



# **ACCESS AND OUTCOMES:**

# **A NEW ERA FOR CAREER AND TECHNICAL EDUCATION**

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# DEFINITIONS OF EQUITY

## Equity in the context of Career and Technical Education<sup>1</sup>:

- EQUITY IN EDUCATION: “...the process involved in achieving the ultimate goal of equality. Equity in education provides students with the varied, additional, or differentiated supports needed to achieve equality”<sup>2</sup>
- EQUITY GAPS: “[differences] in results between various [categories] of students”<sup>2</sup>
- OPERATIONALIAED EQUITY: “a reduction of bias [in education]”<sup>3</sup>

1. TURNER, F. (2018). *EQUITY AND CAREER AND TECHNICAL EDUCATION*. ILLINOIS COMMUNITY COLLEGE BOARD. RETRIEVED AUGUST 8, 2021, FROM [HTTPS://OCCRL.ILLINOIS.EDU/DOCS/LIBRARIESPROVIDER4/CTE/EQUITY-BRIEF.PDF](https://occrll.illinois.edu/docs/librariesprovider4/cte/equity-brief.pdf)

2. WELTON, A. D. & LA LONDE, P. G. (2013). *FACING EQUITY: UNDERSTANDING P-20 EQUITY CONSCIOUS LEADERSHIP FOR COLLEGE AND CAREER PATHWAYS*. CHAMPAIGN, IL: PATHWAYS RESOURCE CENTER, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN. RETRIEVED FROM [HTTPS://OCCRL.ILLINOIS.EDU/DOCS/LIBRARIESPROVIDER4/PRC/FACING-EQUITY.PDF](https://occrll.illinois.edu/docs/librariesprovider4/prc/facing-equity.pdf)

3. GIOIOSA, C. (2014). GENDER EQUITY IN CTE AND STEM EDUCATION. *INSIGHTS ON EQUITY AND OUTCOMES*, 6, 1-4. RETRIEVED FROM [HTTPS://OCCRL.ILLINOIS.EDU/DOCS/LIBRARIESPROVIDER4/PTR/INSIGHTS-ON-EQUITY-AND-OUTCOMES-6.PDF](https://occrll.illinois.edu/docs/librariesprovider4/ptr/insights-on-equity-and-outcomes-6.pdf)

## OVERVIEW

Career and Technical Education

Accessibility

Outcomes

# CAREER AND TECHNICAL EDUCATION:

HISTORY

CHALLENGES

LANDSCAPE

- History of CTE
- Challenges in CTE
- What does CTE landscape look like now?

# CAREER AND TECHNICAL EDUCATION:

## HISTORY

## CHALLENGES

## LANDSCAPE

- Tracking in K-12 Education
  - Rooted in segregation
  - Primarily tracked students into vocational, general, and college-prep pathways
  - Ability grouping more common in modern education
  - Lasting implications for vocational education
- Predatory Post-Secondary Career and Technical Schools
  - Post-secondary CTE associated with private for-profit institutions
  - Predatory marketing, loans, and practices amongst well-known institutions
  - Over 100 for-profit institutions closed during the 2016-2018 academic years, a record-breaking number<sup>1</sup>

1. [HTTPS://WWW.HIGHEREDDIVE.COM/NEWS/MORE-THAN-100-FOR-PROFIT-INSTITUTIONS-CLOSED-DURING-PAST-YEAR-ACCORDING-TO/525094/](https://www.highereddive.com/news/more-than-100-for-profit-institutions-closed-during-past-year-according-to/525094/)

# CAREER AND TECHNICAL EDUCATION: HISTORY CHALLENGES

## LANDSCAPE

- Reputation
  - History leads to distrust among students, regulators, employers
  - Seen as “less-than” compared to degree-seeking pathways
  - Lack of research and data transparency throughout the field<sup>1</sup>
- Regulation
  - Lack of federal regulation over non-degree credentials and programs leads to inconsistencies and opportunity for further predatory practice
  - State-to-state differences in regulation of certificate-level and non-accredited programs
  - Less emphasis on funding and encouraging pathways nationally
- Equity and Accessibility
  - CTE still shows significant racial and gender disparity<sup>2</sup>
  - Technological and literacy gaps create barriers to CTE for disadvantaged students<sup>3</sup>
  - Much federal and state CTE-related legislation (Such as Perkins V) fails to specifically address racial and gender equity in the field

