

Bridging the Gap

Connecting STEM Learning to the Workforce

The Jobs Gap



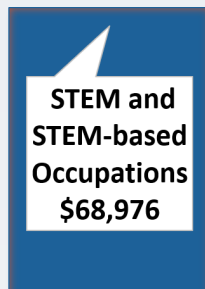
Non-STEM Occupations



STEM and STEM-related Occupations

Over the next 10 years, STEM and STEM-related occupations will grow at a rate of more than 12%!¹

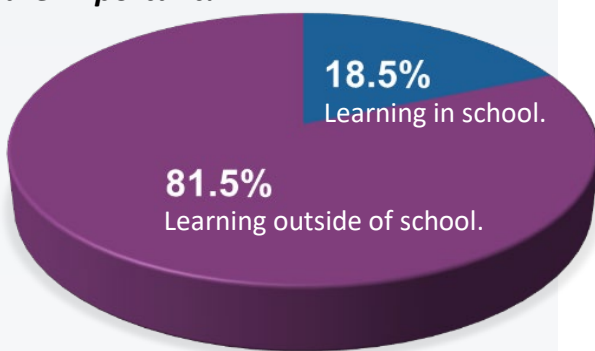
The Wage Gap



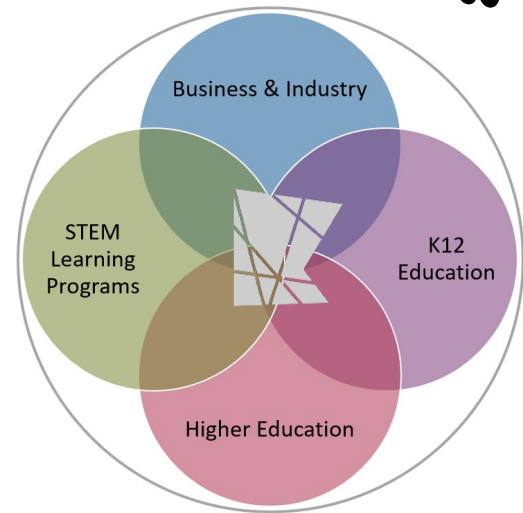
On average STEM and STEM-related occupations pay on average \$20,000 a year MORE than non-STEM occupations.²

The Learning Gap

More than 80% of learning is done outside of the classroom! AND 81% of students believe experiential, industry-based learning experiences are important!³



The Minnesota STEM Ecosystem supports STEM learning and workforce development across sectors and systems to coordinate and align statewide STEM learning strategies with Minnesota's workforce needs.



Internships in Greater Minnesota: Through our network of over 50 learning and workforce development partners, we launched STEM internships in key sectors, including Medical, Advanced Manufacturing, and Emerging Technologies.

MN STEM Learning & Workforce Advisory Council: We established a unique cross-sector, cross-system Council bringing together K-12 and Higher Education, out-of-school time (OST) providers, state agencies, and industry partners to develop statewide STEM learning with workforce development strategies.

STEM Career Exploration: Working with our partners, launched hands-on STEM career exploration opportunities that connect students directly with high-demand careers in STEM fields.

Public-Private Partnerships: We are working directly with industry to provide schools and OST programs with tools, and resources to prepare learners for the future workforce.

