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WHY SOME IBCS PROVIDE LIMITED VALUE (AND WHY STUDENTS EARN THEM ANYWAY)

LonestaRP3 Connect Virtual Event

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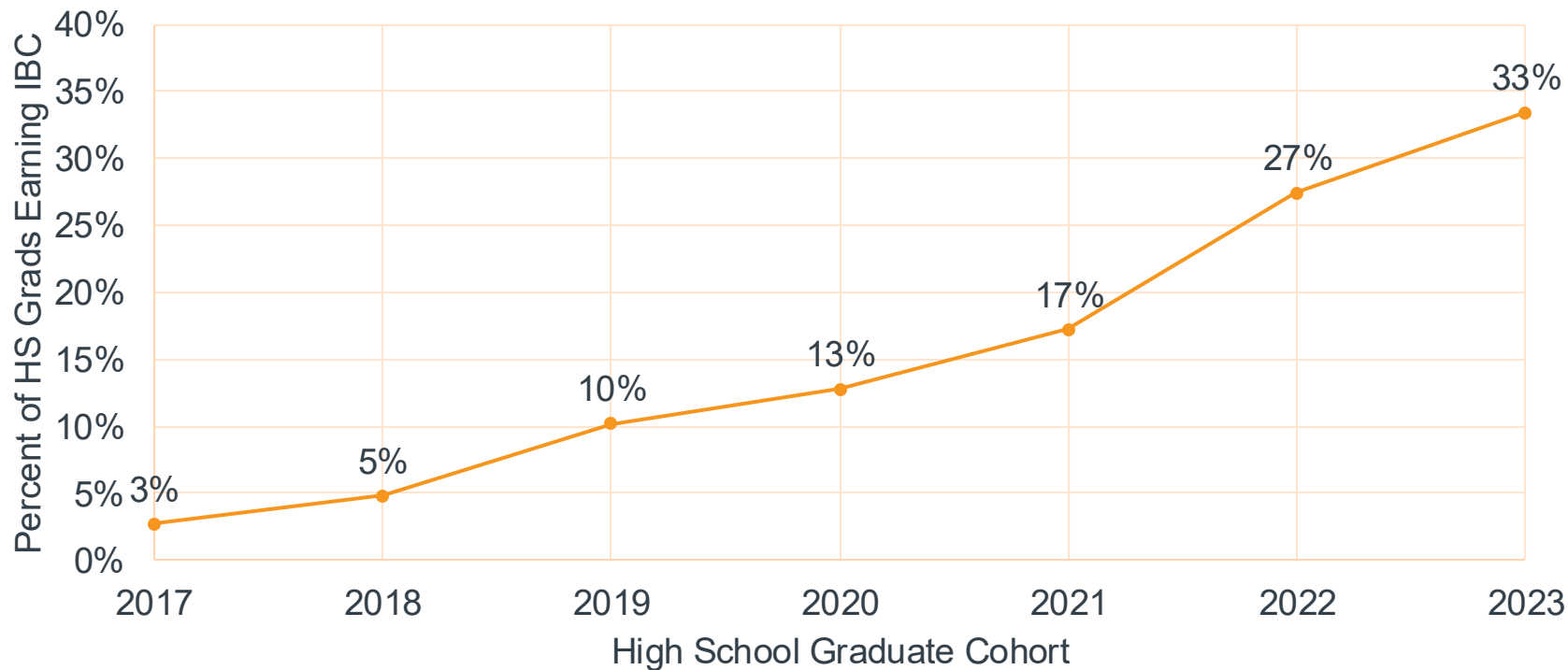
The University of Texas at Austin

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What are industry-based certifications (IBCs) in Texas?

