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The Quantum Prairie's Hidden Talent Pipeline

How Illinois, Wisconsin, and Indiana Are Already Building America's Quantum Workforce



An analysis of U.S. Department of Education data on quantum-relevant degrees and certificates in Illinois, Wisconsin, and Indiana

CHICAGO QUANTUM EXCHANGE

Executive Summary

As the fast-advancing quantum technology sector scales, it is critical to create and maintain a robust pipeline of quantum-qualified talent. Quantum employers are not exclusively seeking quantum-specific training, though — the future quantum workforce will also include engineers, mathematicians, programmers, and technicians who have never seen a quantum lab but already hold valuable prerequisite skills. In some cases, this specialized training is even preferred to general quantum education; an advanced welder or materials engineer who learns to apply this expertise in a quantum setting might be the most suitable fit for certain roles.

This report reveals that Illinois, Wisconsin, and Indiana are already producing this wide range of quantum-relevant talent at above-average rates — and, critically, in ways that complement rather than duplicate one another. Each state has developed a distinct concentration of quantum-relevant skills, together forming a regional foundation unusually well-aligned with the scalable development of a quantum technology workforce.

In practical terms, this means the Midwest has a rare and compelling opportunity to build a robust quantum workforce without starting from scratch.

For the purposes of this report, “quantum-relevant” talent is defined broadly, spanning several dimensions: hardware-facing skills (e.g., cryogenics, precision fabrication, electronics) as well as software- and data-facing skills (e.g., programming, systems support, data analysis); technician- and operator-level roles alongside engineer, developer, and PhD-researcher roles; and credentials ranging from short-term certificates through doctoral degrees. A truly quantum-capable workforce will need to draw on this full range of experience and specialization.

Developing this workforce also requires raising public awareness of unexpected career on-ramps, especially from the skilled trades. Illinois' deep bench of heating, ventilation, and cooling (HVAC) technicians is one example: quantum labs depend on the same extreme thermal management and cryogenic controls HVAC expertise already covers. Wisconsin's strength in computer support and data science certificates maps closely onto quantum computing's systems support and error-correction needs. And Indiana's mechanical and electrical engineering base supplies the control systems and precision instrumentation needed to build and operate quantum hardware. Individually, these are strong pipelines; woven together, they're a national asset.

Key findings

1. Illinois, Wisconsin, and Indiana all rank in the top 10 states nationally for quantum-relevant degree completions per capita — an "intensity" analysis that indicates efficiency and access independent of sheer output — and they do so with distinct, complementary strengths rather than by duplicating each other. When online and for-profit programs are excluded, Indiana ranks 6th (266.8 completions per 100k residents vs. a national average of 197.9), Wisconsin 8th (243.2), and Illinois 10th (233.4). In total, the Quantum Prairie produced 62,815 quantum-relevant degrees and certificates in the 2024-2025 educational year. Illinois alone produced 29,684.

Illinois brings a dense computer science base (concentrated at the University of Illinois Urbana-Champaign (UIUC), with strong contributions from Illinois Institute of Technology, University of Illinois Chicago, University of Chicago, and Northwestern University) as well as strong engineering programs at UIUC, with certificate and master's production that outpaces national averages. Indiana's strength is concentrated in four-year engineering programs anchored by Purdue University in West Lafayette, and robust certificate and associate's programs at Ivy Tech Community College. Wisconsin contributes data science, computing, and industrial-trades certificates anchored by the University of Wisconsin–Madison and the state's technical college system.

2. The region shares 12 specific quantum-relevant fields where all three states outperform the national average, spanning computer/information sciences, engineering, engineering technology, physical sciences, construction trades, mechanic/repair technologies, and precision production (e.g. industrial engineering, materials engineering, chemistry, electrician training, and machine shop technology). Rather than overlapping, each state leads in different pieces of this shared set: Indiana in industrial/manufacturing engineering, chemistry, and electrician training; Wisconsin in computer support and industrial-mechanics maintenance; Illinois in HVAC maintenance technology and computer science.

