

Chairperson Pryor and Education Policy Committee Members,

My name is Dana Smith and I am writing to you as a veteran science teacher, and Advocacy Representative of the MN Science Teachers Association. We are deeply concerned about some of the proposed language in HF759/SF757, specifically in Subd. 5 *making computer science count*, parts (2,3,4). The proposed language change to graduation requirements states that a computer science course can replace one credit of science as well as science elective courses. First and foremost, this is in direct opposition to current graduation requirements and academic standards statutes that clearly mandate that all science standards must be met by all students. Replacing any required credits in science would eliminate the possibility for that mandate to be accomplished. However, this is only the beginning of our concerns, and we would like you to consider the long lasting and detrimental consequences this change will have on student learning and preparation for college and career readiness, as well as severely weaken our state's longstanding commitment to comprehensive, high quality education delivered by well trained and prepared educators.

Minnesota has long been a leader in education. This commitment to our students is affirmed in our call for rigorous academic standards, statewide accountability, and graduation requirements that are specific and meant to prepare ALL Minnesota students for college and career readiness. That includes graduation requirements in core content areas, as well as specific stipulations for all students to have access to all the standards no matter where they attend school. Further, PELSB aligns their licensure requirements to ensure that the teachers for these courses are qualified through an approved content specific teacher preparation program.

The proposed change in Graduation Requirements language outlined in HF759/SF757 Subd. 5 will effectively remove these assurances and create even more ambiguity and inconsistencies that will lead to inequitable access for our students. Science is unique and requires the approved preparation program, licensure and courses taught to be in alignment to best serve our students. In fact, Minnesota has incorporated computer science and engineering practices throughout the science standards. The Next Generation Science Standards, upon which our Minnesota Academic Science Standards are based, include computational thinking, the use of algorithms and computer models to explain and communicate thinking from evidence. The proposed language in HF759/SF757 Subd. 5 would eliminate at least a year's worth of equitable access to science standards for students, as well as allow districts to offer a computer science class without offering a full complement of science standards. Further, if the approved Department of Education computer science course is designed to "incorporate" science standards, what science content and pedagogical training will be required by computer science instructors to ensure they are competent and fully trained to teach high school level science courses? This would result in removing any alignment with

science licensure and teacher preparation programs, and remove any statutory oversight of the content that students have access to in their districts.

MnSTA supports the inclusion of computer science and agrees that students would benefit from a comprehensive computer science program for our K12 students, however, replacing core science standards with completely non-aligned courses, especially without assurances that access to those missing standards would be equally accessible to all students, will only create greater gaps in learning, underpreparedness in our students for college and careers and set a precedent for dismantling the rigorous academic standards in core content areas. MnSTA proposes that should the Department of Education support a comprehensive computer science program implementation in our schools, that it take the place of one of the high school electives required to graduate, and make it required for all students.

Minnesota students deserve our very best in terms of equitable access, teacher preparation and content expertise, consistency and best practices. This proposed legislation is not the way to do right by our students. I am happy to make myself available to you should you require further clarification or have questions. Thank you for your time and consideration.

Sincerely,

*Dana Smith*

Dana Smith

MnSTA Advocacy Chair

[damedu2018@gmail.com](mailto:damedu2018@gmail.com)



February 24, 2022

Dear Legislators,

As executives of Minnesota companies that rely on skilled technologists to power increasingly technology-enabled business strategies, we are collectively voicing our support for passage of the Computer Science Education Advancement Act (HF 759/SF 757) in the 2023 legislative session.

At a time when every industry is impacted by digital technology, computer science coursework provides an essential foundation to students — not only for careers in technology, but for every career in today's world. With business demand for computational thinkers far outstripping available supply, funding for computer science education in Minnesota must be a priority for this legislative session. Minnesota continues to lag the rest of the nation in student access to foundational computer science education, demonstrating that now is the time for action.

We urge you to pass HF 759/SF 757 so that all students in Minnesota have access to high-quality computer science learning opportunities and become technology creators, not just consumers. The future of Minnesota's innovation economy depends on it.