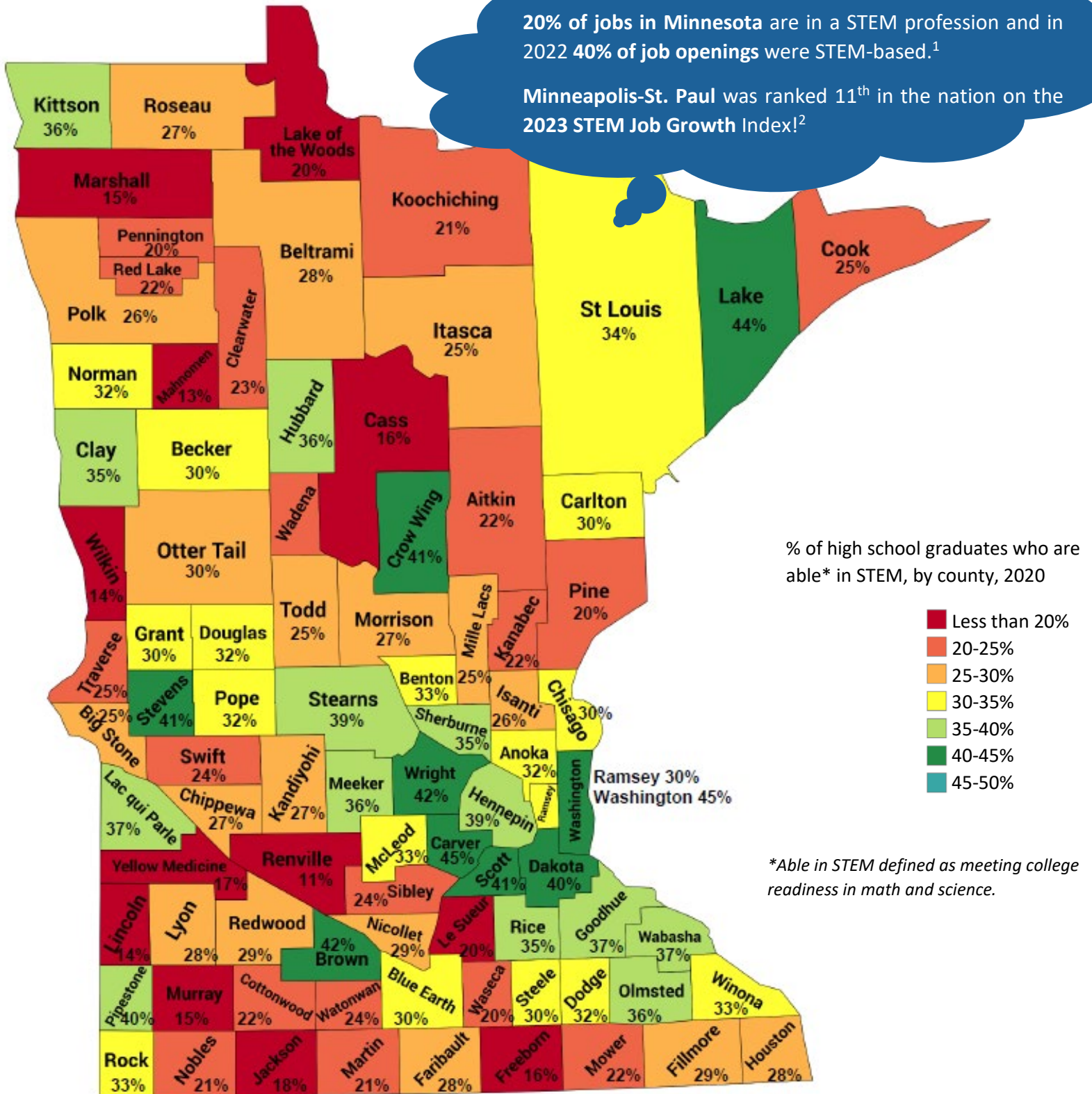
Connecting OST STEM Programs with Career Pathways: We are collaborating with OST STEM providers to align learning outcomes with career pathways, ensuring students engage in experiential learning relevant to Minnesota's future workforce needs.

Strengthened Regional STEM Networks: We engaged STEM Asset mapping and to develop and support regional STEM networks that connect educators, OST providers, and industry partners.

Is Minnesota STEM Ready?

20% of jobs in Minnesota are in a STEM profession and in 2022 40% of job openings were STEM-based.¹

Minneapolis-St. Paul was ranked 11th in the nation on the 2023 STEM Job Growth Index!²



ACT data by county collected by Minnesota Compass; this data ceased to be collected in the same way during or following the COVID19 pandemic. However, in looking statewide at the MCA [MN Comprehensive Assessment] for 2024, less than 35% of all high school juniors (11th grade) were proficient in grade level math.

Minnesota STEM Learning and Workforce Development Support

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Date: February 28, 2025

RE: Minnesota STEM Ecosystem

Dear Minnesota Legislators,

We are pleased to express our collective support for recognition and funding of the [Minnesota STEM Ecosystem](#) and [Minnesota Advisory Council for STEM Learning and Workforce Development](#).

Minnesota faces significant challenges in developing a robust STEM workforce. Recent data from Minnesota Compass shows that less than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks—a concerning trend that affects over 80% of greater Minnesota. Meanwhile, STEM occupations account for more than 20% of jobs across the state, and in 2022, nearly 40% of all job openings were in STEM fields. Projections indicate that over the next decade, STEM employment will grow at twice the rate of other occupations.