3. The three states are notably strong at each end of the credential spectrum: certificates and doctoral degrees. All three produce an above-average number of quantum-relevant PhD graduates *and* an above-average number of short-term (12-week-to-1-year) certificates per capita**.** Illinois and Wisconsin are particularly strong on certificates (Wisconsin is 1.7x the national rate, Illinois 1.3x). Indiana ranks 4th nationally in both quantum-relevant bachelor's degrees and quantum-relevant PhDs per capita, while Illinois ranks 7th nationally for quantum-relevant master's degrees and 8th in quantum-relevant PhDs — showing the region covers the full pipeline from short-term technical training through advanced graduate research. In terms of total, raw output, Illinois ranks highest in the Quantum Prairie — and sixth in the nation — for quantum-relevant PhDs, awarding about 1,000 each year. Those PhD degrees are spread across 10 Illinois institutions, but nearly three-quarters are from UIUC, Northwestern, or UChicago.

This strong foundation reflects decades of institutional investment in applied STEM, a manufacturing economy that demands precision technical training, and a postsecondary system that has quietly built one of the country's strongest pipelines of foundational quantum-relevant talent.

“A critical part of the Quantum Prairie’s strength are the diverse assets that span our three states,” said David Awschalom, the University of Chicago’s Liew Family Professor of Quantum Engineering and Physics, the director of the Chicago Quantum Exchange, and a senior scientist at Argonne National Laboratory. “As we prepare to meet rising quantum workforce needs in the coming decade, it is essential that we work together to amplify our strengths by creating accessible pathways into the quantum sector from existing careers and programs. We also need to work together to reach people who don’t realize that well-paid jobs in the quantum sector are within reach — or who may not even know that the quantum sector exists.”

Realizing the Midwest's quantum workforce opportunity, however, requires a coordinated approach that spans state borders, institutions, and sectors — and deliberately connects each state's strengths across the full spectrum of higher education, from PhD programs at research universities to community and technical colleges. Illinois, Wisconsin, and Indiana already produce quantum-relevant talent at every level of that spectrum, but coordination should also raise public awareness around unexpected career on-ramps, including from the skilled trades.

Methodology

This report analyzes postsecondary completion data from in-person public and private not-for-profit institutions across the three-state region, benchmarked against national averages using 2025 US Census population estimates. The analysis extends a classification framework of quantum-relevant degrees created by the Illinois Science and Technology Coalition (ISTC), the Illinois Economic Development Corporation (Illinois EDC), the Illinois Quantum and Microelectronics Park (IQMP), and the Chicago Quantum Exchange (CQE), and published in their May 2026 report, *Mapping Illinois' Quantum Talent Pipeline: A Framework for Defining Quantum-Relevant Degrees and Certificates*. That Illinois report was believed to be the first systematic effort to identify quantum computing-relevant academic programs and disciplines, an important step toward measuring talent with potential to work in the emerging sector. It found more than 33,000 quantum-relevant degrees and certificates were awarded in Illinois in 2024 alone, a 33% increase since the passage of the National Quantum Initiative Act in 2018 and a 60% increase over the last decade.

This CQE report, which uses 2024-25 US Department of Education data released in July 2026, looks at the full Quantum Prairie. Together, university and college students in Illinois,

Wisconsin, and Indiana completed 44,212 quantum-relevant degrees and 18,603 quantum-relevant certificates, for 62,815 total completions. Illinois, the largest of the three states, accounts for almost half of those.

It is important to note that much of the CQE analysis focuses on per capita measures, which offer insight into **intensity** — how much a state is producing relative to its population, which reveals efficiency, access, and investment in higher education independent of sheer size. The absolute numbers, however, also tell an important part of the story. Absolute numbers show **total output** — where the bulk of degree production is happening, which matters for national workforce planning and regional economic impact. As a result, the report also includes tables with absolute numbers. The list of programs, classified by the U.S. Department of Education's Classification of Instructional Programs (CIP) codes, are the ones the Illinois team deemed relevant to quantum computing in their May 2026 report (pages 6-13). There are currently no dedicated CIP codes for quantum.

Notable programs

These findings are driven by a mix of flagship research universities and technical and community colleges alike. Together, they illustrate just how distributed the region's quantum-relevant strengths really are.

The University of Illinois Urbana-Champaign, long a national leader in computer science and top-ranked in quantum-relevant engineering fields more broadly, provides much of the volume behind Illinois' standout master's and certificate completions. It also offers an undergraduate minor in Quantum Information Science through the Grainger College of Engineering and the Illinois Quantum Information Science and Technology Center.