Respectfully,

Mark Murphy  
Chief Information Officer  
3M

Eric Hanson  
Chief Information Officer  
Starkey Hearing Technologies

Brett Craig  
Chief Information Officer  
Target

Paul Challe  
Chief Information Officer  
Tennant Company

Teddy Bekele  
Chief Technology Officer  
Land O'Lakes

Sarah Engstrom  
Chief Information Security Officer  
CHS

Tim Peterson  
Chief Technology Officer  
Xcel Energy

Ryan Hawkins  
Chief Technology Officer  
Thrivent Financial

Ritu Sharma  
Chief Data & Analytics Officer  
Securian Financial

Joshua Jabs  
Chief Technology Officer  
Calabrio



400 South 4th Street, Suite 416  
Minneapolis, MN 55415  
(952) 230-4555  
[mntech.org](http://mntech.org)

Jim Jones  
Chief Information Officer  
Great River Energy

Brian Katlack  
Chief Information Officer  
Huntington Bank

Don Knutson  
Chief Information Officer  
Entegris, Inc.

Doug Koch  
Chief Information Officer  
Edina Realty Home Services

Jake Krings  
Vice President, Engineering  
Target

Rachel Lockett  
Chief Information Officer  
Pohlad Companies

Heather Mickman  
Chief Information Officer  
Gap Inc.

Carissa Rollins  
Chief Information Officer  
Illumina

Brian Seebacher  
President & CTO  
Hargrove & Associates, Inc

Priya Senthilkumar  
Vice President, Technology  
Pearson

Kurt Svendsen  
VP, Corporate Development  
The Toro Company

Shawn Swearingen  
Chief Innovation Officer  
Faegre Drinker Biddle & Reath LLP

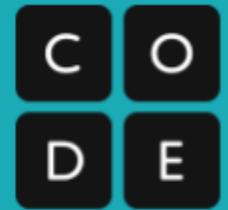
Jamie Thingelstad  
Chief Technology Officer  
SPS Commerce

Tim Thull  
Chief Information Officer  
Revo Health

Beth Tschida  
Chief Technology Officer  
Jamf

Eduardo Valencia  
Chief Information Officer  
Metropolitan Airports Commission

Gary Hansen  
Chief Technology Officer  
BI Worldwide



February 2, 2023

Minnesota Senate Building  
95 University Avenue West  
St. Paul, MN 55155-1606

**Re: Minnesota Computer Science Education Advancement Act (HF 759 and SF 757)**

Dear Legislators

Code.org strongly supports the Minnesota Computer Science Education Advancement Act (HF 759 and SF 757). This legislation will expand access to K-12 computer science through a number of provisions, including establishing a funding source for teacher training, which is critical for students' future success.

Computer science is a foundational skill for K-12 students. It develops students' computational and critical thinking skills and teaches them how to create—not just use—new technologies. Computing occupations are the fastest-growing, best paying, and now the largest sector of all new wages in the United States. Every child deserves the opportunity to succeed.

Eleven CEOs of Minnesota based industries have signed on to the Computer Science: Opportunity for Every Student (CEOsForCS) letter which is a call “for every student in every school to have the opportunity to learn computer science.” <https://www.ceosforcs.com/>

In July of 2022, Governor Tim Walz committed to expanding K-12 Computer Science Education in the state of Minnesota. <https://www.nga.org/computerscience/>

The Bureau of Labor Statistics estimates that there are over 12,100 open computing jobs in Minnesota with an average salary of \$92,494. This legislation will better prepare Minnesota's students for high-paying, in-demand careers.

Unfortunately, according to the data reported to us by the Minnesota Department of Education, only 21% of Minnesota public high schools offer even one foundational computer science course to its students. SF 757 reestablishes Minnesota's commitment to providing the best educational opportunities to its students. <https://advocacy.code.org/state-handouts/Minnesota.pdf>

Thank you for your efforts in providing Minnesota's students with the opportunity they need to be successful upon leaving K-12. This legislation will position Minnesota as one of the leaders in the growing movement to bring K-12 computer science education in schools.

Please reach out to us if we can be of further assistance as you consider this legislation.

Sincerely,

**Anthony Owen; J.D.**  
Senior Director of State Government Affairs  
President of the National CS Advocacy Coalition  
[Anthony.Owen@Code.org](mailto:Anthony.Owen@Code.org)

**Hannah Weissman**  
Director of Policy  
[Hannah.Weissman@Code.org](mailto:Hannah.Weissman@Code.org)

**February 24, 2023**

Legislators,

Computer science education is an essential part of any secondary school curriculum. Sadly, it is not currently being offered in many MN schools due to lack of funding. I teach middle school math in Duluth, MN and while both of my kids had planned to go through Duluth Public Schools, only one did. The other chose a tech online school partially because of no computer programming options in secondary schools here. There were clubs but no courses.