Recognizing these challenges, [Minnesota's industry leaders](#) saw this as a call to action. Understanding that the state's future economic success depends on a well-prepared STEM workforce, businesses embraced this need and invested in establishing the Minnesota STEM Ecosystem. **This initiative was built with the intent of creating a sustainable public-private partnership to support workforce development through collaborative, cross-sector efforts.** The Ecosystem's focus on aligning education and industry ensures that learners across the state gain the skills and experiences necessary to thrive in emerging STEM careers.

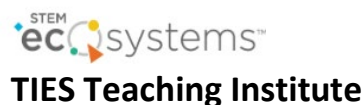
Over the past year, the Ecosystem has collaborated with key industry partners meaningful STEM internship opportunities, worked with more than 50 learning partners to align after-school STEM learning programs with career readiness outcomes and partnered with the Minnesota State Centers of Excellence to connect students directly with industry professionals and emerging technologies. By providing a statewide infrastructure, the Ecosystem is creating a model that can scale STEM workforce development and career exploration efforts to every corner of Minnesota.

As Minnesota businesses, we know firsthand the importance of a well-prepared workforce in maintaining our state's economic strength and competitiveness. Without action, the growing demand for skilled workers will outpace our ability to fill these critical roles, stifling innovation and economic growth. **We urge you to support this legislation; together, we can build a brighter future for Minnesota.**

Sincerely,



Our STEM Learning and Workforce Development Partners





MINNESOTA ZOO

The Minnesota Zoo



The Minnesota Academy of Science (MAS)



STARBASE Minnesota



We Share Solar



**Raspberry Pi
Foundation**

Raspberry Pi



Minnesota CTE TIP



**NATIONAL CENTER
FOR
AUTONOMOUS TECHNOLOGIES**

Ntl Center for Autonomous Technology



St. Thomas University



Minnesota FFA



SkillsUSA Minnesota



Bloomington Public Schools



Future Forward

The Hormel Institute

UNIVERSITY OF MINNESOTA

The Hormel Institute



DEPARTMENT
OF EDUCATION

The MN Department of Education



Junior Achievement North



Science from Scientists



MINNESOTA 4-H

Minnesota 4-H



Minnesota Service Cooperatives



Women in Tech



Mn State Colleges Centers of Excellence



MASONIC CANCER CENTER

UNIVERSITY OF MINNESOTA

Masonic Cancer Center, University of MN

UNITED STATES
PATENT AND TRADEMARK OFFICE



US Patent and Trademark Office



Minnesota HOSA-FHP



Minnesota Compass



Sparkpath



New Vision Foundation



CS for ALL MN



March 3, 2025

Minnesota Senate Jobs and Economic Development Committee
Senator Champion, Chair
3401 Minnesota Senate Building
St. Paul, MN 55155

Subject: Support for STEM Ecosystem – SF 1726

Dear Minnesota Legislators,

We, the undersigned Minnesota robotics teams, urge you to support Senate File 1726 which provides funding for the Minnesota STEM Ecosystem to expand STEM learning opportunities and workforce development programs. As robotics teams across the state, we have experienced firsthand how these programs equip students with the technical, problem-solving, and teamwork skills that are important for Minnesota's future workforce.

Through robotics, we have developed hands-on experience in engineering, programming, and innovation—skills that directly align with Minnesota's growing demand for STEM professionals. Beyond technical skills, robotics has taught us leadership, critical thinking, and collaboration, preparing us for careers in fields like advanced manufacturing, computer science, artificial intelligence, and engineering.

However, not all students in Minnesota have access to these opportunities. By supporting this bill, you are making sure that more students, regardless of their background or location, can participate in robotics and other STEM programs. This investment is crucial in preparing the next generation of innovators, problem solvers, and workforce leaders for Minnesota's economy.

We respectfully ask for your support of SF 1726 to make STEM learning and career pathways more accessible for students across the state. Thank you for your time and for championing Minnesota's future workforce.