Purdue University anchors Indiana's bachelor's-heavy profile with large-scale engineering and computer science programs that produce a steady stream of bachelor's and master's graduates in mechanical, electrical, and computer engineering. It also has a Quantum Technology concentration in its electrical engineering bachelor's track, and a MicroMasters program in Quantum Technology Computing.

The University of Wisconsin-Madison drives much of Wisconsin's certificate and bachelor's strength through its computer science and data science programs, as well as the nation's first Master of Science in Quantum Computing program, offered through the Department of Physics and the Wisconsin Quantum Institute.

Northwestern University adds further depth to Illinois' pipeline at all postsecondary levels through large bachelor's and master's computer science cohorts, sizable engineering programs in mechanical, electrical, and industrial engineering, and strong, highly ranked programs in chemistry and materials engineering, especially at the PhD level.

Northwestern's computer science program also offers a quantum concentration at the undergraduate level, and a quantum track at the PhD level.

The University of Chicago's Pritzker School of Molecular Engineering offers one of the country's first PhD programs in quantum science and engineering, feeding directly into the doctoral pipeline this data captures, and a Quantum Engineering track in their Master of Engineering program. This is in addition to top-ranked computer science and physics programs in UChicago's Physical Sciences Division.

(Notably, UChicago PME also offers an eight-week Quantum Science, Networking, and Communications Certificate, though its representation in this data is difficult to determine, since quantum science lacks its own dedicated CIP code.)

Several institutions outside the region's flagship research universities play an outsized role in the skilled-trades side of this pipeline.

In Illinois, **College of Lake County** stands out as the primary provider of HVAC certificates in the state, alongside a strong showing in welding — both directly relevant to the precision environmental controls and fabrication work quantum labs depend on. The **Illinois Institute of Technology** and **University of Illinois Chicago** also supply a large number of computer science trainees. **Purdue University Northwest** contributes meaningfully to Indiana's graduate-level strength through its electrical engineering master's program. The **Wisconsin Technical College System** is the backbone behind the state's certificate completions in welding, computer support, and industrial mechanics and maintenance — the trades-oriented credentials that anchor Wisconsin's certificate profile. And in Illinois, **City Colleges of Chicago** punches above its weight with a strong electrician certificate program and engineering associate's degrees, reinforcing that the region's quantum-relevant pipeline runs through community and technical colleges just as much as research universities.

"The Quantum Prairie has a strong reputation for producing top quantum talent but, just like most quantum jobs don't include the word 'quantum' in the title, the programs that prepare quantum workers often don't include the word either," said Emily Easton, the CQE's director of education and workforce development. "By creating a list of quantum-relevant CIP codes, the Illinois report enabled us to more accurately assess our broader talent supply. This 'Hidden Talent' report took that work a step further, using that foundation to reveal our wider regional talent strengths."

Amplifying regional impact

The findings also align closely with the Chicago Quantum Exchange's *Advancing Together: A Unified Strategy for Scaling Midwest Quantum Talent*, which lays out a regional roadmap for expanding awareness, access, and mobility across the Midwest's quantum talent

pipeline. Layering quantum-specific programming onto the strong technical base that already exists represents the clearest path to making the Illinois-Wisconsin-Indiana corridor a national leader in quantum workforce development.

As many as 191,000 quantum jobs are projected for the Illinois-Wisconsin-Indiana region by 2035, according to an analysis by Boston Consulting Group for the CQE. Nearly two-thirds are expected to be open to people without a graduate degree, and nearly a third are expected to be open to people with an associate's degree or technical training.
The *Advancing Together* report, released in May 2026, frames this moment as an inflection point: the region already produces more than 2,000 PhDs and 14,000 master's students annually in quantum-related disciplines, yet without stronger coordination, the Midwest risks underusing that pipeline as global competition accelerates.

"Coordination is arguably the most important pillar in our overall strategy," Easton said. "We have outstanding programs across all three states but, to best support companies and foster long-term careers in quantum, we need to work together to align our efforts and strategically build pathways that don't duplicate efforts. Data on where we have specific programs positioned to meet growing demand for talent is a huge help to implement our regional goals."

