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

LonestaRP3 Connect Virtual Event

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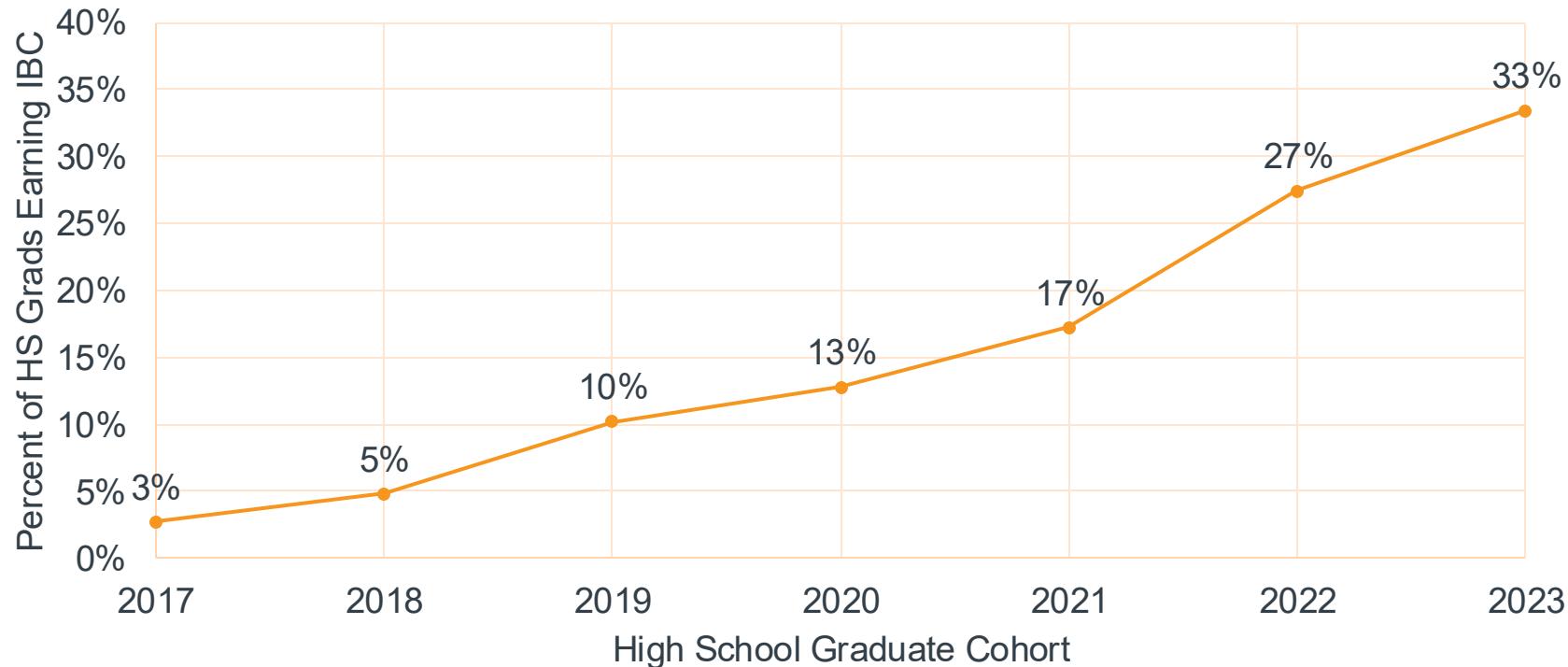
The University of Texas at Austin

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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