Sincerely,

Cheryl Moeller, Executive Director

High Tech Kids & the Undersigned Robotics Teams of Minnesota

16981	Gear Ratios	Alexandria	27432	Giddy Geese	Duluth
27955	Knano Knights	Alexandria	27434	Laughing Loons	Duluth
43037	Scuba Studs	Alexandria	27435	Radical Roosters	Duluth
46827	The Chomps	Alexandria	30355	Awesome Alpacas	Duluth
46828	Lego Masters in a Yellow Submarine	Alexandria	30356	Fabulous Flamingos	Duluth
7000	RoboSharks	Bloomington	30357	Curious Cows	Duluth
21606	Method 2 R Madness	Bloomington	30358	Nifty Narwhals	Duluth
22072	Capybotas	Bloomington	33336	Playful Piglets	Duluth
22074	Ignition 2031	Bloomington	33337	Silly Snakes	Duluth
23296	Cougar Robotics Collective	Bloomington	33338	Yodeling Yaks	Duluth
23620	Artificial Intelligence	Bloomington	45231	The Team With No Name	Duluth
30432	The Coders	Bloomington	52216	Spaceotics	Duluth
61206	Thunderbots	Bloomington	57348	Shooting Stars	Duluth
22074	Ignition 2031	Bloomington	57350	Komet Krazy	Duluth
6176	Deep Sea Divers	Byron	62077	Cosmic Cold	Duluth
6178	Kingdom of Evermore Deathly Complexity	Byron	65122	Galactic Gators	Duluth
10075	Wapple	Byron	65123	Planet Pluto	Duluth
11409	Kraken Koders	Byron	11879	The Fishy Kids	Eagan
14452	Tridents	Byron	11886	Fishinators	Eagan
14454	Computer Claws	Byron	18535	Frozen Code	Eagan
17178	Tidal Force	Byron	26205	Thunder Wolves	Eagan
27287	AI Alligators	Byron	26869	Blue Top Hats	Eagan
27289	CyberBears	Byron	26870	Blue Vortex	Eagan
63368	Drenched Einsteins	Byron	26871	Blue Infinity	Eagan
60832	BustedBots	Carlton	26871	Blue Infinity	Eagan
57717	Good Legos Make Waves	Chanhassen	26872	Blue Aetherion	Eagan
66976	Build A Bot Brick Bros	Chanhassen	56517	Crazy Water Coders	Eden Prairie
23779	Lectric Lemons	Chaska	36415	Sassy Sea Otters	Ely
27651	Lectric Limes	Chaska	27202	Terminal Velocity	Excelsior
61576	Cool Beans	Coon Rapids	52933	Chips & Bots	Excelsior
17968	Coral Seals	Cottonwood	63066	Code Creators	Farmington
20178	Lego Legends	Cottonwood	7372	Tie-Dyed Swimming Wolves	Forest Lake
20178	Clockwork	Cottonwood	7807	Robotic Rover Company	Forest Lake
22253	Robo Ratchets	Cottonwood	64992	Team Coral	Forest Lake
24172	Gone Fission	Cottonwood	23467	Gearshift VR	Fridley
26232	Kracken-Ators	Cottonwood	29474	Team Ratner/Shapiro	Golden Valley
11206	Devildogs	Duluth	56450	Astro Sharks	Hopkins
21305	Rogue Cats	Duluth	10238	TigerBots	Hutchinson
25957	Happy Hamsters	Duluth	16731	TigerBots	Hutchinson
27431	Magnificent Moose	Duluth	30474	Robot Rampage	Inver Grove Heights