The report's recommendations — including a shared-access framework for hands-on training, formalized transfer pathways into major research institutions, and employer collaboratives to align coursework with workplace needs — map directly onto the gaps this data expose: strong completions in quantum-relevant fields across all three states, but no shared infrastructure yet connecting them to a regional pipeline.

Opportunities for growth

Taken together, the three states contribute distinct but complementary pieces of a regional quantum talent pipeline rather than duplicating one another. Illinois brings a dense computer science base concentrated at UIUC, IIT, and UIC, along with unusually strong certificate and master's degree production. Indiana brings an engineering-heavy, bachelor's- and master's-driven pipeline anchored at Purdue. Wisconsin brings a data science and computing-focused certificate and bachelor's pipeline centered on UW-Madison and its technical colleges, alongside strength in industrial maintenance trades.

Turning these complementary strengths into an effective regional pipeline means treating them as an interconnected system rather than three separate state stories. That starts with coordinating across institutions, states, and sectors so students and workers can move fluidly between an Illinois certificate program, an Indiana engineering degree, and a Wisconsin technical college credential — and extends to public-facing efforts already underway to raise awareness of these pathways, from employer partnerships to K-12, as well as community college outreach that introduce students to quantum-adjacent careers

before they've chosen a major. Sustaining that work requires the kind of ongoing, cross-state data analysis this report represents.

“This report is an important step toward the framework envisioned in the National Quantum Initiative reauthorization: regular, ongoing analysis of the quantum workforce, industry needs, and our education and training capacity,” Easton said. “By building on our Illinois degree-production analysis and expanding it across the Midwest, we are creating a more consistent and repeatable way to understand where talent is being developed, where gaps remain, and how the Quantum Prairie can prepare for the quantum economy.”

National Results

The following tables show the total number of degree/certificate completions in quantum-relevant programs for each state, compared to the national average:

State	Total Completions	Total Completions per 100k residents	National per 100k pop.	vs. National (+/–)
IL	29,684	233.4	197.9	+35.5
IN	18,605	266.8	197.9	+68.9
WI	14,526	243.2	197.9	+45.3

Total regional completions: 62,815

1. Illinois, Indiana, and Wisconsin all rank in the top 10 states nationally for quantum-relevant degree completions per capita

Rank	State	Total Completions per 100k residents	National per 100k pop.	vs. National (+/–)	Total Completions
1	KY	512.2	197.9	+314.3	23,596
2	MA	371.4	197.9	+173.5	26,572
3	DC	362.3	197.9	+164.3	2,513
4	UT	306.4	197.9	+108.4	10,842
5	GA	285.5	197.9	+87.6	32,273
6	**IN**	**266.8**	**197.9**	**+68.9**	**18,605**
7	AL	256.4	197.9	+58.5	13,317
8	**WI**	**243.2**	**197.9**	**+45.3**	**14,526**

9	MO	242.2	197.9	+44.3	15,189
10	**IL**	**233.4**	**197.9**	**+35.5**	**29,684**

2. The region shares 12 specific quantum-relevant fields where all three states outperform the national average

There are 12 CIP codes in the 171 quantum-relevant CIP codes for which all three states show more degree completions per 100k than the national average.

CIPCODE	CIPTITLE
11.1006	Computer Support Specialist
14.1801	Materials Engineering
14.2301	Nuclear Engineering
14.3501	Industrial Engineering
15.0613	Manufacturing Engineering Technology/Technician
40.0501	Chemistry, General
40.0599	Chemistry, Other
40.0801	Physics, General
46.0302	Electrician
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician
47.0303	Industrial Mechanics and Maintenance Technology
48.0503	Machine Shop Technology/Assistant

The chart below shows, for each of these 12 shared-strength CIP codes, how far each state's completions per 100k exceed the national rate. The pattern points to complementary rather than overlapping strengths: Indiana leads most sharply in industrial and manufacturing engineering, chemistry, and electrician training; Wisconsin leads in computer support and industrial-mechanics maintenance; and Illinois leads in HVAC maintenance technology.