Currently Duluth (ISD709) is working with The College of St Scholastica through the CSforALL Accelerator program which affords us the opportunity to offer some vital CS to our students. I teach at a school with 56% kids in poverty. Their tech opportunities are far less than students with more financial resources which is why it is really important that CS be offered through the public schools. We recently taught a CS week and I was amazed at how some students, who are otherwise disinterested in learning, really took to the programming. It was great to give them the opportunity to see what is available. Now we need to get some programming classes in the high school.

Without support like that from St. Scholastica and CSforALL, including professional development and funding for materials, our district would not have the capacity or background to do this on our own. I urge you to support House Bill 759 and Senate Bill 757, The Computer Science Education Advancement Fund.

Jane Juten

A handwritten signature in black ink that reads "Jane Juten". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.



## Computer Science for All-Minnesota

csforallmn.org | @csforallmn | csforallmn@gmail.com

January 3, 2023

Dear Legislators:

Computer Science for All Minnesota (CSforAll-MN) is a collaborative effort by leaders in education, industry, nonprofit organizations, and higher education institutions from across Minnesota committed to advancing equitable computer science education policies and opportunities for every K-12 student in the state. CSforAll-MN has studied the current status of CS education in Minnesota (see [briefs](#)), hosted listening sessions, listened to CS education leaders in other states, and convened a diversity of stakeholders in Minnesota to understand the landscape, barriers, needs, and opportunities for expanding CS education in Minnesota.

We are writing today in support of The Computer Science Education Advancement Fund (SF757 and HF759). The CS Education Advancement bills represent a significant step forward to bring Minnesota out of last place in the nation for CS education. The sections of the bill address critical priorities of the state in order to move forward, including creating a state plan, CS standards, CS teacher licensure, CS in teacher preparation programs, and most significantly, establishing funding for school districts to add CS across K-12 grades.

The listening sessions CSforAll-MN hosted made it clear that Minnesotans want computer science in K-12 schools. Participants expressed many reasons that CS is important, from helping students become engaged citizens in a tech driven world to providing opportunities for all students to understand the tech careers key to Minnesota's economy. However, stakeholders noted that it will be imperative to have direction and support from the state. Many believe that computer science learning needs to begin in elementary and middle school, that the state must identify what CS content should be taught and who is eligible to teach it, and that districts will need guided support and funding to implement CS education. Minnesota school districts see the need to bring CS to their students, but they cannot do it alone, and they want to do it in coordination with each other.

The CS Education Advancement Fund bill can provide the direction and guidance that is needed for schools to implement computer science education, bringing Minnesota out of



## Computer Science for All-Minnesota

csforallmn.org | @csforallmn | csforallmn@gmail.com

last place. I urge you to act now to make a sizable investment in CS education so that we can move from last to first in the nation .

Sincerely,

Jennifer Rosato, National Center for CS Education at the College of St. Scholastica  
on behalf of the [CSforAll-MN Steering Committee](#)

February 3, 2023

Dear Minnesota Legislators,

I'm writing this letter in support of House Bill 759 and Senate Bill 757, The Computer Science Education Advancement Fund. I support teaching computer science to include introductory, intermediate, and advanced curriculum in kindergarten through grade 12 through developmental curriculum, aligned to Computer Science Teachers Association (CSTA) and Information Technology Educators of Minnesota (ITEM) standards and practices.

I earned a Bachelor's Degree in Elementary Education and a Master's Degree in Educational Media and Technology, both from The College of St. Scholastica in Duluth. I've been teaching elementary, middle, and high school as a K-12 media specialist, elementary classroom teacher and School Technology Coordinator in Duluth for over 28 years. In that time, we have seen computer science expand immensely in the world around us, but we have not kept up with that change in our K-12 schools. The lack of computer science education in our schools leaves students at a loss and deters economic development in our state, especially in greater Minnesota.