22264	Digital Disruptors	Lakeville	26669	Lego Mini Kitties	Otsego
24367	Chaos Potatoes	Lakeville	26670	Press Start	Otsego
24487	Gadget girls	Lakeville	26671	The Lego Masters	Otsego
44947	Lego Lightning	Lakeville	26801	Team Reptile Pugs	Otsego
45295	Purple Pirate Monkeys	Lakeville	26802	The Lego Legends	Otsego
57266	Chaotic Aquatic Robotic Chickens	Lakeville	28661	Electric Lizards	Otsego
30867	LC Axolotls	Little Canada	28662	Despicable Machines	Otsego
30868	LC Llamas	Little Canada	32533	3rd Grade Kings	Otsego
30895	LC Ocelots	Little Canada	53461	Sea Patrol	Otsego
33606	LC Chickens	Little Canada	53638	The Droids	Otsego
33607	LC Turtles	Little Canada	57282	Electrified Legos	Otsego
33608	LC Pandas	Little Canada	57548	Fantastic Fish Pants	Otsego
33609	LC Dolphins	Little Canada	57734	Megalobots	Otsego
26383	Mighty Morphing Banana Slugs	Luverne	61983	Rising Guppies	Otsego
19566	Coding the Cosmics	Maple Grove	61984	Geometric Difficulties	Otsego
26126	Steele tigers	Medford	68286	Sea Serpents	Otsego
22178	Infrared	Minneapolis	16539	Aluminum Warriors	Plymouth
37914	Underwater Cows - Team 1	Minneapolis	27409	The Automatons	Rochester
61478	Underwater Cows - Team A	Minneapolis	53616	Lincoln K-8	Rochester
7289	Genius	North Branch	23245	Bots 'O' Gold	Rosemount
8636	FIRE	North Branch	60101	Robo Osos	Roseville
7877	Reef Robotics	Otsego	51049	Shooting stars	Savage
7878	The Aqua Bros	Otsego	68927	Nebula Knights	Savage
7879	The Twin Cities	Otsego	8808	Ponytail Posse	Shoreview
7880	The Shark Crew	Otsego	19706	Potential Energy	Shoreview
8840	Lego Dragons	Otsego	14672	Micro Militia	St. Michael
12045	Mech Tech	Otsego	23739	Byte Brigade	St. Michael
16917	Gear Wizards	Otsego	24062	Pico Platoon	St. Michael
19892	Digital Ducks	Otsego	26528	Digital Division	St. Michael
22110	Exploding Microwaves	Otsego	26529	Nano Navy	St. Michael
24125	The Tidepools	Otsego	26530	Atomic Aces	St. Michael
24126	Riptide Robotics	Otsego	15369	RoboPilots	St. Paul
24127	Brick Heads	Otsego	23363	The Wizards	St. Paul
24770	Dolphin Discoveries	Otsego	6699	Tempest	St. Paul
24873	The Free Builders	Otsego	13076	Argonauts	St. Paul
24874	Twin City Dolphin Fishermen	Otsego	63995	Bulldogs	Swanville
24951	Super Submarines	Otsego	54961	Tracy Elementary Pirate Panthers	Tracy
25956	Sensory Overload	Otsego	5501	Robo Dweebs	Two Harbors
26171	Tech Titans	Otsego	61047	Agate Prime	Two Harbors
26462	Titan Bots	Otsego	20032	Cyber Machina	Woodbury

Date: January 30, 2025

Subject: Letter of Support for the MN STEM Ecosystem

Dear Minnesota Legislators,

On behalf of the Minnesota State IT Center of Excellence, I am honored to show our support for the continued growth of the Minnesota STEM Ecosystem.

Minnesota stands at a crossroad. Minnesota faces challenges to build a diverse and equitable STEM workforce, especially in our rural and tribal communities. Fewer than 30% of high school graduates statewide meet STEM college and career readiness benchmarks, a reality that impacts over 80% of greater Minnesota. With every career in Minnesota using some part of the STEM focus areas, and STEM careers making up over 20% of all jobs in our state, with future growth and demand twice the rate of other fields, Minnesota's future success depends on decisive action and innovative collaboration to meet these challenges head-on.

The Minnesota Stem Ecosystem is the prime example of what we can accomplish when we work together. Through aligning education, industry, community, and technology, the Ecosystem builds pathways that inspire, prepare, and empower learners from all backgrounds and locations to thrive in high-growth and high-demand careers shaping our economy. At the Minnesota State IT Center of Excellence, our mission is to provide access and opportunities for those lacking tech resources or those who are tech curious. Our strategy had led us to partner with the Ecosystem on forward reaching initiatives, that helped move Minnesota forward. These initiatives include:

- **Inspiring Students:** Provide opportunities that help individuals get a foot in the Technology door through AI training, CTE Instructor Programming, Certification Training, and Career Exploration.
- **Enhancing Education:** Provide expanded opportunities for IT certification and education through AI Hackathons, Certification, Non-Technical (Soft skill) content, Cyber Savvy training and soon a full-scale broadband training program.
- **Engaging Industry:** Provide low or no-cost training opportunities in AI, Cyber, Softskills, and Broadband

The Minnesota State IT Center of Excellence cannot do this alone. With the partnership with the Minnesota STEM Ecosystem, we continue to make a real and measurable impact, especially to our rural and tribal communities. To build on this momentum, we urge you to support legislation that advanced the Minnesota STEM Ecosystem. Together we can transform workforce challenges into opportunities, while ensuring all Minnesotans have the skills and abilities they need to lead, innovate, and success.