- Assessments of career-relevant knowledge and skills
- Developed by businesses, industry groups, or state certifying entities
- Typically embedded in career and technical education (CTE) programs of study
- Attainable by high school students and approved by TEA
- Aligned with high-demand/high-skill occupations

IBCs have exploded in Texas



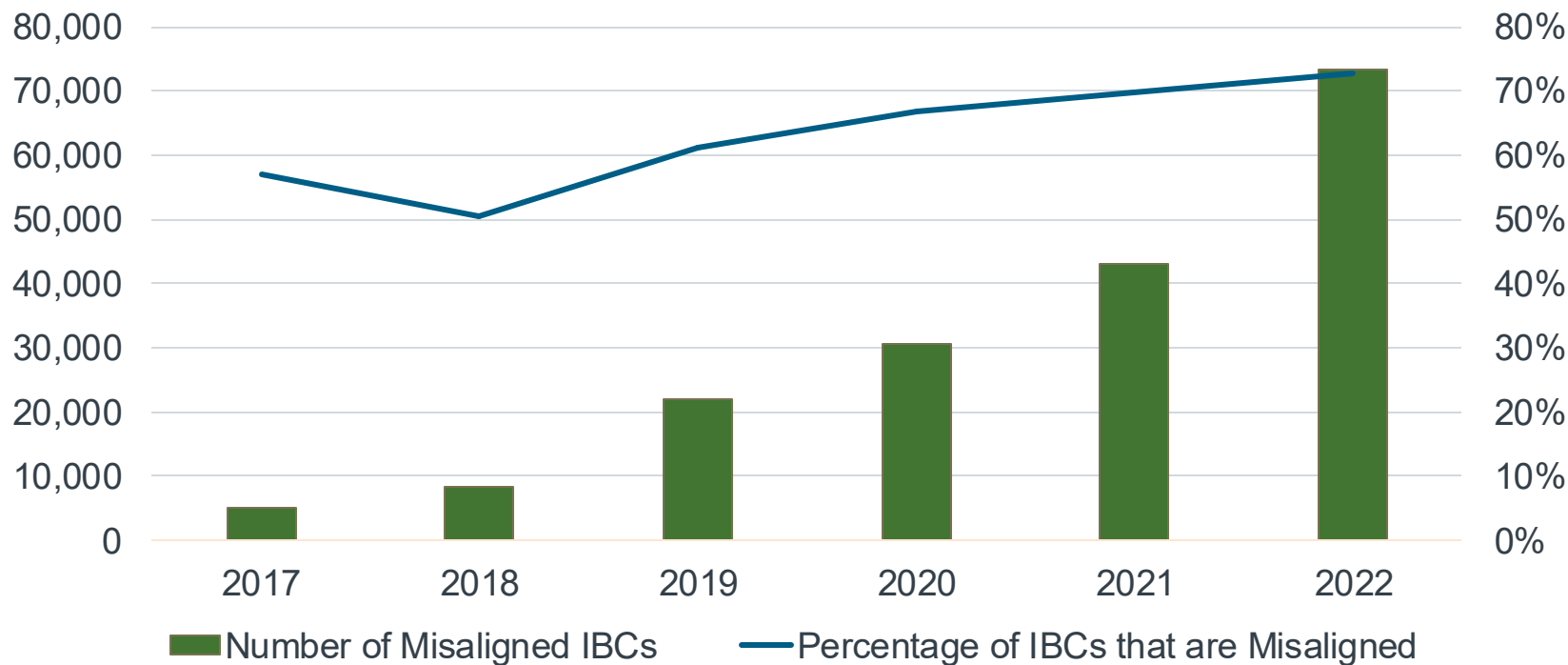
Research Questions

- 1) How aligned are IBCs with students' pathways?
- 2) How and why have schools responded to IBC policy?
- 3) How do IBCs relate to students' postsecondary outcomes?
- 4) To what extent is the relationship between IBC attainment and postsecondary outcomes moderated by IBC alignment and subject and student demographics?