I've raised five children who attended Duluth Public Schools. They've had limited, if any, experience with computer science in their K-12 education. The few activities they participated in were teacher's passion projects, not part of the developmental curriculum, aligned to standards, and were not carried out consistently. In my opinion, as a parent, my children were ill-prepared for career and college after high school. They saw no connection to opportunities related to computer science in their future.

I support teaching computer science to include introductory, intermediate, and advanced curriculum in kindergarten through grade 12. Please contact me via email if you have questions or comments or if I can be of service in any way.

Sincerely,

*Cindy Miller*

Cindy Miller  
cynthia.miller@isd709.org

February 3, 2023

RE: Increasing access to Computer Science Education for Minnesota Students

Dear Lawmakers,

My name is Liesa Klyn and I teach STEAM at Hermantown Middle School. In this class students work with programming languages like Scratch which use block coding and Python which use text based coding. They also explore digital design tools such as CAD. My classrooms are filled with 5th grade to 8th grade students who are both enthusiastic and successful with computer science simply because they are given the opportunity to try. No fancy college coursework needed, just an opportunity to experiment and create with some basic guidance from me.

You undoubtedly believe that supporting Minnesota students' education is a top priority. You also support preparing our Minnesota students for careers that will make our state thrive for generations. In order to achieve this goal, we need to ensure that our schools are offering students what they need to be successful careers that are emerging in our economy. For nearly all of these new careers, some knowledge and familiarity with computer science is essential. If that isn't enough to convince you that this is urgent, consider this: according to the Brookings Institution, computer science education has been linked with higher rates of college enrollment and improved problem-solving abilities in both reading and math (Brown & Brown, 2020; Salehi et al., 2020). This means that a possible solution to improving reading and math skills is NOT more reading and math classes, rather, we should be adding computer science classes.

To be clear, I am not asking for more computer *USE* classes such as typing, or learning how to make slide presentations and spreadsheets. I am asking for resources to help us with computer *DESIGN* courses where students learn essential programming and technological creation skills. We need a mandate, funding, professional development, and encouragement to take risks and try new things.

I am not able to simply add more computer science education to my school on my own. My requests to my administration are enthusiastically received and then immediately shut down due to lack of funds, lack of instructors, lack of will of the school board, lack of time for planning, etc. I need state laws such as [house bill 759](#) and [senate bill 757](#) that will compel our school board to act.

I'll close with this, did you know that Minnesota is 50th in the nation when it comes to access to computer science education? Yes, we are dead last. You can read more about this from the Minnesota House publication, "2021 State of Computer Science" Education (<https://www.house.mn.gov/comm/docs/MKTaYdcidEqxRIismEooqg.pdf>). Please take action.

I am happy to help in any way and can be reached at [Lklyn@isd700.org](mailto:Lklyn@isd700.org).

Sincerely,

Liesa Klyn  
Hermantown Middle School  
Hermantown, MN



February 13, 2023

To Minnesota Legislators:

As computer science faculty at Minnesota colleges and universities, we are writing today in support of the Computer Science Education Advancement bills, [House 759](#) and [Senate 757](#).

Every K-12 student in Minnesota should have access to computer science (CS) education because computer science impacts almost every facet of our daily lives. Understanding what CS concepts like algorithms and artificial intelligence are and how they impact our daily lives is necessary to be an informed citizen in the 21st century. Computer science also drives innovation in many areas important to our local economies, from agriculture to healthcare to retail to tourism.

It is important that Minnesota invests in CS education for K-12 students and schools. The students who have exposure to CS before college are more likely to major in computing related fields. However, it is often students with privilege who have had the opportunity to take a CS course, participate in a robotics program, or have a parent or family member encourage them to pursue a career in CS. Adding CS in K-12 schools will increase the number of students aware of computing before college, helping us diversify the students in our programs and the future technologists in our state.

Our college computer science graduates have access to well-paying job opportunities in Minnesota and beyond. Graduates of our programs are in demand and successful in securing job offers. All students in Minnesota should have access before college to the opportunity to learn computer science so they can be engaged citizens and make informed decisions about college and career pathways in computing.