Thank you for your leadership as we together shape Minnesota's future.
Sincerely,



Janice Aanenson, PhD
Executive Director, MN State IT Center of Excellence

February 4, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators,

I am expressing support for the continued growth and legislative recognition of the Minnesota STEM Ecosystem. The Minnesota STEM Ecosystem was established on public-private partnerships supporting workforce helps address STEM challenges, especially those in rural Minnesota:

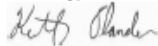
- Less than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks – affecting over 80% of greater Minnesota.
- STEM occupations account for more than 20% of jobs across the state.
- In 2022, nearly 40% of all job openings were in STEM fields.
- Projections indicate that over the next decade, STEM employment will grow at twice the rate of other occupations.

The Ecosystem ensures learners statewide gain the skills and experience necessary to thrive in emerging STEM careers by aligning education and industry. The Minnesota State Transportation Center of Excellence has collaborated with the Ecosystem to advance several key initiatives:

- **Educator Professional Development:** Professional development that empowers educators to integrate emerging technologies into classrooms, giving students the knowledge they need for success in tomorrow's economy.
- **Enhanced STEM Career Pathways:** Our partnership introduces students to STEM career pathways through hands-on learning opportunities and career exploration activities.
- **STEM Real-World Experiences:** We have laid the groundwork for meaningful internship opportunities that provide students with real-world experience in STEM industries while addressing workforce gaps statewide.

We need to build on the momentum already developed, so I urge you to support legislation to advance the Minnesota STEM Ecosystem. Thank you for your time and consideration.

Sincerely,



Keith Olander, Executive Director
Dean of Agricultural Studies
AgCentric and Agricultural Partnerships



MINNESOTA STATE
Southern Agricultural Center of Excellence

1920 Lee Boulevard
North Mankato, MN 56003

January 29, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators,

We are writing to express our strong support for the continued development and legislative recognition of the Minnesota STEM Ecosystem.

Data from Minnesota Compass highlights that fewer than 30% of high school graduates meet STEM college and career readiness benchmarks—a statistic that is even more pronounced in greater Minnesota, where over 80% of students fall short of these benchmarks. Meanwhile, STEM-related jobs account for over 20% of employment opportunities statewide, and in 2022, nearly 40% of all job openings were in STEM fields.

The Minnesota STEM Ecosystem was established to address these challenges by fostering public-private partnerships that bridge the gap between education and industry. Through collaboration and cross-sector initiatives, the Ecosystem equips students with the skills and experiences necessary to thrive in the modern workforce:

- **Educator Professional Development:** Providing teachers with resources and training to integrate emerging technologies into their curricula, ensuring students receive relevant and high-quality STEM education.
- **STEM Career Pathways:** Creating hands-on learning experiences and career exploration opportunities that connect students with STEM professions.
- **STEM Internship Program Development:** Establishing internship opportunities that offer students practical, real-world experience while simultaneously addressing workforce shortages across Minnesota.

Thank you for your time and consideration. We look forward to your leadership in advancing STEM education and workforce development in Minnesota.

Sincerely,



Tina LeBrun
Executive Director
Minnesota State Southern Agricultural Center of Excellence



MINNESOTA STATE
Transportation Center of Excellence

January 29, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators,

I am expressing support for the continued growth and legislative recognition of the Minnesota STEM Ecosystem. The Minnesota STEM Ecosystem was established on public-private partnerships supporting workforce development through collaborative, cross-sector efforts, and helps address various STEM challenges, especially those in rural Minnesota:

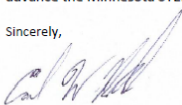
- Less than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks – affecting over 80% of greater Minnesota.
- STEM occupations account for more than 20% of jobs across the state.
- In 2022, nearly 40% of all job openings were in STEM fields.
- Projections indicate that over the next decade, STEM employment will grow at twice the rate of other occupations.

The Ecosystem ensures learners statewide gain the skills and experience necessary to thrive in emerging STEM careers by aligning education and industry. The Minnesota State Transportation Center of Excellence has collaborated with the Ecosystem to advance several key initiatives:

- **Educator Professional Development:** Professional development that empowers educators to integrate emerging technologies into classrooms, giving students the knowledge they need for success in tomorrow's economy.
- **Enhanced STEM Career Pathways:** Our partnership introduces students to STEM career pathways through hands-on learning opportunities and career exploration activities.
- **STEM Real-World Experiences:** We have laid the groundwork for meaningful internship opportunities that provide students with real-world experience in STEM industries while addressing workforce gaps statewide.

