelor's	Education	**
Bachelor's	Health	1

**Indicates a program in which we do not have sufficient data to determine a threshold year

Credentials of Value:
Program Area Target Years

Degree Type	Program Area	Threshold Year
Certificate	Agriculture and natural resources	2
Certificate	Architecture and engineering	1
Certificate	Arts	3
Certificate	Business	1
Certificate	Communications and journalism	1
Certificate	Computers, statistics, and mathematics	1
Certificate	Education	2
Certificate	Health	1
Certificate	Humanities and liberal arts	1
Certificate	Industrial arts, consumer services, and recreation	1
Certificate	Legal services, public policy, and social work	1
Certificate	Other	1
Certificate	Physical sciences	1
Certificate	Social sciences	1
Certificate	Agriculture and natural resources	2
Certificate	Architecture and engineering	1
Certificate	Arts	3
Certificate	Business	1
Certificate	Communications and journalism	1
Certificate	Computers, statistics, and mathematics	1
Certificate	Education	2

**Indicates a program in which we do not have sufficient data to determine a threshold year

Credentials of Value:
Achieving Positive Return on Investment

INVESTMENT

TOTAL STUDENT INVESTMENT

+

OPPORTUNITY COST

Opportunity Cost *(foregone wages)*

+

COMPARISON WAGE

Base Comparison Wage

≤

PROJECTED CUMULATIVE EARNINGS

PROJECTED CUMULATIVE EARNINGS

Credentials of Value:
Key Differences

	Baseline CoV	Premium CoV
Cohort	10-year cohort (back to 2008)	Most recent graduate cohort
Cost of Attendance	Uses average by program, level, and institution	Uses individual
Opportunity Cost	Uses program design	Uses real time to degree
Cumulative Wages	Uses data from baseline cohort	Uses projected wage from baseline cohort

Premium cohort

- **Graduates Included:**
  - Students who receive their undergraduate credentials (i.e., Baccalaureate, Associate, or Certificate) from either Texas public 2-year or 4-year institutions
- **Graduates Excluded:**
  - Students who receive their credentials at Texas private institutions
  - Students who transferred from out-of-state institutions to Texas institutions
  - Students who do not have an FTIC record
  - Students who previously earned a degree of the same level or higher

Credentials of Value:
Opportunity Cost Example

- For an Associate degree earner:

Base Wage		*Real Time to Degree*		*Earnings While Enrolled*
$26,184	X	4 years	-	

Credentials of Value:
Projected Cumulative Earnings

Average wages at the program area breakeven year are projected onto the most recent cohort of graduates. This projected wage is used to determine whether or not a graduate is projected to achieve a positive ROI by their program breakeven year, based on their real investment during their time enrolled.

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Average annual Earnings	$47,000	$49,000	$52,000	$56,000	$60,000	$62,000	$68,000	$70,000	$75,000	$78,000
Cumulative Annual Earnings	$47,000	$96,000	$148,000	$204,000	$264,000	$326,000	$394,000	$464,000	$539,000	$617,000

Example

Credentials of Value Premium: Example

Example graduate earned an associates degree in biology. In this example, our graduate:

-took 4 years to graduate

-estimated total tuition was $20,000

-received $10,000 total in grant aid

So, total investment is $10,000 (= $20,000 – $10,000)

Credentials of Value: Example

Example graduate earned an associates degree in biology. In this example, our graduate:

-took 4 years to graduate

-foregone earnings are $104,736 ($26,184 *4 years)

-had a median earnings while enrolled of $5,000 per year. This gives us $20,000 in earnings over 4 years ($5,000*4 years)

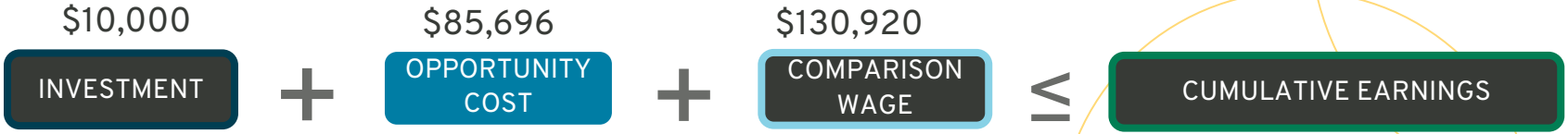
Total opportunity cost is $84,736 (=$104,736-$20,000)

Credentials of Value: Example

Example graduate earned an associates degree in biology. In this example, our graduate:

-needs to break even by year 5 to get the premium, so we will use the year 5 comparison wage

-comparison wage is $130,920 ($26,184 *5 years)



Credentials of Value: Example

Ex: Target year for our biology graduate is 5 years after graduation. $264,000 is the 5-year projected cumulative earnings for our most recent cohort of graduates.

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Average annual Earnings	$47,000	$49,000	$52,000	$56,000	**$60,000**	$62,000	$68,000	$70,000	$75,000	$78,000
Cumulative Annual Earnings	$47,000	$96,000	$148,000	$204,000	**$264,000**	$326,000	$394,000	$464,000	$539,000	$617,000

$10,000 INVESTMENT + $84,736 OPPORTUNITY COST + $130,920 COMPARISON WAGE ≤ $264,000 CUMULATIVE EARNINGS

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Credentials of Value: Example

The projected cumulative earnings at year 5 for this graduate are higher than their total investment. This graduate would be funded for a premium credential of value

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Average annual Earnings	$47,000	$49,000	$52,000	$56,000	**$60,000**	$62,000	$68,000	$70,000	$75,000	$78,000
Cumulative Annual Earnings	$47,000	$96,000	$148,000	$204,000	**$264,000**	$326,000	$394,000	$464,000	$539,000	$617,000

Total Investment/Cost = $225,656 ≤ $264K

$10,000 INVESTMENT + $84,736 OPPORTUNITY COST + $130,920 COMPARISON WAGE ≤ CUMULATIVE EARNINGS

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Credentials of Value:
Data Access

- All data points are not collected and reported by the college
- College personnel have access to the majority of data points for COV Baseline, but not all
  - Colleges would not have the data to calculate the Target Years for COV Premium

Credentials of Value: Data Access

Data Resource	Institutions collect and report this data?	Who Typically Has Access?	Publicly Available Resource
Graduation, Enrollment & Schedule Records	Yes	Institutional Research, State Reporting Official	Not at level needed
Tuition	Yes	IPEDs Reporting Official, Finance Office, Institutional Research	IPEDs
Financial Aid	Yes	Financial Aid Offices	Not at level needed
Base Wage	No	Institutional Research could pull this information	American Community Survey
Graduate Earnings	No	Not available to institutional staff unless you have an agreement with TWC for UI Wage Records for your students	Not at level needed

Credentials of Value: Purpose

- Ensuring students see a return on the value of their investment
- Provide confidence that credentials equip graduates for good jobs, continued learning, and rewarding careers
- Equip institutions to think strategically about how to ensure students are achieving a positive return
- Foster intentional decision-making that can directly impact total student investment

DMR CoV Contacts

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