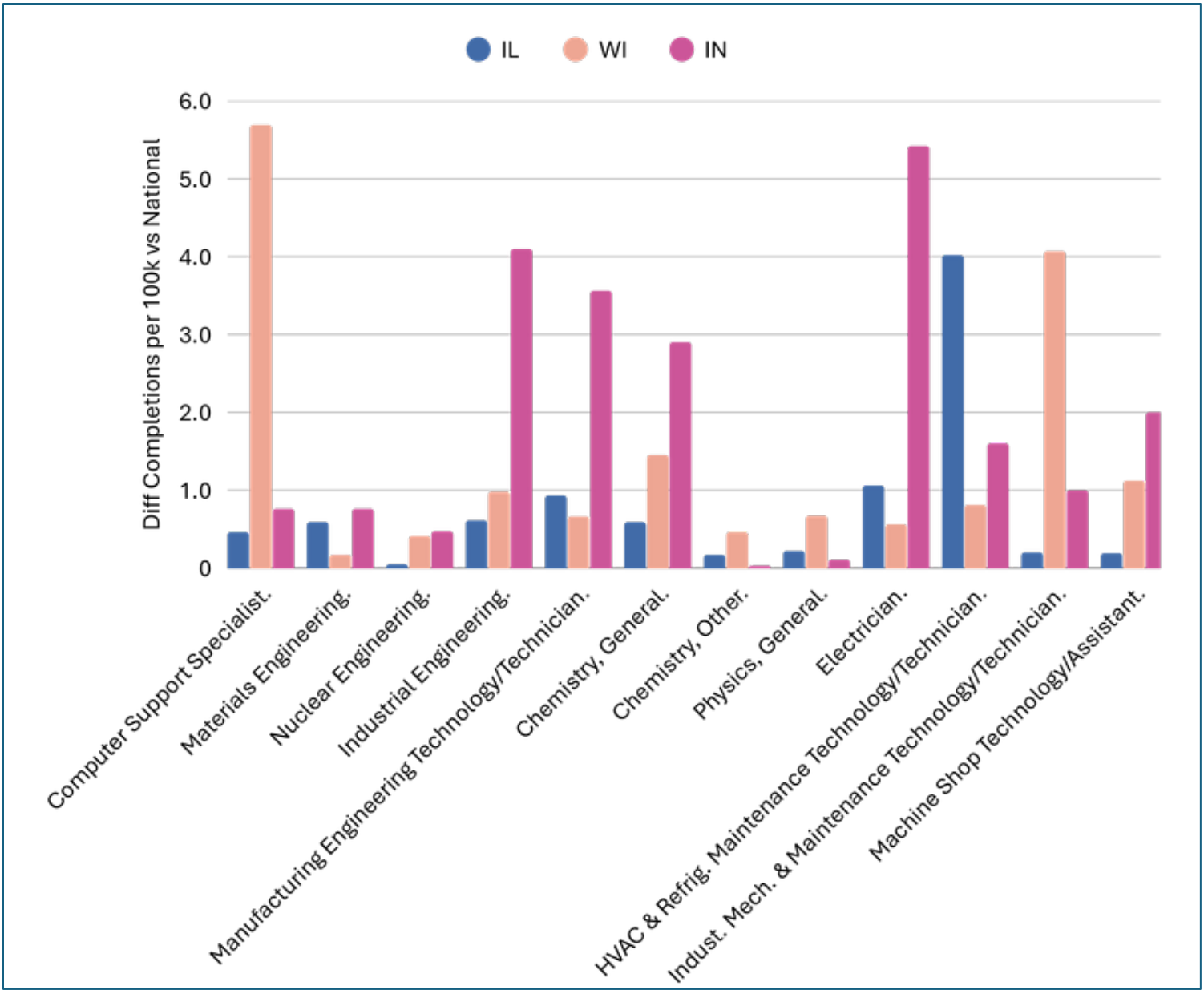


FIGURE: *Difference between each state's completions per 100,000 residents and the national rate, for fields in which all three states exceed the national rate. Data come from the IPEDS 2024-2025 dataset.*

3. The three states are notably strong at both ends of the credential spectrum: certificates and doctoral degrees

On the basis of degree level, all three states produce an above-average number of PhDs and (>=12 weeks, <1 yr) certificates per capita when compared to the entire country. Illinois and Wisconsin have a particularly high number of certificate completions, especially considering the national average is already fairly high.