Sincerely,  
Minnesota Higher Education Computer Science Faculty

Eric Alexander, Carleton College, Assistant Professor of Computer Science

Heather Amthauer, College of Saint Benedict and Saint John's University, Associate Professor  
of Computer Science Department

Phillip Barry, University of Minnesota-Twin Cities, Senior Lecturer and Associate Head for  
Instruction, Department of Computer Science and Engineering

Thomas Buck, University of Minnesota-Duluth, Assistant Professor of Computer Science &  
Engineering

Lin Chase, Minnesota State University - Mankato, Associate Professor and Director, Computer  
Science Program

Amy Csizmar Dalal, Carleton College, Professor of Computer Science

Susan Fox, Macalester College, Professor and Chair, Mathematics, Statistics, and Computer  
Science Department

Thomas Gibbons, College of St. Scholastica, Professor of Computer Information Systems

Kristopher Glesener, College of St. Scholastica, Assistant Professor and Chair of Computer Information Systems Department

Olaf Hall-Holt, St. Olaf College, Associate Professor of Computer Science

Mats Heimdahl, University of Minnesota Twin Cities, Professor and Department Head, Department of Computer Science and Engineering

Nicholas Hopper, University of Minnesota Twin Cities, Professor and Director of Undergraduate Studies, Department of Computer Science & Engineering

Elizabeth Jensen, St. Olaf College, Assistant Professor of Computer Science

Chris Kauffman, University of Minnesota, Associate Teaching Professor of Computer Science & Engineering

Vipin Kumar, University of Minnesota, Professor of Computer Science and Director of CSE Data Science Initiative

Kent D. Lee, Carleton College, Visiting Assistant Professor of Computer Science

Peter Ohmann, College of Saint Benedict and Saint John's University, Assistant Professor of Computer Science Department

Ryota Matsuura, St. Olaf College, Associate Professor of Mathematics, Director of Computer Science

Nic McPhee, University of Minnesota Morris, Professor of Computer Science

David Musicant, Carleton College, Professor of Computer Science

Anup Parajuli, Lake Superior College, Computer Information Systems Faculty

Joslenne Peña, Macalester College, Assistant Professor of Mathematics, Statistics, and Computer Science

Imad Rahal, College of Saint Benedict and Saint John's University, Professor and Chair of Computer Science

Matthew Richey, St. Olaf College, Professor of Mathematics, Statistics, and Computer Science

Jennifer Rosato, College of St. Scholastica, CIS Assistant Professor and Director of National Center for CS Education

Shana K. Watters, University of Minnesota, Associate Teaching Professor of Computer Science & Engineering

Jon Weissman, University of Minnesota Twin Cities, Professor of Computer Science

Richard Wells, Normandale Community College, Computer Science Instructor

Marty J. Wolf, Bemidji State University, Professor Emeritus of Computer Science and ACM Committee on Professional Ethics, Chair

Lana Yarosh, University of Minnesota, Associate Professor of Computer Science & Engineering



7800 Metro Parkway Suite 300 | Bloomington, Minnesota 55425 | 952-767-4909  
mnpta@mnpta.org | www.mnpta.org

everychild.onevoice.®

February 28, 2023

Re: House File 759 - Computer science education advancement fund establishment

Dear Members of the House Education Policy Committee,

This year, the Minnesota PTA will celebrate our 100th Anniversary of supporting parents, students, and educators across the state. We currently have over 200 local units in Minnesota with over 4,000 members representing all forms of schools, including rural, suburban, urban, district, and charter. The Minnesota PTA is a state congress of the National PTA, the oldest and largest volunteer child advocacy organization in the nation, with over 20,000 local units in all 50 states.

*Ranking 50th in the nation in access to computer science for high school students is not acceptable to Minnesota parents. MN PTA supports the provisions in House File 759 because Minnesota parents want their children to have the same access as children in other states to explore and develop the technical skills that are in high demand in the opportunities beyond high school graduation.*

Minnesota PTA members whose schools do offer computer science know the benefits to their children. Maggie Johnson, PTA member at Poplar Bridge, and mother of 3 says, "The Computer Science program at Olson Middle School has opened doors for my daughter that we didn't know existed. The hands-on experience she is getting as well as the knowledge and skills are second to none. Learning how to code and create things in our technology-heavy world is sure to open big doors!"