Findings

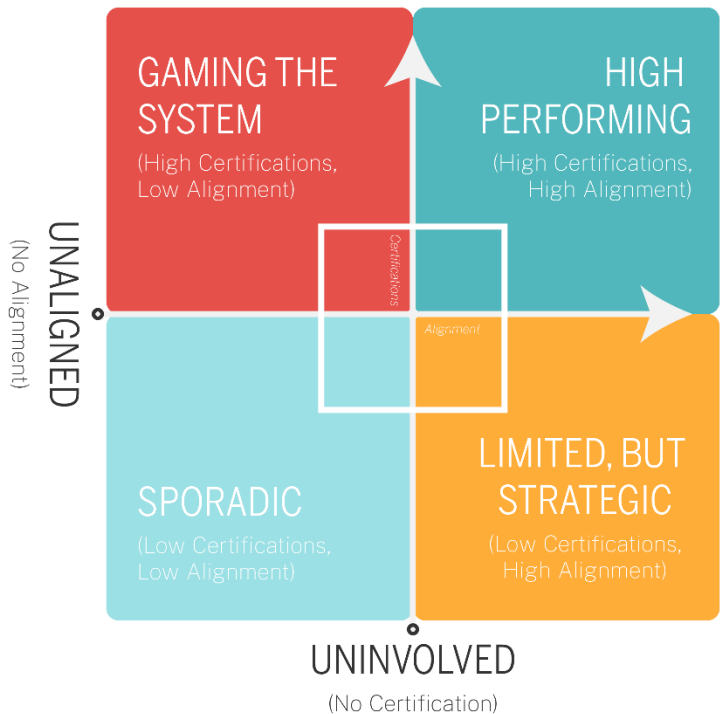
1. CTE-IBC misalignment is large and growing

CTE-IBC misalignment is large and growing



Source: Giani, M. S., Andrews, M. E., Sultana, T., & Medrano, F. (2025). Curricular-credential decoupling: How schools respond to career and technical education policy. *EdWorkingPapers*, No. 25-1128. Retrieved from <https://edworkingpapers.com/sites/default/files/ai25-1128.pdf>.