Degree level	National per 100k pop	IL		IN		WI	
		vs. National (+/−)	Ratio	vs. National (+/−)	Ratio	vs. National (+/−)	Ratio
Doctoral degree	5.6	+1.9	1.3	+5.0	1.9	+0.2	1.0
Certificate (>=12 weeks, <1 year)	32.8	+11.4	1.3	+1.9	1.1	+22.9	1.7

In Wisconsin, the certificates with the biggest difference from national average are for Computer Numerically Controlled (CNC) Machinist Technology/CNC Machinist, Data Science General, and Computer Support Specialist. In Illinois, they are Industrial Electronics Technology/Technician, HVAC, and CNC Machinist.

It's worth noting that Indiana and Wisconsin rank highly (4th and 9th) among other states for quantum-relevant bachelor's degrees.

Bachelor's degrees:

Rank	State	State Completions per 100k	Nat. Completions per 100k	Diff.	Ratio	Total Completions
1	MA	173.7	73.1	+100.6	2.4	12,429
2	RI	125.3	73.1	+52.3	1.7	1,397
3	DC	121.0	73.1	+47.9	1.7	839
4	**IN**	**114.7**	**73.1**	**+41.6**	**1.6**	**7,995**
…	…	…	…	…	…	…
9	**WI**	**91.7**	**73.1**	**+18.6**	**1.3**	**5,479**
…	…	…	…	…	…	…
23	**IL**	**72.3**	**73.1**	**-0.8**	**1.0**	**9,194**

And Illinois ranks highly (7th) for quantum-relevant master's degrees.

Master's degrees:

Rank	State	State Completions per 100k	Nat. Completions per 100k	Diff.	Ratio	Total Completions
1	DC	194.9	42.7	+152.2	4.6	1,352
2	MA	153.9	42.7	+111.2	3.6	11,011
3	MO	119.1	42.7	+76.4	2.8	7,467
4	NH	88.0	42.7	+45.3	2.1	1,245
5	NY	77.2	42.7	+34.5	1.8	15,446
6	KY	74.9	42.7	+32.2	1.8	3,449
7	**IL**	**70.5**	**42.7**	**+27.9**	**1.7**	**8,972**
…	…	…	…	…	…	…
13	**IN**	**52.8**	**42.7**	**+3.5**	**1.2**	**3,679**
…	…	…	…	…	…	…
26	**WI**	**29.3**	**42.7**	**-13.4**	**0.7**	**1,749**

Both Illinois and Indiana also rank highly for quantum-relevant PhDs.

Doctoral degrees:

Rank	State	State Completions per 100k	Nat. Completions per 100k	Diff.	Ratio	Total Completions
1	DC	29.6	5.6	+24.0	5.3	205
2	MA	18.2	5.6	+12.6	3.3	1,300
3	DE	12.4	5.6	+6.8	2.2	131
4	**IN**	**10.6**	**5.6**	**+5.0**	**1.9**	**738**
…	…	…	…	…	…	…
8	**IL**	**7.5**	**5.6**	**+1.9**	**1.3**	**957**
…	…	…	…	…	…	…
18	**WI**	**5.8**	**5.6**	**+0.2**	**1.0**	**345**

State Results

The following are the top five quantum-relevant CIP codes in each state as ranked by their total number of completions, and ranked by their difference from the national average in completions per capita.

Institutions with a * represent more than double the completions of the institution with the next-most completions.

Illinois:

Top 5 by total:

CIPCODE	CIPTITLE	Total Completions	Common Degree Levels	Primary Institutions
11.0701	Computer Science	5,816	57% MS 40% BS	UIUC*, IIT, UIC
48.0508	Welding Technology/Welder	2,377	Cert	College of Lake County, Southwestern Illinois College, Lewis and Clark CC
14.1901	Mechanical Engineering	1,233	72% BS 22% MS	UIUC, UIC, Northwestern
11.1003	Computer and Information Systems Security	1,221	27% Cert 25% MS 23% BS 13% AS	DePaul, Joliet Junior College, Lewis University
47.0201	HVAC and Refrigeration Maintenance Technology/Technician	1,090	90% Cert 10% AS	College of Lake County*, Elgin CC, Moraine Valley CC

* Institutions with a * represent more than double the completions of the institution with the next-most completions.