We need to build on the momentum already developed, so I urge you to support legislation to advance the Minnesota STEM Ecosystem. Thank you for your time and consideration.

Sincerely,



Carl Borjes
Interim Executive Director
Minnesota State Transportation Center of Excellence



MINNESOTA STATE

Engineering Center of Excellence

January 27, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators,

We are pleased to express our collective support for the continued growth and legislative recognition of the Minnesota STEM Ecosystem.

Minnesota faces significant challenges in developing a robust STEM workforce, particularly in rural regions. Recent data from Minnesota Compass shows that less than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks—a concerning trend that affects over 80% of greater Minnesota. Meanwhile, STEM occupations account for more than 20% of jobs across the state, and in 2022, nearly 40% of all job openings were in STEM fields. Projections indicate that over the next decade, STEM employment will grow at twice the rate of other occupations.

Recognizing these challenges, the Minnesota STEM Ecosystem was established on public-private partnerships that support workforce development through collaborative, cross-sector efforts. By aligning education and industry, the Ecosystem ensures learners statewide gain the skills and experiences necessary to thrive in emerging STEM careers. A vital partner in this work has been the Minnesota State Engineering Center of Excellence, which has collaborated with the Ecosystem to advance several key initiatives:

- **Professional Development for Educators:** Together, we have empowered educators with tools and strategies to integrate emerging technologies into classrooms, equipping students with the knowledge they need for success in the digital economy.
- **STEM Career Pathways:** Our partnership has introduced students to STEM career pathways through hands-on learning opportunities and career exploration activities.
- **STEM Internship Program Development:** This collaboration has laid the groundwork for meaningful internship opportunities that provide students with real-world experience in STEM industries while addressing workforce gaps statewide.

These initiatives are already driving positive outcomes, particularly in rural and underserved regions of Minnesota. We strongly urge you to support this legislation to ensure the ongoing success and sustainability of this important work. Together, we can ensure that all Minnesotans have the opportunity to succeed in the STEM workforce and secure a brighter future for Minnesota.

Sincerely,

Jason Bruns, BSMA, MBA | Director

MINNESOTA STATE CENTER OF ENGINEERING EXCELLENCE

131 Trafton Science Center North • Mankato, MN 56001
www.engineering.mnsu.edu • engineering@mnsu.edu
Phone 507-389-1201 (V) • 800-627-3529 or 711 (MRS/TTY) • Fax 507-389-1095



MINNESOTA STATE

HealthForce Center of Excellence

February 14, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators,

I am expressing support for the continued growth and legislative recognition of the Minnesota STEM Ecosystem. The Minnesota STEM Ecosystem was established on public-private partnerships supporting workforce development through collaborative, cross-sector efforts, and helps address various STEM challenges, especially those in rural Minnesota. This work is important for many reasons including:

- Fewer than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks – affecting over 80% of greater Minnesota.
- Jobs in health care, most of which are directly tied to STEM education, are approximately 1 in 6 jobs in Minnesota and drive Minnesota's economy.
- In 2022, nearly 40% of all job openings were in STEM fields.
- Projections indicate that over the next decade, STEM employment will grow at twice the rate of other occupations. As our population ages, the need for healthcare workers increases which is, again, directly tied to STEM.

The Ecosystem ensures learners statewide gain the skills and experience necessary to thrive in emerging STEM careers by aligning education and industry. The Minnesota State HealthForce Center of Excellence is proud to work with the Minnesota STEM Ecosystem to develop and support curriculum, to support teachers and pathways, and to encourage students to not only explore STEM fields but to succeed and thrive in them. I urge you to support legislation to advance the Minnesota STEM Ecosystem.

Sincerely,

Executive Director



MINNESOTA STATE

Energy Center of Excellence

1593 11th Ave, Granite Falls, MN 56241
energycenter@mnsu.edu
320-564-5020

1/28/2025

Subject: Letter of Support for the MN STEM Ecosystem

Dear Minnesota Legislators,

On behalf of the Minnesota State Energy Center of Excellence, I am honored to express our enthusiastic support for the continued growth of the Minnesota STEM Ecosystem.

Minnesota stands at a crossroads. Our state faces urgent challenges in building a diverse and equitable STEM workforce, particularly in rural and underserved communities. Fewer than 30% of high school graduates statewide meet STEM college and career readiness benchmarks, a concerning reality impacting over 80% of greater Minnesota. Meanwhile, STEM careers make up more than 20% of all jobs in our state, and demand is projected to grow at twice the rate of other fields over the next decade. Minnesota's future success depends on decisive action and innovative collaboration to meet this challenge head-on.