Typology of High Schools

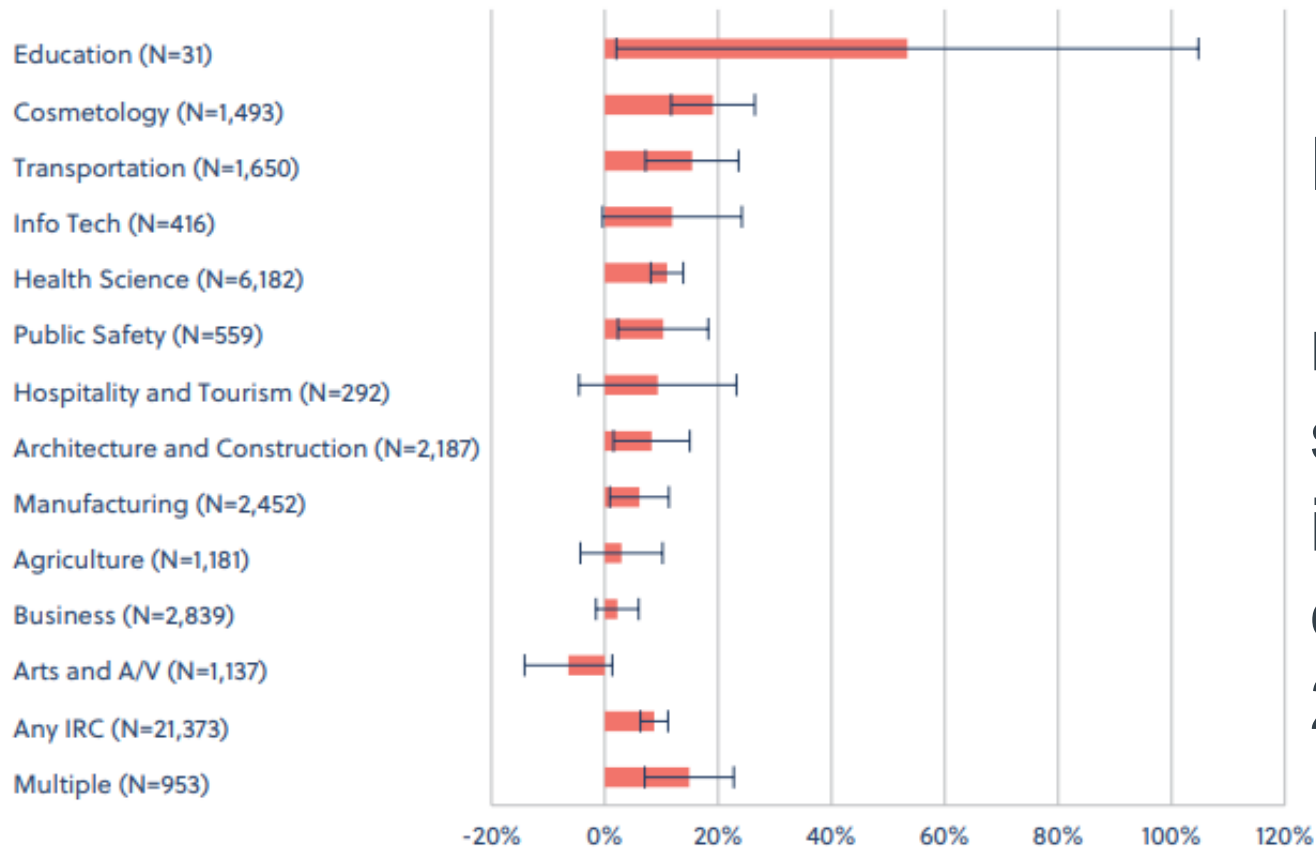


| Category | Category Definition | n= | % |
|-----------------------------|---|-----|-------|
| No Certifications | Schools without any students earning an IBC | 415 | 20.8% |
| No Alignment | Schools with some IBC earners, but none that aligned to students' CTE coursework | 401 | 20.1% |
| Low Cert-Low Align | Schools where <50% of students earn IBCs and among those students, <50% earn aligned certifications | 646 | 32.4% |
| Low Cert-High Align | Schools where <50% of students earn IBCs and among those students, >50% earn aligned certifications | 246 | 12.3% |
| High Cert-Low Align | Schools where >50% of students earn IBCs and among those students, <50% earn aligned certifications | 256 | 12.8% |
| High Cert-High Align | Schools where >50% of students earn IBCs and among those students, >50% earn aligned certifications | 29 | 1.5% |

Source: Giani, M. S., Andrews, M. E., Sultana, T., & Medrano, F. (2025). Curricular-credential decoupling: How schools respond to career and technical education policy. *EdWorkingPapers*, No. 25-1128. Retrieved from <https://edworkingpapers.com/sites/default/files/ai25-1128.pdf>.