Top 5 by difference per capita from national average:

CIPCODE	CIPTITLE	Cmplns per 100k res.	Nat Cmplns per 100k pop	Diff vs Nat (+/–)	Common Deg Lvls	Primary Institutions
11.0701	Computer Science	45.7	24.0	+21.7	57% MS 40% BS	UIUC*, IIT, UIC
48.0508	Welding Technology/Welder	18.7	14.0	+4.7	Cert	College of Lake County, Southwestern Illinois College, Lewis and Clark CC
47.0105	Industrial Electronics Technology/Technician	5.4	1.0	+4.4	89% Cert 11% AS	Kankakee CC, Moraine Valley CC, Joliet Junior College
47.0201	HVAC and Refrigeration Maintenance Technology/Technician	8.6	4.5	+4.0	90% Cert 10% AS	College of Lake County*, Elgin CC, Moraine Valley CC
15.0612	Industrial Technology/Technician	4.2	1.2	+3.1	70% MS 14% Cert 10% BS	Eastern Illinois University*, ISU, SIU-Carbondale

Illinois' top five quantum-relevant areas are split between one dominant university-based computer science program and a cluster of technician-level trades credentials — welding, industrial electronics, HVAC, and industrial technology — concentrated at community colleges like College of Lake County, Kankakee Community College, and Moraine Valley Community College. That combination of a strong four-year Computer Science program alongside a broad base of certificate- and associate-level trades training gives Illinois a broad pipeline that spans both ends of the credential spectrum.

Two outliers mark Illinois' strong quantum-relevant master's degree programs. One is the master's programs in Industrial Technology at Eastern Illinois University (EIU) and Illinois State University (ISU). Across the country, completions in that CIP code are 25% AS, 23%

* Institutions with a * represent more than double the completions of the institution with the next-most completions.

BS, and 37% certificates, with only 15% as master's programs. In Illinois, 70% of completions in that CIP code are master's degrees, almost entirely due to EIU (326 completions) and ISU (53 completions).

The other is Computer Science. Across the country, completions in that CIP code are 59% BS and 31% MS; in Illinois, that measure is 40% BS and 57% MS, markedly weighted towards master's degrees.

Wisconsin:

Top 5 by total:

CIPCODE	CIPTITLE	Total Completions	Common Degree Levels	Primary Institutions
11.0101	Computer and Information Sciences, General	1,893	74% BS 12% Cert 10% MS	UW-Madison*, UW-Eau Claire
48.0508	Welding Technology/Welder	1,657	Cert	Northwood TC*, Gateway TC, Chippewa Valley TC
30.7001	Data Science, General	1,037	56% BS 29% Cert 10% MS	UW-Madison*, UW-Milwaukee
14.1901	Mechanical Engineering	870	91% BS	UW-Madison*
27.0101	Mathematics, General	677	70% BS 15% Cert 10% MS	UW-Madison*

* Institutions with a * represent more than double the completions of the institution with the next-most completions.

Top 5 by difference per capita from national average:

CIPCODE	CIPTITLE	Cmplns per 100k res.	Nat Cmplns per 100k pop	Diff vs National (+/−)	Common Deg Lvls	Primary Institutions
30.7001	Data Science, General	17.4	2.9	+14.5	56% BS 29% Cert 10% MS	UW-Madison*, UW-Milwaukee
48.0508	Welding Technology/Welder	27.7	14.0	+13.7	Cert	Northwood TC*, Gateway TC, Chippewa Valley TC
11.0101	Computer and Information Sciences, General	31.7	19.8	+11.9	74% BS 12% Cert 10% MS	UW-Madison*, UW-Eau Claire
11.1006	Computer Support Specialist	6.5	0.8	+5.7	70% Cert 30% AS	Milwaukee Area TC*, Lakeshore TC, Gateway TC
47.0303	Industrial Mechanics and Maintenance Technology	6.4	2.4	+4.1	Cert	Madison Area TC, Lakeshore TC, Milwaukee Area TC

Wisconsin's top five skew toward computer and data fields at the bachelor's and certificate levels, anchored heavily by UW-Madison. Compared with Illinois' top five, Wisconsin shows a stronger presence in computing-adjacent credentials such as data science and computer support, while sharing strengths in welding and industrial trades.

It should be noted that Wisconsin’s national prominence in data science is substantial; 10% of all national completions in data science come from Wisconsin institutions. For total completions in data science (1,037 in 2025), it is second only to Texas (1,213 in 2025), a state with roughly five times its population.