The mission of the PTA is to make every child's potential a reality by engaging and empowering families and communities to advocate for all children. Since 2016, the National PTA has provided grants and programming to support STEM initiatives in schools, and Minnesota PTA has helped schools across the state to organize STEM + Family events. These "one night only" exposures to science, technology, engineering and math ignite a student's spark of interest in these important skill areas; however, dedicated courses in computer science are needed to grow those sparks into a flame that can fuel a student's passions and prepare them for future success in many STEM areas.

We want all students to have the opportunity to explore their interests and skills in computer science so more doors can be open to more successful futures. We believe the provisions of House File 759 will move us closer to that goal.

Thank you for your consideration.

Amy Nelson  
President, Minnesota PTA

Cathy Nathan  
Advocacy Commissioner, Minnesota PTA



February 13, 2023

Re: Support for Minnesota Computer Science Education Advancement Act (SF 757/HF 759)

Dear Legislators:

I am writing on behalf of the Minnesota Technology Association (MnTech) to voice our support for the Minnesota Computer Science Education Advancement Act (SF 757/HF 759). MnTech is a coalition of nearly 170 member companies united in building a stronger tech ecosystem and innovation economy in Minnesota. Our member companies work the spectrum of technology, from IT, advanced manufacturing, life sciences, fintech, agtech, cleantech, and edutech, and range from long-established corporations to small and growing startups.

This wide variety of employers of tech jobs in Minnesota provide some of the highest-paying career tracks in the state, but currently lacks a strong and diverse talent pipeline to fill the jobs of today and the future. MnTech members know that diverse teams produce stronger outcomes, yet the Minnesota tech workforce does not reflect diversity of our community. This stems directly from the lack of computer science (CS) educational opportunities starting at the K-12 level. Unfortunately, Minnesota currently ranks last in the nation for access to foundational CS courses at the high school level with only 21% of high schools offering courses as compared to 53% nationally, severely limiting student's access to high-quality tech careers.

Minnesota companies will not be able to remain nationally competitive if we do not solve this important talent pipeline problem. As a direct example of the problem we're currently facing, software developer roles are the most in-demand in Minnesota, with average salaries over \$100,000 annually. Yet our most recent data shows that there is an average monthly gap of over 500 job postings to monthly hires. This translates to a loss of opportunity for Minnesota residents, a loss of tax revenue for the state, and a loss of productivity for Minnesota companies.

The Computer Science Education Advancement Act (SF 757/HF759) directly addresses these challenges by both creating an advisory committee to create a plan to ensure all students in Minnesota have access to CS education and funding the professional development necessary to ensure all schools in the state have teachers qualified to teach these important courses. Our business community and our students cannot afford to wait to make these investments in high-quality education. We must not only catch up to the rest of the country but claim a place as a leader in educational excellence for CS education.

Thank you for your consideration of these important investments.

*Katie McClelland*

Katie McClelland  
Director of Public Policy & Research  
Minnesota Technology Association

Hello! Our names are Sarah and Chase Meusel and we are writing in support of the house bill 759 and senate bill 757 to help expand computer science education in Minnesota. We are parents to a 1st grader and 4th grader who are fortunate to attend an online public school, New Code Academy, that offers computer science classes for all students.

Growing up in a rural town, we did not have access to any computer science education. Although we both have always loved science and technology, computer science itself wasn't a concept we were introduced to until attending college. While we are fortunate to use and enjoy technology today, we were not adequately prepared for a world where so many growing careers leverage foundational computer science skills.

As you know, computer science is part of every industry and is a vital language to know in our ever-changing world of technology that we use daily in our cell phones, cars, computers, smart devices, TVs, medical devices and so much more. Given that our world is built on computer science, many of the careers that our children will have available require them to speak and understand the language of computer science. Not only for our two children, but as we face new challenges it will be future generations that are asked to solve our collective problems.

We are fortunate that our children have had exposure in their younger years to computer science and are interested in continuing to learn more, but unfortunately not many of our surrounding schools offer this as a part of their core classes. This puts families that are unable to coordinate or afford extracurricular activities in computer science at an incredible disadvantage, which denies those children the skills and future opportunities we will all need them to succeed in.

For our two children, their wonderful teachers have fostered an awareness and deep interest for computer science and it is a joy to watch their knowledge of programming grow. The feeling of pride they display as they ask us to watch their robots and code snippets run is no different than when they share a new drawing, play a new song, or build a new fort. When they learn this young, it's just another way to play.