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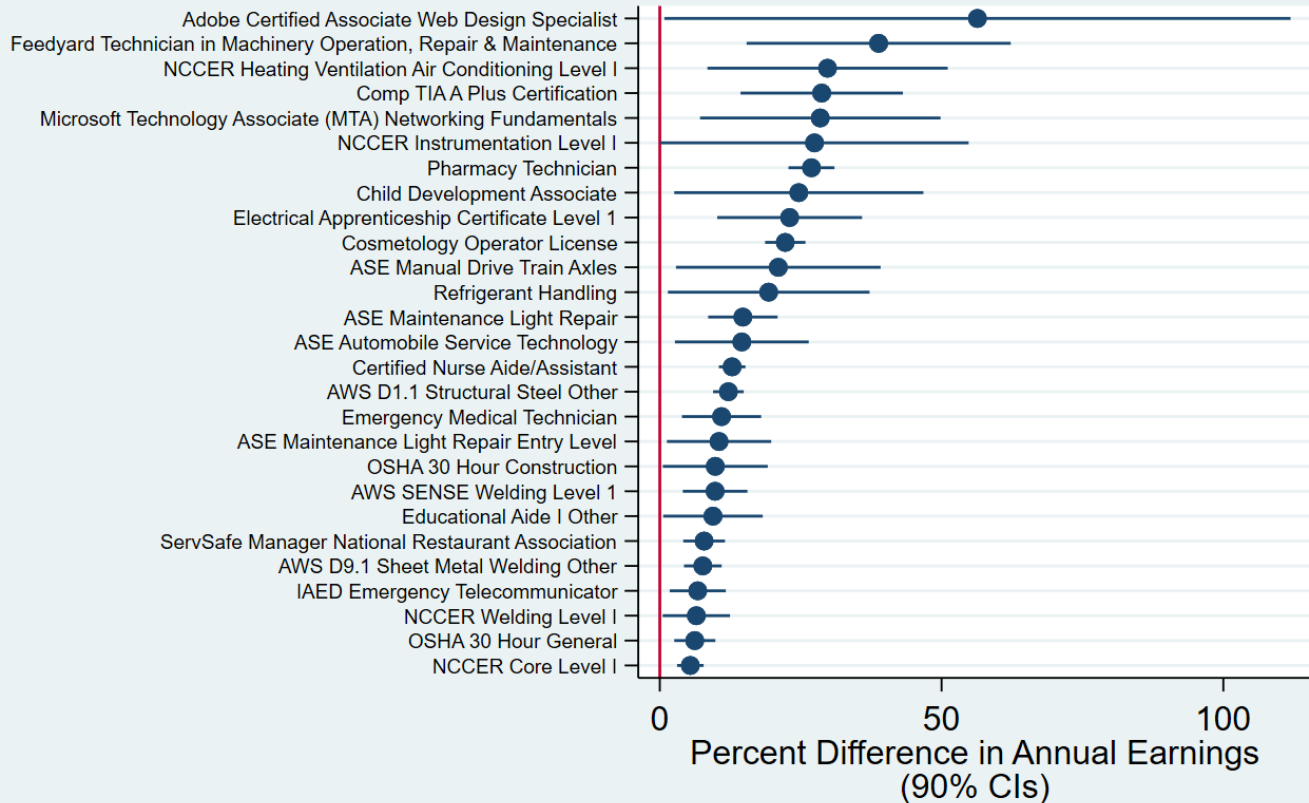
1. CTE-IBC misalignment is large and growing
2. Only some IBCs relate to significant improvements in postsecondary outcomes



Many, but not all,
IBC subjects
related to
significant
increases in
earnings for
2017-19 grads

Percentage Difference in Earnings Between IRC Recipients and Non-Recipients

IBCs and First-Year Log-Earnings 2017-21 HS Grad Cohorts



Few individual IBCs relate to significant increases in earnings for 2017-2021 grads

Few of the most popular IBCs relate to significant improvements in various postsecondary outcomes

| Name | IBCs Awarded | Total Cost | % Aligned | 1YE | 1YW | 3YW | 3PS |
|---|--------------|----------------|-----------|-----|-----|-----|-----|
| Microsoft Office Specialist Word | 136,729 | \$2,189,782.16 | 13% | X | X | X | X |
| Floral Skills Knowledge Based | 62,071 | \$1,412,644.00 | 19% | X | X | X | X |
| Google Analytics Individual Qualification | 49,764 | \$1,703.49 | 5% | X | X | X | + |
| NCCER Core Level I NCCER | 41,451 | \$399,194.33 | 15% | + | + | + | X |
| Adobe Certified Associate Photoshop | 37,990 | \$858,209.30 | 37% | - | X | X | X |
| Microsoft Office Specialist Excel | 37,654 | \$540,988.66 | 17% | - | X | X | X |
| AWS D9.1 Sheet Metal Welding | 29,610 | \$451,623.66 | 13% | + | + | + | + |
| AWS D1.1 Structural Steel | 28,241 | \$490,430.21 | 18% | + | + | + | + |
| Microsoft Office Expert Word | 27,330 | \$336,859.74 | 18% | - | X | X | X |
| OSHA 30 Hour | 27,240 | \$2,022,682.36 | 16% | X | + | X | X |

| IBC Type: | Employment Probability | Wages |
|------------|-----------------------------|--------|
| Any | No significant relationship | +5.1% |
| Aligned | +1.2% | +14.7% |
| Misaligned | -0.5% | +0.3% |