1. [HTTPS://WWW.AYPF.ORG/BLOG/A-GUIDE-FOR-STATE-LEADERS-EQUITY-IN-CAREER-AND-TECHNICAL-EDUCATION-CTE/](https://www.aypf.org/blog/a-guide-for-state-leaders-equity-in-career-and-technical-education-cte/)

2. [HTTPS://HECHINGERREPORT.ORG/HOW-CAREER-AND-TECHNICAL-EDUCATION-SHUTS-OUT-BLACK-AND-LATINO-STUDENTS-FROM-HIGH-PAYING-PROFESSIONS/](https://hechingerreport.org/how-career-and-technical-education-shuts-out-black-and-latino-students-from-high-paying-professions/)

3. [HTTPS://WWW.URBAN.ORG/SITES/DEFAULT/FILES/PUBLICATION/103777/RACIAL-AND-ETHNIC-EQUITY-GAPS-IN-POSTSECONDARY-CAREER-AND-TECHNICAL-EDUCATION\\_CONSIDERATIONS-FOR-ONLINE-LEARNING\\_0.PDF](https://www.urban.org/sites/default/files/publication/103777/racial-and-ethnic-equity-gaps-in-postsecondary-career-and-technical-education_considerations-for-online-learning_0.pdf)

# CAREER AND TECHNICAL EDUCATION:

HISTORY

CHALLENGES

LANDSCAPE

- What does CTE look like now?
  - Equity challenges<sup>1</sup>
    - “Significant disparities in postsecondary CTE outcomes exist between students of color and white students within postsecondary CTE programs at community and technical colleges, and these gaps are wider in online programs. Identifying and narrowing these disparities is important because research has shown the positive labor market returns of community and technical college certificates and degrees, especially in health-related and technical fields” Initiatives in Missouri
    - COVID-19-related drops in post-secondary CTE enrollment in 2020 disproportionately affected Black and Latinx students compared to white peers
    - Of the 14 different certificate fields identified, 12 are extremely sex segregated, meaning that three out of four certificate holders are of the same sex. Compared to men, women earn certificates that bring them limited earnings returns: a certificate’s wage premium over a high school diploma is 27 percent for men and just 16 percent for women.<sup>2</sup>
  - Accountability<sup>3</sup>
    - Increasing industry standards and accountability is crucial to enter a new era of CTE
    - Without research on educational outcomes and effectiveness, and transparent data collection and aggregation, little can improve

1. [HTTPS://WWW.LUMINAFOUNDATION.ORG/WP-CONTENT/UPLOADS/2021/04/ETHNIC-EQUITY-GAPS.PDF](https://www.luminafoundation.org/wp-content/uploads/2021/04/ethnic-equity-gaps.pdf)

2. CARNEVALE, A.P., ROSE, S.J., & HANSON, A.R. CERTIFICATES: GATEWAY TO GAINFUL EMPLOYMENT AND COLLEGE DEGREES, GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE, 2012.

3. [HTTPS://CTEPOLICYWATCH.ACTEONLINE.ORG/HEA/](https://ctepolicywatch.acteonline.org/hea/)

# ACCESSIBILITY CONSIDERATIONS

- Financial
- Location
- Prerequisites
- Enrollment Process
- Time Commitment
- Schedule
- Program Adaptability
- Institutional Bias and Gatekeeping
- Outcomes as an Accessibility Component



## OUTCOMES:

CONTINUING ED.

CAREER

ECONOMIC STABILITY

- Continuing Education
- Career
- Economic Stability

# OUTCOMES: CONTINUING ED.

CAREER

ECONOMIC STABILITY

- High school students who were CTE concentrators were more likely than non-concentrators to earn an associate's degree as their highest level of educational attainment within eight years of their expected high school graduation.<sup>1</sup>
- A recent study showed CTE participants were 10% more likely to graduate high school and showed significantly higher standardized testing scores.<sup>2</sup> However, these increases were higher among male students vs. female students.