The Minnesota STEM Ecosystem is a testament to what we can accomplish by working together. Through aligning education, industry, and community, the Ecosystem builds pathways that inspire, prepare, and empower learners from all backgrounds to thrive in high-growth careers shaping our economy. At the Minnesota State Energy Center of Excellence, our mission to cultivate energy education and workforce solutions has led us to partner with the Ecosystem on bold initiatives, including:

- **Empowering Educators:** Providing teachers statewide with tools to bring cutting-edge technology and career readiness into their classrooms.
- **Expanding Career Pathways:** Offering students hands-on STEM experiences that ignite their curiosity and guide them toward transformative opportunities.
- **Building Real-World Experience:** Developing opportunities that equip students and educators with practical skills to fill urgent workforce gaps across the state.

These partnerships have made real, measurable impacts, especially in underserved communities. To build on this momentum, we urge you to support legislation advancing the Minnesota STEM Ecosystem. Together, we can transform workforce challenges into opportunities, ensuring all Minnesotans are prepared to lead, innovate, and succeed.

Thank you for your leadership in shaping Minnesota's future.

Sincerely,

Logan Schrader
Minnesota State Energy Center of Excellence

Minnesota State is an affirmative action, equal opportunity employer and educator.



MINNESOTA STATE

Advanced Manufacturing Center of Excellence

Minnesota State Advanced Manufacturing Center of Excellence, 1500 Birchmont Drive NE Box #94, Bemidji, MN 56601 | 218-755-2397

February 4, 2025

Minnesota Senate and House of Representatives
Minnesota Senate Building and State Office Building
St. Paul, MN 55155

Dear Minnesota Legislators:

I am pleased to write this letter supporting the Minnesota STEM Ecosystem for their continued growth and legislative recognition. The Minnesota STEM Ecosystem was established on public-private partnerships that support workforce development through collaborative and cross-sector initiatives, helping to address STEM challenges, especially in rural Minnesota. As you are aware, Minnesota faces significant challenges in the development of a robust STEM workforce, especially in rural regions of the state. Recent data obtained from Minnesota Compass indicates that less than 30% of Minnesota's high school graduates meet STEM college and career readiness benchmarks, impacting 80% of Greater Minnesota. This is concerning, as STEM-related positions account for 20% of the Minnesota workforce, and in 2022, close to 40% of all job openings in the state were in STEM fields. Over the next decade, forecasts indicate that STEM employment will grow at 2x the rate of other occupations – these factors demonstrate the importance and necessity of the Minnesota STEM Ecosystem.

The Minnesota STEM Ecosystem ensures that the future STEM leaders and workforce gain the skills and experience necessary to secure and advance in emerging STEM careers. The Minnesota State Advanced Manufacturing Center of Excellence has partnered with the Minnesota STEM Ecosystem on numerous initiatives, impacting students and educators not only in Northern and Northwestern Minnesota, but across the entire state:

- **Educator Professional Development** – The Center worked with the Minnesota STEM Ecosystem to bring the aIEDU Summit to Bemidji State University, September 2024. This summit focused on providing educators around the state with knowledge and skills related to the dynamic and emerging field of artificial intelligence. Educators have been able to incorporate this knowledge into their classrooms, directly and positively impacting students in Minnesota.
- **STEM Internships** – The Center has partnered with the Minnesota STEM Ecosystem to develop multiple HS Internship Programs in Northern and Northwestern Minnesota. Through these internships, the Center has developed standing partnerships with multiple manufacturers and high schools. The HS Internship program has positively impacted Native American and Rural students at multiple high schools, providing students with real-world knowledge and experience in STEM and manufacturing careers.
- **STEM Career Pathways** – The Center has partnered with the Minnesota STEM Ecosystem to develop a comprehensive Robotics Career Pathway, which will contain relevant and timely information to effectively guide students from middle school through college into well-paying, family-supporting STEM Robotics Careers.

The Minnesota State Advanced Manufacturing Center of Excellence is excited to support legislation positively impacting the Minnesota STEM Ecosystem, which fills an integral role in the development of the Minnesota STEM Workforce. Thank you for your time, and please let me know if you have questions.

Sincerely,

Jeremy Leffelman
Executive Director