For 2017-21 grads, IBCs are positively related to wage returns and small employment gains, if *aligned*

Findings

1. CTE-IBC misalignment is large and growing
2. Only some IBCs relate to significant improvements in postsecondary outcomes
3. The value of IBCs varies across race/ethnicity, gender, and parental income

IBCs are more positively related to earnings for Asian, White, male, and (mostly) non-low-income students

| | Asian | Black | Hispanic | Other Races | White | Male | Female | Non-Low- Income | Low- Income |
|----------------|---------------------|---------------------|----------------------|------------------|---------------------|---------------------|----------------------|---------------------|---------------------|
| Any IBC | 0.091* (0.037) | 0.072*** (0.021) | 0.007 (0.009) | 0.064 (0.047) | 0.141*** (0.013) | 0.081*** (0.010) | -0.001 (0.009) | 0.068*** (0.013) | 0.050*** (0.008) |
| Aligned IBC | 0.192*** (0.056) | 0.163*** (0.035) | 0.140*** (0.014) | 0.065 (0.078) | 0.186*** (0.022) | 0.197*** (0.018) | 0.096*** (0.014) | 0.118*** (0.021) | 0.162*** (0.013) |
| Misaligned IBC | 0.024 (0.046) | 0.023 (0.026) | -0.063*** (0.011) | 0.064 (0.057) | 0.121*** (0.015) | 0.041*** (0.011) | -0.072*** (0.012) | 0.041* (0.016) | -0.006 (0.009) |

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Findings

1. CTE-IBC misalignment is large and growing
2. Only some IBCs relate to significant improvements in postsecondary outcomes
3. The value of IBCs varies across race/ethnicity, gender, and parental income
4. Educators have mixed perceptions of the value of IBCs

CTE teachers question the value of IBCs

Low Certification,
High Alignment School

“Honestly, for me, it's almost like a sense of defeat. The IBC that they want me to teach has value, but it's... it's not going to get the student to stand out to [employers] more. It's just as simple as that. I know that. I came from the industry.”

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5. **Accountability and funding pressures are driving school behaviors regarding IBC rates and alignment**

Funding, not value, drives IBC selection

High Certification,
Low Alignment School

“Things like the flower arrangements class ... that was a big focal class on our campus for a few years. And I think the reason they push it so much is because of the funding. I think if we didn't get any funding for it, I don't think they would push it as hard... I don't think we would be getting called to be made to, "You need to have this many students in this class. You need to make sure that happens.”

CCMR Credit Requirements



CCMR Credit Requirements for Annual Graduates by Accountability Year

| Annual Graduates | Accountability Year | CCMR Credit Requirement |
|------------------|---------------------|---|
| Class of 2022 | 2023 | Earn IBC (2019–2022 list with sunseting limit) |
| Class of 2023 | 2024 | Earn IBC (2019–2022 & 2022–2025 lists with sunseting limit) |
| Class of 2024 | 2025 | Earn IBC (2019–2022 & 2022–2025 lists with sunseting limit) plus 1 course in aligned program of study ¹ |
| Class of 2025 | 2026 | Earn IBC (2022–2025) plus Concentrator in aligned program of study ² |
| Class of 2026 | 2027 | Earn IBC (2022–2025 & 2025–2029 lists with sunseting limit) plus Completer in aligned program of study ³ |

¹ One course that is level two or higher (excludes Career Prep I, Extended Career Prep I, Project Based Research, and/or Scientific Research and Design)

² Two or more courses for at least two credits in the same program of study

³ Three or more courses for four or more credits, including one level three or level four course in the same program of study

Discussion and Recommendations

1. IBCs should supplement – not supplant – other CCMR approaches
2. IBCs should be embedded in coherent CTE programs of study
3. Pathways should integrate dual-credit/advanced courses, CTE, and IBCs
4. School and district leaders should solicit input on IBCs from teachers with industry experience
5. Future research should examine the causes of demographic inequalities in the benefits of IBCs