It is critical to set every child up for success, and exposure from a young age to computer science will give more children the opportunity to understand the basics and fundamentals of this field that will help guide our future. These investments in our children spark curiosity in our youngest learners, and span through a lifetime of creators, problem solvers, and world changers. We as Minnesotans don't want children left out of this lifelong skill. We kindly ask that you please consider the impact on so many children when making this important decision, and to stand behind educating and advancing our children and our state. Thank you!

Sarah & Chase Meusel



**February 5th, 2023**

Dear Legislators,

My name is Kernard Jones, and I serve as the Director of Government Relations for Project Lead the Way (PLTW). Project Lead the Way is a national nonprofit organization, and our mission is to empower students to thrive in an evolving world. Today, that means being a leading provider in STEM education across the country. Specifically, we provide educational pathways and programs for students in grades PreK-12 in computer science, engineering, and biomedical sciences to equip students with in-demand transportable skills necessary to fill the jobs of today and the jobs of tomorrow.

I am writing in support of senate bill 757 and house bill 759, the Minnesota Computer science education advancement fund establishment. At PLTW we see this as an opportunity to expand access and support equity in computer science education for the state of Minnesota. This legislation supports teachers and their development, and students' skillsets to thrive in an evolving world. It is proven that students learning how to apply computational thinking and other technical skills will be transportable for students no matter what field they find themselves in the future. This mobility can change the trajectory of our students and open doors for them in the future.

In the annual State of Computer Science Education Report from Code.org, Minnesota rates 50th overall. According to the report, currently, in Minnesota, only 21% of high school students have access to high school computer science in the state, and of those students taking CS only 23% are female. The numbers also show CS is disproportionately offered by our metro-suburban districts. To tackle disparities in computer science education we also must look at equitable participation. This starts in elementary grades building experience, skills, and confidence to participate and excel in secondary grades computer science coursework.

Minnesota is a state that has a rich and strong history of high-quality education and has been a standout nationally in STEM education. This is also reflected in the growth in global STEM industries in the state and their commitment to growing in the state. It is in this light that the Minnesota legislators have a grand opportunity to close the gap for Minnesota students, teachers, and industry. To tell the story of giving Minnesota schools resources and supports to climb from 50th in the country to a national model for other states is a goal we can all support.

I urge you to pass senate bill 757 and house bill 759 and to support our students and their future in Minnesota.

**Empowering students to thrive in an evolving world.**



Sincerely,

Kernard D. Jones

Director of Government Relations

Project Lead The Way

**Empowering students to thrive in an evolving world.**

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5939 Castle Creek Parkway North Drive | Indianapolis, IN 46250 | t 317.669.0200 | [pltw.org](http://pltw.org)

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Michael Wulf

*Minnesota STEM Partnership*



*SciMathMN brings together a statewide STEM community to promote equitable and accessible STEM learning and workforce participation, empower lifelong learning, and inspire informed community action.*

Dear Education Committee Members,

I write in support of HF759/SF757, the Minnesota Computer Science Education Advancement Act. At SciMathMN we see this bill as key in moving Minnesota forward with equitable access to foundational 21st-century skills and knowledge. All jobs today require digital skills, and moving Minnesota forward on computer science education, builds a more dynamic state economy and skills in high-demand, high-wage jobs.

SciMathMN is a non-profit STEM (Science, Technology, Engineering, and Math) organization that brings together a statewide STEM community, promoting equitable STEM learning and workforce participation, empowering lifelong learning, and inspiring informed community action for all Minnesotans to engage in a dynamic STEM ecosystem, ready for life and work. We are the host of the Minnesota STEM Teachers Center, an online resource for all Minnesota teachers who teach students math or science.

HF759/SF757 is a comprehensive approach to the complex challenge of assuring that all Minnesota students have access to computer science education beginning in elementary school, that teachers are adequately prepared and supported, the state to have standards in computer science, that policymakers have access to transparent data on course access, and that we have an advisory committee of experts and stakeholders that can guide and inform this work on an ongoing basis.