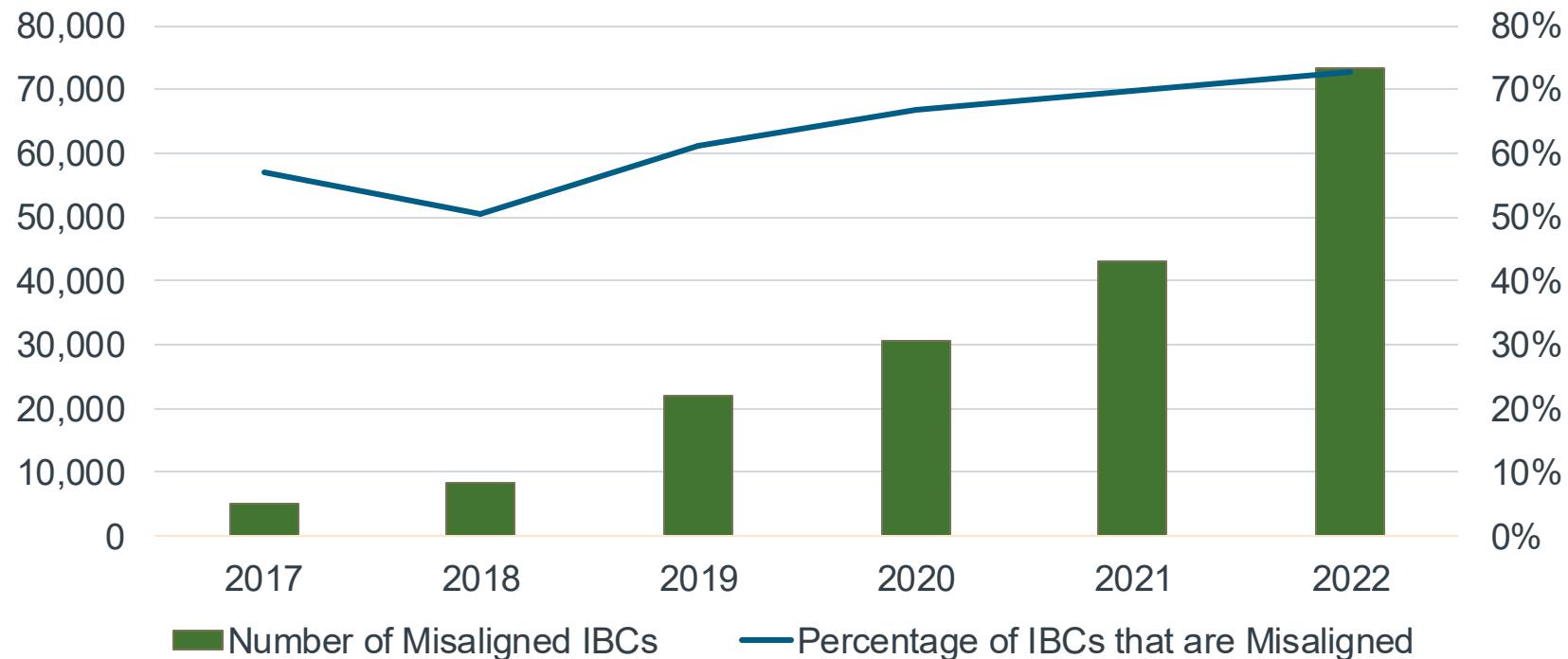
Research Questions

- 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

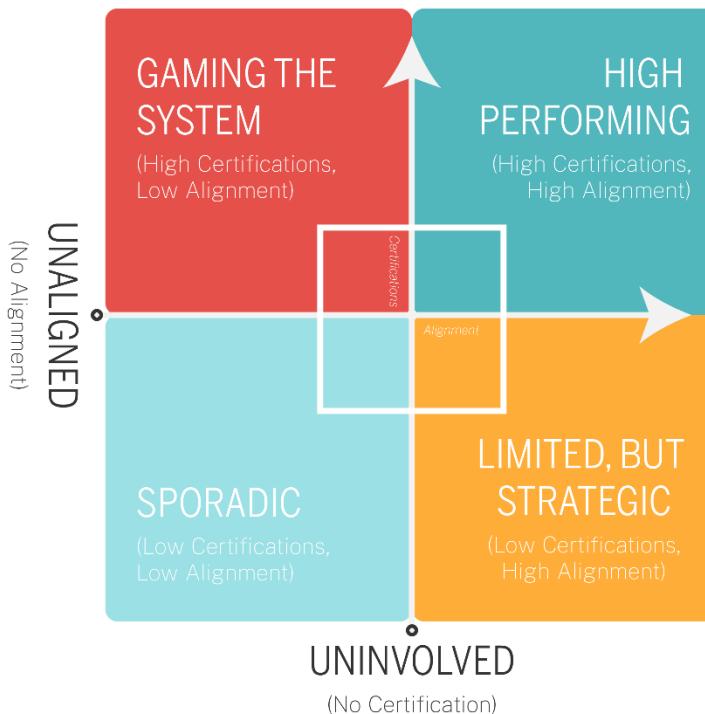
1. CTE-IBC misalignment is large and growing

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%

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Findings

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

Education (N=31)

Cosmetology (N=1,493)

Transportation (N=1,650)

Info Tech (N=416)

Health Science (N=6,182)

Public Safety (N=559)

Hospitality and Tourism (N=292)

Architecture and Construction (N=2,187)

Manufacturing (N=2,452)