* Institutions with a * represent more than double the completions of the institution with the next-most completions.

Indiana:

Top 5 by total:

CIPCODE	CIPTITLE	Total Completions	Common Degree Levels	Primary Institutions
11.0701	Computer Science	2,284	64% BS 29% MS	Purdue*, IU, Rose-Hulman
14.1901	Mechanical Engineering	1,683	75% BS 18% MS	Purdue*, Rose-Hulman, Notre Dame
14.1001	Electrical and Electronics Engineering	911	45% BS 44% MS 10% PhD	Purdue*, Notre Dame, Purdue NW
11.0103	Information Technology	880	43% Cert 28% BS 16% MS 12% AS	Purdue*, Ivy Tech CC, Valparaiso University
48.0508	Welding Technology/Welder	812	97% Cert	Ivy Tech CC

Top 5 by difference per capita from national average:

CIPCODE	CIPTITLE	Cmplns per 100k	Nat Cmplns per 100k	Diff vs National (+/−)	Common Deg Lvls	Primary Institutions
14.1901	Mechanical Engineering	24.1	12.6	+11.6	75% BS 18% MS	Purdue*, Rose-Hulman, Notre Dame
11.0701	Computer Science	32.8	24.0	+8.7	64% BS 29% MS	Purdue*, IU, Rose-Hulman
11.0104	Informatics	8.7	1.0	+7.6	64% BS 15% MS 10% AS	IU*, Ivy Tech CC

* Institutions with a * represent more than double the completions of the institution with the next-most completions.
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14.1001	Electrical and Electronics Engineering	13.1	7.5	+5.6	45% BS 44% MS 10% PhD	Purdue*, Notre Dame, Purdue NW
46.0302	Electrician	10.8	5.3	+5.4	70% Cert 30% AS	Ivy Tech CC* (solely)

Indiana's top five are dominated by Purdue, especially in mechanical and electrical engineering, and skew more toward bachelor's and master's completions than certificates or associate degrees. That profile lines up with Indiana's earlier 4th-place national ranking in quantum-relevant bachelor's degrees, and points to a pipeline concentrated in four-year engineering training rather than the shorter, trades-oriented credentials that feature more heavily in Illinois' and Wisconsin's top lists. Notably, the only CIP code in Indiana's top five with certificates is Electrician, due entirely to Ivy Tech Community College's large program.

Additional details about the analysis

This data come from the Integrated Postsecondary Education Data System (IPEDS), the U.S. Department of Education's primary database of enrollment, completion, and program data for colleges and universities nationwide. Within IPEDS, degree and certificate programs are classified using Classification of Instructional Programs (CIP) codes — a standardized federal taxonomy that groups postsecondary programs by field of study, from Computer Science to Welding Technology. Because IPEDS reports completions by CIP code, it allows for consistent, apples-to-apples comparison of specific fields of study across states and institutions.

For this report, we draw on the IPEDS 2024-2025 dataset, covering 171 CIP codes identified as relevant to the quantum industry. That list of quantum-relevant CIP codes comes from a report published earlier this year by the Illinois Science and Technology Coalition (ISTC), Illinois Economic Development Corporation's Economic Research Center (Illinois EDC ERC), Illinois Quantum and Microelectronics Park (IQMP), and Chicago Quantum Exchange (CQE).

Results are limited to primarily in-person (<50% of degree completions are online-only) public and private not-for-profit programs, as it attempts to map the physical, place-based educational infrastructure that a regional quantum workforce will be built on. Online and for-profit completions, by contrast, are more difficult to tie to a specific state's talent pipeline or physical infrastructure, as a student can complete an online program from anywhere, and for-profit outcomes vary widely in quality and regional integration.

The main unit of measure is "Completions per 100k Residents." For example: for every 100,000 residents of Illinois in 2024-2025, there were 233.4 quantum-relevant degrees completed; on the national level, for every 100,000 people, there were 197.9 quantum-

relevant degrees completed. This allows for state- and national-scale comparisons that are not distorted by overly small or large state populations. It is a per capita measurement, multiplied by 100,000 for easier comprehension. Two notes: the District of Columbia is counted as a state, for a total of 51 states, and the national average is calculated by using total US population, rather than an average between states.

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