1. [HTTPS://WWW2.ED.GOV/DATASTORY/CTE/INDEX.HTML](https://www2.ed.gov/datastory/cte/index.html)

2. [HTTPS://WWW.FORBES.COM/SITES/THE74/2020/03/12/STUDY-CAREER-AND-TECHNICAL-EDUCATION-YIELDS-NOT-JUST-HIGHER-EARNINGS-BUT-HIGHER-TEST-SCORES/?SH=39EE1496186B](https://www.forbes.com/sites/the74/2020/03/12/study-career-and-technical-education-yields-not-just-higher-earnings-but-higher-test-scores/?sh=39EE1496186B)

# OUTCOMES:

CONTINUING ED.

CAREER

ECONOMIC STABILITY

- 53% of college graduates are unemployed or working in a field that does not require a college degree.<sup>1</sup>
- High school students who were CTE concentrators were employed full-time at higher rates eight years after their expected high school graduation compared to non-concentrators.<sup>2</sup>
- Most respondents said their last postsecondary certificate was either very useful (49 percent) or somewhat useful (27 percent) in getting them a job. An even larger percentage (83 percent) said the certificate program had improved their work skills, while 58 percent said it was useful in increasing their pay.<sup>3</sup>

1. [HTTPS://WWW.WASHINGTON.EDU/DOIT/WHAT-CAN-STUDENTS-DO-IMPROVE-THEIR-CHANCES-FINDING-EMPLOYMENT-AFTER-COLLEGE](https://www.washington.edu/doit/what-can-students-do-improve-their-chances-finding-employment-after-college)

2. [HTTPS://WWW2.ED.GOV/DATASTORY/CTE/INDEX.HTML](https://www2.ed.gov/datastory/cte/index.html)

3. [HTTPS://WWW.INSIDEHIGHERED.COM/NEWS/2017/09/14/FEDS-RELEASE-DATA-NONDEGREE-CREDENTIALS-INCLUDING-CERTIFICATES-AND-LICENSES](https://www.insidehighered.com/news/2017/09/14/feds-release-data-nondegree-credentials-including-certificates-and-licenses)

# OUTCOMES:

## CONTINUING ED.

## CAREER

## ECONOMIC STABILITY

- In nineteen states, average debt (of student loans for a college graduate) was more than \$30,000, and it was over \$35,000 in six states. <sup>1</sup>
- Forty-three percent of young workers with licenses and certificates earn more than those with an associate degree; 27 percent of young workers with licenses and certificates earn more than those with a bachelor's degree; and 31 percent of young workers with associate degrees earn more than those with a bachelor's degree. <sup>2</sup>
- These percentages decrease slightly over the lifetime of a worker, but not significantly.
- Eight years after their expected graduation date, students who focused on career and technical education (CTE) courses while in high school had higher median annual earnings than students who did not focus on CTE. <sup>3</sup>
- [Certificate Holders] are most likely to earn between \$20,000 and \$50,000 per year (42 percent), with 29 percent earning less than \$20,000 and 29 percent earning more than \$50,000... Fully half of certification holders reported making more than \$50,000 a year, with a third making between \$20,000 and \$50,000, and 17 percent making less than \$20,000. <sup>4</sup>

1. [HTTPS://TICAS.ORG/AFFORDABILITY-2/STUDENT-AID/STUDENT-DEBT-STUDENT-AID/AVERAGE-DEBT-FOR-CLASS-OF-2020-VARIES-WIDELY-BY-STATE-AND-COLLEGE-PRIVATE-STUDENT-LOANS-DRIVE-UP-DEBT-LOADS-IN-HIGH-DEBT-STATES/](https://ticas.org/affordability-2/student-aid/student-debt-student-aid/average-debt-for-class-of-2020-varies-widely-by-state-and-college-private-student-loans-drive-up-debt-loads-in-high-debt-states/)

2. GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE, *VALUING CERTIFICATES*, PRESENTATION, 2009

3. [HTTPS://WWW2.ED.GOV/DATASTORY/CTE/INDEX.HTML](https://www2.ed.gov/datastory/cte/index.html)

4. [HTTPS://WWW.INSIDEHIGHERED.COM/NEWS/2017/09/14/FEDS-RELEASE-DATA-NONDEGREE-CREDENTIALS-INCLUDING-CERTIFICATES-AND-LICENSES](https://www.insidehighered.com/news/2017/09/14/feds-release-data-nondegree-credentials-including-certificates-and-licenses)