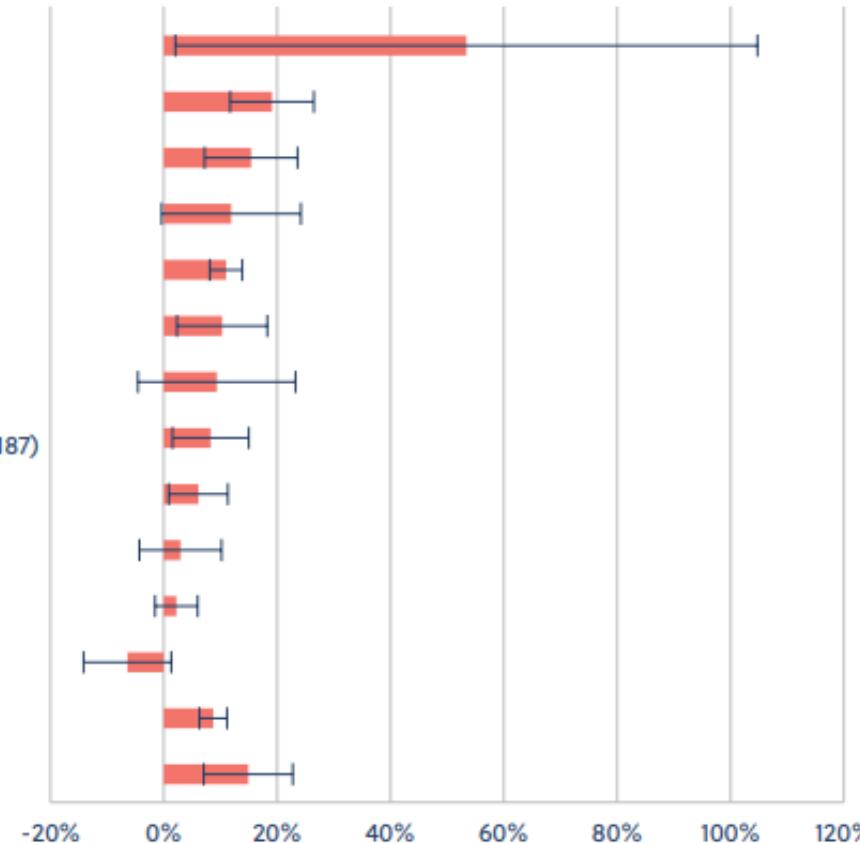
Agriculture (N=1,181)

Business (N=2,839)

Arts and A/V (N=1,137)

Any IRC (N=21,373)

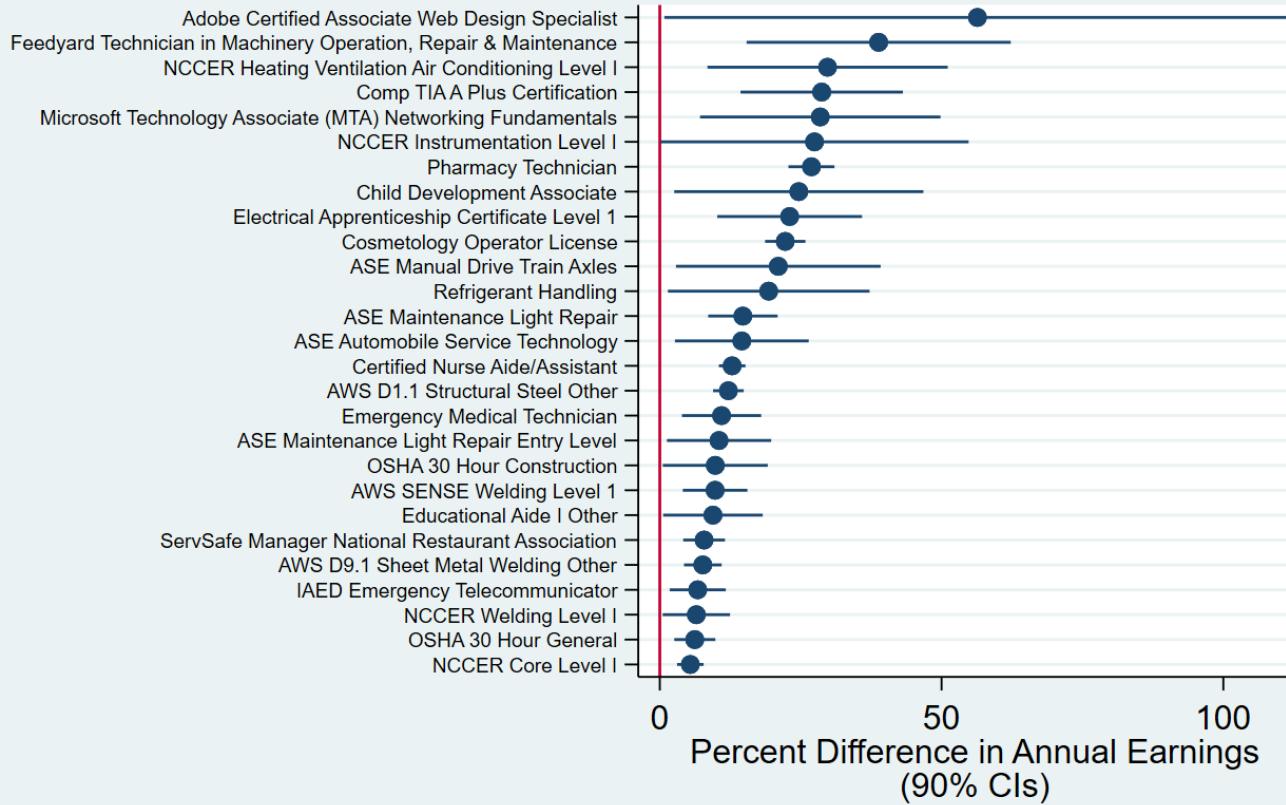
Multiple (N=953)



Percentage Difference in Earnings Between IRC Recipients and Non-Recipients

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

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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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 sunsetting limit)
Class of 2023	2024	Earn IBC (2019–2022 & 2022–2025 lists with sunsetting limit)
Class of 2024	2025	Earn IBC (2019–2022 & 2022–2025 lists with sunsetting 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 sunsetting 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