Advanced Placement Computer Science courses act as a useful proxy for access to courses at the high school level. Minnesota's challenge for equity is revealed in the AP test takers. In 2020 only 1,806 high school exams were taken in AP Computer Science by high school students in Minnesota; of those only 23% were taken by female students; only 112 exams were taken by Hispanic/Latino/Latina students; only 82 exams were taken by Black/African American students; only 5 exams were taken by Native American/Alaskan students; only 1 exam was taken by Native Hawaiian/Pacific Islander students (College Board, 2018). Only 84 schools (29% of MN schools with AP programs) offered an AP Computer Science course last year.

The National Center for Science and Engineering Statistics observed in their recent report Diversity in STEM: Women, Minorities, and People with Disabilities "A diverse workforce provides the potential for innovation by leveraging different backgrounds, experiences, and points of view." For Minnesota to have an innovation economy we need to build opportunities for computer science knowledge starting early and continuing toward high school graduation. I urge that the committee pass HF759/SF757.

Thank you,

A handwritten signature in black ink, appearing to read "Vic Dreier".

Vic Dreier  
Board Chair  
SciMathMN

Hello,

My name is Arthur, I'm in 6th grade, and my relationship to computer science would be hobbyist. I never have had any CS education but I've still managed to make some cool things, like my own game website and am hosting code relay while the original person has it on hiatus. I'm in Bloomington Public Schools, and while CS education does exist in BPS, it only exists in select schools. My school isn't one of the schools with real CS education, although it does have some 3d printers, and a TechEd class, but the 3d printers pretty much just sit there and the TechEd class doesn't have much to do with CS. I believe that every student in Minnesota should have access to CS education because CS is the future. Just look around you and find all the computers in your life, then amplify that 10 fold. Computers are the future. CS is the future. Without proper CS education funding, people who could save lives by in the future making a program to test proteins against cancer and solve cancer might not get the chance, because they didn't get proper CS education because it didn't get funding.

Sincerely,

Arthur.



**TECHNET**  
THE VOICE OF THE  
INNOVATION ECONOMY

TechNet Midwest | Telephone 630.400.3439  
P.O. Box 9497, Springfield, IL 62791  
[www.technet.org](http://www.technet.org) | @TechNetMidwest

February 28, 2023

The Honorable Liz Lee  
Minnesota House of Representatives  
539 State Office Building  
St. Paul, MN 55155

Dear Representative Lee,

I write to you today on behalf of TechNet in support of HF 759 (Lee) which makes a series of important proposals to enhance computer science access and opportunity for Minnesota students.

TechNet is the national, bipartisan network of technology CEOs and senior executives that promotes the growth of the innovation economy by advocating a targeted policy agenda at the federal and 50-state level. TechNet's diverse membership includes dynamic American businesses ranging from startups to the most iconic companies on the planet and represents more than five million employees and countless customers in the fields of information technology, e-commerce, the sharing and gig economies, advanced energy, cybersecurity, venture capital, and finance.

The rise of digital technology is shifting the needs of education, the workforce, and the economy. Now more than ever, ensuring students receive a well-rounded education in the Science, Technology, Engineering, and Math (STEM) fields is a necessity for future growth. In fact, Minnesota is expected to experience a 7% increase in tech occupation job growth between 2020 and 2030.<sup>1</sup>

Computing is one of the fastest-growing, highest-paying, and largest sector of new jobs in the country. It is used in virtually every field, making it foundational knowledge for those entering the job market. Providing increased access to computer science education and career pathways is a critical step toward ensuring that the next generation of Minnesotans remain competitive in the global economy.

This bill makes many positive policy changes that are outlined in our Education and Workforce Development policy principles such as promoting high standards, making computer science by ensuring that a qualified computer science course may fulfill a

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<sup>1</sup> "Cyberstates 2021," CompTIA, March 2021, [https://www.cyberstates.org/pdf/CompTIA\\_Cyberstates\\_2021.pdf](https://www.cyberstates.org/pdf/CompTIA_Cyberstates_2021.pdf)

core science or math high school graduation requirement, and establishing an ongoing funding stream of \$4 million.

With global economic leadership at stake, education and workforce development are more critical than ever. TechNet supports bills like this that help prepare our students to be a successful part of a global, interconnected, and technology-driven economy.

For these reasons, TechNet strongly supports HF 759 and appreciate you bringing this important piece of legislation forward.

Thank you,

A handwritten signature in black ink, appearing to read 'Tyler Diers', written in a cursive style.

Tyler Diers  
Executive Director, Midwest  
TechNet