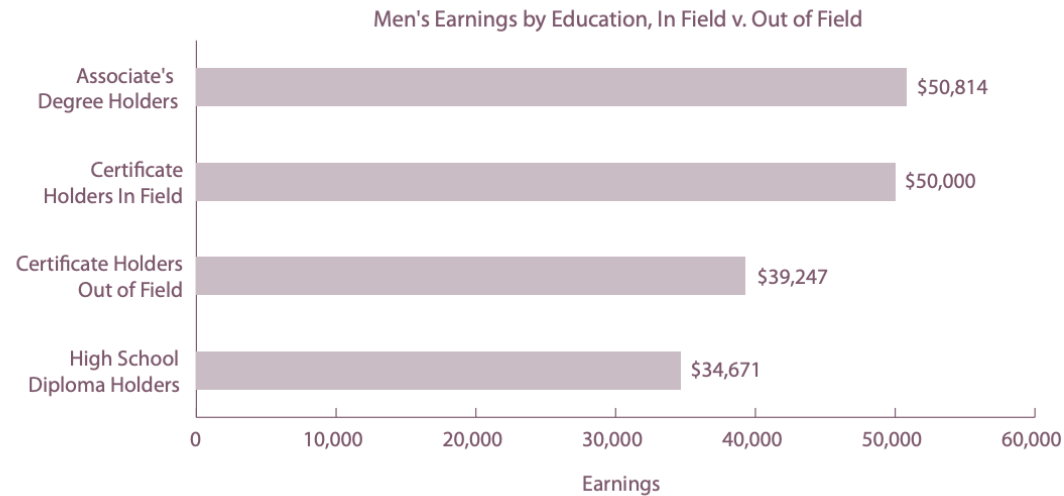
# OUTCOMES:

## CONTINUING ED.

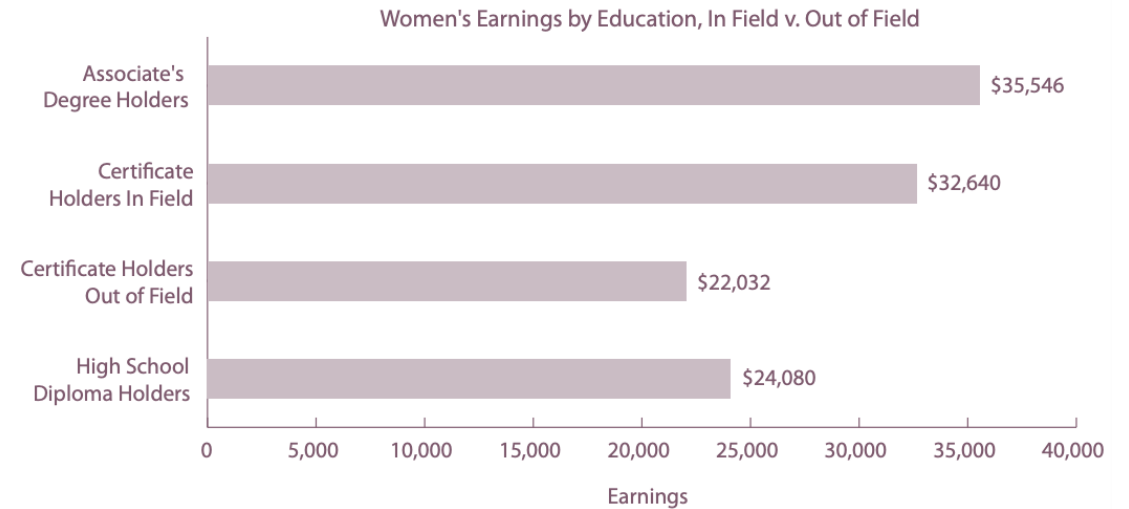
## CAREER

## ECONOMIC STABILITY

—● Figure 15. Men with certificates who work in field earn approximately as much as men with Associate's degrees.



—● Figure 16. Women with certificates who work out of field earn less, on average, than women with high school diplomas.



# CONCLUSIONS

- Encouraging CTE pathways
- Stakeholders in the next chapter of CTE
  - Students
  - Schools
  - Regulators
  - Employers
  - Funding